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# PIB YOJANA KURUKSHETRA COMPILATION

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**ATMANIRBHAR  
BHARAT 3.0**



**IAS GYAN**

PREDICT THE UNPREDICTABLE

# PIB

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# GENERAL STUDIES PAPER II

## Redressal for consumer disputes

### Why in News

- It has been reported to the Department of Consumer Affairs that most of the honey brands sold in the market are adulterated with sugar syrup. This is a serious matter as it will compromise our health in the troubled times of COVID 19 and add to the risk of Covid-19.

### What has been done?

- The Department has asked the Central Consumer Protection Authority (CCPA) to look in to matter.
- The CCPA, in accordance with section 19(2) of the Consumer Protection Act 2019, after preliminary examination, has referred the matter to the FSSAI, the food regulator, to take appropriate action in the matter and has offered to extend cooperation in investigation of the matter for taking class action as envisaged in section 10 of the Act.

### Consumer Protection in India

- Department of Consumer Affairs in the Ministry of Consumer Affairs, Food & Public Distribution, Government of India, is the nodal department for consumer protection and it has been taking several measures for protection of the interests and rights of the consumers.
- **The Consumer Protection Act, 2019** has come into force from 20th July, 2020, which provides for a three tier quasi-judicial machinery to provide simple and speedy redressal to consumer disputes.
- **A Central Consumer Protection Authority (CCPA)** has been established to regulate matters relating to violation of rights of consumers, unfair trade practice and false or misleading advertisements which are prejudicial to the interests of public and to promote, protect and enforce the rights of consumer as a class.
- **Legal Metrology (Packaged Commodities) Rules, 2011** are framed to regulate the pre-packaged commodities. Under these rules, the pre-packaged commodities have to comply with certain mandatory information on e-commerce platform by the seller in the interest of consumers.
- It was observed that some e commerce entities are violating the mandatory requirement of declaration of information of the product on e-commerce platforms. Therefore, notices have been issued to various e-commerce entities for non-compliances.
- Use of proper accurate and standard weights and measures are very important for effective functioning of any economy, as it plays an indispensable role in consumer protection as protection from malpractices of under weights or under-measure is an important function of the Government.

### Way forward

- Consumers have long been on the receiving end of market manipulations and unfair trade practices. CPA, 2019 resonates with every major concern that an honest consumer may face.
- It has shifted the burden of accountability and caution upon the manufactures, sellers, and service provider, giving more power to consumers.

## Socio-Economic Profiling of PM SVANidhi.

### Why in News

- Ministry of Housing and Urban Affairs launched a programme of Socio-Economic Profiling of PM SVANidhi beneficiaries and their families, as an additional component of PM SVANidhi Scheme, in the presence of representatives of various Central Ministries and State officials.
- Under this, a complete profile of each PM SVANidhi beneficiary and their family members will be prepared.
- Based on the profiled data, benefits of the various eligible Central Schemes would be extended to them for their holistic socio-economic upliftment.

## About PM Svanidhi Scheme

- Ministry of Housing & Urban Affairs launched the scheme PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) to empower Street Vendors by not only extending loans to them, but also for their holistic development and economic upliftment.
- The scheme intends to facilitate collateral free working capital loans of up to INR10,000/- of one-year tenure, to approximately 50 lakh street vendors, to help resume their businesses in the urban areas, including surrounding peri-urban/rural areas.

## Benefits

- The PM SVANidhi scheme offers incentives in the form of:
  - Interest subsidy @ 7% per annum on regular repayment of loan.
  - Cashback upto INR1200/- per annum on undertaking prescribed digital transactions
  - Eligibility for enhanced next tranche of loans
- Close to 2 million applications have been received under this scheme, of which 752191 have been sanctioned, and 218751 loans have already been disbursed.

## Eligibility Criteria

- The PM SVANidhi scheme is available to all street vendors who are engaged in vending in urban areas as on or before March 24, 2020.
- The eligible vendors are identified as per following criteria:
- Street vendors in possession of Certificate of Vending/Identity Card issued by Urban Local Bodies (ULBs)
- The vendors, who have been identified in the survey but have not been issued Certificate of Vending/Identity Card; Provisional Certificate of Vending would be generated for such vendors through an IT based Platform. ULBs are encouraged to issue such vendors the permanent Certificate of Vending and Identification Card immediately and positively within a period of one month
- Street Vendors, left out of the ULBled identification survey or who have started vending after completion of the survey and have been issued Letter of Recommendation (LoR) to that effect by the ULB/Town Vending Committee (TVC).
- The vendors of surrounding development/peri-urban/rural areas vending in the geographical limits of the ULBs and have been issued Letter of Recommendation (LoR) to that effect by the ULB/TVC.

## Present Situation

- In the first phase, 125 cities have been selected for the programme. Besides this, the States/ UTs would also have an option to extend their respective State/ UT specific welfare schemes to them. M/s Quality Council of India (QCI) has been appointed as implementing partner for the programme.

## Hospital Management Information System

### Why in News

- Hospital Management Information System (HMIS) has recently been launched by Dr. B. P Nanda, Director General, Railway Health services, Railway Board through virtual means.
- The HMIS will bring a paradigm shift in the health care systems maintained by Indian Railways.
- The new system will improve the quality of health services and aid in utilization of resources in a transparent manner.
- Patients' waiting time at the hospitals will be minimized and medical records will be available to the team of doctors at all the times.

### Background

- Presently, 3 Modules of HMIS – Registration, OPD Doctor Desk & Pharmacy – are being taken up implemented. Registration Module covers the integration of UMID with automatic validation of beneficiary in a seamless manner without any difficulty to the patient.
- OPD Desk Module covers all the process of Patient Examination and Diagnosis details which will help in generating the Electronic Medical Records.

- The Pharmacy Module seamlessly connects to easily dispense the medicines prescribed by the doctor and optimise inventory management.

### About HMIS

- The HMIS in Railways has been developed by Indian Railways in coordination with RailTel Corporation Limited. The objective of the HMIS is to provide a single window of clearance of hospital administration activity such as clinical, diagnostics, pharmacy, examinations, industrial health etc.
- The primary objectives of envisaged solution are:
  - Effectively manage all the health facilities & its resources
  - Monitor performance of hospitals across the administrative channel
  - Impart quality health care services to its beneficiaries
  - Improve the patient turn-around time
  - Generate and maintain EMR (electronic medical records) of all patients

### Conclusion

- Implementation of HMIS will benefit all the stake holders with the integration of head quarter hospitals and ancillary centres. The project is likely to have more than 20 modules and will immensely benefit the medical fraternity and hospital beneficiaries.

## Scheme for approval of Hygiene Rating Audit Agencies

### Why in News

- Quality Council of India (QCI) at the behest of the FSSAI has come out with a **Scheme for approval of Hygiene Rating Audit Agencies** to scale up Hygiene Rating by increasing the number of recognised Hygiene Rating Audit Agencies in the country.

### About Food Hygiene Rating Scheme

- FSSAI's initiative of 'Food Hygiene Rating Scheme' is a certification system for food businesses supplying food directly to consumers, either on or off premise.
- The food establishments are rated based on food hygiene and safety conditions observed at the time of audit.
- The hygiene rating will be in the form of smileys (1 up to 5) and the certificate should be displayed prominently in the consumer facing area.
- The recognised Hygiene Rating Audit Agencies will be responsible for verifying the compliance with food hygiene and safety procedures laid by FSSAI and get Hygiene Rating.
- The scheme aims to allow consumers to make informed choices/decisions pertaining to the food outlets where they eat by encouraging food businesses to improve their hygiene and safety standards.
- The recognised Hygiene Rating Audit Agency will verify the compliance with food hygiene and safety procedures laid by FSSAI.
- Currently, this scheme is applicable for Food service establishments (such as hotels, restaurants, cafeteria, dhabhas, etc), sweet shops, bakeries and meat retail stores.

### Importance

- Hygiene Rating and its recognition scheme is an excellent initiative of FSSAI and QCI, and will help in improving the confidence of the Indian consumer and food service operators in the basic hygiene and quality of the food. These kinds of standards and conformity assessment always lead to an improved demand for the food service outlets and improved confidence from the consumer.
- It can be instrumental in creating awareness amongst the consumers and developing a culture of self-compliance amongst food business operators.
- It will improve quality of food supply and increase demand as well.

## Electricity (Rights of consumers) Rules

### Why in News

- Union Ministry of Power has promulgated rules laying down the rights of power consumers in the country. These rules shall empower the consumers of electricity and added that these Rules emanate from the conviction that the power systems exist to serve the consumers and the consumers have rights to get the reliable services and quality electricity.

### Key areas are covered in the Electricity (Rights of consumers) Rules

- a. Rights of consumers and Obligations of Distribution licensees
- b. Release of new connection and modification in existing connection
- c. Metering arrangement.
- d. Billing and Payment.
- e. Disconnection and Reconnection.
- f. Reliability of supply.
- g. Consumer as Prosumer
- h. Standards of Performance of licensee.
- i. Compensation Mechanism.
- j. Call Centre for Consumer Services.
- k. Grievance redressal mechanism

### Rights and Obligations

- It is the duty of every distribution licensee to supply electricity on request made by an owner or occupier of any premises in line with the provisions of Act.
- It is the right of consumer to have minimum standards of service for supply of electricity from the distribution licensee.

### Release of new connection and modification in existing connection

- Transparent, simple and time bound processes.
- Applicant has option for online application.
- Maximum time period of 7 days in metro cities and 15 days in other municipal areas and 30 days in rural areas identified to provide new connection and modify an existing connection.

### Metering

- No connection shall be given without a meter

### Reliability of supply

- The distribution licensee shall supply 24x7 power to all consumers. However, the Commission may specify lower hours of supply for some categories of consumers like agriculture.

### Consumer as prosumer

- While the prosumers will maintain consumer status and have the same rights as the general consumer, they will also have right to set up Renewable Energy (RE) generation unit including roof top solar photovoltaic (PV) systems – either by himself or through a service provider.

## Revised guidelines for providing Direct to Home (DTH) Services in India

### Why in News

- Union Cabinet, chaired by the Prime Minister, Shri Narendra Modi, has approved the proposal for revision of the guidelines for obtaining license for providing Direct-To-Home (DTH) broadcasting service in India.

### Salient Features

- License for the DTH will be issued for a period of 20 years in place of present 10 years. Further the period of License may be renewed by 10 years at a time.

- License fee has been revised from 10% of GR to 8% of AGR. AGR will be calculated by deduction of GST from GR.
- License Fee will be collected on quarterly basis in lieu of presently annual basis.
- DTH operators shall be permitted to operate to a maximum of 5% of its total channel carrying capacity as permitted platform channels. A one-time non-refundable registration fee of Rs.10,000 per PS channel shall be charged from a DTH operator.
- Sharing of Infrastructure between DTH operators. DTH operators, willing to share DTH platform and transport stream of TV channels, on voluntary basis, will be allowed.
- Distributors of TV channels will be permitted to share the common hardware for their Subscriber Management System (SMS) and Conditional Access System (CAS) applications.
- The cap of 49% FDI in the existing DTH guidelines will be aligned with the extant Government (DPIIT's) policy on FDI as amended from time to time.
- The decision will come into effect as per revised DTH guidelines are issued by the Ministry of Information and Broadcasting.

## Background

- The proposed reduction is intended to align the license fee regime applicable to Telecom sector and will be prospectively applied.
- The difference may also enable DTH service providers to invest for more coverage leading to increased operations and higher growth and thereby enhanced and regular payment of License Fee by them.
- Registration fee for Platform Services is likely to bring a revenue of approximately Rs. 12 Lakhs.
- Sharing of infrastructure by the DTH operators may bring in more efficient use of scarce satellite resources and reduce the costs borne by the consumers.
- Adoption of the extant FDI policy will bring in more foreign investment into the country.

## About DTH

- The DTH is operable on pan-India basis. DTH sector is a highly employment intensive sector. It directly employs DTH operators as well as those in the call centres besides indirectly employing a sizeable number of installers at the grass-root level.
- The amended DTH guidelines, with longer license period and clarity on renewals, relaxed FDI limits, etc., will ensure fair degree of stability and new investments in the DTH sector along with employment opportunities.

## Atmanirbhar Bharat Rojgar Yojana (ABRY)

- The Union Cabinet, chaired by the Prime Minister, Shri Narendra Modi, has given its approval for Atmanirbhar Bharat Rojgar Yojana (ABRY) to boost employment in formal sector and incentivize creation of new employment opportunities during the Covid recovery phase under Atmanirbhar Bharat Package 3.0.

## The salient features of the Scheme are as under

- Government of India will provide subsidy for two years in respect of new employees engaged on or after 1st October, 2020 and upto 30th June, 2021.
- Government of India will pay both 12% employees' contribution and 12% employers' contribution i.e. 24% of wages towards EPF in respect of new employees in establishments employing upto 1000 employees for two years.
- Government of India will pay only employees' share of EPF contribution i.e. 12% of wages in respect of new employees in establishments employing more than 1000 employee for two years.
- An employee drawing monthly wage of less than Rs. 15000/- who was not working in any establishment registered with the Employees' Provident Fund Organisation (EPFO) before 1st October, 2020 and did not have a Universal Account Number or EPF Member account number prior to 1st October 2020 will be eligible for the benefit.
- Any EPF member possessing Universal Account Number (UAN) drawing monthly wage of less than Rs. 15000/- who made exit from employment during Covid pandemic.
- EPFO will credit the contribution in Aadhaar seeded account of members in electronic manner,
- EPFO shall develop a software for the scheme and also develop a procedure which is transparent and accountable at their end.
- EPFO shall work out modality to ensure that there is no overlapping of benefits provided under ABRY with any other scheme implemented by EPFO.

# GENERAL STUDIES PAPER III

## Narrow Band-Internet of Things

### Why in News

- BSNL, in partnership with Skylotech India, has recently announced a breakthrough in satellite-based NB-IoT (Narrow Band-Internet of Things). With this solution, India will now have access to a ubiquitous fabric of connectivity for millions of yet unconnected machines, sensors and industrial IoT devices.



### How will it work ?

- This new 'Made in India' Solution, which is indigenously developed by Skylo, will connect with BSNL's satellite-ground infrastructure and provide PAN-India coverage, including Indian seas.
- The coverage will be so vast that it will not leave any dark patch within the boundary of India.
- a. A small, smart, incredibly rugged box, the Skylo 'User Terminal' interfaces with sensors and transmits data to the Skylo Network and into peoples hands.
- b. The accompanying Data Platform provides an immersive, visual, experience for industry-specific applications on mobile or desktop.
- c. It gives users the ability to take immediate and appropriate action, no matter where they are.
- This new digital machine connectivity layer will serve as a complement to smartphone-centric mobile & Wi-Fi networks, and covers India's full geography to bring online new applications for the first time.

### What is Internet of Things

- Internet of things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the Internet.
- In 1999 Kevin Ashton, then at P&G (later MIT's Auto-ID Center), coined the term 'Internet of Things'.
- In the consumer market, IoT technology is most synonymous with products pertaining to the concept of the "smart home", including devices and appliances (such as lighting fixtures, thermostats, home security systems and cameras, and other home appliances) that support one or more common ecosystems, and can be controlled via devices associated with that ecosystem, such as smartphones and smart speakers.
- IoT can also be used in healthcare systems.

### Way Forward

- The solution is in line with BSNL's vision to leverage technology to provide affordable and innovative telecom services and products across customers segments.

## Joint Venture Protective Carbine (JVPC)

### Why in News

- Defence Research and Development Organisation (DRDO) has designed a Protective Carbine. Recently, it has successfully undergone the final phase of User trials.
- This was the last leg of trials in a series of User trials which have been carried out in extreme temperature conditions in summer and high altitudes in winter. JVPC has successfully met the stringent performance criteria of reliability and accuracy in addition to quality trials conducted by DGQA.
- This has paved the way for induction into the services.

### What is a JVPC

- JVPC is a Gas Operated Semi Bull-pup automatic weapon having more than 700 rpm rate of fire.
- The effective range of the carbine is more than 100 m and weighs about 3.0 kg with key features like high reliability, low recoil, retractable Butt, ergonomic design, single hand firing capability, and multiple Picatinny rails etc.

