News Analysis (06 Jun, 2019)

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World Environment Day

World Environment Day is observed on the **5ᵗʰ of June every year** for encouraging worldwide awareness and action to protect our environment.

- Since it **began in 1974**, the event has grown to become a global platform for public outreach that is widely celebrated in over 100 countries.
- **World Environment Day 2019** is being **hosted by China** with a **theme of "Air Pollution"**. **India** hosted **World Environment Day 2018** emphasizing on **prevention of 'Plastic Pollution'.**
- The Government launched **#SelfiewithSapling** campaign as part of the World Environment Day celebrations, urging people to plant a sapling and post a selfie with it on social media.

Air Pollution

- The **Air (Prevention and Control of Pollution) Act, 1981** defines **"air pollutant"** as any solid, liquid or gaseous substance present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.
- Air pollution is responsible for about **one-third of deaths from stroke**, **chronic respiratory disease**, and **lung cancer,** as well as **one-quarter of deaths from heart attack.** Air pollution is also fundamentally altering our climate, with profound impacts on the health of the planet.
- About 92 percent of people worldwide do not breathe clean air. Air pollution costs the global economy $5 trillion every year in welfare costs.
- Ground-level ozone pollution is expected to reduce staple crop yields by 26 percent by 2030.
- Recently India has formulated and **launched the National Clean Air Programme (NCAP)** whose objective is prevention, control and abatement of air pollution besides

augmenting the air quality monitoring network.

Air (Prevention and Control of Pollution) Act, 1981

- The **Air (Prevention & Control of Pollution) Act** was enacted by the Parliament in 1981 with an objective to prevent, control & abatement of air pollution.
- The act provides for the establishment of Central Pollution Control Board (CPCB) at the apex level and State Pollution Control Boards at the state level to advise the government on any matter concerning the improvement of the quality of the air and prevention, control and abatement of air pollution.
- The CPCB also lays down standards for the quality of air and provides technical assistance to and guidance to the State Pollution Control Board.

Global Economic Prospects: World Bank

World Bank has released the report "Global Economic Prospects: Heightened Tensions, Subdued Investment".

> Global Economic Prospects is a biannual report, last one was published in January 2019.

Global Forecast

- World Bank has downgraded global growth prospects by 0.3% to 2.6% for the 2019-20.
- The cause for down grade is weaker-than- expected international trade and investment at the start of 2019.
- However, WB has estimated that economies will begin improving here after and growth might touch 2.8% in 2021.\
- Risks to global growth include rising trade barriers, a build-up of government debt and slowdowns in several major economies.
- Advanced economies as a group are expected to slow down in 2019, particularly the Euro Area, due to weaker investments and exports.
- U.S. growth is expected to slow to 2.5% this year, down from an estimated 2.9% in 2018, and then down to 1.7% and 1.6% in 2020 and 2021 respectively.
- U.S. policy uncertainty is expected to erode growth and investment as protectionist measures impact a wide range of downstream industries and trading partners due to the existence of global value chains.
- A no-deal Brexit could have a severe impact on the U.K. and to a lower extent on its European trading partners in the event of disruptions and delays at the border.

Findings for India

- The World Bank has retained its forecast for growth in India at 7.5% in the 2019-20 fiscal and the succeeding years.
- Report has warned that re-escalation of India-Pakistan tensions such as the one in February could increase uncertainty and impact investments in the region.
- Private consumption and investment will benefit from strengthening credit growth amid more accommodative monetary policy, with inflation having fallen below the Reserve Bank of India's target.
- It further stated that the Goods and Services Tax (GST) regime is still in the process of being fully established, creating some uncertainty about projections of government revenues

Swachh Bharat Mission Reduced Groundwater Contamination: UNICEF

United Nations International Children's Emergency Fund(UNICEF),report revealed that groundwater is 12.7 times less likely to be contaminated in Open Defecation Free(ODF) villages than non ODF village.

> Under the "Environmental impact of the Swachh Bharat Mission(Grameen) on Water, Soil, and Food" by UNICEF, groundwater samples were collected and studied from ODF and non-ODF villages of Odisha, Bihar and West Bengal.

