



Current Affairs of the Day

GS Paper - III

- GDP contracts 7.5% in the second quarter
- GMRT accorded prestigious IEEE Milestone status
- 'Sea sparkle' has affected the marine food chain: CMFRI
- Core sector contraction widens to 2.5%



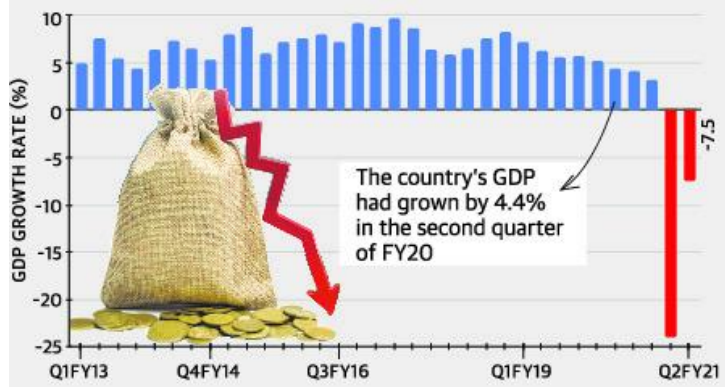
GDP contracts 7.5% in the second quarter

GS III: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

India's Gross Domestic Product (GDP) contracted 7.5% in the second quarter of 2020-21, following the record 23.9% decline recorded in the first quarter, as per estimates released by the National Statistical Office on Friday. The country has now entered a technical recession with two successive quarters of negative growth.

Still in the red

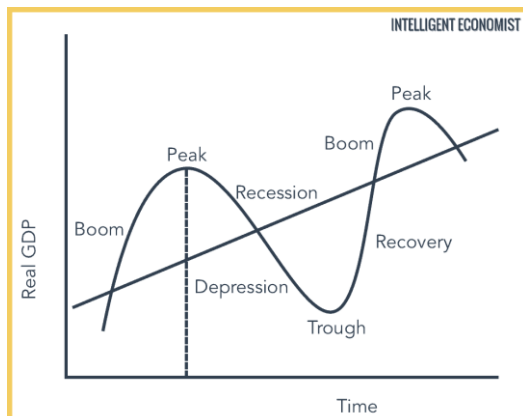
At -7.5%, India's Gross Domestic Product at constant prices contracted for the second consecutive quarter in FY2020-21



Highlights:

1. The economic indicators and the industrial output numbers indicate that the recovery is happening very well. But because the effect is primarily from the pandemic, we should keep that in mind especially with the winter months ahead.
2. Rating agency Crisil attributed the better-than-expected growth to pent-up demand, support from agriculture and select export sectors, cost savings for corporates and a 'learning to live' attitude.

Learn Through Graphics: The Business cycle





GMRT accorded prestigious IEEE Milestone status

GS III: Achievements of Indians in Science & Technology; Indigenization of Technology and Developing New Technology.

The Giant Metrewave Radio Telescope (GMRT) has been selected as a 'Milestone' facility by the U.S.-based Institute of Electrical and Electronics Engineers (IEEE), which is the world's largest technical professional organisation dedicated to advancing technology in all areas related to electrical and electronics engineering.

Highlights:

1. The IEEE Milestones programme honours significant technical achievements which have a global or regional impact. This is only the third such IEEE 'Milestone' recognition for an Indian contribution. The previous two Indian IEEE Milestones were for the pioneering work done by Sir J.C. Bose to demonstrate the generation and reception of radio waves in 1895 (recognised in 2012), and for the Nobel Prize-winning (in 1930) 'scattering of light' phenomenon observed by Sir C.V. Raman in 1928.
2. IEEE milestones recognise important landmarks in the global pursuit of excellence in Science and Engineering, which have significantly advanced technology for the benefit of humanity.
3. GMRT programme of India has been recognised as an IEEE Milestone, acknowledging its contributions to the important work of exploring the universe through radio astronomy.
4. The GMRT has produced important discoveries in domains such as pulsars, supernovae, galaxies, quasars, and cosmology, greatly enhancing our understanding of the Universe.

Background:

1. National Centre for Radio Astrophysics (NCRA) has set up a unique facility for radio astronomical research using the metre wavelengths range of the radio spectrum, known as the Giant Metrewave Radio Telescope (GMRT), it is located at a site about 80 km north of Pune. GMRT consists of 30 fully steerable gigantic parabolic dishes of 45m diameter each spread over distances of upto 25 km. GMRT is one of the most challenging experimental programmes in basic sciences undertaken by Indian scientists and engineers.



- 2. Why Metre Wavelength:** The metre wavelength part of the radio spectrum has been particularly chosen for study with GMRT because man-made radio interference is considerably lower in this part of the spectrum in India. Although there are many outstanding astrophysics problems which are best studied at metre wavelengths, there has, so far, been no large facility anywhere in the world to exploit this part of the spectrum for astrophysical research.

