

Prelim Bits 10-10-2019

Global Competitiveness Index

- The Global Competitiveness Index (GCI) was launched in 1979 by the World Economic Forum (WEF).
- It maps the competitiveness landscape of 141 economies through 103 indicators organised into 12 pillars.
- In 2019, Singapore has become the world's most competitive economy followed by the US.
- Hong Kong SAR is ranked 3rd, Netherlands is 4th and Switzerland is ranked 5th.
- Asia-Pacific region emerged as the most competitive followed closely by Europe and North America.
- China is ranked 28th (the highest ranked among the BRICS) while Vietnam is the most improved country in the region this year at 67th place.
- India has moved down 10 places to rank 68th, largely due to improvements witnessed by several other economies.
- India is among the worst-performing BRICS nations along with Brazil (ranked even lower than India at 71st this year).
- India's rank in individual parameters are,
 - i. 2nd globally for shareholder governance,
 - ii. 3rd in terms of market size, renewable energy regulation,
 - iii. 15th place in terms of corporate governance.
 - iv. 109th out of 141 countries in Health Life Expectancy.
- Limited ICT adoption, poor health conditions and low healthy life expectancy are some of the negatives.

GEMINI system

- GEMINI (GAGAN Enabled Mariner's Instrument for Navigation and Information) is a new marine information dissemination system.
- It is to provide disaster warnings to fishermen by utilizing GAGAN (GPS Aided Geo Augmented Navigation) satellite systems of the AAI and ISRO.
- It is a portable device which receives data from the GAGAN satellites and sends it to the user's cellphone App, which decode the alerts.
- It is developed by INCOIS under Ministry of Earth Sciences and Airport

Authority of India.

- INCOIS regularly provides information, advisories, ocean data, weather forecasts, potential fishing zones data to beneficiaries like fishermen, Indian Navy, marine industries, shipping etc.
- But due to the limited range of mobile networks, the disaster warning couldn't reach beyond 10-12km of the coastline which was acutely felt during 2017 Ockhi cyclone.
- The data coverage of GEMINI covers the entire India Ocean full-time, which will help in information transmission to the fishermen far away from coastal areas.

Chemistry Nobel Prize

- John B Goodenough, M Stanley Whittingham and Akira Yoshino share the Chemistry Nobel Prize for their work on rechargeable devices, which are used for portable electronics.
- The foundation of the lithium-ion battery was laid during the oil crisis of the 1970s.
- The crisis led to development of energy technologies that did not rely on fossil fuels.
- M Stanley Whittingham discovered an energy-rich material called **titanium disulphide** as a cathode and metallic lithium as an anode in a lithium battery.
- The first commercial lithium-ion battery was released in 1991.

Click [here](#) to know more about Lithium-ion Battery.

DHRUV Programme

- Pradhan Mantri Innovation Learning Programme - DHRUV is a 14-day learning programme launched by Ministry of HRD in ISRO HQ in Bengaluru.
- 60 brightest and talented students from Science, Mathematics and Performing Arts have been chosen for the programme.
- It aims to further sharpen innovative imagination, skills and knowledge of the students to bring solutions to socio-economic, political and environmental issues in the country.
- Every student to be called 'DHRUV TARA' will be mentored by renowned experts.

Source: PIB, The Hindu, DownTo Earth



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