Findings

- Soil contamination was found to be 1.13 times more likely in non-ODF villages as compared to ODF villages.
- Non ODF villages are 1.48 times more likely to have their food contaminated.
- Non ODF villages are 2.68 times more likely to have household drinking water contaminated compared to ODF villages.
- Study indicated that these substantial reductions can be attributed to the
  - Improvement in sanitation and hygiene practices.
  - Regular monitoring
  - Behaviour change messaging

Significance of Swachh Bharat Mission

- As per World Health Organization study on Swachh bharat mission in 2018 has found that 3 lakh lives would be annually saved once 100% ODF is achieved.
- According to the United Nations Department of Economic and Social Affairs (UNDESA), open defecation (OD) perpetuates a vicious cycle of disease and poverty, making sanitation and hygiene among the most important drivers of health, social and

economic environments.
- People from different sections of the society,from government officials to jawans, bollywood actors to the sportspersons, industrialists to spiritual leaders, have come forward and joined this mass movement of cleanliness.
- With 38.70% rural sanitation coverage in 2014 before the Swachh Bharat Mission (SBM) began, India had one of the highest number of people in the world defecating in the open (53 crore).

Challenge

- To make ODF sustainable, monitoring ,spot-checking is required for at least one year after ODF status is achieved.
- Motivating volunteers to check the condition of sanitation, and offering them good incentives is necessary.
- For behavioural change of the society, a trained workforce is needed that can trigger communities.
- To address the issue of over or under reporting of government set targets, verification of facts on the ground is extremely important, said Mr Surendra Singh.
- Another problem is the presence of open ponds (water pools) in rural and semi-urban areas along road corridors. The ponds are used by people, livestock for various purposes. The poor quality of water in the ponds gives rise to diseases.
- Despite a ban on manual scavenging, it continues at various places in the country,Unofficial figures reveal presence of 13 lakh manual scavengers; official figures are about two lakh.
- Technology can play a key role in addressing this issue.
- The working conditions of sewer workers are dangerous and hazardous. Every year about 22,000 workers die while cleaning sewers.
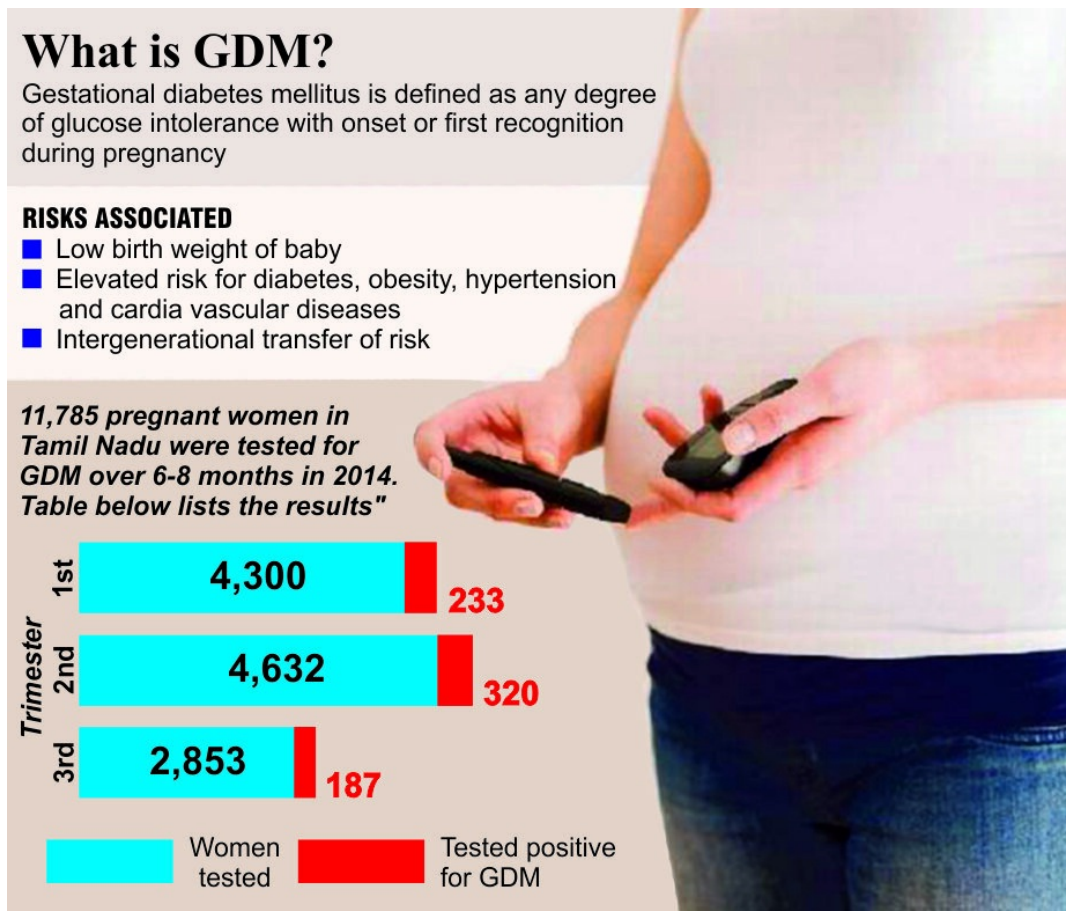
Gestational Diabetes Mellitus