- These features make it a very potent weapon for Counter Insurgency /Counter Terrorism operations by security agencies.
- The carbine has been designed as per Indian Army's GSQR, by Armament Research and Development Establishment (ARDE), a Pune based laboratory of DRDO.
- The Weapon is manufactured at Small Arms Factory, Kanpur while the Ammunition is manufactured at ammunition Factory, Kirkee Pune.



### What is General Staff Qualitative Requirements (GSQRs)

- The formulation of the GSQR is one of the initial processes of any new capital procurement. It broadly lays down the reason why the equipment is required, its physical and operational details, as well as the maintainability and quality requirements.
- It is akin to preliminary specification of the desired product.

### Aerosols in Indo-Gangetic Plain

#### Why in News

- Scientists have found that aerosols like black carbon and dust, which makes the Indo-Gangetic Plain one of the most polluted regions of the world, have led to increased incidents of high rainfall events in the foothills of the Himalayan Region.
- A team of researchers from National Institute of Technology Rourkela, Leipzig Institute for Meteorology (LIM), University of Leipzig, Germany, Indian Institute of Technology Madras, Indian Institute of Technology Kanpur supported by the Department of Science & Technology, Government of India under DST Climate Change program have highlighted the crucial role of the aerosol direct radiative effect on high precipitation events over the Himalayan region.
- The team found clear associations between high precipitation events, high aerosol loading, and high moist static energy (MSE) values (Moist static energy of an air mass includes the potential energy due to its height above the ground and the latent heat due to its moisture content).

#### About Indo-Gangetic Plain

- The Indo-Gangetic Plain, also known as the Indus-Ganga Plain and the North Indian River Plain, is a fertile plain encompassing northern regions of the Indian subcontinent, including most of northern and eastern India, the eastern parts of Pakistan, virtually all of Bangladesh and southern plains of Nepal.
- The plain is bound on the north by the Himalayas, which feed its numerous rivers and are the source of the fertile alluvium deposited across the region by the two river systems.
- The southern edge of the plain is marked by the Chota Nagpur Plateau. On the west rises the Iranian Plateau.
- The Indo-Gangetic Plain is divided into two drainage basins by the Delhi Ridge; the western part drains to the Indus, and the eastern part consists of the Ganga–Brahmaputra drainage systems.
- A thin strip between the foothills of the Himalayas and the plain, the Bhabar is a region of porous ground consisting of boulders and pebbles that have washed down from the mountains. It is not suitable for crops and is forested. The streams disappear underground here.
  - Below the Bhabar lie the grasslands of Terai and Dooars.
- The annual rainfall increases from west towards the east.

## What are Aerosols

- An aerosol is a suspension of fine solid particles or liquid droplets in air or another gas. Aerosols can be natural or anthropogenic.
- The bulk of aerosols—about 90 percent by mass—have natural origins.
- The remaining 10 percent of aerosols are considered anthropogenic, or human-made, and they come from a variety of sources.
- Though less abundant than natural forms, anthropogenic aerosols can dominate the air downwind of urban and industrial areas.
  - Examples of natural aerosols are fog, mist, dust, forest exudates and geyser steam.
  - Examples of anthropogenic aerosols are particulate air pollutants and smoke.



## Aerosols and Incoming Sunlight (Direct Effects)

- Different aerosols scatter or absorb sunlight to varying degrees, depending on their physical properties. Climatologists describe these scattering and absorbing properties as the “direct effect” of aerosols on Earth’s radiation field.
- Aerosols can alter the reflectivity, or albedo, of the planet. Bright surfaces reflect radiation and cool the climate, whereas darker surfaces absorb radiation and produce a warming effect.

## Aerosols and Clouds (Indirect Effects)

- On a global scale, these aerosol “indirect effects” typically work in opposition to greenhouse gases and cause cooling.
- Most clouds owe their existence to aerosols that serve as the tiny “seeds,” called cloud condensation nuclei.

## Conclusion

- The results of the study indicate that aerosols can play a vital role in exciting high precipitation (HP) events over the Himalayas during the monsoon season. Thus, aerosols, including chemistry, are essential to consider when forecasting HP events over the Himalayan region in regional modelling studies.

## mRNA vaccine

### Why in News

- India’s first indigenous mRNA vaccine candidate has received approval from Indian Drug regulators to initiate Phase I/II human clinical trial.
- The novel mRNA vaccine candidate, HGCO19 has been developed by Gennova, Pune and supported with seed grant under the Ind-CEPI mission of Department of Biotechnology of M/o Science & Technology.

### About the Vaccine

- The mRNA vaccines do not use the conventional model to produce immune response.
- Instead, mRNA vaccine carries the molecular instructions to make the protein in the body through a synthetic RNA of the virus.
- The host body uses this to produce the viral protein that is recognized and thereby making the body mount an immune response against the disease.
- mRNA-based vaccines are scientifically the ideal choice to address a pandemic because of their rapid developmental timeline.
- The mRNA vaccine is considered safe as is non-infectious, non-integrating in nature, and degraded by standard cellular mechanisms.
- They are expected to be highly efficacious because of their inherent capability of being translatable into the protein structure inside the cell cytoplasm.
- Additionally, mRNA vaccines are fully synthetic and do not require a host for growth, e.g., eggs or bacteria.

- Therefore, they can be quickly manufactured in an inexpensive manner under cGMP conditions to ensure their "availability" and "accessibility" for mass vaccination on a sustainable basis.

### HGCO19

- Genovva, in collaboration with HDT Biotech Corporation, Seattle, USA, has worked together to develop an mRNA vaccine candidate. HGCO19 has already demonstrated safety, immunogenicity, neutralization antibody activity in animals.
- The neutralizing antibody response of the vaccine in mice and non-human primates was comparable with the sera from the convalescent patients of COVID-19.
- Genovva's vaccine candidate uses the most prominent mutant of spike protein (D614G) and also uses the self-amplifying mRNA platform, which gives the advantage of a low dosing regimen compared with the non-replicating mRNA or traditional vaccines.
- HGCO19 uses the adsorption chemistry so that the mRNA is attached on the surface of the nano-lipid carrier to enhance the release kinetics of the mRNA within the cells compared to the encapsulation chemistry.
- HGCO19 is stable at 2-8°C for two months.

### About IND-CEPI

- The Department of Biotechnology, Ministry of Science and Technology, Government of India is supporting the implementation of the Ind-CEPI Mission, "Epidemic preparedness through rapid vaccine development: Support of Indian vaccine development aligned with the global initiative of the **Coalition for Epidemic Preparedness Innovations (CEPI)**", through a dedicated Program Management Unit (PMU) at Biotechnology Industry Research Assistance Council (BIRAC).
- The Ind-CEPI Mission was approved on 27th March 2019 with a total cost INR312.92 crore.

## WHO World Malaria Report 2020

### Why in News

- World Malaria Report (WMR) 2020 released by WHO, which gives the estimated cases for malaria across the world, based on mathematical projections, indicates that India has made considerable progress in reducing its malaria burden.
- India is the only high endemic country which has reported a decline of 17.6% in 2019 as compared to 2018.
- The Annual Parasitic Incidence (API) reduced by 27.6% in 2018 compared to 2017 and by 18.4% in 2019 as compared to 2018.
- India has sustained API less than one since year 2012.

### Important Facts

- India has also contributed to the largest drop in cases region-wide, from approximately 20 million to about 6 million. The percentage drop in the malaria cases was 71.8% and death was 73.9% between 2000 to 2019.
- India achieved a reduction of 83.34% in malaria morbidity and 92% in malaria mortality between the year 2000 and 2019, thereby achieving Goal 6 of the Millennium Development Goals (50-75% decrease in case incidence between 2000 and 2019).
- Decrease in incidence of Malaria cases is also exhibited in the year-on-year tally.
- States of Odisha, Chhattisgarh, Jharkhand, Meghalaya and Madhya Pradesh disproportionately accounted for nearly 45.47 percent of malaria cases.

### Background

- Malaria Elimination efforts were initiated in the country in 2015 and were intensified after the launch of National Framework for Malaria Elimination (NFME) in 2016 by the Ministry of Health and Family Welfare.
- National Strategic Plan for Malaria Elimination (2017-22) was launched by the Health Ministry in July, 2017 which laid down strategies for the next five years.
- Malaria has been made notifiable in 31 states/UTs (Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Manipur, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, , Sikkim, Tamil Nadu, Telangana, Tripura Uttar

Pradesh, Uttarakhand, West Bengal, Puducherry Chandigarh, Daman & Diu, D&N Haveli and Lakshadweep) and decline has been observed in the hitherto high endemic states.

- Due to the efforts made by the Government of India in provision of microscopes, rapid diagnostics Long Lasting Insecticidal Nets (LLINs) – about 5 crores have been distributed in 7 North-East States, Chhattisgarh, Jharkhand, Madhya Pradesh and Odisha up to 2018-19 and another 2.25 crore LLINs are being supplied/distributed during current financial year to high burden areas leading to reduction in endemicity in these otherwise very high endemic states.
- Additional procurement of 2.52 crore LLINs is initiated.
- Use of LLINs has been accepted by the community at large and has been one of the main contributors to the drastic malaria decline in the country.
- A key strategy to reignite progress is the “High burden to high impact” (HBHI) response, catalyzed in 2018 by WHO and the RBM Partnership to End Malaria continued to make impressive gains in India, with 18% reductions in cases and 20% reductions in death respectively, over the last 2 years.

### About Malaria

- Malaria is a life-threatening disease. It's typically transmitted through the bite of an infected Anopheles mosquito. Infected mosquitoes carry the Plasmodium parasite. When this mosquito bites you, the parasite is released into your bloodstream.
- Once the parasites are inside your body, they travel to the liver, where they mature. After several days, the mature parasites enter the bloodstream and begin to infect red blood cells.
- Malaria is typically found in tropical and subtropical climates where the parasites can live.

## INDIA'S FOREIGN POLICY

### ASEAN Defence Ministers' Meeting Plus

#### Why in News

- Recently Shri Rajnath Singh has attended the 14th ASEAN Defence Ministers' Meeting Plus organized online at Hanoi, Vietnam.
- It is an annual meeting of Defence Ministers of 10 ASEAN Countries and eight partner countries.
- This year marks the 10th year of inception of ADMM Plus forum.

#### About ASEAN Defence Ministers' Meeting

- The ASEAN Security Community (ASC) Plan of Action, adopted at the 10th ASEAN Summit, stipulates that ASEAN shall work towards the convening of an annual ADMM. Against this background, the Inaugural meeting of the ADMM was held in Kuala Lumpur on 9 May 2006.
- It is the highest defence consultative and cooperative mechanism in ASEAN.

#### Aims and Objectives

- The objectives of the ADMM, are as follows:
  - To promote regional peace and stability through dialogue and cooperation in defence and security;
  - To give guidance to existing senior defence and military officials dialogue and cooperation in the field of defence and security within ASEAN and between ASEAN and dialogue partners;
  - To promote mutual trust and confidence through greater understanding of defence and security challenges as well as enhancement of transparency and openness; and
  - To contribute to the establishment of an ASEAN Security Community (ASC) as stipulated in the Bali Concord II and to promote the implementation of the Vientiane Action Programme (VAP) on ASC.

#### ADMM-Plus

- It is a platform for ASEAN and its eight Dialogue Partners, namely Australia, China, India, Japan, New Zealand, ROK, Russian Federation and the United States, to strengthen security and defence cooperation for peace, stability, and development in the region.
- The Inaugural ADMM-Plus was convened in Ha Noi, Viet Namin 2010.

## The objectives of the ADMM-Plus, are as follows

- To benefit ASEAN member countries in building capacity to address shared security challenges, while cognisant of the differing capacities of various ASEAN countries;
- To promote mutual trust and confidence between defence establishments through greater dialogue and transparency;
- To enhance regional peace and stability through cooperation in defence and security, in view of the transnational security challenges the region faces;
- To contribute to the realisation of an ASEAN Security Community which, as stipulated in the Bali Concord II, embodies ASEAN's aspiration to achieve peace, stability, democracy and prosperity in the region where ASEAN member countries live at peace with one another and with the world at large;
- To facilitate the implementation of the Vientiane Action Programme, which calls for ASEAN to build a peaceful, secure and prosperous ASEAN, and to adopt greater outward-looking external relation strategies with our friends and Dialogue Partners.
- The ADMM-Plus currently focuses on seven areas of practical cooperation, namely
  - Maritime security
  - Counter-terrorism
  - Humanitarian assistance and disaster management
  - Peacekeeping operations
  - Military medicine
  - Humanitarian mine action.
  - Cyber security.

## Indo-Pacific Oceans Initiative (IPOI)

- During East Asia Summit (EAS) at Bangkok in 2019, Indian PM proposed a cooperative effort to translate principles for the Indo-Pacific into measures to secure the shared maritime environment among the participating nations.
- **The IPOI proposes cooperation in seven sectors (or 'pillars') –**
  - a. Maritime security
  - b. Maritime ecology
  - c. Maritime resources
  - d. Capacity building and resource sharing
  - e. Disaster risk reduction and management
  - f. Science, technology and academic cooperation
  - g. Trade, connectivity and maritime transport.
- It seeks to widen the scope of the Indo-Pacific narrative beyond traditional security and geopolitical challenges to include economic, development and environmental challenges in the maritime domain.
- This initiative will highlight India's endeavour to be seen as a valued partner in comprehensive security and sustainable development, rather than an aspirant for power and influence.

## IND-INDO CORPAT

- 35th edition of India-Indonesia Coordinated Patrol (IND-INDO CORPAT) between the Indian Navy and the Indonesian Navy.

## Passage Exercise (PASSEX)

- The Indian Navy (IN) has recently undertaken a Passage Exercise (PASSEX) with Russian Federation Navy (RuFN) in the Eastern Indian Ocean Region (IOR).
- The exercise involves participation of RuFN guided missile cruiser Varyag, large anti-submarine ship Admiral Panteleyev and medium ocean tanker Pechenga. IN is being represented by indigenously constructed guided missile frigate Shivalik and anti-submarine corvette Kadmat along with integral helicopters.
- The exercise is aimed at enhancing interoperability, improving understanding and imbibing best practices between both the friendly navies, and would involve advanced surface and anti-submarine warfare exercises, weapon firings, seamanship exercises and helicopter operations.

## Mahakali Treaty

- Mahakali Treaty is an agreement between the Government of Nepal (former His Majesty's Government of Nepal) and the Government of India regarding the development of watershed of Mahakali River.
- The treaty was signed in 1996.
- The treaty has 12 articles agreements for an integrated development of barrage, dams and hydropower for mutual cooperation of the two countries by managing the water resources.
- The treaty recognizes the Mahakali River as a boundary river between the two countries.



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# SHORT LINERS

## 1. CO-WIN digital platform

- India is building the advanced CO-WIN digital platform which will allow citizens to self-register for vaccination, monitor their status and be provided with a QR code based electronic vaccination certificate upon completion of the process.
- Dr. Harsh Vardhan, Union Minister for Health and Family Welfare has digitally addressed the Inter-Ministerial meeting on Vaccination of South Asia against COVID-19 organised by the World Bank.

## 2. India Water Impact Summit (IWIS)

- The 5th India Water Impact Summit (IWIS), organised by the National Mission for Clean Ganga and Center for Ganga River Basin Management and Studies (cGanga) has recently begun with the theme of comprehensive analysis and holistic management of local rivers and water bodies with focus on Arth Ganga - river conservation synchronised development.

## 3. Koilwar Bridge

- The three lane , 1.5 km long Koilwar bridge over Sone river in Bihar was recently inaugurated by Union Minister for Road Transport and Highways Shri Nitin Gadkari.

## 4. Indian Muraingrasses

- A new species of Indian Muraingrasses known for their ecological and economic importance, such as fodder, have been spotted by scientists in Goa in the Western Ghats, one of the four global biodiversity hotspots of India.
- The species has adapted to survive harsh conditions, low nutrient availability, and blossoms every monsoon.
- Globally 85 species are known from Ischaemum, of which 61 species are exclusively found in India.
- The Western Ghats have 40 species with the highest concentration of the genus.

