News Analysis (17 Apr, 2020)

National Conference on Kharif Crops 2020

Why in News

Recently, the Union Minister of Agriculture and Farmers' Welfare addressed the **National Conference on Kharif Crops 2020** through a video conference.

Key Highlights of the Conference

- **Aims:**
  - To **discuss various issues and list out steps** in consultation with the States about preparedness for **Kharif** cultivation in view of the **lockdown** situation.
  - To take up **doubling of farmers' income in mission mode.**
  - To urge states to explain the **Pradhan Mantri Fasal Bima Yojana** and **Soil Health Card Scheme** to each farmer.
  - To **implement the Home Ministry exemptions and relaxations** for the Agricultural sector while ensuring **social distancing** and **social responsibility norms.**
  - To **start using the e-NAM (National Agriculture Market) extensively.**
- **Target of foodgrains production for the Financial Year 2020-21 has been fixed at 298.0 million tonnes.**
  - During the FY 2019-20, against the foodgrain production target of 291.10 million tonnes, higher production of about 292 million tonnes is anticipated due to **enhancement of area coverage** and **productivity of various crops.**
  - This was possible due to the **various technological advancements** including **varietal improvement** as well as **dedicated and coordinated efforts** of Central and State Governments in spite of the present situation of **climate change** along with **change in rainfall patterns.**

- The **cultivable/agriculture land has reduced by about 2.74 million hectare** during the last two decades.
  - However, during the same period the **Gross Cropped Area (GCA) has increased from 182.28 million hectare to 196.50 million hectare,** with net area sown remaining largely unchanged at 140 million hectare.
    - **Gross Cropped Area:** It represents the total area sown once as well as more than once in a particular year. When the crop is sown on a piece of land for twice, the area is counted twice in GCA.
    - **Net Area Sown:** It represents the total area sown with crops. The area sown more than once in the same year is counted only once.
  - The **production of foodgrains has increased from 169.92 million tonnes to 284.96 million tonnes** in the corresponding period due to various technological and policy interventions.
- It was highlighted that the **agriculture and <u>horticulture</u> sector in the country have become a key driving element for economic development** in many States.
  - **India is the second largest producer of vegetables, after China.**
  - Although India has become food surplus, it still needs to accelerate the production and productivity of agriculture and horticulture sectors for ensuring food and nutritional security in the rural areas.
- The **major new initiatives** for increasing production of crops and income of the farmers were **appreciated.**
  - **"Per Drop More Crop"** under flagship **Pradhan Mantri Krishi Sinchayee Yojana** (PMKSY).
  - **Paramparagat Krishi Vikas Yojana** (PKVY).
  - **Pradhan Mantri Fasal Bima Yojana** (PMFBY).
  - e-NAM initiative.
  - **Pradhan Mantri Kisan Samman Nidhi** (PM-KISAN) Yojana.
  - **Pradhan Mantri Kisan Pension Yojana** (PM-KPY).
  - **Pradhan Mantri Annadata Aay Sanrakshan Abhiyan** (PM-AASHA).
- It was informed that **All India Agri Transport Call Centre** has been started to ensure that agriculture is not affected.
  The call centre will **facilitate inter-state movement of perishables** in the current situation of lockdown due to the Covid-19 threat.
- For **Rabi crops,** all States will **ensure procurement at Village/Block levels** as farmers are not allowed to move out.
  In addition, **steps are taken for Direct Marketing/purchasing of crop produce** from farmers.
- **Relaxation has been given for movement of trucks/ vehicles loaded with seeds and fertilizers** to ensure timely availability of such inputs at Village/Block levels across the country.

- The format of **State Action Plan** (SAP) for **advance planning and implementation** of the **National Food & Nutritional Security Mission** (NF&NSM) has been simplified.
  - NF&NSM is mainly a **mandate for production of foodgrains** and is **implemented on projectised mode through State Agriculture Departments** across the country.
  - **Project Monitoring Teams** at Central and State levels are guiding in formulation of SAPs and also monitoring through field visit and farmers' interaction.
  - **Geo-tagging of various interventions** are also undertaken to **ensure transparency** in the programme implementation.

