Prelim Bits 16-05-2018

Pelican Festival

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- Kolleru hosted Pelican Festival at the Atapaka bird sanctuary earlier this year.
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- The Lake is one of the largest freshwater lakes in the country.
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- More than 5,000 spot-billed pelicans, also known as grey-headed pelicans, visited the lake.
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- The birds roost, breed and fly with their young ones during the winter season in the region.
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- Kolleru is the nesting place for many migratory birds.
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- It is located between the delta of Godavari and Krishna River.
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- Similarly a three-day annual Flamingo Festival was held at Pulicat Lake and Nelapattu Bird Sanctuary in Andhra Pradesh.
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India- 3rd largest solar market

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- India emerged as the third largest solar market in the world in 2017 behind China and the US.
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- According to a report by Mercom Communications India set a new record with 9.6 GW of solar installations in 2017,
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- It was more than double the 4.3 GW installed in 2016.
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- The large-scale project development accounted for 92 per cent of the all-time cumulative solar installations in India.

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- The Government has also recently released the National solar-wind hybrid policy to improve the share of renewable energy in the total energy mix.
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- The policy provides for a comprehensive framework to promote large grid-connected wind-solar photovoltaic (PV) hybrid system.
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Sanctuaries that conserve Great Indian Bustard

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- The following are the sanctuaries that shelter or were set up to conserve a very unique species that’s now critically endangered - the great Indian bustard.
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- Desert National Park, Thar Desert, Rajasthan
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1. It is the State bird of Rajasthan.
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2. The Desert National Park is spread across Jaisalmer and Barmer districts of Rajasthan.
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3. The Park also welcomes the migrant Houbara Bustard and several other bird species
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- Kutch Bustard Sanctuary, Gujarat
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1. The sanctuary is dominated by vast swathes of grasslands.
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2. It was declared a sanctuary in 1992
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- Great Indian Bustard Sanctuary, Maharashtra
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1. It is also known as the Jawaharlal Nehru Bustard Sanctuary of Maharashtra.
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2. This sanctuary is located in Ninnaj, over 20 km from the city of Solapur.
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3. Unconfirmed reports suggest that today those sprawling grasslands are home to perhaps not a single bustard.
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- The great Indian bustard (or simply Indian bustard) is a large, white-and-brown bird with wing markings and a black crown.
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- A bird native to India and Pakistan, it has today lost almost 90 % of its original habitats.
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- It is believed to have disappeared from States such as Haryana, Punjab, Uttar Pradesh and Madhya Pradesh.
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- The largest population is found in Rajasthan, with a few birds in Gujarat and Maharashtra.
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- Recently, officially confirmed reports stated that there have been no sightings of the bird for the last few years at both the Great Indian Bustard Sanctuary (and Ghatigaon Sanctuary) in Gwalior district and the Karera Sanctuary in Shivpuri district of Madhya Pradesh.
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Memzyme

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- Researchers at the Sandia National Laboratories and the University of New Mexico have developed a biologically inspired membrane.
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- It can capture 90 per cent of carbon dioxide from the smoke of coal-fired power plants at a low cost.
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- They call it a "memzyme" as it has an enzyme, carbonic anhydrase, developed by living cells over millenia to help get rid of CO2.
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- The 18 nanometer water-based membrane has the capability to capture the overwhelming majority of CO2 molecules from a rising cloud of coal smoke.
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- The membrane turns the gas briefly into carbonic acid and then bicarbonate before exiting immediately downstream as CO2 gas.
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- This pure form of CO2 can be harvested and used by oil companies for resource extraction
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Rare earth mineral

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- **A** "semi-infinite" stores of rare earth minerals, crucial in the making of leading-edge technologies like smart phones, radar devices and hybrid vehicles, have been found.
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- It is stashed in deep sea sediments near Japan's Minamitori Island.
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- A study says that the reserve holds 16 million tones of rare earths, sufficient to meet the world's needs for hundreds of years.
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- The discovery is significant given the current supply and demand of rare earth metals.
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- The discovery could thus end the monopoly of China, which controls about 95 per cent of the rare earths production.
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- Japan, the second largest consumer, started looking for its own reserves after China held back shipments in 2010 following a territorial dispute.
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- However, extraction of the minerals from the depth of 6,000 metres is likely to pose challenges for resource-poor Japan.

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Source: PIB, The Hindu, Down to Earth

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