## 5. Ramanujan Prize for Young Mathematicians 2020

- The Ramanujan Prize for Young Mathematicians 2020 was awarded to Dr. Carolina Araujo, Mathematician from the Institute for Pure and Applied Mathematics (IMPA), Rio de Janeiro, Brazil.
- It was given for her outstanding work in algebraic geometry. Her work area focuses on birational geometry, which aims to classify and describe the structure of algebraic varieties.
- Dr. Araujo, who is Vice President of the Committee for Women in Mathematics at the International Mathematical Union, is the first non-Indian to receive this prize and will be a role model for all women.
- The prize is awarded annually to a researcher from a developing country funded by the Department of Science and Technology of the Government of India in collaboration with ICTP (International Centre for Theoretical Physics) and the International Mathematical Union.
- The Prize, given every year to young mathematicians less than 45 years of age who have conducted outstanding research in a developing country, has been instituted by DST in the memory of Srinivasa Ramanujan, a genius in pure mathematics who was essentially self-taught and made spectacular contributions to elliptic functions, continued fractions, infinite series, and analytical theory of numbers.

## 6. Handicraft and GI Toys

- As a part of the initiatives being taken to provide impetus to the medium, small and micro toy production units in the country, DPIIT has released Toys (Quality Control) Second Amendment Order, 2020. It exempts goods manufactured & sold by artisans registered with Development Commissioner (Handicrafts), from use of Standard Mark under licence from Bureau of Indian Standards, as per Scheme 1 of Schedule-II of BIS(Conformity Assessment) Regulations, 2018.
- The Amendment Order 2020, also exempts products registered as Geographical Indications from following Indian Toy Standards & compulsory use of Standard Mark licence from Bureau as per Scheme 1 of Schedule-II of BIS(CA) Regulations, 2018.

## 7. 17A SHIP

- 'Himgiri', the first of the three Project 17A ships being built at M/s Garden Reach Shipbuilders and Engineers Limited (GRSE), Kolkata was recently launched.
- Under the Project 17A program, a total of seven ships, four at Mazagon Dock Shipbuilders Limited (MDL) and three ships at GRSE are being built with enhanced stealth features, advanced indigenous weapon and sensor fit along with several other improvements.
- P17A ships are the first gas turbine propulsion and largest combat platforms ever built at GRSE.

## 8. Vigyan-Yatra

- VigyanYatra is a promotional activity of the India International Science Festival.
- In this activity, the mobile science exhibition vans flag off from many cities of the country and the vision behind this science journey is to promote scientific temper and inculcate the culture of science among the masses.

## 9. Vision 2035: Public Health Surveillance in India

- NITI Aayog today released a white paper: Vision 2035: Public Health Surveillance in India with the vision:
  - To make India's public health surveillance system more responsive and predictive to enhance preparedness for action at all levels.
  - Citizen-friendly public health surveillance system will ensure individual privacy and confidentiality, enabled with a client feedback mechanism.
  - Improved data-sharing mechanism between Centre and states for better disease detection, prevention, and control.
- India aims to provide regional and global leadership in managing events that constitute a public health emergency of international concern.

## 10. DakPay UPI app

- Recently, DakPay logo was launched by India Post Payments Bank (IPPB) of India Post as part of its ongoing efforts to provide Digital Financial inclusion at the last mile.
- DakPay is a suite of digital financial and assisted banking services provided by India Post & IPPB through the trusted Postal ('Dak') network across the nation to cater to the financial needs ('Pay') of various sections of the society – be it sending money to the loved ones (Domestic Money Transfers – DMT), making payment for services/merchants digitally (Virtual debit card) & UPI, enabling cashless ecosystem through biometrics, providing interoperable banking services to the customers of ANY BANK (AePS) and Utility Bill Payment services.
- DakPay UPI app allows users to create UPI ID and link multiple accounts across banks in a single mobile app.
- The app facilitates instant money transfers, QR based payments in merchant stores and online shopping on e-commerce websites.



## 11. TROPMET-2020

- Indian Meteorological Society (IMS) in collaboration with North Eastern Space Applications Centre (NESAC), Shillong, has recently organized a four-day Virtual Symposium on Tropical Meteorology(TROPMET-2020) under the theme "Weather and Climate Services over Mountainous Regions" at NESAC.
- Recently Doppler Weather Radar (DWR) and Automatic Weather Station (AWS) were set up at Himansh observatory in Western Himalaya.

## 12. Government of India and the World Bank today signed a \$400 million project to support India's efforts at providing social assistance to the poor and vulnerable households, severely impacted by the COVID-19 pandemic.

- This is the second operation in a programmatic series of two. The first operation of \$750 million was approved in May 2020.
- The programme will strengthen the capability of state and national governments in India to provide coordinated and adequate social protection to the poor and vulnerable from the shocks triggered by the COVID-19 pandemic.
- Steel Authority of India Limited (SAIL) has been awarded with the prestigious Golden Peacock Environment Management Award for the year 2020 in the Steel Sector by the Institute of Directors.

### 13. Hybrid Super-capacitors

- Scientists have developed a low-cost super-capacitor device with excellent capacitive retention with a novel electrode material they have synthesized, which can pave the way for the next generation high power-high energy storage devices.
- Such hybrid super-capacitors combine the features of both conventional double layer super-capacitors and batteries and act as high power-high energy storage devices.
- However, it remains challenging to design pseudo-capacitor devices with redox metal oxide (MO) materials with high porosity, which exhibit high capacitance and good cycle life.
- It is desirable to amend the intrinsic properties of the synthesized MO to enhance its conductivity, stability, and electrochemical activity.

### 14. Asian Development Bank (ADB) and the Government of India today signed a \$300 million loan to upgrade rural power distribution networks to provide reliable electricity supply to consumers in the state of Uttar Pradesh.

- The MFF is proposed to be complemented by a \$ 2 million technical assistance (TA) grant from ADB's TA Special Fund and the Japan Fund for Poverty Reduction to strengthen the gender inclusivity and institutional capacity building of Uttar Pradesh power sector.
- ADB is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region.

### 15. Asian Development Bank (ADB) and the Government of India today signed a \$4.21 million project readiness financing (PRF) facility for the preparation of infrastructure development projects to improve urban amenities and develop tourism infrastructure in the northeastern state of Tripura.

- This is ADB's first PRF facility for a state in the northeastern region of India.

### 16. JSA II: Catch the Rain

- National Water Mission (NWM), Ministry of Jal Shakti in collaboration with Nehru Yuva Kendra Sangathan (NYKS), Ministry of Youth Affairs & Sports launched the "JSA II: Catch the Rain" Awareness Generation Campaign.
- NWM has launched a campaign "Catch the rain" with tag line "catch the rain, where it falls, when it falls" in order to nudge all stake-holders to create Rain Water Harvesting Structures (RWHS) suitable to the climatic conditions and sub-soil strata to store rain water as rains falling in the four/five months of monsoon are the only source of water for most parts of the country.

### 17. Indian Army and Bank of Baroda have entered into a Memorandum of Understanding (MoU) for 'Baroda Military Salary Package'. Services under 'Baroda Military Salary Package' will be offered to serving and retired personnel of Indian Army through the Bank's network of over 8,200 domestic branches and around 20,000 business correspondent touch-points.

### 18. Government of India and the World Bank today signed a \$500 million project to build safe and green national highway corridors in the states of Rajasthan, Himachal Pradesh, Uttar Pradesh and Andhra Pradesh.

- The project will also enhance the capacity of the Ministry of Road Transport and Highways (MoRTH) in mainstreaming safety and green technologies.

### 19. MRSAM

- Defence Research and Development Organisation (DRDO) has recently conducted maiden launch of Medium Range Surface to Air Missile (MRSAM), Army Version from Integrated Test Range, Chandipur, Organisations.
- Army version of MRSAM is a surface to Air Missile developed jointly by DRDO, India and IAI, Israel for use of the Indian Army. MRSAM Army weapon system comprises of Command post, Multi-Function Radar and Mobile Launcher system.
- The missile completely destroyed a high speed unmanned aerial target which was mimicking an aircraft with a direct hit.

- 20.** Country's largest power producer, NTPC Ltd has been conferred "Excellence" in the prestigious CII-ITC Sustainability Awards 2020 in Corporate Social Responsibility (CSR) Domain. NTPC has been honoured in the Corporate Excellence Category, Commendation for Significant Achievement.
- This is the highest award conferred by CII-ITC in CSR domain. NTPC is the only PSU to receive the award in the Corporate Excellence category.
- 21. CSIR-National Institute of Science Communication and Information Resources (CSIR-NISCAIR),** Ministry of Earth Sciences (MOES) and Vijnana Bharati (VIBHA) jointly organised the inaugural session of Vigyanika-International Science Literature Festival on the opening day of IISF 2020 on the virtual platform to mark the birth anniversary of Srinivasa Ramanujan.
- 22.** The Asian Development Bank (ADB) and the Government of India has signed a \$50 million policy-based loan to improve financial management procedures and operational efficiencies aimed at achieving more fiscal savings, promote informed decision making, and improve service delivery in the state of West Bengal.
- 23.** SJVN Limited, a PSU under Ministry of Power has entered an MoU with Indian Renewable Energy Development Agency Ltd. (IREDA). IREDA, a PSU under Ministry of New & Renewable Energy, will provide its services to SJVN for Green Energy projects.
- Under the MoU, IREDA will also assist SJVN in developing an action plan to create and acquire Renewable Energy projects for the next 5 years.
- 24.** NTPC Ltd., one of India's largest integrated energy company and a PSU under Ministry of Power, signed a Memorandum of Understanding (MoU) with Indian Institute of Forest Management (IIFM), Bhopal, on 4th December, to implement the Narmada Landscape Restoration Project.
- The program is in partnership with a grant in aid from NTPC Ltd and United States Agency for International Development (USAID) in equal proportions.
- 25. PM-WANI**
- Union Cabinet has given its approval for the proposal of DoT for setting up of Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi service through Public Data Offices (PDOs) spread across length and breadth of the country to accelerate proliferation of Broadband Internet services through Public Wi-Fi network in the country.
  - There shall be no license fee for providing Broadband Internet through these public Wi-Fi networks.
  - This Public Wi-Fi Access Network Interface will be known as PM-WANI.
- 26.** Union Cabinet chaired has given its approval for the proposal of Securities & Exchange Board of India (SEBI) to sign a bilateral Memorandum of Understanding (MOU) between Securities and Exchange Board of India and Financial and Commission de Surveillance du Secteur Financier (CSSF), Luxembourg.

## Organisations

- 1. International Financial Services Centres Authority (IFSCA)**
- Established in 1994, the IAIS headquartered in Switzerland is a voluntary membership organization of insurance supervisors and regulators from more than 200 jurisdictions, constituting 97% of the world's insurance premiums.
  - It is the international standard-setting body responsible for developing and assisting in the implementation of principles, standards and other supporting material for the supervision of the insurance sector.
  - The IAIS also provides a forum for Members to share their experiences and understanding of insurance supervision and insurance markets.
  - In recognition of its collective expertise, the IAIS is routinely called upon by the G20 leaders and other international standard setting bodies.
  - International Financial Services Centres Authority (IFSCA) obtained membership of International Association of Insurance Supervisors (IAIS).
  - With this membership IFSCA would have access to IAIS's global network and would be able to exchange ideas and information with other global regulators.

- This would help in developing a vibrant global Insurance hub in IFSC at GIFT City. Currently, 17 leading Insurance entities are operating from GIFT IFSC undertaking offshore Insurance and Reinsurance business.

### **International Financial Services Centres Authority (Bullion Exchange) Regulations, 2020**

- In the Union Budget 2020, Union Minister of Finance Corporate Affairs Smt. Nirmala Sitharaman had made an announcement for setting up an International Bullion Exchange at the International Financial Services Centre in GIFT City, Gandhinagar, Gujarat.
- Subsequently, the Government of India had notified the bullion spot delivery contract and bullion depository receipt (with bullion as underlying) as Financial Products and related services as Financial Services under the International Financial Services Centres Authority (IFSCA) Act, 2019.
- IFSCA has been entrusted with the responsibility of operationalization of this Exchange.
- The regulations inter alia cover the Bullion Exchange, Clearing Corporation, Depository and Vaults.

### **2. India Post Payments Bank**

- India Post Payments Bank (IPPB) has been established under the Department of Posts, Ministry of Communication with 100% equity owned by Government of India.
- IPPB was launched by the Prime Minister Shri Narendra Modi on September 1, 2018. The bank has been set up with the vision to build the most accessible, affordable and trusted bank for the common man in India.
- The fundamental mandate of India Post Payments Bank is to remove barriers for the unbanked & under-banked and reach the last mile leveraging the Postal network comprising 155,000 Post Offices (135,000 in rural areas) and 300,000 Postal employees.
- IPPB's reach and its operating model is built on the key pillars of India Stack – enabling Paperless, Cashless and Presence-less banking in a simple and secure manner at the customers' doorstep, through a CBS-integrated smartphone and biometric device.
- Leveraging frugal innovation and with a high focus on ease of banking for the masses, IPPB delivers simple and affordable banking solutions through intuitive interfaces available in 13 languages.
- IPPB is committed to provide a fillip to a less cash economy and contribute to the vision of Digital India. India will prosper when every citizen will have equal opportunity to become financially secure and empowered. Our motto stands true – Every customer is important, every transaction is significant and every deposit is valuable.



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# YOJANA

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APTI PLUS

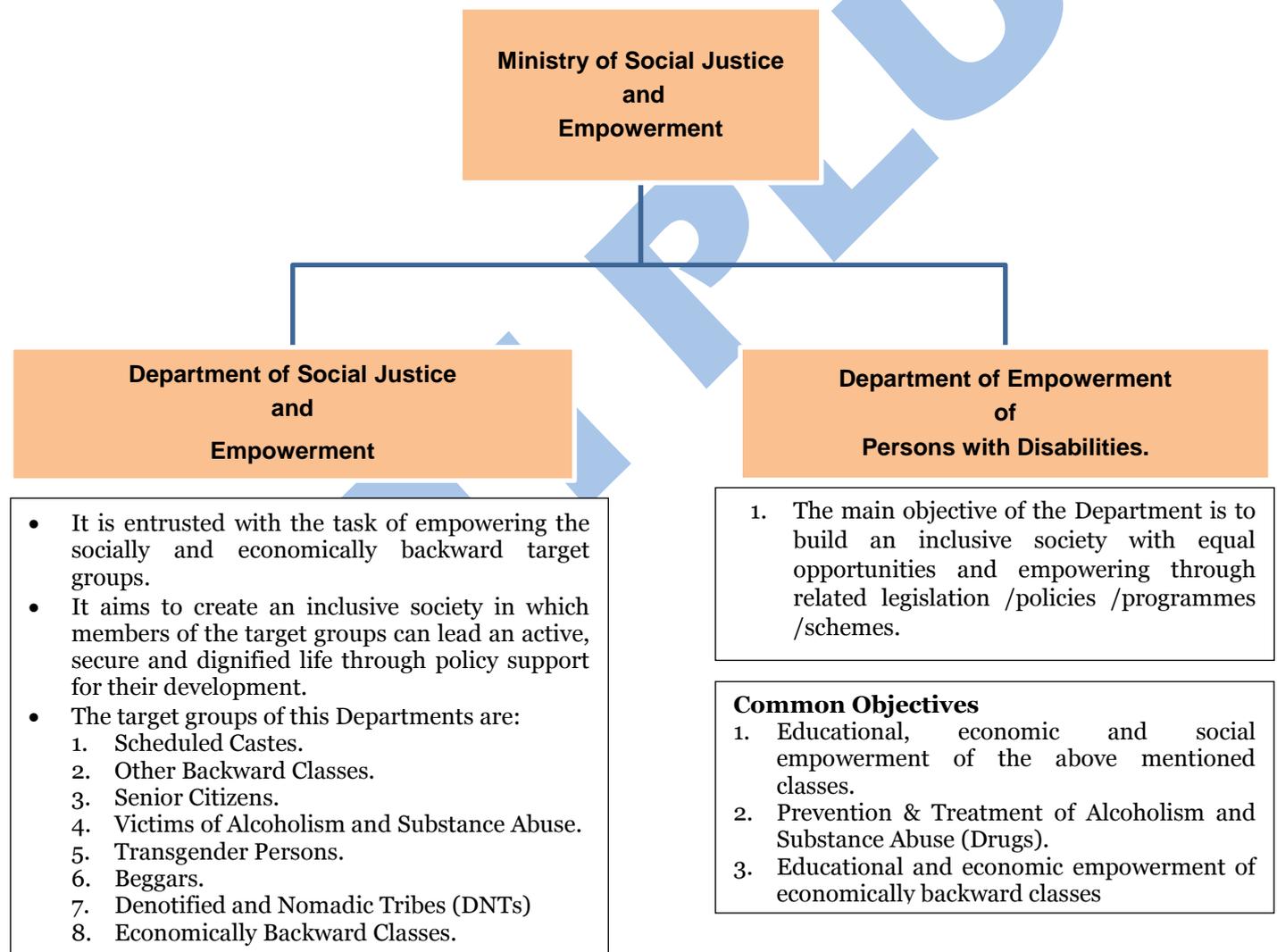
## Welfare of Marginalised Communities

### Introduction

- A marginalised population is a group of individuals or a particular cluster, who, due to various reasons, is socially, economically and educationally marginalised and thus deprived of joining the mainstream of society.
- This mainly include scheduled castes, scheduled tribes, other backward classes, senior citizens, differently-able, nomadic & semi-nomadic, transgender persons and beggars.
- Since independence, society and governments have been making efforts at every level to mainstream them. Union Ministry of Social Justice and Empowerment was constituted to enable the same.