S. No	Cropping Season	Time Period	Crops	States
1.	Rabi	Sown: October-December Harvested: April-June	Wheat, barley, peas, gram, mustard etc.	Punjab, Haryana, Himachal Pradesh, Jammu and Kashmir, Uttarakhand and Uttar Pradesh
2.	Kharif	Sown: June-July Harvested: September-October	Rice, maize, jowar, bajra, tur, moong, urad, cotton, jute, groundnut, soybean etc.	Assam, West Bengal, coastal regions of Odisha, Andhra Pradesh, Telangana, Tamil Nadu, Kerala and Maharashtra
3.	Zaid	Sown and harvested: March-July (between Rabi and Kharif)	Seasonal fruits, vegetables, fodder crops etc.	Most of the northern and northwestern states

Source: PIB

Sovereign Gold Bonds

Why in News

The Government of India (GoI), in consultation with the **Reserve Bank of India (RBI)**, has decided to issue **Sovereign Gold Bonds (SGBs)** in six installments, from April 2020 to September 2020.

> This series of government-run gold bonds - the Sovereign Gold Bond 2020-21 scheme - comes at a time when the **rapid spread of the deadly coronavirus (Covid-19)** has **disturbed the financial markets** around the globe, **but increased the appeal of the yellow metal (gold) as a safe-haven.**

Key Points

- **Sovereign gold bonds**
  - Sovereign gold bonds are **issued by the RBI on behalf of the government.** They are **government securities denominated in grams of gold.** They are **substitutes for holding physical gold.**
  - The sovereign gold bond scheme was launched in November 2015. Its objective is to reduce the demand for physical gold and shift a part of the domestic savings (used for the purchase of gold) into financial savings.
  - **Buy and Sale:** Investors have to pay the issue price in cash and the bonds will be redeemed (bought back by the issuer) in cash on maturity.
    - Issue price is the price at which bonds are offered for sale when they first become available to the public.
  - Apart from having a chance to gain from the **rise in gold prices at the time of redemption (capital gain),** the investor gets a **fixed rate of interest** on the investment amount throughout the tenure of the fund.
    - The government will pay an interest at the rate of **2.5% per annum.** The interest is payable **semi-annually.**
  - **Tenure**: Sovereign gold bonds have a **tenure of eight years, with exit options are available from the fifth year.**
  - **Eligibility :**The Bonds will be restricted for sale to resident individuals, Hindu Undivided Families (HUFs), Trusts, Universities and Charitable Institutions.
    - The **minimum permissible investment unit is 1 gram of gold.**

- **Channels to buy bonds:**
    - Investors can buy these bonds through **designated scheduled commercial banks (except Small Finance Banks and Payment Banks), Stock Holding Corporation of India Limited, and designated post offices.**
    - One can also buy these bonds through **National Stock Exchange of India Limited and Bombay Stock Exchange(BSE) Limited.**
- **Advantages of investing in gold bond:**
    - For investors it is advisable to invest in gold for portfolio diversification.
    - Sovereign gold bonds are considered one of the better ways of investing in gold as **along with capital appreciation an investor gets a fixed rate of interest.**
    - Apart from this, it is **tax efficient as no capital gains is charged in case of redemption on maturity.**
    - Sovereign gold bonds are a good way to ensure an investment that does **not need physical storage of gold.**
- **Disadvantages of sovereign gold bonds**
    - This is a **long term investment unlike physical gold which can be sold immediately.**
    - Sovereign gold bonds are listed on exchange but the **trading volumes are not high, therefore it will be difficult to exit before maturity.**

Source : Mint

Zoom- Not a Safe Platform: MHA

Why in News

Recently, the **Ministry of Home Affairs** (MHA) has issued an advisory that **Zoom video conference** is not a safe platform.

> The **Indian Cyber Crime Coordination Centre (I4C)** of the MHA issued a set of guidelines for the safe usage of Zoom by private individuals.