A recent paper published in the Journal of the Association of Physicians of India has argued the importance of screening of every pregnant woman for high blood glucose even if no symptoms are exhibited.

- **Gestational diabetes mellitus (GDM**) is defined as any degree of glucose intolerance with onset or first recognition **during pregnancy.**
- GDM not only **influences immediate maternal (preeclampsia, stillbirths, macrosomia, and need for cesarean section)** and **neonatal outcomes (hypoglycemia, respiratory distress),** but also increases the risk of future **Type 2 diabetes** in mother as well as the baby.
- Prevention at the earliest stage of development of the foetus is essential to prevent

children from becoming predisposed to diabetes or other non-communicable diseases (NCD) in future.

- Higher glucose transfer to the foetus, when the mother has high blood sugar, stimulates the foetal pancreatic cells to start secreting insulin earlier and in higher quantities. Once initiated, it becomes self perpetuating.
- In addition, when the maternal glucose reading is high (over 110 mg/dl), the amniotic fluid becomes glucose enriched, and after 20 weeks, when the foetus begins to swallow the amniotic fluid, which further stimulates production of insulin.

Gestational Diabetes in India

What is GDM?
Gestational diabetes mellitus is defined as any degree of glucose intolerance with onset or first recognition during pregnancy

RISKS ASSOCIATED
- Low birth weight of baby
- Elevated risk for diabetes, obesity, hypertension and cardia vascular diseases
- Intergenerational transfer of risk

11,785 pregnant women in Tamil Nadu were tested for GDM over 6-8 months in 2014. Table below lists the results"

Trimester	Women tested	Tested positive for GDM
1st	4,300	233
2nd	4,632	320
3rd	2,853	187

- India has an estimated 62 million people with Type 2 diabetes mellitus (DM); this number is expected to go up to 79.4 million by 2025.
- In parallel with the increase in diabetes prevalence, there seems to be an increasing prevalence of gestational DM (GDM), that is, diabetes diagnosed during pregnancy.
- India has a **very high prevalence of GDM by global standards**. Conversion rates to Type 2 diabetes are also very high.
- Healthcare resources are insufficient. There is inadequate awareness among public. This results in a large population being hesitant to access healthcare system for diseases with not so "obvious" implications like GDM.

- Interventions during and immediately after pregnancy provide important opportunities to improve the lives of mothers and children today and reducing diabetes in future generations.
- Screening and appropriate management of diabetes during pregnancy provides a unique opportunity to prevent Type 2 diabetes in two generations.
- Lack of awareness in society is one of the reasons that GDM is given low priority in public health delivery system in India.
- Therefore, the Ministry of Health has developed national guidelines for testing, diagnosis and management of hyperglycaemia in pregnancy, and they recommend early testing at the time of contact (during the first trimester) and if the test is negative, yet another test should be done between 24-28 weeks.

5G Technology

Global telecom industry body GSMA expects India to have 920 million unique mobile subscribers by 2025 which will include 88 million 5G connections. This will leave India trailing regional peers such as China, which is set to see almost 30% of its total connection base on 5G by 2025.

- The term 5G is used to describe the next-generation of mobile networks beyond **Long Term Evolution(LTE)** mobile networks.
- **Applications:** It is a mix of telecom technology delivering much higher data speeds on **more extensive connectivity, using much lower power, with extended battery life, and emitting less radiation.**
  - It is also designed to be the network for the **Internet of Things (IoT).**
  - Not only will people be connected to each other but so will utility machines, industrial equipment, automobiles, city infrastructure, public safety and more.
- **The technology used:** In order to support a huge number of devices, many of which require longer battery life, the 5G network will be building off of the **LTE Advanced Pro platform**.
- It will use the two narrowband technologies platforms:
  Enhanced **machine-type communication (e-MTC)** and **narrowband IoT (NB-IoT)**, to scale down the device and network complexity to reach these support goals.