### About Ministry of Social Justice and Empowerment

- The Ministry is mainly divided into two departments: 1. Department of Social Justice and Empowerment 2. Department of Empowerment of Persons with Disabilities.



### Important Schemes and Initiatives

1. **Pre-matric scholarship for SC student:** The eligibility for the pre-matric scholarship for SC students studying in class 9 and 10 in respect of parents/ guardian's income was revised from Rs.2 lakhs per year to Rs. 2.5 lakh per year in 2017, along with a 50% increase in scholarship amount.
- In the year 2019-20, the committed liability of the state was done away with. and the sharing ratio of 60:40 was adopted between the centre and the states. In cases of North Eastern states. this sharing ratio is 90:10.

- Scholarship is provided to the talented SC students of 220 institutions to meet the requirements for tuition fee, living expenses, computer/laptop and other accessories.
- 2. **Venture Capital Fund Scheme** was launched in 2015 with an initial capital of Rs.200 crores to promote and provide concessional finance to Scheduled Castes entrepreneurs. Under this scheme, a fund of about 400 crores has been allocated to 107 Scheduled Castes entrepreneurs till February 2020.
- Two new schemes VISVAS and ASIIM have been launched to promote entrepreneurship among the OBCs.
- 3. **Schemes for Senior Citizens**
  - Implementation of old age homes and electronic transfer of grant money through a web-supported portal (e-grant).
  - Implementation of **Rashtriya Vayoshri Yojana (RVY)** to provide free of cost physical aids and assisted-living devices for senior citizens belonging to BPL category who are suffering from an age-related disability.
  - National Action Plan for Senior Citizens has been introduced which would operate as an umbrella scheme for senior citizens under which all possible positive actions for senior citizens can be undertaken.
- 4. **National Survey on Drug Use:** The first National Survey on Drug Use in India was conducted during the year 2018, a part of the National Action Plan to curb the demand of drugs.
- 5. **Welfare & Empowerment of Transgender:** For the welfare and empowerment of transgender persons, the Transgender Persons (Protection of Rights) Act, 2019, has been enacted. The Ministry has almost finished the work of framing rules under this Act and organising housing, health camps and welfare schemes like skill development for transgender persons.
- 6. **Development and Welfare Board for De-notified, Nomadic and Semi-Nomadic Communities (DWBDNCs):** It was formed with the following objectives:
  - a. To formulate and Implement Welfare and Development programme as required, for De-notified, Nomadic and Semi-Nomadic Communities.
  - b. To monitor and evaluate the progress of the schemes of Government of India and the States/UTs regarding De-notified Nomadic and Semi-Nomadic Communities.
  - c. To redress the grievances of DNTs communities and fulfil their expectations.
- 7. **Rehabilitation of Beggars:** The Ministry has released an amount of Rs. 3.2 crore to National Backward Classes Finance and Development Corporation (NBCFDC) and National Institute of Social Defence (NISD) to conduct skill development programmes for persons engaged in begging.
  - An amount of Rs. 100 crores have been allocated under the new scheme for comprehensive rehabilitation of beggars for the year 2020-21.
  - To prevent the beggars from the effects of the current Covid-19 pandemic, the Ministry has specially allocated an amount of Rs.100 crores to various districts to provide food or other necessary items.
- 8. **Persons with Disabilities (PwDs):** Our Government is increasing the budget provisions for empowerment of PwDs in a sustained manner. A provision of Rs.560.00 crore was made in 2013-14, while a provision of Rs.1204.90crore has been made in this financial year, which is more than double of 2013-14.
  - Government has passed the **Rights of Persons with Disabilities Act, 2016**, which is a crucial step in the direction of empowerment of PwDs.
    - The old PwD Act was welfare-based, whereas the RPwD Act is a right-based Act. It prohibits any form of discrimination on the right to disability.
    - The types of disabilities ban: been increased from 7 to 21.
    - The reservation in jobs has been increased from 3 per cent to 4 per cent and reservation in higher education from 3per cent to 5 per cent.
  - The Government launched the **Sugamya Bharat Abhiyan in 2015**. Under this, Rs.443.63 crore has been released for 1152 state government buildings has been done in 998 central government buildings.
- 9. **Specialised Unique Disability Identity (UDID) Project:** It is an initiative of our government under which we are creating a national database of PwD.
- 10. It is proposed to start a **Centre for Disability Sports** in each of the five regions of the country. During the current Finance Commission tenure, consent has been obtained to set up centres in Gwalior and Shillong.
- 11. **Artificial Limbs Manufacturing Corporation of India (ALIMCO)** has signed a memorandum of understanding with the Motivational Charitable Trust of England for modern wheelchairs. ALIMCO's new production unit has been set up in Ujjain.

## Conclusion

- Presently the whole world is going through a crisis due to the Covid-19 pandemic, which has had a severe impact on India as well, and it has affected the marginal communities the most.
- But even in this difficult time, every possible effort is being made to ensure that the Ministry works diligently to provide the benefits of all its schemes to the marginalised population.

## Equality in Workplace & Home

### Introduction

- Women around the world face violence at multiple levels such as sexual, emotional and psychological. These victims of abuse come from every strata of the society.
- Reports have shown that violence on women has intensified during this pandemic, adding to their plight. Women also have to face inequality in homes and also in their workplaces.

### Background

- The pandemic has shown us that as the definition of workplace changes so does the harassment or women in the professional space.
- Workplace sexual harassment leads not only to women suffering from mental trauma but it also sabotages their right to work and their right to a dignified life.
- Sexual harassment at workplace is not only a threat to women security but also to the economy as it discourages women from taking up jobs forcing them to restrict opportunities available to them.
- Harassment at workplace and lack of proper grievance redressal system creates an insecure and an apprehensive environment for women.
- Among the many work and life-style changes during the pandemic, one of the most prominent has been 'work from home' becoming the new norm and therefore it becomes more important that cyber workplace harassment also be taken into account while addressing sexual harassment at workplace against women.
- The National Commission for Women, under its mandate, reviews the existing provisions of the Constitution and other laws affecting women and thereafter recommends amendments to suggest remedial legislative measures to meet the changes needed.

### Observations of the National Commission for Women

- a. Direction regarding constitution of an Internal Complaints Committee is not adhered by many.
- b. Definition of sexual harassment at workplace needs to be expanded to include gender-based cybercrimes.

### Initiatives taken by the Commission

- Women safety stands to be one of the most prominent activities of the Commission and during the imposition of the nationwide lockdown over coronavirus, the Commission launched a WhatsApp emergency helpline number 7217735372 for reporting cases of domestic violence.
- The Commission in collaboration with Tata Institute of Social Sciences (TISS) runs a project to empower women and to help women survivors of violence.
- The project runs across seven States, Bihar, Assam, Meghalaya, Punjab, Madhya Pradesh, Odisha and Tamil Nadu to promote support mechanism for women victims of domestic violence and to create a systematic grievance redressal mechanism within the criminal justice system.
- The project entails placement of trained social workers for providing psycho-legal services for violated women at all District Headquarters.

### Changes that may ensure Women Safety in a more prudent manner

- The first step towards making women more comfortable in reporting about the violence against them is to change the mind-set of police. We must always keep in mind that the police too belong to the same patriarchal society and women often lack the courage to go to a police station.
  - To address the objective of making police more sensitive towards grievances of women, the Commission has been conducting One Day Gender Sensitisation Workshops across the country for police personnel.
  - The programme aims at bringing behavioural change in police personnel to enable them to act without prejudice and with compassion while dealing with victims of gender-based crimes and women in general.

- The biggest form of women empowerment is to make them aware of their legal rights so that they can be their own torchbearers and the best way to do it is to educate women about the legal provisions available for their protection.
  - Under the joint collaborative programme of National Legal Services Authority and NCW, women especially belonging to the lower strata of the society are given practical knowledge about the basic legal rights and remedies provided under various women related laws.
  - The programme explains women the procedure of approaching and utilising various channels available for the redressal of grievances, the Police, the Executive and the Judiciary.
  - It sensitises women and girls about their Rights as provided under the various laws including the Indian Penal Code, 1860; the Dowry Prohibition Act, 1961; the Prevention of Domestic Violence to Women Act, 2005 etc.
- NCW initiated a comprehensive **Gender Sensitisation and legal Awareness Programme** in collaboration with Kendriya Vidyalaya Sangathan at Kendriya Vidyalayas, for students of Class 1111 and 12111 under which a booklet of 'Major Laws Relating to Women', as well as content on Gender Sensitization was made available for students.

## Way Forward

- Over the years, women have had to face issues besides the ones commonly shared by humankind and it is to be said that women have fought all their battles valorously.
- It is our collective responsibility as a society to ensure equality for women and we must not stop till every woman, no matter which background she comes from can live a free and dignified life.
- In this regard it is very important to mention that the younger generation has a huge role to play when it comes to ensuring gender equality and to influence young minds towards a violence-free society.

## Cleaner Cities

### Introduction

- Swachh Survekshan is one of the most effective tools for accelerating governance, helping India not just achieve the goal of sustainable sanitation and waste management, but also transform the way the Government of India works to achieve other key development goals.
- Through its multi-pronged data collection approach and robust assessment methodology, Swachh Survekshan has enthused cities with a healthy spirit of competition to improve the status of urban sanitation and to ensure best service delivery to their citizens.

### About Swachh Survekshan

- The Survekshan's scale of coverage has gone up by nearly 60 times with respect to its coverage during its introduction in 2016. It has certain important features:
  - **Completely Digital, Paperless** Survey: Till date five rounds of Swachh Survekshan have been conducted and the Protocol for the 6<sup>th</sup> edition has been launched on July 3, 2020. While the first three rounds adopted a mix of paper-based evaluation methodology, the Survey from 2019 onwards has been made completely digital and paperless.
  - **A digital approach** to the survey involved online submission of all supporting documents by Urban Local Bodies (ULBs) through the dedicated Swachh Survekshan Portal and online reporting of progress on all implementation components of the Mission on this Portal.
- The process of digitisation of the survey was complemented by a significant decrease in the actual survey period- from 66 days in 2018 to just 28 days in 2019 and in subsequent years- pointing to the increased efficiency.

### Approach and Methodology

- The design of Swachh Survekshan is based on three key pillars as follows:
  - **Service Level Progress**- evaluating progress of cities on ODF status, segregated waste collection, processing, disposal of Solid waste and sustainable sanitation. Progress claimed is validated through citizens and on-field visits.
  - **Citizens' Voice**- comprising assessment of cities based on direct feedback, engagement with citizens and innovations helmed by citizens.
  - **Certifications**- assessing progress of cities on their performance under Ministry's certification protocols such as Star Rating for Garbage Free Cities and ODF/ ODF+/ODF++/Water+.

- **Swachh Survekshan League:** It was introduced in 2019 with the objective of sustaining the on-ground performance of cities along with continuous monitoring of service level performance.

### Impact of Swachh Survekshan

1. Urban India has not just become ODF but has moved beyond the Mission mandate to focus on maintaining hygiene and cleanliness of community/ public toilets, waste water treatment and faecal sludge management through the ODF+ and ODF++ Protocols.
2. **Solid Waste Management:** Swachh Survekshan motivated all cities to improve their solid waste management practices. Cities were pushed to put in place effective systems for door-to-door collection, segregation and processing. Solid waste processing has gone up by over 3 times and now stands at 67%.
3. **Effective Citizen Engagement:** The most critical part of the Mission is behavioural change among citizens and transforming the Swachhata movement into a true 'JanAndolan'. Several citizen engagement initiatives are built into the overall framework such as recognition of Swachhata Champions, NGOs, voluntary organisations, start-ups and CSR efforts, display of creatives and other innovative forms of communication which have ensured continued participation of citizens and inculcate in them a sense of ownership about the Swachhata of their cities.
4. **Recognition & Social Safety Net:** SBM-U has placed a strong emphasis on improving socio-economic conditions of sanitation workers and waste pickers who not only come from marginalised section of society but are also vulnerable due to the nature of their jobs and lack of social safety nets.
5. **Enabling Digitisation of Mission Outcomes:** To bring in efficiency and transparency in implementing solutions or introducing new interventions, there are several performance indicators that prompt ULBs to introduce digital solutions to score better marks. Some of the key processes set-up and streamlined using technology/digital interface are summarised below:
  - Swachhata App as a grievance redressal tool has become popular among citizens.
  - Till date, over 59,000 public toilet blocks in 2900+ cities have been made live Google Maps.
  - Swachh Manch, a digital citizen engagement platform has been developed. 1.75 lakh events involving over 7 crore citizens have been registered on this platform to showcase their work around Swachhata.
6. **Capacity Building:** Building knowledge and capacity of city officials has been strengthened through Swachh Survekshan framework. Prior to the survey, concerted efforts are made by the Ministry to strengthen the capacities of cities to understand the modalities of the survey.

### Way Forward

- The dynamic nature of Swachh Survekshan framework has been able to significantly transform the urban governance mechanism by incorporating speed, scale and agility at its core.
- It has enabled “ease of doing business” for cities by simplifying procurement processes and incentivising cities/states to register on the Government E-Marketplace portal.
- Recently, the nodal ministry has launched **Prerak Daur Samman**, a new performance category which is sure to further enthuse cities to aspire towards higher levels of cleanliness.
- The award will be given for five levels of cleanliness – Divya (Platinum), Anupam (Gold), Ujjwal (Silver), Udit (Bronze), Aarohi (Aspiring).
- These levels will be based on performance on following six selected indicators:
  - Segregation of waste into Wet, Dry and Hazard categories.
  - Processing capacity and actual utilisation of wet waste generated.
  - Processing capacity and recycling/utilisation of dry waste.
  - Construction & Demolition (C&D) waste processing.
  - Percentage of total waste going to landfills.
  - Sanitation (liquid waste processing) status.
- Swachh Survekshan is a framework which truly has unleashed agility in urban governance towards achieving social outcomes. This framework, with its roots in creating "peer pressure", has the potential to transform governance in various other spheres through people's active participation, agility, and competitiveness.

## Multidimensional Poverty Index

### Introduction

- The concept of Global Poverty was initiated in 1970s. The global strategists led research to present the international poverty line on the national poverty lines of very poor developing countries.
- India is one of the biggest gainer of this concept of Multidimensional Poverty Index concept.
- This concept underlines the fact that, poverty is having more dimensions than just monetary manifestations. The other important factors are psychological (Powerlessness, dependency), infrastructural (Lack of Roads and proper transportation), gender, health and lack of education.
- It is the need of the hour to study and uplift the impoverished lives rather than only considering the monetary deficiencies as the main reason behind poverty.

### Background in India's context

- Researchers have established that poverty in India should not be measured simply in terms of income. It is rather, the lack of facilities and opportunities for individuals which prevents them from developing their full potential and capabilities.
- It is very important to be cognisant of the multi-faceted nature of poverty.