Key Points

- Zoom has seen an **exponential rise in usage in India** as office-goers remain at home due to the **lockdown**, imposed to curb the **Covid-19** pandemic.
  - Over 90,000 schools across 20 countries have started using it regularly.
  - The **maximum number of daily meeting participants** of approximately 10 million at the end of December 2019 **grew to more than 200 million daily** meeting participants in March.
  - It has been used extensively by everyone **including the central and state ministers** for official purposes and conducting meetings.
- Zoom is a **US-based video communication and videoconferencing platform.**
  - This **Silicon Valley-based company** appears to own three companies in China through which at least 700 employees were paid to develop Zoom's software.
  - This **arrangement is apparently an effort at labor arbitrage** in which Zoom can avoid paying US wages while selling to US customers, thus **increasing their profit margin.**
  - However, this arrangement may make Zoom **responsive to pressure from Chinese authorities.**
  - Reportedly, **few calls made through the app are routed through servers in China.**
- Earlier, the **Computer Emergency Response Team, India (CERT-In)** had also issued advisories cautioning on the use of Zoom for office meetings.
  - It **warned that the insecure usage of the platform** may allow **cyber criminals to access sensitive information** such as meeting details and conversations giving rise to **cyber frauds.**
  - It also **highlighted multiple vulnerabilities** which could allow an attacker to gain elevated privileges or obtain sensitive information.
- **Citizen Lab,** based at the **University of Toronto,** found **significant weakness in Zoom's encryption** that protects meetings.
  - It identified the **transmission of meeting encryption keys through China.**
  - The lab has **raised two primary concerns- geo-fencing and meeting encryption.**
- **Zoom Founder and CEO Eric S Yuan** has apologised and assured the people that the **privacy and security expectations would be taken care** of.
  - Zoom has **added additional features** such as **placing a new security icon** in the meeting controls, **changing Zoom's default settings** and **enhancing meeting password complexity,** among others.
  - It has also added that soon, **account admins will have the ability to choose** whether or not their data is routed through specific data center regions.

- **Suggestions by the Ministry**
  - The users are suggested to **set strong passwords** and **enable "waiting room" features** so that call managers could have better control over the participants.
  - Users should also **avoid using personal meeting ID** to host events and instead **use randomly generated meeting IDs** for each event.
  - People using the app **should not share meeting links on public platforms.**

Indian Cyber Crime Coordination Centre

- The scheme to set up I4C was **approved in October 2018,** to **deal with all types of cybercrimes in a comprehensive and coordinated manner.**
- It has **seven components:**
  - National Cyber Crime Threat Analytics Unit
  - National Cyber Crime Reporting Portal
  - National Cyber Crime Training Centre
  - Cyber Crime Ecosystem Management Unit
  - National Cyber Crime Research and Innovation Centre
  - National Cyber Crime Forensic Laboratory Ecosystem
  - Platform for Joint Cyber Crime Investigation Team.
- Various States and Union Territories (UTs) have consented to set up **Regional Cyber Crime Coordination Centres.**
- This **state-of-the-art** Centre is located in **New Delhi.**

Computer Emergency Response Team-India

- It is an organisation of the **Ministry of Electronics and Information Technology,** Government of India, with the **objective of securing Indian cyberspace.**
- It is the **nodal agency** which deals with **cybersecurity threats like hacking and phishing.**
- It collects, analyses and disseminates information on cyber incidents, and also issues alerts on cybersecurity incidents.
- CERT-IN provides **Incident Prevention and Response Services** as well as **Security Quality Management Services.**

Source: TH

Portable Sensor for Heavy Metal Detection in Water

Why in News

Recently, the **Centre for Nano and Soft Matter Sciences (CeNS)** has developed a **compact solid-state sensor** to **detect the heavy metal ions in water.**

It is a **portable** device which can help onsite detection in remote areas.

Key Points

- The compact solid-state sensor can detect the heavy metal ions like **lead ions (Pb2+) down to 0.4 parts per billion (ppb).**
- **Mechanism:**
  - A sensor film was prepared by **forming a composite** between **manganese doped zinc sulfide quantum dots** and **reduced graphene oxide on a glass substrate.**
  - These particular quantum dots are **water-soluble** and have **high photoluminescence (~30%) quantum yield,** making them suitable for **luminescence-based sensing.**
    - Luminescence is emission of light by certain materials when they are relatively cool. It may be seen in neon and fluorescent lamps.
  - These quantum dots can be **excited with handheld UV (ultra-violet) light of 254 nm, thus making them portable** even to remote areas.
    - Excitation, in physics, refers to the addition of a discrete amount of energy (called excitation energy) to a system—such as an atom, or a molecule— that results in its alteration, ordinarily from the condition of lowest energy (ground state) to one of higher energy (excited state).
  - If a **drop of water containing heavy metal ions** such as **mercury (Hg), lead (Pb), cadmium (Cd),** etc. are **added to the composite film,** the **emission of the film extinguishes within seconds.**
- The development of efficient and portable sensors for rapid onsite detection of heavy metal ions becomes important due to the **health hazards associated with them.**
  - Heavy metal ions pose severe potential threats to living beings (kidney damage, bone fractures, etc.).
  - They can be **accumulated in the body easily and cannot be detoxified** by any chemical or biological processes.
- This study demonstrates the easy detection of heavy metal ions in water. However, **strategies are being developed to improve the selectivity of the detection.**

Centre for Nano and Soft Matter Sciences

- It is an **autonomous research institute** under the **Department of Science and Technology (DST),** Government of India.
- DST provides **core support** to the Centre in the form of a **grant-in-aid for conducting basic and applied research** in nano and soft matter sciences.
- CeNS is located at **Jalahalli, Bengaluru.**
- It is being mentored by **Nano-Mission** of the Government of India.