Advantage

- 5G network speeds should have a **peak data rate** of 20 Gb/s for the downlink and 10 Gb/s for the uplink.
- **Latency** in a 5G network could get as low as 4 milliseconds in a mobile scenario and can be as low as 1 millisecond in ultra-reliable low latency communication scenarios.

LTE

> It is an abbreviation for Long Term Evolution. LTE is a 4G wireless communications standard developed by the 3rd Generation Partnership Project (3GPP) that are designed to provide up to 10x the speeds of 3G networks for mobile devices such as smartphones, tablets, netbooks, notebooks and wireless hotspots.

VoLTE

> It stands for voice over Long Term Evolution. Utilising IMS technology, it is a digital packet voice service that is delivered over IP via an LTE access network. Voice calls over LTE are recognised as the industry-agreed progression of voice services across mobile networks, deploying LTE radio access technology.

Latency

> It is a networking term to describe the total time it takes a data packet to travel from one node to another. In other contexts, when a data packet is transmitted and returned back to its source, the total time for the round trip is known as latency. Latency refers to time interval or delays when a system component is waiting for another system component to do something. This duration of time is called latency.

Internet of Things (IoT)

> It is an ecosystem of connected physical objects that are accessible through the internet. The 'thing' in IoT could be a person with a heart monitor or an automobile with built-in-sensors, i.e. objects that have been assigned an IP address and have the ability to collect and transfer data over a network without manual assistance or intervention. The embedded technology in the objects helps them to interact with internal states or the external environment, which in turn affects the decisions taken.

India Backs Dhanauri for Ramsar Site Tag

The Ministry of Environment Forest and Climate change has asked Uttar Pradesh forest department,to propose Dhanauri in Greater Noida as a wetland of international importance under Ramsar convention.

> If accepted by the Ramsar Convention, Dhanauri will get legal protection from land use change.

Dhanauri as Ramsar site

- Dhanauri supports a large population of the vulnerable Sarus cranes.
- The wetland meets two criteria (out of nine)to be declared a Ramsar site:

- It has more than 1% of the biogeographic population of one species: the Sarus crane.
- The area supports congregation of more than 20,000 waterfowl and other species.

Criteria for Ramsar Site Tag

- If the site contains a representative, rare, or unique example of a natural or near-natural wetland type Supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
- Supports populations of plant and animal species important for maintaining the biological diversity of a particular biogeographic region.
- Supports plant and animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
- Regularly supports 20,000 or more waterbirds.
- Regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
- Supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and populations
- An important source of food for fishes, spawning ground, nursery and migration path on which fish stocks, either within the wetland or elsewhere, depend.
- Regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

Tamil Nadu Health System Reform Program

The **central government, Tamil Nadu and the World Bank** have signed a $287 million loan agreement for the "**Tamil Nadu Health System Reform Program**"

> The Tamil Nadu Health System Reform Program will support the state government:
> - To achieve **national accreditation** for primary, secondary, and tertiary-level health facilities in the public sector. Strengthen physicians, nurses and paramedics through continuous medical education.
> - To strengthen the **feedback loop between citizens** and the state by making quality and other data accessible to the public.
> - To improve the **quality of healthcare**, reduce the burden of non-communicable diseases (NCDs), and fill equity gaps in reproductive and child health services.
> - To promote **population-based screening**, treatment and follow-up for NCDs, and improve monitoring and evaluation.
> - To strengthen the **lab services** and health provider capacity to address mental health.
> - To tackle road injuries, the programme will improve in- hospital care, strengthen protocols, **strengthen the 24x7 trauma care services** and establish a trauma

registry.

NITI Aayog Health Index

- The Tamil Nadu **ranks third** among all Indian states in the NITI Aayog Health Index.
- The state's maternal mortality rate has declined from 90 deaths per 100,000 live births in 2005 to 62 deaths in 2015-16.
    - Infant mortality has declined from 30 deaths per 1000 live births to 20 in the same period.