### Poverty Measurement in India

- a. **1950: BS Min** has published the first estimates of poverty rates for Independent India using a poverty line based on real expenditures per year.
- b. **1952: The first National Sample Survey** concluded that the Head Count Ratio of poverty in India was around 45% of the population.
- c. **1971: V MDandekar and Nilkantha Rath** used a daily intake of 2,250 calories per person to define the poverty line for India.
- d. **1993: An expert group chaired by DT Lakdawala** established the poverty line for India. For the first time, state poverty lines were developed using a standard list of commodities and prices.
- e. **2000: Saxena Committee** report using data from 1972 to 2000, separated calorie intake from nominal income in its analysis of poverty in India and estimated that 50% of Indians lived below the poverty line.
- f. **2010: Suresh Tendulkar Committee** calculated the poverty line based on per capita consumption expenditure per month. For rural area it was Rs.816 per month (Rs.27 per day). For urban areas. It was Rs.1000 per month (Rs.33 per day). Using this methodology, the population below the poverty line was 354 million (29.6% of the population).
- g. **2014: The Rangarajan Committee** established a new poverty threshold for rural areas at Rs.972 per month or Rs. 32 per day.
  - For urban areas, it was fixed at Rs.1407 per month or Rs. 47 per day. Under this methodology, the Population below the poverty line in 2011-2012 was 363 million (29.5% of the population).

### India's Progress

- India is one of the biggest gainer of the MPI Concept. For the decade spanning from 2005-06 to 2015-16, India has uplifted 271 million people out of Multidimensional Poverty. An example is the state of Jharkhand may be mentioned here, wherein the incidence of MPI has been reduced from 74.9% in 2005-06 to 46.5% in 2015-16.
- However, in terms of absolute numbers, India still shoulders the burden of eradicating multi-dimensional poverty from the lives of approximately 369 million of its citizens.
- It is important that we recognise that to achieve the SDG Goal of "leaving no one behind" we need to localise our policies and measurement techniques to the smallest level possible. It is a pioneering attempt for the Indian context.

## Challenges of Linguistic Heterogeneity

### Introduction

- Migrant workers from the central part of functioning of the Indian Cities. India's inter-state migration has a big influence on the composition of India's Census data.

- This often brings makes the language barrier to be one of the most important and sensitive issues among the migrant labourers.
- For example, in Maharashtra, during 1971 it was found that 76% of the population speaking in marathi language. However, in 2011, the percentage has dropped to 69%.
  - However, often it is found that the heterogeneity of the cities are ignored by respective state governments. This sometimes results into migrant labourers not getting the benefits extended to them by different government machineries.

### Natural Language Processing

- Advances in natural language processing in Indian languages allow real time translation of forms filled in any language to a language of choice.
- While the overall objective is not to require that all government business in a state be conducted in multiple languages, it is possible to permit the interface of the citizen with the state in multiple languages.
- Such an inclusive policy can ensure that language is not a barrier and hence reduce the non-monetary costs of internal migration.

### Statutory and Constitutional Provisions

- It should be made mandatory to make available the paperwork and documents in every state at least in all the scheduled languages of India if not in all the scheduled and non-scheduled languages of India. Today, there are 22 scheduled languages listed under the 8<sup>th</sup> Schedule of the Constitution of India.
  - It gives the speakers of these languages a sense of psychological security and sense of being recognised.
  - Example of West Bengal may be taken here. Section 38 of West Bengal Official Language (Second Amendment) Act, 2012 provides for "Use of Urdu Language, Hindi Language, Santhali Language, Oriya Language and Punjabi Language in rules and regulations".
- Article 348 (I) of Constitution of India, requires the proceedings of the Supreme Court and High Courts to be conducted in English.
  - In recent years, the Supreme Court has recognised and acknowledged the language barriers faced by the individuals in accessing the Court judgements, which were solely documented in English.
  - In 2019, the Supreme Court of India translated 100 important judgements into regional languages for the benefit of those who do not know English. The translation of judgements into regional language marks the beginning of a compromise on the exclusivity of English in Indian courts

### Issues regarding education of Children

- Language can be a barrier to children of migrant workers. The medium of instruction in government schools is typically the official language of the state. Language barriers could pose as a deterrent to the child who might refrain from getting enrolled in a school in the destination state.
- This imposes a cost on children from migrant households, irrespective of whether they are rich or poor. India's National Education Policy (NEP) 2020 flags these children as being at higher risk of dropout from schools. This is despite specific provisions in the Right of Children to Free and Compulsory Education Act, 2009 aimed at ensuring that risk of dropout is minimised.
- The NEP 2020 calls for alternative and innovative education centres.
- Civil society organisations are active in arranging for volunteers who teach children of migrant workers in their mother tongue.

### Recent Development and Way Forward

- From the National Sample Survey Organisation's Survey of Education conducted in 2007-08 and 2017-18, it is clear that there is a shift towards children being enrolled in English medium schools in both rural and urban India.
- Data from the Eighth All India School Education Survey too shows an increase in the number of schools with two or more mediums of instruction.

## Enabling Policies

### Introduction

- Understanding disability within a rights framework is not so intuitive and free-flowing.
- It is a process that would unsettle and expose our own mis-beliefs and attitude in all barriers hidden away beneath layers of charity, pity, revulsion, and fear. How disability is understood has far-reaching implications on policies as well as other interventions.

### Background

- Various attempts have been made to understand disability through theoretical models, classification schemes and even different forms of measurement.
- **Social Model Vs Medical Model:** The medical view of disability has been the dominant mode of explaining disability since the early 1900s.
  - The focus is on the bodily abnormalities and the dysfunctions caused thereby. It is rightly referred to as a 'personal tragedies' model, because the individual is regarded as a victim, and as someone who is in a perpetual need of 'care' and completely dependent on others.
  - Medical Model of disability can be explained as an individual tragedy approach to disability, where a person's disability and limitations to participating in social, economic, political life, is seen as a tragic but unavoidable outcome of his or her own bodily impairment.
- **Shift in Policy Trend:** Social model of disability contributed to a landmark shift in the way disability was seen and perceived not just by the society, but by persons with disabilities themselves.
  - This marks an important phase for disability related policies and development practices globally because UN Convention for the Rights of Persons with Disabilities embraces the critique of medical model, building upon a Social model of disability put forward by disability rights scholars.
  - This approach is to look at disability as caused externally by barriers (attitudinal or environmental or cultural) and has very little to do with physical limitations.

### Global Action

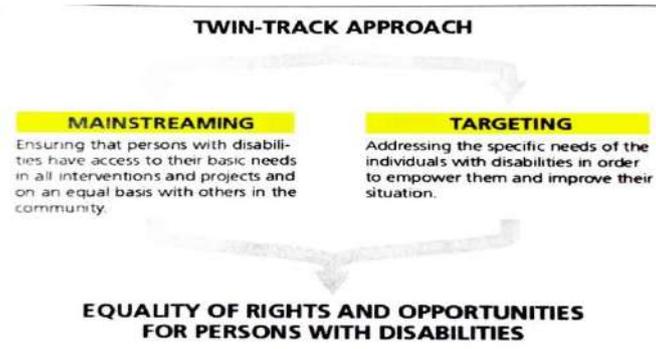
- International action on disability was stimulated through the declaration of the International Year of Disabled Persons in 1981 and later the International Decade of the Disabled which began from 1983.
- The **Convention on the Rights of Persons with Disabilities (2006)** which had been the first ever legally binding disability specific human rights convention, adopted by the United Nations outlines disability as resulting from "the interaction between persons with impairments and attitude in a land environmental barriers that hinder their full and effective participation in society on an equal basis with others."

### Evolution of Disability Policy in India

- In India, much of the 1970s and 1980s witnessed a solidification of disability as a social category, while the concept itself continued to be located within a social work frame.
- This is also the period during which institutional structures (special schools, National Institutes) and NGOs built specifically around the theme of disability (albeit mostly on a specific impairment) came in to place.
  - The 1980's was also the beginning of an international thematic on the disability question in India.
  - 1981 was declared as the International Year of Disabled Persons (IYDP) by the United Nations.
  - In India, a National Committee on the International Year of Disabled Persons is setup as per the UN guidelines.
  - Persons with Disabilities Act 1995 had an entire range of structural provisions but there was no open consideration within this legislation for disability rights perspective. It was mostly welfare-oriented. Dealing with various provisions and state schemes which were of distributive nature.

### Rights of Persons with Disabilities Act 2016

- RPD Act 2016 replaced the PWD Act 1995, and it is in accordance with the obligations to UNCRPD, to which India is a signatory. RPD Act was enacted on December 12, 2016 and came in to force from April 2017.
- RPD Act recognises disability as a fluid and shifting and incorporates measures towards a full acceptance of people with disabilities, ensuring their full participation and inclusion in the society.



## Initiatives and Interventions

1. **Targeted, Disability-Specific Policies and Measures:** Targeted, disability-specific measures are those that are created exclusively for the empowerment and inclusion of persons with disabilities RPD Act 2016.
2. **National Institutes and Statutory Bodies:**
  - a. Department for the Empowerment of Persons with Disabilities (DEoPwD) under Ministry of Social Justice and Empowerment.
  - b. National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD).
  - c. National Institute for the Empowerment of Persons with Intellectual Disabilities (NIEPID).
  - d. Composite Regional Centers for Persons with Disabilities (CRCs).
  - e. Artificial Limbs Manufacturing Corporation of India (ALIMCO).
  - f. Indian Sign Language Research And Training Centre (ISLRTC).

## Contemporary Policies and Measures towards Mainstreaming Disability Inclusion

1. **Mainstreaming Disability in Education:** Sarva Shiksha Abhiyan (SSA) launched in 2001 was more pronounced as far as integrating disabled children were concerned.
  - It provided for a cash grant of up to Rs.1200 per child per year; evolving plans at the district level for students with disabilities and also involvement of resource institutions.
  - It also had a zero-rejection policy implying that no child with disability could be denied enrolment.
2. **Accessible Sanitation Measures:** The Dept. of Drinking water and sanitation has created a set of guidelines for accessible household sanitation for Persons with Disabilities.
3. **Accessible Banking :** On November 7, 2017, RBI released a landmark guideline outlining “Banking Facility for Senior Citizens and Differently Aabled Persons”, which instructed banks to put in place inclusive mechanisms such as priority service and dedicated counters for elderly and Persons with Disabilities and door step banking for them.
4. **NRLM and SRLM:** NRLM provides for inclusion of poor and other vulnerable sections of the community including Persons with Disabilities in rural poor communities.
  - SRLM such as KUDUMBASHREE in Kerala and JEEViKA in Bihar have implemented disability inclusive measures which have created disability mainstreaming pathways within poverty alleviation programmes in India.

## Way Forward

- A truly disability inclusive society is one where all the policies, development initiatives are inclusive of all marginalised sections of the society. Mainstreaming disability inclusion is a constructive way to proceed forward with this goal.

## Food for All

### Introduction

- India has seen tremendous growth as far as population is concerned. GDP, Per Capita Consumption and Food Grain Production, all have increased.
- While India produces sufficient food to feed its population, according to Food and Agriculture Organisation of United Nations (FAO) estimates in The State Food Security and Nutrition in the World, 2020 report, 189.2 million people, that is 14% of population, are undernourished in India.

- In the GHI Report 2019, India was ranked at 102 out of 117 countries. According to the GHI 2020 Report, India is ranked 94.

## Background

- The problem of hunger is complex, and different terms are used to describe its various forms. Hunger is usually understood to refer to the distress associated with a lack of sufficient calories.
- In the Global Hunger Index (GHI) Report, “hunger” refers to the index based on four component indicators reflect deficiencies in calories as well as in micronutrients.
  - **Undernutrition** goes beyond calories and signifies deficiencies in any or all of the following: energy, protein and/or essential vitamins and minerals.
- Undernutrition is the result of inadequate intake of food in terms of either quantity or quality, poor utilisation of nutrients due to infections or other illness, or a combination of these factors.
- These, in turn, are caused by a range of factors, including household food insecurity; inadequate maternal health or childcare practices; or inadequate access to health services, safe water and sanitation.
  - **Malnutrition** refers more broadly to both under nutrition (problem caused by deficiencies) and over nutrition (problem caused by unbalanced diets, such as consuming too many calories in relation to requirements with or without low intake of micro nutrient-rich foods).

## Gross Hunger Index (GHI)

- Gross Hunger Index scores are calculated using a three-step process that draws on available data from various sources to capture the multidimensional nature of hunger.
- **First**, for each country, values are determined for three dimensions- inadequate food supply, child under-nutrition and child mortality rate with indicators of undernourishment for the first dimension and under 5 mortality rates for the third dimension, as indicated below.
  1. **Undernourishment**: the share of the population that is under-nourished (PUN).
  2. **Child Wasting**: the share of children under the age of five who are wasted (CWA).
  3. **Child Stunting**: the share of children under the age of five who are stunted (CST).
  4. **Child Mortality**: the mortality rate of children under the age of five (CM).
- **Second**, each of the four component indicators is given a standardised score on a 100-point scale based on the recent decades.
- **Third**, standardised scores are aggregated to calculate the GHI score for each country, with each of the three dimensions given equal weight.

## Government Initiatives

- The government of India is strongly achieving the 2030 sustainable Development Goals (SDGs). The current nutrition situation in India justified its high level national commitment with strong policy initiatives based on evidence-informed interventions towards combating all forms of malnutrition in the country.
- Ambitious targets have been set for POSAN Abhiyaan to reduce stunting (2%), underweight (2%), anaemia (3%) among young children, women and adolescent girls and reduce low birth weight (2%) per annum.
- **National Health Mission (NHM)** includes programmatic components such as health system strengthening, Reproductive- Maternal-Neonatal-Child and Adolescent Health (RMNCH+A), and non-communicable diseases.
  - The NHM envisages achievement of universal access to equitable, affordable & quality health care services that are accountable and responsive to people’s health and well-being.
  - Anaemia continues to be a major public health problem in the country.
  - Micronutrient deficiencies are an important cause of morbidity and mortality, especially in infants and pre-school children.
- **SDG India Index**: The NITI Aayog has brought out SDG India Index & Dashboard 2019-20 which measure the progress achieved and distance to be covered by the states/UTs in their journey towards meeting the targets, using the SDG India Index, covering 16 out of 17 SDGs. Two of the most important SDGs having a bearing on poverty, hunger and nutrition are: **SDG 1. No Poverty and SDG 2. Zero Hunger.**
- **To measure India’s performance towards the Goal of Zero Hunger, seven national-level indicators have been identified, which capture three out of the eight SDG targets for 2030 outlined under this Goal.**
- The indicators of SDG 2 taken are:

1. Ratio of rural households covered under public distribution system (PDS) to rural households where monthly income of highest earning member is less than RS. 5,000.
2. Percentage of children under age 5 years who are stunted.
3. Percentage of pregnant women aged 15-49 years who are anaemia.
4. Percentage of children aged 6-59 months who are anaemia (Hb<11.0 g/dl)
5. Percentage of children aged 0-4 years who are underweight.
6. Rice, wheat and coarse cereals produced annually per unit area (kg/Ha)
7. Gross Value Added in Agriculture per worker.

### Food and Nutrition Security

- The implementation of revamped PDS under National Food Security Act (NFSA), 2013 is a paradigm shift in the approach towards the issue of food security at the household level, from welfare to a rights-based approach.
- Under the “Antyodaya Anna Yojana” (AAY), the poorest from amongst the Below Poverty Line families are entitled to 35kg of food grains per month at more subsidies rates.
- The NFSA adopts a life cycle approach making special provisions for ensuring food security of pregnant women, lactating mothers, and children from 6 months to 14 years of age.
- Another initiative aimed at achieving better nutrition standards for school going children is the Mid-day meal (MDM) scheme, which provides nutritious cooked mid-day meal to children at primary and upper primary levels.

### Agriculture Productivity and Income

- The government has been implementing a multi-faceted strategy for doubling farmer’s income focusing on seven growth factors: improved crop productivity, cost-effective production process, increased cropping intensity, crop diversification favouring high-level crops, access to better prices and shifting to the non-farm occupation.
- **The Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)** focuses on improved water efficiency with the motto of “Har Khet Ko Pani” and “per Drop More Crop” and provides end-to-end solutions in the irrigation supply chain, Viz. water sources, distribution network and farm-level applications.
- **The Pradhan Mantri Fasal Bima Yojana** provides better insurance coverage and agricultural credit at the reduced rate of 4% annum to farmers.
- The increase of the MSPs for all Kharif and Rabi crops at least by 150% of the cost of production has also shored up farmers’ income.
- **Pradhan Mantri Kisan Scheme** has been initiated to extend the payment of INR 6,000 per year to every farmer in the country, which provides a further boost to their income.
- **Under Pradhan Mantri Kisan Sampada Yojana**, financing of mega food parks, infrastructure of agro-processing clusters, and integrated cold chain and value addition infrastructure are undertaken, in addition to other components.