- It is **engaged in materials research** at all relevant length scales.
    - The current activities are focussed on a variety of metal and semiconductor nanostructures, liquid crystals, gels, membranes and hybrid materials.
- The Centre was **established in 1991** by an **eminent liquid crystal scientist, Prof. S. Chandrasekhar, FRS.** After years of expansion and name changes, in **2014,** it became the **Centre for Nano and Soft Matter Sciences** (CeNS).

Nano Mission

- It was **launched in 2007** as an **umbrella capacity-building programme** by the Government of India.
- It is being implemented by the **Department of Science and Technology.**
- **Objectives:**
    - Basic research promotion.
    - Infrastructure development.
    - Nano applications and technology development.
    - Human Resource development.
    - International collaborations.
- The Nano Mission has established national dialogues to promote R&D in the development of standards for nanotechnology and for laying down a **National Regulatory Framework Road-Map for Nanotechnology (NRFR-Nanotech).**

Source: PIB

Seismic Noise

Why in News

Scientists at the British Geological Survey (BGS) have reported a change in the **Earth's seismic noise and vibrations** amid the coronavirus lockdown.

These findings have come two weeks after seismologists at the Royal Observatory in Belgium observed a 30-50% fall in levels of seismic noise since schools and businesses were closed in mid-March.

Key Points

- **Seismic noise**
  - In geology (study of rocks), **seismic noise refers to the relatively persistent vibration of the ground** due to a multitude of causes.
  - This noise includes vibrations caused due to **human activity,** such as transport and manufacturing.
  - Scientists first observed this seismic noise — everything recorded on seismograms that cannot be attributed to earthquakes — at the end of the 19th century.
  - It is the **unwanted component of signals recorded by a seismometer** and makes it difficult for scientists to study seismic data that is more valuable.
  - Apart from geology, seismic noise is also studied in other fields such as oil exploration, hydrology, and earthquake engineering.
- **Benefits of reduction in seismic noise**
  - Usually, to measure seismic activity accurately and reduce the effect of seismic noise, geologists **place their detectors 100 metres below the Earth's surface.** Because, the **seismic noise vibrations caused by human activity are of high frequency** (between 1-100 Hz), and travel through the Earth's surface layers.
  - However, **since the lockdown,** researchers have said that **they were able to study natural vibrations even from surface readings,** owing to lesser seismic noise.
  - Due to lower noise levels, scientists are now hoping that **they would be able to detect smaller earthquakes and tremors** that had slipped past their instruments so far.

Seismometer

- Seismometer is the **scientific instrument that records ground motions,** such as those **caused by <u>earthquakes</u>, volcanic eruptions, and explosions.**
- These are incredibly **sensitive** so they also pick up other sources of vibration too, including human activity, such as road traffic, machinery and even people walking past.

<u>Source: IE</u>

Inactivated Virus Vaccine in Focus for Covid-19

Why in News

Recently, researchers from the **Centre for Cellular and Molecular Biology (CCMB)** have started developing an **inactivated virus vaccine** for the **<u>novel coronavirus</u>** (SARS-CoV-2).