India's "First" Emissions Trading System for Particulate Pollution (PM)

Gujarat Pollution Control Board (GPCB) has initiated the programme for market based trading system to reduce air pollution in Surat, Gujarat .

- It's a market based system where the government sets a emission limit and allows industries to buy and sell permits to stay below the emission cap.
- The emission trading scheme (ETS), was designed by Gujarat Pollution Control Board (GPCB) along with the team of researchers from the Energy Policy Institute at the University of Chicago (EPIC), the Economic Growth Center at Yale University and others from the Abdul Latif Jameel Poverty Action Lab (J-PAL).
- Globally, cap and trade systems have been used to reduce other forms of pollution, such as programmes that have successfully reduced sulphur dioxide (SO_2) and nitrogen oxides (NO_x) in the United States. But the Gujarat programme is the first in the world to regulate particulate air pollution.

Emission Cap and Trade System

- Under this, the regulator first defines the total mass of pollution that can be put into the air over a defined period by all factories put together.
- Then, a set of permits is created, each of which allows a certain amount of pollution, and the total is equal to the cap.
- These permits are the quantity that is bought and sold.
- Each factory is allocated a share of these permits (this could be equal or based on size or some other rule).
- After this, plants can trade permits with each other, just like any other commodity on the National Commodity and Derivatives Exchange Limited (NCDEX).
- Whatever the final allocation, the total number of permits does not change so the total pollution is still equal to the predefined cap.

Nipah Outbreak in Kerala

Recently, Kerala has confirmed the outbreak of Nipah virus in the state.

- This is the second consecutive year when a Nipah virus outbreak has occurred in Kerala.
- Nipah virus (NiV) is a zoonotic virus (it is transmitted from animals to humans).
- The infection is generally transmitted from animals to human beings, mainly from bats and pigs.
- Human-to-human transmission is also possible, and so is transmission from contaminated food.
- The natural host of the virus are fruit bats of the Pteropodidae family and Pteropus genus, widely found in South and South East Asia.
- The World Health Organization (WHO) says the infection has been found to be fatal in 40% to 75% of the infected patients.
- There is no treatment, nor any vaccine is available as of now, either for humans or animals.
- Nipah virus was first recognized in 1999 during an outbreak among pig farmers in, Malaysia.
- In India, the first outbreak was in 2001 in Siliguri. Another outbreak happened in 2007 in Nadia of West Bengal.

Fiscal Performance Index

Confederation of Indian Industry(CII) has come out with a **Fiscal Performance Index** to assess the quality of budgets presented by the **Centre and state governments.**

- The composite **Fiscal Performance Index (FPI)** developed by CII is an innovative tool using multiple indicators to examine the quality of Budgets at the Central and State levels.
- The index has been constructed using the **United Nations Development Programme (UNDP)** Human Development Index methodology, it comprises **six components** for holistic assessment of the quality of government budgets.
    - **Quality of revenue expenditure:** measured by the share of revenue expenditure other than interest payments, subsidies, pensions and defence in GDP.
    - **Quality of capital expenditure:** measured by the share of capital expenditure (other than defence) in GDP.
    - **Quality of revenue:** the ratio of net tax revenue to GDP (own tax revenue in case of States).
    - **Degree of fiscal prudence I:** fiscal deficit to GDP.

- **Degree of fiscal prudence II:** revenue deficit to GDP.
- **Debt index:** Change in debt and guarantees to GDP.

Findings of Index

- The high-income States have performed poorly mainly on the expenditure quality and own tax receipts index as compared to their low-income counterparts. Though their performance on the deficit prudence index has been above average.
- The low-income States such as Bihar and Uttar Pradesh which have **high fiscal deficit ratio** have fared well on the FPI front.
    - This clearly demonstrates the inadequacy of fiscal deficit to GDP ratio in analysing the fiscal performance of States.
- Expenditure on infrastructure, education, healthcare and other social sectors can be considered beneficial for economic growth.
Tax revenues are sustainable sources of revenue for the government as compared to one-time income sources.

Recommendations of CII

Fiscal Responsibility and Budget Management (FRBM) Act which sets targets for the governments to reduce fiscal deficits should not solely focus on one component.
    Instead, a holistic performance of all entities viewed from all angles of expenditure quality, revenue receipts quality, and fiscal prudence should be taken into consideration.