### Way Forward

- India is likely to be the most populous country on this planet by 2030 with 1.6 billion people.
- The priority now is to return attention to agriculture and its central role of providing food security, reducing poverty and generating employment.
- Ensuring food and nutrition security will become a bigger challenge unless Government of India and the State Governments, particularly of the more populous states, pursue in right earnest population stabilisation programmes.

## Invisible Disabilities

### Introduction

- The definition of Disability extends beyond the definition provided by the medical science.
- Hidden disabilities have some psychological issues which make conditions all the more complex and debilitating. Invisible conditions are more difficult to detect by the doctors. Many such conditions go undiagnosed or misdiagnosed.
- The stigma surrounding a chronic disorder often results into people concealing their disabilities in social settings.

## Background

- According to a World Economic Forum report, India currently needs 11,000 psychiatrists and 54,000 mental health professionals. Mental health workforce in India (per 100,000 population) include psychiatrists (0.3), nurses (0.12), psychologists (0.07) and social workers (0.07). according to WHO, India spends around 0.06% of its health budget on mental health.

## Common Invisible Disabilities

- Some of the most common invisible disabilities in which people appear healthy and in control of their lives and bodies are:
  - a. **Learning Disabilities:** Neurological disorders resulting in impairment in reading (dyslexia) writing (dysgraphia) or mathematics (dyscalculia), commonly associated with Attention Deficit and Hyperactively disorder.
  - b. **Autism Spectrum Disorders:** Neurodevelopment disorders beginning early in childhood and severely affecting the ability to communicate, learn social skills and social interaction, associated with rigid and repetitive behaviours.
  - c. **Depression:** Mental health and mood disorders involving persistent feelings of sadness, hopelessness and loss of interest strong enough to affect normal functioning; commonly associated with anxiety disorders causing persistent feelings of worry and fear.
  - d. **Sensory Disorders:** Children who have sensory issues may have an aversion to anything that triggers their senses, such as light, sound, touch, taste, or smell. Common symptoms of sensory processing issues may include avoidance or hyperactivity. Appearance: Too fussy, not cooperating, need for stern discipline.

## Challenges

1. **Detection and Diagnosis:** Hidden disabilities are difficult to detect by parents, caregivers and teachers.
  - Precious time during critical developmental period is wasted in trying to discipline and correct the child's apparent errant behaviour.
  - Invisible conditions are also more difficult to detect by medical doctors.
  - Many such conditions go undiagnosed or are misdiagnosed.
2. **Stigma :** The stigma surrounding a chronic disease or disorder and the realisation that a seemingly healthy child is having a condition which affects functional efficiency throughout life, may in many cases compel parents to conceal the disability in social settings.
  - In contrast, disclosure relieves the strain of hiding the condition and increases the likelihood that the person will find and develop a social support network with others who might have similar conditions or experiences.
3. **Psychological Issues of Self-esteem and Self-confidence :** Individuals who have (or think they have) invisible disabilities must carefully weigh the potential benefit of avoiding social stigma by not disclosing against the costs to health, well-being, and performance.

## Efforts toward Rehabilitation and Acceptance

1. **Creating Awareness and Infrastructure:** The first step towards rehabilitation is to create awareness; that there indeed exist certain lifelong debilitating disorders which require special assistance and provisions from the community.
  - The Rights for Persons with Disabilities Act, 2016 is a step toward such awareness. Apart from covering 21 categories of disabilities from the previous 7 categories under the 1995 Act.
  - This new Act also includes some of the seemingly invisible conditions such as autism and learning disabilities within its ambit.
2. **The Special Needs of Childhood Developmental Disabilities :** There are some universal rules which can be followed in rehabilitation of childhood developmental disorders-early detection, early intervention, and training and empowering parents/caregivers.
  - Hence the need for early detection at the primary health centre level, and continuous monitoring through home visits by trained healthcare workers.
  - There is a need to provide parents with professional counselling when their child is diagnosed with a disability. Counselling of parents in the potential strengths of a special needs child at an early age can go a long way in maximising functional adjustment to educational and vocational development required to fulfil adult social responsibilities.
  - Networking and connecting parents has been found to be extremely beneficial.

3. **Special Education and Vocational Training- Focus on the Strengths:** The person with disability thereafter can be trained and rehabilitated in many ways by following the golden rule of focusing on the person's strengths.
  - Children with learning disabilities make amazing progress with alternative teaching practices.
  - Similarly, children with autism move ahead in life using alternative and augmented communication techniques.
  - These techniques not only help in life skills, but also help reduce behaviour-related issues such as meltdowns and temper tantrums, since the child is able to communicate his or her needs, requirements, feelings and fears.
4. **Use of Technology and AI :** The application of AI tools and technology in detecting disabilities which are not apparent to onlookers, can be a game changer in the case of early detection.

## Way Forward

- There has to be a conscious effort made by the government sector and society together to become more inclusive towards everyone living with a disorder or disability.
- With the advent of global information in every household and best practices being shared through online mechanisms, prejudices and stigma are surely on their way out.
- Once parents are accepting, empowered and connected, they will be able to help their child in the future.
- Most importantly, people living with disorders and disabilities need to be encouraged to share their story with those around them so that people can better understand how to support them.
- It is imperative to start a movement of being consciously inclusive, and looking for solutions.

## Gandhian Paradigm of Indian Villages

### Introduction

- Gandhiji incorporated goodness of common people in his speech, writing and actions. He wrote about challenges of practising what one preaches.
- He had great dreams for a healthy society and make a society, a better place to live. Gandhiji realised that in order to improve the quality of life of people and eradicating poverty , reconstruction of villages is very important.

### Aspects of Gandhian Philosophy

1. **Gram Swaraj:** As per Gandhian philosophy, self Governance of villages is called Village Swaraj.
  - The Government of the village should be conducted by the panchayat of 5 persons annually elected by the village adults, possessing minimum prescribed qualifications.
  - It is basically decentralisation of power. In an ideal village, every activity should be conducted on co-operative basis.
2. **Ideal Village :** As per Gandhiji, an ideal village should have all basic amenities and it should be inhabited by open minded and educated people.
3. **Basic Education:** The education should be aimed at harmonious development of the body, mind and soul of the people. Gandhiji called his scheme of education as 'basic education'. It is about the art of living and creation of productive labor.
  - It is basic and craft-oriented education. Along with vocational training, rural people receive instruction in elementary history, geography, and arithmetic.
4. **Health and Hygiene :** According to Gandhiji, attention to individual's health and hygiene is undoubtedly the first step to rural reconstruction.
  - The judicious utilization of waste keeps the surroundings neat, dirtless and clean.
  - He suggested to convert excreta of animals and people in to organic manures.
  - He told that organic manures ever enriches; never impoverishes cultivable land.
  - Also, cleanliness is not only next to godliness, it promotes health of the people.
  - According to him, most of the diseases occur to people on account of insanitation and unhygienic living.
5. **Antyodaya to Sarvodaya :** The Sarvodaya is a comprehensive concept, which includes all aspects of rural life and activity in the sphere of sustainable rural development.

- The rural development does not only involve agriculture development. It has to include all productive activities of primary sector, secondary sector, and tertiary sector. His idea for rural development is known as Samagra Gram Seva.
- It includes integrated and multiple cropping organic agriculture, animal husbandry, forestry, fisheries, basic education, adult education, development of weaker sections, empowering of women, education in public health/sanitation/hygiene, social harmony, prohibition, naturopathy, infrastructure development etc.
- He felt that the society should attain Sarvodaya after the attainment of Antyodaya.
- 6. Integrated Agriculture:** Gandhiji wanted that agriculture should become a bright and prosperous spot of people. He emphasized the importance of irrigation systems, and organic manures for bumper crop/increased agricultural production.
  - A drive for sinking wells, enlarging and dredging jakes and constructing canals has to be taken up in the villages. No proper manuring can be done without irrigation; as manure, in the absence of water is harmful.
- 7. Co-Operation and Village Industry:** Gandhiji advocated cooperative farming for getting full benefits of agriculture. He told that selected and improved varieties of seeds should be sown by farmers for getting higher agricultural productivity.
  - Gandhiji advocated Khadi and Village Industries (KVI) for solving the problems of poverty, unemployment and rural backwardness
  - As the Khadi program progressed, he felt that without the revival of village industries like beekeeping, soap-making, tanning, pottery, carpentry, blacksmithing, oil pressing, hand pounding etc., Khadi could not make further progress. The revival of village industries was but an extension of the Khadi effort.
  - Gandhiji wanted technology to promote not only full employment but also economic growth and social justice. He said, machinery has its place; it has come to stay; but it must not be allowed to displace the necessary human labor. The machinery should sub serve the interest of all.
- 8. Economic Equality and Sustainable Development:** Gandhiji suggested for the development of KVI and through them decentralization for increasing material things to a certain extent, and for improving the economic conditions of the poor.
  - Gandhiji believed that humans should live in harmony with nature. He wanted people to plant trees and add to the forest wealth of the country. Forests exert their influence on climate and reduce extremes of temperatures.
  - They are more important for soil conservation and regulation of moisture. Forests are the source of vast materials needed for industries.
  - House building materials are available from forests. Forests accommodate wildlife. Forests meet the day to day needs of the rural people who depend on the forests for firewood, timber and fodder for them and their animals.

## Conclusion

- Gandhian paradigm promotes the welfare of all. This includes development of integrated agriculture, KVI, sanitation and health, village panchayat, self-reliance, basic education, social harmony, truth and non-violence, bread labour, balanced diet, naturopathy.
- While planning the development of villages, he was not just concerned about economic standard of living of people/quality of life but also emphasized the need of moral compass, peace, justice and freedom for all.
- His intention was to establish Sarvodaya through Antyodaya; and make villages largely self-sufficient units.

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# KURUKSHETRA

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APTI PLUS

## Realising 'Digital India' through its different Pillars

### Introduction

- Digital India programme it is a 'flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. The vision areas under this programme, as delineated by the Ministry, include 'Digital Infrastructure' as a Core Utility to Every Citizen, Governance and Service on Demand and Digital Empowerment of Citizens'.
- Under this programme, the government aims to provide high speed internet connectivity across the length and breadth of the country. In addition, it also aims to establish and leverage the unique identity (Aadhaar) as a mode to ensure digital identity, financial inclusion, and easy access to the Common Services Centres (CSCs).

### Background

- Through, the National Governance Plan-2005 India had recognised governance as a way forward for ensuring delivery of public services to the masses.
- The Digital India Programme took one step ahead and aspired to provide seamlessly integrated services across departments or jurisdictions by adopting a single window framework.
- It also promotes the use of Open source and Open API, to ensure interoperability of all e-governance applications and provide access to data and services for promoting participation of citizens.
- Digital Literacy is widely recognised as a key element necessary to successfully implement the e-Governance initiatives under the Digital India programme.

### Initiatives Taken by the Government

- 1. Broadband Highways:** Internet being evolved as one of the basic necessities of the modern life, ensuring access to broadband, has been a key responsibility of the Government. This pillar has three components including Broadband for rural, Broadband for urban and National Information Infrastructure.
  - Under the Broadband for Urban project, the Ministry aims to utilise Virtual Network Operators for service delivery and communication infrastructure.
  - The National Information Infrastructure aims to integrate India's Network and cloud infrastructure to facilitate high speed connectivity as well as cloud platform for different government entities.
  - The NII includes the include networks such as State-Wide Area Network, National Knowledge Network National Optical Fibre Network, Government User Network and the Mehran Cloud.
- 2. Universal Access to Mobile Connectivity:** The rapidly growing smartphone penetration and consistently declining data rate have made mode of communication much faster.
  - Department of Telecom has been assigned as the Nodal Agency for this project.
- 3. Public Internet Access Programme:** The Public Internet Access Programme focussed mainly on two components including CSCs and transforming Post Offices.
  - Considering the expanse of presence of Post-offices, this project could have a huge transformational effect on the public internet access programme as multi-service centres.
- 4. e-Governance Reforming government through Technology:** The Government of India has recognized the governance as the way forward and the Ministry has been striving to ensure effectiveness of government services across different domains offered by line ministries.
  - Under this pillar, the government has different focus areas including form simplification and form reduction, online applications and tracking, online repositories and integration of services and platforms.
  - This programme also aims to transform the workflow inside the government departments to enable efficient government processes and also to allow visibility of these processes to citizens.
- 5. e-Kranti, Electronic delivery of Services:** Over the years, the Government of India has been consistently focusing on governance and leveraging the digital platforms/ technologies.
  - The National e-Governance Plan was the first step towards making government services accessible to the common man, through service delivery.
- 6. Information for All:** This pillar aims to ensure transparency and availability of reliable data generated by the line ministries for use, reuse and redistribution for the people of India.
  - The open data platform has been developed by the Ministry for online hosting of information and documents is facilitating easy access to information for citizens.

7. **Electronics Manufacturing:** Electronics are deemed as the backbone of technology development for a company. And technology is increasingly recognised as a key contributing factor for economic development.
  - Due to the high capital and operational expenditure, electronics manufacturing in India has not taken off.
  - The Ministry has been trying to change this scenario by bringing policy interventions to draw global interest for electronics manufacturing in India.
8. **IT for Jobs:** The IT/Its sector is one of the most promising sectors for the Indian economy. This pillar focuses on skill development of the Indian youth in rural and urban areas for making them skilled for the IT/Its sector.
  - Setting up of BPOs and providing IT trainings has been the biggest focus of this pillar under the Digital India programme.
  - North-eastern states are given special focus in this programme. The North East BPO Scheme has been established to bring the focus of the BPO industry from the Tier-1 cities to the North-eastern states.
9. **Early Harvest Programmes:** This pillar consists of a group of different short-term projects which have immediate effect on the Indian digital ecosystem.
  - The major projects under this pillar include IT platform for mass messaging.

## Challenges

- There are manifold challenges as far as smooth implementation of these schemes are concerned. They are categorised as following:
  1. **Technical Challenges:** The integration and alignment of different networks, interfaces/platforms across different states has been a major challenge in implementation of Digital India. Challenges such as interoperability of solutions, privacy, security and multi service interaction have been consistently faced by the implementing agencies.
    - Digital illiteracy is another major challenge which has prevented the effective utilisation of the projects.
  2. **Organisational Challenges:** Lack of highly skilled individuals, huge population, presence of different languages and the distributed control of subject between the state and the Centre, are recognised as the major challenges in the implementation of the programme.
  3. **Economic Challenges:** The scale of the Digital India programme warrants huge budget outlay, which has been a major challenge in the implementation of the programme.
    - With limited project funding, it becomes difficult for implementing agencies to completely achieve the desired objectives of a project.
    - The transmission of COVID-19 pandemic has not only affected the health of the common people, but it has also disrupted the multitude of ongoing projects which is a huge setback for the entire programme.

## Way Forward

- It is imperative for India to effectively and dynamically evolve the Digital India programme into a nationwide movement which would not only have interventions from the government, but the industry and the academia of the country.
- In the same light, the adoption of following measures could successfully address the major challenges highlighted above:
  - a. **Improving the Regulatory Framework:** A robust regulatory framework has to be developed by the government to ensure wide spread adoption of digital services and platforms. Effective Implementation of Projects in order to ensure effective implementation of projects, the government has to focus on two aspects namely, the skill enhancement of its workforce and the futuristic planning of the projects.
  - b. **Optimisation of Resources:** Adequate feedback and monitoring mechanisms have to be put in place in order to recognise and address any futile/suboptimal use of resources such as manpower, budgets, private sector fund, etc.
  - c. **Bridging the Digital Divide:** Digital illiteracy is a major roadblock in reaping the benefits of the Digital India Programme.
- The Digital India programme has been recognised to have a transformational effect on the India's Digital landscape as well as the economic scenario of the country.
- By bridging the digital divide in India, it is possible for the country to alleviate major sections of the society and leverage the underlying potential to achieve a global leadership status.

