Prelim Bits 06-06-2018

Internet of things

\n\n

\n
- The need of promoting innovation and harnessing the potential of Internet of Things (IoT) is imperative for solving practical problems in India, said Union telecom secretary recently.
\n
- All initiatives in IoT should translate into business models which can be replicated across sectors.
\n
- IoT deployment has been included as one of the important focus technology area in the draft National Digital Communication Policy 2018 released recently
\n
- As per recent estimates, IoT market in India stands at $5.6 million with 200 million connected units in 2016.
\n
- This is expected to grow to $15 billion with 2.7 billion units by 2020.
\n
- Globally, the number of IoT devices is estimated to have increased 31% year-over-year to 8.4 billion in 2017.
\n
- It is projected that there will be 30 billion devices by 2020.
\n
- The global market value of IoT is projected to reach $7.1 trillion by 2020.
\n

\n\n

Deendayal Port in Kandla

\n\n

\n
- The Standing Finance Committee of Ministry of Shipping has cleared a project for setting up an exclusive, fully mechanized handling facility for fertilizer cargo at Deendayal Port in Kandla.
\n
- Kandla, also known as the Deendayal Port Trust is a seaport in Kutch District

of Gujarat state in western India, near the city of Gandhidham.
\n
- It is located on the Gulf of Kutch.
\n
- It is one of major ports on west coast.
\n
- Kandla was constructed in the 1950s as the chief seaport serving western India, after the partition of India from Pakistan left the port of Karachi in Pakistan.
\n
- The Port of Deendayal is located some 256 nautical miles southeast of the Port of Karachi in Pakistan and over 430 nautical miles north-northwest of the Port of Mumbai (Bombay).
\n
- Deendayal Port Trust, India's busiest major port in recent years, is gearing to add substantial cargo handling capacity with private sector participation.
\n

\n\n

Methanol Economy

\n\n

\n
- Methanol Economy is the “Bridge” to the dream of a complete “Hydrogen based fuel systems”.
\n
- Methanol is a scalable and sustainable fuel, that can be produced from a variety of feedstock like Natural Gas, Coal (Indian High Ash Coal), Bio-mass, Municipal Solid waste and most importantly from CO2
\n
- Methanol is a clean burning drop in fuel which can replace both petrol & diesel in transportation & LPG, Wood, Kerosene in cooking fuel.
\n
- The Concept of “Methanol Economy” is being actively pursued by China, Italy, Sweden, Israel, US, Australia, Japan and many other European countries.
\n
- 10% of fuel in China in transport Sector is Methanol.
\n
- Methanol burns efficiently in all internal combustion engines, produces no particulate matter, no soot, almost nil SOX and NOX emissions (NEAR ZERO POLLUTION).
\n
- NITI Aayog has drawn out a comprehensive plan to replace 20% of crude

imports from Methanol alone
\n
- India by adopting Methanol can have its own indigenous fuel at the cost of approximately Rs. 19 per liter at least 30% cheaper than any available fuel.
\n
- The Methanol blending program with petrol will further reduce our fuel bill by at least Rs. 5000 crore annually in next 3 years.
\n

\n\n

Asia's ocean pollution

\n\n

\n
- According to a 2015 Ocean Conservancy report about 8 million tones of plastic waste are dumped into the world's oceans every year.
\n
- More than half of the plastics come from five countries: China, Indonesia, the Philippines, Thailand and Vietnam.
\n
- They are among the fastest growing economies in Asia, where much of the world's plastic is produced, consumed and discarded.
\n
- Most of them were improperly discarded in countries where waste management is at best patchy.
\n
- World Environment Day highlighted the perils of plastic with the tagline “if you can't reuse it, refuse it”.
\n
- Microplastics – tiny shards that easily soak up toxins after breaking off from larger plastic pieces – have been found in tap water, ground water and inside fish that millions of people eat across Asia every day.
\n
- At the current rate of dumping, the total amount of plastic trash in the world's oceans is expected to double to 250 million tons by 2025.
\n

\n\n

Earth days getting longer due to Moon

\n\n

\n
- Due to the movement of the Moon away from the planet days on the Earth are getting longer.

\n
- According to a study which found that 1.4 billion years ago a day lasted just over 18 hours.
\n
- It shows that 1.4 billion years ago, the Moon was closer and changed the way the Earth spun around its axis.
\n
- Earth's movement in space is influenced by the other astronomical bodies that exert force on it, like other planets and the Moon.
\n
- This helps determine variations in the Earth's rotation around and wobble on its axis, and in the orbit the Earth traces around the Sun.
\n
- These variations are collectively known as Milankovitch cycles and they determine where sunlight is distributed on Earth, which also means they determine Earth's climate rhythms.
\n
- Scientists have observed this climate rhythm in the rock record, spanning hundreds of millions of years**.**
\n

\n\n

Pollution in Sundarbans

\n\n

\n
- Rampant industrialisation on the Bangladesh side of the Sundarbans is causing irreparable damage, with oil levels in waterbodies rising six-fold and the temperature by over four degrees, pushing wildlife to the edge and reducing the fish population by half.
\n
- The region currently has over 300 industrial units, including 190 of what are called “severe” units like oil refinery and a cement plant.
\n
- There is a loss in habitat and population of tigers, monitor lizards, crocodile, dolphins, otters, fishing cat, deer and wild boars, as also major species of birds including the masked finfoot, the ban morog, heron and kingfisher.
\n
- Due to the salinity - high salt content - 70 percent of Sundri seeds could not be generated.
\n
- The Sundarban gets its name from the Sundri tree.
\n
- The non-polluted areas of Sundarbans had no change on the spotting of

animals at present as compared to that before 2010.
\n

\n\n

\n\n

Source: PIB, The Hindu

\n