Confederation of Indian Industry (CII)

- CII is a non-government, **not-for-profit, industry-led and industry-managed organization**, playing a proactive role in India's development process.
- **Founded in 1895**, India's premier business association has around 9000 members, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 300,000 enterprises from around 276 national and regional sectoral industry bodies.
- It works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes.

China Launches Sea Based Rocket

China has launched a space rocket from the sea.

- The rocket named as 'Long March 11' was launched from a ship in the Yellow Sea.

- It is the latest step in China's push to become a major space power. Only a few countries have such a capability.
- The rocket carried two experimental satellites and five commercial ones
- Earlier this year, China became the first nation to land a rover on the far side of the moon.
- Most recently, Sea Launch (a firm jointly owned by Russia, US, Norway, and Ukraine) has used a floating platform to launch of rockets between 1999 and 2014.
- Launching from the sea has a number of advantages, such as the ability to send off rockets from a variety of locations on Earth, as well as reduced costs and risks.

Ganga Quest

- On the occasion of World Environment Day(5th June), the **National Mission for Clean Ganga (NMCG)** has organised a day-long convention to discuss ways to protect River Ganga and its tributaries.
- NMCG had also organised facilitation of the winner Ganga Quest, a pan India bilingual quiz to increase public participation in Namami Gange program and encourage the youth.
    - It is the **first ever** national level online quiz on River Ganga.
    - The quiz was **launched** on **22nd April 2019 (World Earth Day)** and **ended** on **22nd May 2019 (World Biodiversity Day).**
    - Organised by NMCG in partnership with **Wildlife Institute of India, Tree Craze foundation, GIZ and VA Tech WABAG.**

Tiananmen Square Massacre Anniversary

June 4 marks the 30th anniversary of the massacre of protestors in Beijing's Tiananmen Square by People's Liberation Army of China.

- Tiananmen Square protests began in April 1989 after the death of a pro-reform leader Hu Yaobang.
- Civilian protesters had gathered for weeks in Tiananmen Square, in the center of Beijing, to call for political reform, in 1989.
- The Tiananmen Square protests are commonly known June Fourth Incident in China.
- The popular national movement inspired by the Beijing protests is sometimes called the '89 Democracy Movement.

Economic Census -2019

The **Seventh Economic Census (7th EC)** is being conducted by Ministry of Statistics and Programme Implementation (MoSPI) in 2019.

- The MoSPI has partnered with CSC e-Governance Services India Limited, a Special Purpose Vehicle under the Ministry of Electronics and Information Technology as the implementing agency for 7th EC.
- Economic Census is the complete count of all economic establishment located within the geographical boundary of the country. It provides disaggregated information on various operational and structural variables of all establishments of the country.
- The Census also provides valuable insight into geographical spread and clusters of economic activities, ownership pattern, persons engaged in all economic establishments of the country.
- The **first Economic Census was undertaken in 1977**. The Second EC was carried out in 1980 followed by the Third EC in 1990. The Sixth edition of Economic Census was conducted in 2013.

Worldwide Developers Conference

Worldwide Developers Conference (WWDC), is a conference held annually by **Apple Inc. in San Jose, California.**

> Apple uses the event to showcase its **new software and technologies for software developers.**

Jan Shikshan Sansthans

The government has waived the fee for SC/ST candidates, who join vocational training under Jan Shikshan Sansthan.

> Formerly under the Ministry of Human Resources Development, Jan Shikshan Sansthans were transferred to the **Ministry of Skill Development & Entrepreneurship in 2018.**

Jan Shikshan Sansthan

- Jan Shikshan Sansthan (formerly known as Shramik Vidyapeeth) are established for providing vocational skills to **non-literate**, **neo-literates** as well as **school dropouts** by identifying skills that have a market in the region of their establishment.
- The **scope of work** of Jan Shikshan Sansthans (JSSs) includes the following:
    - Develop/Source appropriate **curriculum and training modules** covering vocational elements, general awareness and life enrichment components.

- JSS's are encouraged to undertake **training equivalent** to courses designed by the Directorate of Adult Education, National Institute of Open Schooling and Director General, Employment & Training.
- Provide training to a pool of resource persons and **master trainers** for conducting training.
- Administer simple **tests and award certificates**.
- **Network with employers** and industries for trainees to get suitable placement