## Towards "Sarve Santu Niramaya" India's eHealth Revolution

### Introduction

- eHealth is the use of technology to deliver health sector services, solutions, interventions and services that ride on digital platforms.
- According to World Health Organisation (WHO), it is defined as: "... the cost-effective and secure use of information and communication technologies in support of the health and health-related fields including healthcare, health surveillance and health education, knowledge and research.

### National Digital Health Mission (NDHM)

- National Digital Health Mission is holistic, voluntary healthcare programme which will integrate doctors, hospitals, pharmacies, insurance companies and make a digital health infrastructure. It was announced in 2020.
- The National Digital Health Blueprint was prepared after a holistic survey of the global best practices in adoption of digital technologies.
- Under this scheme, Health ID will be given to every Indian. This health account will contain details of every test, every disease, the doctors visited, the medicines taken and the diagnosis.
- The health ID card is created with details like Aadhar and mobile number and generates a unique ID for each individual. The NDHM includes health ID, Digi doctor, telemedicine, ePharmacy, healthcare registry and personal health records digitally stored.

### The National Digital Health Blueprint envisages achievement of the following objectives

- To establish state-of-the-art Digital health systems
- To establish National and Regional Registries
- To enforce adoption of open standards
- To create a system of Personal Health Records
- To promote development of enterprise-class health application systems.
- To ensure National Portability.
- To promote the use of Clinical Decision support System.

### Other initiatives taken by Government

1. A useful platform of the Health Ministry is the National Health Portal-NHP (<http://www.nhp.gov.in>). With an overall objective to create awareness amongst the citizens about health, Government programmes and services in Health Sector, National Health Portal (NHP) provides information to citizens and stakeholders in different languages (currently six languages Hindi, English, Tamil, Gujarati, Bengali, and Punjabi).
2. The **e-Hospital@NIC** (<http://dashboard.ehospital.gov.in/dashboard-testlng2/>), a Hospital Management System, is a workflow based ICT solution for hospitals specifically meant for the hospitals in the Government Sector.
3. In order to improve ease of services for citizens, the **Online Registration System (ORS)** (<http://www.ors.gov.in/>) was launched in 2015. It provides services to citizens for taking online registration & appointment, payment of fees, online viewing diagnostic reports, enquiring availability of blood online etc. in various public hospitals.
  - This is a generic software which covers major functional areas like patient care, laboratory services, work flow based document information exchange, human resource and medical records management of a hospital.
4. **'Mere Aspatal' (My Hospital)** (<http://meraasptaal.nhp.gov.in/>) is a Health Ministry initiative to capture patient feedback for the services received at the hospital through user-friendly multiple channels.
5. To provide a "single window" for multiple stakeholders (Pharma Industry, Regulators, Citizens) involved in the processes of Central Drugs Standards Control Organisation, "SUGAM".
6. It enables online submission of applications, their tracking, processing & grant of approvals online mainly for drugs, clinical trials, ethics committee, medical devices, vaccines and cosmetics.
7. **Mobile Applications**
  - a. Vaccine Tracker for Indradhanush.
  - b. India Fights Dengue.
  - c. NHP Swasth Bharat.

- d. NHP Directory Services Mobile App.
  - e. No More Tension Mobile App.
  - f. Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) Mobile App.
8. **Health Management Information System(HMIS)** : HMIS is a web based portal for monitoring the programmes under National Health Mission (NHM) that includes monthly service delivery data reporting from public health facilities to improve program monitoring and management.
  9. **Mother and Child Tracking System (MCTS)/ Reproductive Child Health (RCH) Application:** It is an individual-based tracking system implemented across all the States and UTs to facilitate
    - o Timely delivery of antenatal and postnatal care services and immunization to children with an objective of improving IMR, MMR, & morbidity.
    - o Providing alerts to health service providers about the services due lost and service delivery gaps
    - o Appropriate health promotion messages to beneficiaries.
  10. **Kilkari:** It delivers free, weekly, time-appropriate 72 audio messages about pregnancy, child birth and child care delivery to families' mobile phones.
  11. **TB Patient Monitoring System "Nikshay"**.
  12. **Tobacco Cessation Programme:** It is a mobile-based interventional initiative for counselling and helping people to quit tobacco, by giving a missed call to 011-22901701.
  13. **mDiabetes Programme:** It is a mobile-based initiative for prevention and care of diabetes.
  14. **Hospital Information System (HIS):** HIS is being implemented in hospitals for automation of hospital processes to achieve better efficiency and service delivery in Public Health facilities up to CHC level.
  15. **Drugs and Vaccines Distribution Management System (DVDMS) ('eAushidhi')**: It deals with purchase, inventory management and distribution of various drugs, sutures and surgical items to various District Drug Warehouses of State/UT, District Hospitals (DH), their sub stores at CHC, PHC etc. by automating the workflow of procurement, supply chain, quality control and finance department in State/UT level.
  16. **e-Rakt Kosh:** eRakt Kosh has been launched which is a comprehensive, efficient and total quality management approach with the help of online systems and is being rolled out for all the licensed blood banks in public and private health facilities in States& UTs.
  17. **e-Sanjeevani:** It provides health service and solves problem in 3 main ways:
    - Non-availability of qualified and efficient Doctors in rural areas.
    - High burden on healthcare care facilities due to non-availability of sufficient services at primary level and
    - Lack of Health Record creation at Primary and Secondary level & lack of interoperability of records.
  18. **eVIN (Electronic Vaccine Intelligence Network):** The Electronic Vaccine Intelligence Network (eVIN) is another innovative technological solution aimed at strengthening immunisation supply chain systems in India implemented under National Health Mission (NHM).
    - o It aims to provide real-time information on vaccine stocks and flows, and storage temperatures across all cloud chain points in the country.

## Sturdy Progress in Rural e-Governance

### Introduction

- We are in the midst of a knowledge revolution where technological excellence, intelligence and power are making a comprehensive impact on almost everything we do, and revolutionizing our lives as a person, a society and a nation.
- Since a large part of India's population lives in villages, it is crucial that our e-Governance model makes sure that it is accessible to the rural masses in the country.
- The rural connect brings both, opportunities and challenges, for our e-Governance strategies and the overall mechanism.

### About E-Governance

- E-Governance is the mechanism for providing and managing government services via electronic means and is expected to help in ensuring a SMART (Simple, Moral, Accountable, Responsible and Transparent) government.
- The World Bank has defined e-Governance as E-Government refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government.

## Digital India and e-Governance

- From Indian perspective, e-Governance plays a prominent part in the ambitious Digital India initiative and one of its nine pillars is called 'government process re-engineering' which is indicative of Union Government's resolve to not just use electronic delivery systems but carry out some fundamental changes in the way government services and processes work.

## The guiding Principles for reforming Government through are

1. Form Simplification and Field Reduction
  2. Online Applications and Tracking
  3. Online Repositories
  4. Integration of Services and Platforms
  5. Information in Electronic Forms.
- As an organised, structured approach towards successful implementation of e-Governance in the country, the Union Government had put together the National e-Governance Plan (NeGP) which articulates a comprehensive nationwide vision for the same.

## e-Governance Projects

- A large number of e-Governance projects have been launched by Central and State Governments apart from some local bodies and the number is constantly growing.
1. **E-Panchayats:** This is a Mission Mode Project (MMP) in which 2,50,000 Panchayat Raj Institutions were identified to deliver e-Governance services to rural populations. The project is developed by NIC.
  2. **Bhoomi:** It is a Karnataka government initiative, Bhoomi has been instrumental in digitisation of land records.
  3. **E-Choupal:** This is a private sector project, launched by ITC limited to address various requirements of farmers, including selling their produce directly to the buyers, and ruling out the role of middlemen in the process.
  4. **Gyandoot:** A project launched by Madhya Pradesh government, Gyandoot works through soochnalayas set up in Dhar district of the state.

## Limitations of Rural India

- a. The biggest limitation is related with infrastructure; especially telecom/broadband infrastructure and power supply related infrastructure.
- b. Literacy levels vary in urban and rural areas and we still have a long way to go in terms of ensuring ideal literacy rates, especially among the rural population.
- c. IT awareness and IT literacy is another important aspect of the situation as even among those who are literate, a significant number of people find it difficult to deal with digital equipments and Internet.

## Common Service Centers

- Common Service Centers (CSCs) established in rural areas is a great initiative to address some of these limitations as people can just approach them to get their documents downloaded, fill out government forms or access other government services conveniently.
- The CSC is a strategic cornerstone of the National e-Governance Plan (NeGP), as part of its commitment in the National Common Minimum Programme to introduce e-Governance on a massive scale.
- A highlight of the CSCs is that they offer web-enabled e-Governance services in rural areas, including application forms, certificates, and utility payments such as electricity, telephone and water bills.

## Way Forward

- Since Internet makes geographical boundaries irrelevant, ICT mechanism helps governments to reach out to the remotest parts of the country which may otherwise be difficult to reach. The main pre-requisite here is the basic internet/telecom infrastructure.
- Through the National Fiber Optic Network (NFON), the Union Government is already a long way forward in this direction.
- Even though e-Governance services are making impressive advancements in connecting the two important stakeholders of government services at both ends of the system, there are many challenges, especially in the rural areas, which need to be addressed if we want to tap full potential of e-Governance and get the desired outcome.

## Farming 2.0: Digitising Agri Value Chain

### Introduction

- Digital technologies are most important recent innovations in terms of all actors in the agri-food chain. It not only assists in primary production but also extend support from food supply chain management to new business development.
- The digitalisation of agriculture is widely accepted as the next agricultural revolution with a potential to change the way of food production as well as consumption. In agriculture, drones, satellites, sensors and robots have the potential to revolutionise farming, even at small scale.
- Sensors and satellites provide information on soil moisture, temperature, crop growth and livestock feed levels, enabling farmers to achieve better yields by optimising crop management and reducing the use of fertilisers, pesticides, feed and water.
- Digital agriculture could help farmers to be more precise with inputs through precise weather forecasts or sensors scanning the soil.
- Additionally, through the use of robotics or autonomous machines, farmers will be able to curb down labour costs which might lead to unemployment in the sector. This in turn might result into more people leaving rural communities to find jobs in urban area.

### Leveraging Social Media in Agri Value Chain

- Since the social media is an open dialogue, it enables users to express interest, or disinterest, in products, services or businesses in a public forum. Social networking through Facebook and Twitter opens a wide range of doors in terms of connecting farmers and retailers with consumers.
- The same level of engagement with social media can benefit those further up the supply chain as well, as increasing number of farmers and farm-based businesses are finding out.
- A farmers-network in India called Harvesting Farmer Network (HFN) with mobile application provides a virtual support group advice on crops and agricultural practices. The HFN mobile application is useful to get farm information, advisory, Mandy prices of India's important mandis and farm produce.

### Mobile and Internet Penetration in India

- The use of Information and Communication Technology (ICT) to support the transmission of localised information and services working towards making farming socially, economically, and environmentally sustainable, while contributing to the delivery of nutritious and economical food for all-this comprises Digital Agriculture.
- This has also led to the rise and development of mobile apps which are helping existing government schemes, and other agriculture-based information to reach farmers in rural India.

### Past Experiences of Digitalising Farming

- Farmer's portal of the Department of Agriculture and cooperation is a platform for farmers to seek any information related to agriculture.
- Users can also download farm friendly handbook, scheme guidelines etc. Kisan call centre services launched by the Ministry of Agriculture took to harness the potential of ICT in agriculture.

### Recent Initiatives

- The government of India has rolled out several other initiatives under the Digital India Programme to help the farming community. In order to promote ease of agricultural exports from India, the government launched digital initiatives by Export Inspection Council (EIC).
- For this three portals have been developed to reduce transaction time and cost in an effective and transparent manner for safe food export traceability, single laboratory for accreditation and approvals and for monitoring exports alerts from importing regulators.
- The government has launched a mobile application Meghdoot to help farmers by providing forecast relating to temperature, humidity, rainfall, wind speed and direction and how to take care of the crops and livestock.
- **Kisan Suvidha Mobile App** and Pusa Krishi Mobile App have 10,63,080 and 40,753 downloads respectively since their launch.

- **Soil health card scheme** was launched in 2015, the scheme has been introduced to assist state Governments to issue Soil Health Cards to all farmers in the country.
- **Agri Market APP** is a mobile application been developed with an aim to keep farmers abreast with the crop prices and discourage them to carry out distress sale.
- **The International Crop Research Institute for Semi-Arid Tropics (ICRISAT)** received a Microsoft Artificial Intelligence (AI) for Earth grant and this pilot project is implemented in 2018 in the state of Andhra Pradesh where farmers have always relied on their guesswork to decide when to plant and a combination of ancient traditions.
- The Internet of Things as a computing concept which describes the idea of everyday physical objects, which are being connected to the internet and being able to identify themselves to other devices. Companies like Trimble, Tata Kisan Kendra (TKK), and Fasal, among many others, are working to introduce precision agriculture (PA) to Indian farmers.
- **AgroPad** is an AI-powered technology helping farmer's check soil and water health. AgroPad 10, developed by IBM, is a paper device about the size of a business card. The microfluidics chip inside the card performs on the spot a chemical analysis of the sample, providing results in less than 100 seconds.
- The Coffee Board has developed a **Coffee Connect-Mobile APP** for providing advisory services to the coffee growers and also taken up a pilot project in collaboration with Precision Agriculture for Development (PAD).
- The GoI recently launched the '**Swamitva Scheme**' under which drones will draw a digital map of every property falling within the geographical limits of a village and demarcate the boundaries of every revenue area.
- Ergos has one of the most unique models in the Agri-tech landscape. They have a "**Grain Bank Model**" that is providing doorstep access to end-to-end post-harvest supply chain solution to small and marginal farmers.
- **Digital Green**, an organisation that trains Indian farmers in sustainable practices is developing a voice-enabled WhatsApp chatbot. The technology will provide seamless market connections, enabling smallholder farmers to improve their incomes amid economic disruptions caused by Covid-19.
- In 2018, the Karnataka government launched "plantix", to smartly detect pests, plant diseases, and nutrient deficiencies. Telengana government launched its new integrated Land Records Management System or Dharani Portal for registration of property.
- The National Institute of Agricultural Extension Management (MANAGE)- centre for Innovation and Agripreneurship (CIA) incubates and mentors number of digital agricultural startups using Artificial Intelligence, IoTs, MI, Machine learning, and remote sensing technologies for digitalising agriculture.

### Challenges Faced by Farmers in Adopting Digitalisation in Agriculture

- There is **no policy and operational guidelines** to use digital media and ICTs for the agriculture digitalisation.
- The **capacity and skill** in effectively using digital media and technologies among knowledge intermediaries (extension personnel) is limited.
- The lack of timely information on farm inputs, unorganised credit, and absence of market linkages are the major hurdle faced by farmers in adopting new technologies.
- In rural areas, the reach of e-technology is really poor, even the distribution of technology is uneven throughout the country.
- **Insufficient connectivity**, along with lack of basic computer and smartphone usage skill and knowledge, high costs for services and less literacy hinder rapid development of digitisation in agriculture.
- Despite the visible benefits of the new agricultural technologies, farmers either do not adopt them or it takes a long time for them to begin the adoption process and scaling up. But the truth is that there is a need to demonstrate technology to the farmers so as to give them confidence and belief in the new technologies.

### Way Forward

- The current scenario of pandemic has proved that the future of agriculture depends on its digital transformation. The key factors that will determine the success of digital farming in India are affordability of technology, ease of access and operations, easy maintenance of systems, timely grievance redressal and appropriate policy support.
- For digital farming to succeed in India, the innovations must focus on lowering the cost of technology so that it is available and affordable for the smaller farmers, ensuring mobility and renting and sharing platforms for agriculture equipment and machinery.
- Digitalisation of farming related reliable and quality data is of paramount importance to harness the potential of the digital agriculture initiatives.

- The private sector can play a crucial role in expanding e-commerce and other platforms into food supply chain to standardise production, organise the farmers, and build logistics capacity in remote areas.
- More and continuous long term investment is needed in public sector to scale-up digitally connected and decentralised agricultural knowledge-technology-food processing supply chain with linkage to alternative logistics providers would increase resilience.
- There is also a need for robust research and development that also factors in last mile delivery, preferences, capacity and digital skill of stakeholders, challenges, and socio-economic impact so that digital farming can empower Indian farmers in a meaningful way.