'Sea sparkle' has affected the marine food chain: CMFRI

Prelims

GS III: Conservation

The bloom of *Noctiluca Scintillans*, commonly known as "sea sparkle" that the Karnataka coast has been witnessing since about a month, has displaced microscopic algae called diatoms, which form the basis of the marine food chain. This has deprived



food for the planktivorous fish, scientists from the Central Marine Fisheries Research Institute (CMFRI), Mangaluru, have said.

Highlights:

1. The bioluminescent *Noctiluca Scintillans* also brightened the seawater during the night. CMFRI said that the toxic blooms of *N. Scintillans* were linked to massive fish and marine invertebrate kills. Though the species does not produce a toxin, it was found to accumulate toxic levels of ammonia, which is then excreted into the surrounding waters, possibly acting as the killing agent in blooms.
2. The ammonia makes *N. Scintillans* unpalatable for most creatures. Only jellyfish and salps were known to prey on it. *N. Scintillans* graze on other micro-organisms such as larvae, fish eggs, and diatoms. But the unicellular phytoplankton that lives inside it can photosynthesise, turning sunlight into energy. They help their host cell survive even when food is scarce. Thus, *N. Scintillans* acts as both a plant and an animal.



3. Bioluminescence is the production and emission of light by a living organism and occurs due to a chemical reaction, involving a light-emitting molecule and an enzyme, called luciferin and luciferase.

Core sector contraction widens to 2.5%

GS III: Indian Economy and issues relating to Planning, Mobilization of Resources, Growth, Development and Employment.

Output at India's eight core sectors shrank 2.5% in October with the contraction widening from September's revised 0.1% decline as steel production slid again after a brief revival in the preceding month.

Sector	Weight
Coal	10.3
Crude Oil	9.0
Natural Gas	6.9
Refinery Products	28.0
Fertilizers	2.6
Steel	17.9
Cement	5.4
Electricity	19.9
Overall Index	100

Highlights:

1. Core sector data suggests the industrial recovery is still weak and the traction seen in the index of industrial production growth lately is triggered largely by the festival demand.
2. The core sectors account for about 40% of the Index of Industrial Production (IIP) and there is concern that all core sectors, barring fertilizers, had seen negative growth in the first seven months of 2020-21.

Background: Core Industries

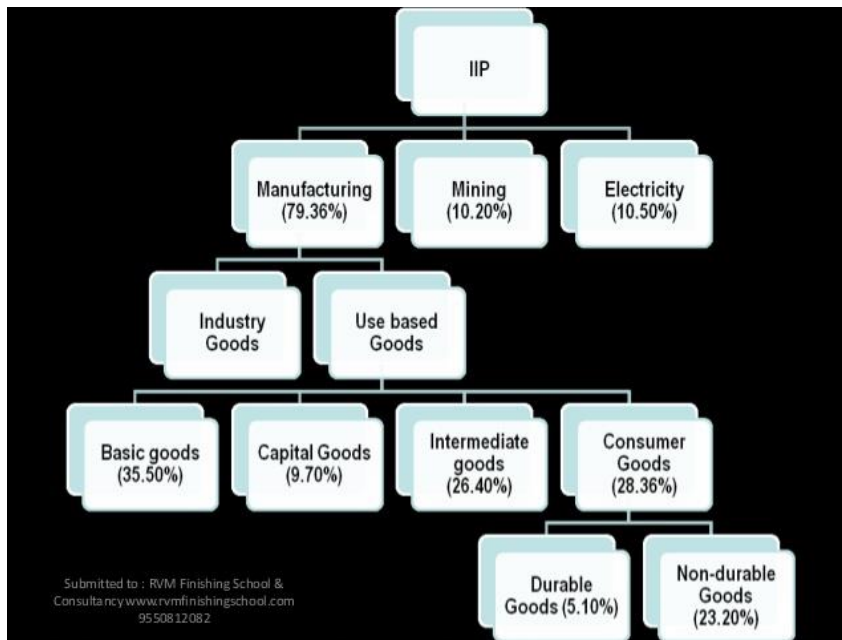
1. The eight-core sector industries include coal, crude oil, natural gas, refinery products, fertiliser, steel, cement and electricity. This core industry index is compiled and released by the Office of the Economic Adviser (OEA), the



Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry.

2. The eight core industries comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP).
3. The eight Core Industries in decreasing order of their weightage: Refinery Products > Electricity > Steel > Coal > Crude Oil > Natural Gas > Cement > Fertilizers.

Index of Industrial Production



1. The Index of Industrial Production (IIP) is an index which details out the growth of various sectors in an economy such as mineral mining, electricity, manufacturing, etc.
2. It is compiled and published monthly by the Central Statistical Organisation (CSO), Ministry of Statistics and Programme Implementation six weeks after the reference month ends, i.e a lag of six weeks.
3. The Base Year of the Index of Eight Core Industries has been revised from the year 2004-05 to 2011-12 from April 2017.