Key Points

- Vaccination is thought to be the most effective and sure way to arrest the progress and deadly effect of the virus.
- Inactivated vaccines are known for their safety and easy production.
- **Inactivated Vaccines**
  - **Active pathogens are grown** in large numbers and **then killed** either by a chemical or heat. Although the pathogen is killed, or made to lose its reproduction capacity, **various parts of the pathogen are intact.** E.g The antigen (the chemical structure) that is recognised by the immune system is left unimpaired.
  - When this dead microbe is introduced in the body, **the immune system is tricked to respond by producing antibodies** against specific antigens still left intact, without knowing that the pathogen is defective.
  - As the pathogen is dead, it cannot reproduce nor cause even a mild disease. Thus, it is safe to administer to even people with lesser immunity, like the old and those who have comorbidity.
  - Inactivated **polio vaccine and the rabies vaccine** are made this way.
- **Benefit:** If a **large amount of coronavirus is grown and inactivated,** that will be material for candidate vaccines to be injected.
- **Challenges:** The important technological challenge is **growing the coronavirus outside of the human host.**
  - As the novel coronavirus has evolved to life on human cells, locating the **right source of the cell line to grow the virus outside of the human body** is key to this technology.
- CCMB is using the **epithelial cell line from African green monkeys** to artificially grow and harvest the deadly virus.
- The cells will be observed and if **the cells show changes, including dying of cells and release of the virus, then the culture is positive.**
- Finding a right cell growing technology for the novel coronavirus **will also help in drug development.**

Other Types of Vaccine

Live-attenuated vaccines

- Live vaccines use a **weakened (or attenuated) form of the germ** that causes a disease.
- Because these vaccines are so **similar to the natural infection** that they help prevent, they create a strong and long-lasting immune response.
  - Just one or two doses of most live vaccines can give you a lifetime of protection against a germ and the disease it causes.

- The limitation of this approach is that these vaccines usually **cannot be given to people with weakened immune systems**
- Live vaccines are used against: **Measles**, **mumps, rubella** (MMR combined vaccine), **Rotavirus, Smallpox** among others.

Subunit, recombinant, polysaccharide, and conjugate vaccines

- They use **specific pieces of the germ —** like its protein, sugar, or capsid (a casing around the germ). They give a very strong immune response.
- They can also be used on people with weakened immune systems and long-term health problems.
- These vaccines are used to protect against: **Hib** (Haemophilus influenzae type b) disease, **Hepatitis B, HPV** (Human papillomavirus), **Pneumococcal disease** among others.
- **Toxoid vaccines**
- Toxoid vaccines use a toxin made by the germ that causes a disease. Toxoid vaccines are used to protect against: Diphtheria, Tetanus

Source: PIB

Chitra GeneLAMP-N for Covid-19 Test

Why in News

> **Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST),** Trivandrum (Kerala), has **developed a diagnostic test kit that can confirm Covid-19 in 2 hours at low cost.**
> > SCTIMST is an Institute of National Importance under the **Department of Science and Technology (DST).**

Key Points

- The test kit, funded by the DST called **Chitra GeneLAMP-N,** is highly specific for **SARS-CoV-2 N**-gene and can **detect two regions of the gene.**
  - This would ensure that the test does not fail even if one region of the viral gene undergoes mutation during its current spread.
- It is a confirmatory diagnostic test, which detects the N Gene of SARS- COV2 using **reverse transcriptase loop-mediated amplification of viral nucleic acid (RT-LAMP).**

- The results can be read from the machine from the **change in fluorescence.** Fluorescence is the **emission of light by a substance** that has absorbed light or other electromagnetic radiation.
- The tests performed at National Institute of Virology (NIV), Alappuzha (Kerala) (authorized by **Indian Council of Medical Research (ICMR))** show that Chitra GeneLAMP- N has **100% accuracy** and match with test results using **Reverse Transcription Polymerase Chain Reaction (RT-PCR).**
- This has been intimated to Indian Council of Medical Research (ICMR), the authority to approve it, for Covid-19 testing in India, following which License needs to be obtained from **Central Drugs Standard Control Organisation (CDSCO)** for manufacture.
- **Advantages**
  - A total of 30 samples can be tested in a single batch in a single machine allowing a **large number of samples to be tested each day.**
  - Current **Polymerase Chain Reaction (PCR)** kits in India enable detection of E gene for screening and RdRp gene for confirmation. Chitra GeneLAMP-N gene testing will allow confirmation in one test **without the need for a screening test and at much lower costs** (less than Rs. 1000/test).
  - Chitra GeneLAMP-N makes confirmatory tests results of Covid-19 possible in 2 hours.
      The detection time is 10 minutes, and the sample to result time (from RNA extraction in swab to RT-LAMP detection time) **will be less than 2 hours.**
  - The testing facility can be **easily set up** even in the laboratories of district hospitals with **limited facilities and trained laboratory technicians.**

Gene

- Gene, unit of **hereditary information.**
- Genes achieve their effects by directing the **synthesis of proteins.**
- Genes are composed of **Deoxyribonucleic acid (DNA),** except in some viruses, which have genes consisting of a closely related compound called **Ribonucleic acid (RNA).**

Reverse Transcription-based Loop Mediated Isothermal Amplification (RT-LAMP)

- It is a simple **quantitative detection method.**
- In this method, **a DNA copy of the viral RNA is generated** by reverse transcriptase, and then **isothermal amplification is carried out to increase the amount of total DNA.**
  - A reverse transcriptase (RT) is an enzyme used to generate complementary DNA (DNA) from an RNA template, a process termed reverse transcription.
  - Isothermal amplification enables rapid and specific amplification of DNA at constant temperature (60-65 °C).