## E-Learning: Access and Scope of Digital Education

### Introduction

- Digital technology has boosted the march for global knowledge and use of digital super power. There is a use of digital technology as Information Communication Technology (ICT) in diverse aspects of modern progressive education. COVID-19 pandemic has yielded the effect of fast-tracking digital initiatives particularly in rural India.
- Formal face-to-face traditional education system has been seriously affected with the outbreak of Corona virus and for which distance education and virtual learning are strengthening their strong effects.

### Digital Education in Rural India

- **Online Learning:** Simply, online learning is the learning by accessing available online resources. Thus, it is associated with the provision of electronic contents available on a computer/mobile device.
- **Web-based Learning:** Web-based learning refers to the process and practice of learning by using web browsers.
- **E-learning:** E-learning is the process of using electronic technologies for teaching-learning processes in which the learning activities take place either entirely or partially on line.
- **Blended Learning:** Blended learning generally combines virtual learning with traditional classroom learning. It is an approach 'that uses multiple methods to deliver learning by combining face-to-face interactions with online activities.
- **Distance Learning:** It is the process of learning from a distance in which the participants are physically separated.
- **Virtual Learning:** Creating virtual classrooms for rural and remote communities of the country is the need of the hour.

### Pedagogy of Rural Digital Education

- Generally, pedagogy is the art and science of teaching. It necessitates a unique practice for the learners of rural India under the strategy of digital education and virtual learning. Pedagogy of digital learning requires the tools and resources like, Online Learning, Flipped Learning, e-Learning, Learning Groups, WhatsApp Groups, YouTube Channels, Use of Apps, Blended/ Hybrid Learning, iTunes, Google Drives, Drop Boxes, Mazie Boxes, Word Processors, Digital Pockets, Differentiated Learning, Individualised Learning, Personalised Learning and so on.

### Access and Scope

- As per the provisions of the Right of Children to Free and Compulsory Education Act, 2009 and its subsequent Amendments, it is important to ensure equity in education with equal access to quality teaching and learning along with innovative use of resources.
- In the present scenario of COVID-19 and educational development of rural India, students, teachers, parents and community members are open to access the varied interventions of digital education and virtual learning.

### Initiatives Taken

1. **DIKSHA- Digital Infrastructure for Knowledge Sharing:** Digital Infrastructure for Knowledge Sharing (DIKSHA) was launched in 2017 by Government of India as a national platform for school education to address the challenge of remote learning in rural areas.
2. **ePathshala:** As an integral part of Digital India campaign, ePhathshala has been a joint initiative of Ministry of Human Resource Development (MHRD), Government of India and National Council of Educational Research and

Training (NCERT), New Delhi for the purpose of 'showcasing and disseminating all educational e-resources including textbooks, audio-video resources, periodicals and a variety of other digital resources'.

- 3. Swayam Prabha Channels:** This is the access to digital education through TV channels. Swayam Prabha DTH Channels support and reach those who do not have access to the internet.
- 4. NROER-National Repository Educational Resources of Open:** The NROER is a collaborative platform for sharing of open educational resources. It was initiated by the Department of School Education and Literacy, Ministry of Human Resource Development, Government of India and managed by the Central Institute of Educational Technology, National Council of Educational Research and Training.
- 5. ICT Scheme under Samagra Shiksha:** The scheme of Samagra Shiksha has integrated the efforts of Computer Aided Learning (CAL) of Sarva Shiksha Abhiyan (SSA) with the ICT interventions of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) by enabling the learners towards creative participation and innovative digitalisation in order to improve access, quality and efficiency in school education.
- 6. Shaala Darpan :** Shaala Darpan is an e-Governance platform for all Kendriya Vidyalayas in the country including rural areas.
- 7. Shaala Siddhi :** The National Programme on School Standards and Evaluation (NPSSE) is known as Shaala Siddhi.
- 8. E-Granthalaya:** E-Granthalaya is an Integrated Library Management Software developed by National Informatics Centre (Nie), Department of Electronics and information Technology.
- 9. Digital Saksharta Abhayaan (DISHA):** The Digital Saksharta Abhiyan or National Digital Literacy Mission (NDLM) Scheme has been formulated to impart IT training to people including Anganwadi workers, ASHA workers and authorised ration dealers in all the States/UTs across the country.
- 10. Pradhan Mantri Gramin Digital Saksharta Abhiyaan (PMGDISHA) :** PMGDISHA scheme aims at empowering the citizens of India particularly rural India (Gramin Bharat) by training them to access and accelerate the Digital India initiatives by operating computers or digital devices like smart phones and tablets in order to send/receive emails, sms, browse internet, access government services, digital payments, etc. and thereby actively participate in the nation building process.

## Conclusion

- India is moving towards a global knowledge super power in which educational technology, digital initiatives and virtual classrooms play prominent roles especially for the people of rural and remote India.
- Hence, digital education and virtual learning need to be the essential prerequisites of most of the rural development programmes. It is the right time to encourage similar innovative digital and virtual learning experiences and approaches for leading rural India towards a 'Digital India'.

## Precision Agriculture and IoT-Based Solutions

### Introduction

- Indian agriculture needs evolving new agri models keeping in mind the unique characteristics and typical diversity of it. Government of India's ambitious target to reach US\$5 trillion by 2024 and US\$ 7 Trillion by 2030 are only reachable through disruptive approaches to transform the agriculture rural systems in an integrated manner.

### Background

- The recent World Bank's India Country Overview Report (2019) has revealed that India must ensure the policy focus and effective implementation on. Public sector reforms; holistic development of infrastructure, agricultural and rural systems, financial inclusion measures boosting the private. investments and exports; strengthening education and public health, etc., for achieving sustainable economic development as per the Sustainable Development Goals (SDGs) of United Nations, 2030.

### Agri-Revolutions

- The '1st Agricultural Revolution'** was focused on mechanisation of agriculture (1900-1940s), where a farmer produced-and-fed an average 26 people.
- The '2nd Agricultural Revolution'** was directed towards Green Revolution in Agriculture (1960-1990s), where a farmer could feed about 155 people by adoption of improved seeds, evolved-farming systems, agro-management technologies, integrated pest-disease-nutrient management practices, etc.

3. **The '3rd Agricultural Revolution'** (1990s onwards) has to dive deep and with a focus on adoption of hi-end technology, cloud-based solutions, data-driven decision making in agricultural/farm management systems, usage of analytical tools for post-harvest and marketing of agricultural produce, etc., then only a farmer can feed about 256 people (as of 2020).

The third wave of agricultural revolution is essential for India, especially given the hard realities that the Indian population is projected to be 1.50 billion (2030) from the current 1.37 billion, where the food production has to be doubled.

### Precision Agriculture and its Significance

- The 'Precision Agriculture' (PA) which is also referred alternatively as 'precision farming', or 'site-specific crop management', or 'prescription farming' is one of the emerging systems in agriculture across the globe, since 1990s.
- It describes the "process of technology-enabled and integrated approach to agricultural crop management system that comprises the observation, measurement, and analysis of the needs of individual fields of farmers and crops in the regions, so that the productivity and farmers' income are significantly enhanced". It uses various technology driven solutions like :
  - Generating the on-site/on-farm data on continuous basis, about various agricultural practices.
  - Using remote sensing, geographic information systems (GIS), global positioning systems (GPS), and robotics & analytics for data-driven decision making in farm management.
  - Adopting latest technologies like big-data and advanced-analytics capabilities, robotics, aerial imagery, sophisticated local weather forecasts, etc.
  - Enhancing the Good Management Practices (GMPs) in agriculture.
  - Reducing the cost of inputs used in farming and also to protect the crops from biotic stresses (like pests, diseases) and abiotic stresses (drought, heat/cold tolerance).

### Benefits of Adopting Precision Agriculture

- The PA offers multiple advantages like:
  - Adopting the improved set of agricultural production practices and choice of crops, based on suitability of localised lands and climate.
  - Optimising the input-resources like water, fertilisers, plant-protection measures against pests-diseases.
  - Helping to minimise/avoid the wastages, by technological interventions.
  - Managing the water and soil nutrients for agriculture effectively.
  - Eliminating the risk and volatility in crop-production-systems.

### The Indian Scenario

- The ever-increasing population has compelled agricultural scientists to evolve systems of increasing agricultural yields by adopting advanced technologies like 'Internet of Things' (IoT)-based solutions across the globe, including India.
- The IoT in agriculture is an emerging domain, where the farmers are enabled to take profitable decisions based on the real-time data and during the entire cropping cycle of agricultural production.
- This IoT-based solution involves enhancing automation and reducing the manual farm-management practices so that farmers leverage the advantages of IoT-technologies.
- This IoT-based solution involves enhancing automation and reducing the manual farm-management practices so that farmers leverage the advantages of IoT-technologies.

### Challenges

- Although the precision agriculture has tremendous potential and range of benefits, it has a set of practical challenges as well.
  - The information technology infrastructure systems and service facilities oriented to agricultural sector (which are locally accessible, cost-effective and user-friendly) are inadequate.
  - Most of these small/ marginal farmers are not fully-aware of the benefits of PA and they may comparatively take more time to adopt the PA-technologies, given the reality of lower literacy rates among them.
  - Socio-economic factors in villages, where Indian farmers are generally acquainted with their traditional systems of agricultural-practices, who are generally reluctant to try something new like PA/tech-driven-agriculture.

- The banking and financial institutional systems have preferential bias in financing/ funding the industrial/service sector, when compared to lending to the agricultural sector, owing to its uncertainty.

## Way Forward

- India is yet to harness its benefits in its fullest potential of precision agriculture. The strategic policy formulation and effective implementation should be robust, at both central and state government levels in order to get the full benefit of Precision Agriculture.
- The adoption of technology-oriented Agricultural Management Systems (AMS) and data-driven decision making in crop production have to gain the momentum, which primarily requires more of a mind-set shift.
- The Public-Private Partnership (PPP) Model is one of the best way forward to foster ownership and inclusive growth among all the stakeholders, so that PA/IoT-technologies will become comprehensive, complete and holistic in their approaches.
- The precision agriculture is not only the need of the hour but also has the tremendous potential in increasing agricultural farm-incomes.
- The policy support, adequate-timely financing and active involvement of major stakeholders in PA/IoT-based solutions will certainly enhance the desired benefits that can percolate down to the every-farmer/last-citizen in the rural India.

## Public Private Partnerships for Digitalisation in Rural India

### Introduction

- Globally 70% of the people have access to mobile phones, 40% has internet access and there are major initiatives underway to connect those left behind especially in rural areas.
- It is expected that in the next ten years, there will be dramatic changes in the agri food system spearheaded by advanced digital technologies like Blockchain, IoT, AI, Immersive Reality, etc.
- Other factors include changing consumer preferences and demands, the influence of e-commerce on global agrifood trade, climate changes etc.
- Major transformations of agricultural systems, rural economies, communities and natural resource management will be required for digitalisation of rural areas to achieve its full potential.
- Market forecasts suggest that digitalisation technologies will transform agriculture and the food sector over the next decade.
- These technologies will have their own place and impact within the agrifood value chain. The rural segment could broadly benefit from the raising farmers' incomes and boosting their income security, one of the highest priorities for the government.

### Government Initiatives

1. **Kisan Suvidha** : Kisan suvidha is an omnibus mobile app developed to help farmers get relevant information instantly.
  - The app provides information on various details such as weather, market prices, seeds, fertilisers, pesticides, agriculture machinery, dealers, agro advisories, plant protection and IPM practices etc.
2. **Farmer Portal** : The portal is envisaged to make available relevant information and services to the farming community and private sector through the use of information and communication technologies, to supplement the existing delivery channels provided for by the department.
3. **mKisan** : mKisan SMS portal has been conceptualised to give a quantum leap in coverage of farmers and geographical area in a timely, specific, holistic and need based knowledge dissemination among the farmers by leveraging the power of mobile telephony in such a way that all sectors use this platform to not only reach out to the farmers but also to address their concerns and queries.
4. **NREGA** : NREGA soft envisions implementing e-Governance across State, District and three tiers of Panchayati Raj Institution. It empowers the common man using the information technology as a facilitator. NREGA soft provides information to citizen in compliance with the right to information Act (RTI Act).
5. **Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)** : PMGDISHA is a scheme to make six crore persons in rural areas, across states/UTs, digitally literate, reaching to around 40% of rural households by covering one member from every eligible household by 31st March, 2019.

- It aims to bridge the digital divide, specifically targeting the rural population including the marginalised sections of society like SC/ST, Minorities, BPL, Women and differently-abled persons and minorities.
- 6. **Pradhan Mantri Jan-Dhan Yojana** : PMJDY is a National Mission on Financial Inclusion encompassing an integrated approach to bring about comprehensive financial inclusion of all the households in the country.
  - The initiative envisages channeling all Government benefits to the beneficiaries' account and pushing the Direct Benefit Transfer scheme of the union Government.
- 7. **BHIM (Bharat Interface for Money)** : Bharat Interface for Money (BHIM) is an app that makes payment transactions simple, easy and quick using Unified Payments Interface (UPI).
  - It enables direct bank to bank payments instantly and collect money using a Mobile number or Payment address.
- 8. **Crop Insurance Mobile App** : Crop insurance mobile app can be used to calculate the insurance premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer.
- 9. **e-Panchayat** : e-Panchayat is an e-Governance initiative for the rural sector providing comprehensive software solution attempting automation of Gram Panchayat functions.
- 10. **E-NAM** : National Agriculture Market (NAM) is a pan-India electronic trading portal which networks the existing APMC (Agriculture Produce Marketing Committee) mandis to create a unified national market for agricultural commodities.
- 11. **Pusa Krishi** : With the vision to take technology to the fields, Pusa Krishi application was developed. This app helps the farmers to find easy solutions to problems in their farm fields and get information about weather and accordingly take measures to save crops.
- 12. **Soil Health Card** : It aims at promoting Integrated Nutrient Management (INM) through judicious use of chemical fertilisers including secondary and micro nutrients in conjunction with organic manures and bio-fertilisers for improving soil health and its productivity.
- 13. **Deendayal Upadhyaya Gram Jyoti Yojana** : One of the flagship programmes of the Power Ministry (MoP), Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is designed to provide continuous power supply to the entire rural India.
- 14. **GARV Grameen Vidyutikaran Mobile App** : The mobile application provides real-time updated data of ongoing electrification process to all users/stakeholders and provides information about Government schemes and electrification data.

### Public Private Partnerships

- Climate change is making agriculture more risky and natural resources like land water becoming are becoming degraded.
- Now the game changer for making this critical difference could be in the form of private sector initiatives along with the government through the time tested public private partnership (PPP) model where the government can provide and co-financing the back-end of the value chain, while the private sector and farmer carrying out the rest.
- The government and regulatory bodies have rolled out several policy and financial initiatives aimed at inclusive rural growth with notable ones including the Aadhaar, a unique biometric identifier, Jan Oshan, the zero balance savings bank accounts that help direct transfer of social benefit payments, BHIM.

### Some basic steps that need to be taken in this direction include:

- To facilitate digitalisation of rural incomes.
- Make it possible to convert digital income into cash.
- To focus on issues related to safeguarding digital payments and digital identities.
- Targeted financial literacy and capability training.

### Intervention of PPP

- Partnerships could help navigate the agriculture sector which is overwhelmingly depended on the whims of nature as the sector is constantly threatened by factors like flooding and droughts.
- Through the PPP, India's rural and agriculture sector would have the potential to transform itself-raise production levels besides outputs.
- The public private partnership could help the food processing industry in particular. This industry being one of the sunrise sectors in the rural segment can now look forward to providing farm extension services, increase price realisation, reduce middlemen and improve supply chain through forward and backward linkages.

- Agri-start ups may become the missing link between the farmers, input dealers wholesalers retailers.

### Conclusion

- The success of a new and efficient India hinges on the inclusion of rural areas into a digital framework and make the benefits of technology accessible to all sections of society. Public-private initiatives would go a long way in providing even finger print readers for farmers with worn and calloused hands, screens that can be read in the sunlight, and thermal printers to get instant receipts after transactions. Other areas that would be of critical help would be in healthcare, education, virtual kirana stores and even digital voting.
- E-commerce portals with a focused approach to cater to the needs of rural population are gaining popularity. A digital society integrates all social spheres and lends a competitive edge to the overall economy.
- It is an opportune time for both the industry and the government to work in synergy to bolster India's socio-economic development through digital empowerment.

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