Source : PIB

AI-based Voice Tool to Detect Covid-19

Why in News

A University in Rome (Italy) is conducting a pilot run for a patented **Artificial Intelligence (AI)-based tool** developed by students and a professor from Mumbai, which they claim **can test Covid-19 through voice-based diagnosis using a smartphone.**

Key Points

- The tool has already been tested on 300 individuals and has detected Covid-19 patients with **98% accuracy.**
- The tool is based on a voice-based diagnosis through an app. It can **find coronavirus from the tone of the voice.**
- As someone speaks to the microphone on the app, the **tool breaks down the voice** in **multiple parameters** such as frequency and noise distortion.
- These values are then **compared to a normal person's values** and the patented technique then determines if the patient is positive or not.
- Each human voice has 6,300 parameters, and **only a few units, less than a dozen, specifically characterise individuals.** The human ear, apart from colds, is not able to distinguish them, but artificial intelligence does.
- Each one of an individual's internal organs is **sort of a resonator,** so **if anyone has a problem with lungs or heart, this will be reflected in his/her voice.**
- The current novel coronavirus cases could be detected this way.

Benefits of the voice-based diagnosis tool

- This tool can be of great impact in doing the **first level of screening to identify positives** and **only those who tested positive can go for the lab tests.**
- This can **reduce the current bottleneck on the medical infrastructure,** and help the government to **identify hotspot regions** in advance.
- It is possibly the **best way to reach out to the remotest part of India** by testing through a smartphone, **without the risk of exposure, both to the patient and the lab personnel.**
- This voice-based diagnosis will fetch **zero cost** testing to the patient and no wait time.

Artificial Intelligence (AI)

- It describes the **action of machines accomplishing tasks** that have **historically required human intelligence.**

- It **includes technologies** like machine learning, pattern recognition, big data, neural networks, self algorithms etc.
- AI involves complex things such as feeding a particular data into the machine and making it react as per the different situations. It is basically about creating self-learning patterns where the machine can give answers to the never answered questions like a human would ever do.
- AI technology helps in analyzing data and thus can improve the efficiency of the systems like power management in cars, mobile devices, weather predictions, video and image analysis.
- **Example (Use):** Self driving cars.

Source: TH

RBI's Quarterly Survey on Manufacturing Sector

Why in News

The **Reserve Bank of India (RBI)** has launched the 49th round of quarterly **Order Books, Inventories and Capacity Utilisation Survey (OBICUS)** of the **manufacturing sector.**

The latest round has a **reference period** as **January-March 2020.**

Key Points

- The RBI has been conducting the **OBICUS of the manufacturing sector** on a quarterly basis **since 2008.**
- The survey represents the **movements in actual data on order books, inventory levels of raw materials and finished goods and capacity utilization.**
  - Inventory is the amount of goods held by a company.
  - Capacity utilization refers to the manufacturing and production capabilities that are being utilized by a nation or enterprise.
- The survey also gives out the **ratio of total inventories to sales** and **ratio of raw material (RM) and finished goods (FG) inventories to sales in percentages.**
- These are considered as important indicators to **measure economic activity, inflationary pressures and the overall business cycle.**
- **Trend analysis** is calculated for the survey based on quantitative data received from companies regarding new orders, backlog orders at the beginning of the quarter, pending orders at the end of the quarter.
- The survey provides valuable **input for monetary policy formulation.**
- The company level data collected during the survey are treated as **confidential and never disclosed.**

- In the 48th round of the OBICUS for the quarter October-December 2019 as many as **704 manufacturing companies were covered.** As per the survey:
    - Capacity Utilisation (CU) had declined to 68.6% in the third quarter of 2019-20 from 69.1% in the previous second quarter.
    - Also, orders received in the third quarter(Q3:2019-20) were lower compared with the previous second quarter as well as with the level of 2018-19.

Source : BS