Prelim Bits 01-11-2018

Kepler Telescope

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- The Kepler Space telescope has run out of fuel and will be retired nearly after 9-year mission.
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- It is an observatory in space dedicated to finding planets outside our solar system.
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- It was originally launched in 2009 as part of NASA’s Discovery Program.
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- It was approved far beyond its original mission length and was operating well until May 2013, when a second of its four reaction wheels or gyroscopes failed.
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- It targets particularly alien planets that are around the same size as Earth in the “habitable” regions of their parent star.
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- Since 2009, it has discovered extra-solar planets in the range between the size of Earth and Neptune.
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- It was the first telescope to find a planet (Kepler-69c) approximately the size of Earth in the habitable region of a star.
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- It examined the TRAPPIST-1 system which likely has multiple Earth-sized planets in it between December 2016 and March 2017.
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Parker Solar Probe

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- Parker Solar Probe has become the closest spacecraft ever to Sun.
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- It passed its current record of 26.55 million miles from the Sun's surface recently.

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- The previous record for closest solar approach was set by the German-American Helios 2 spacecraft in April 1976.
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- Parker mission is a historic one as it is flying into the sun's atmosphere (or corona) for the first time.
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- The corona is the outermost part of the sun's atmosphere that is unstable, producing the solar wind, flares and coronal mass ejections.
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- It may also ascertain why the Sun occasionally emits high-energy particles that are a danger to unprotected astronauts and spacecraft.
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- In 2017, NASA renamed the spacecraft from the Solar Probe Plus to the Parker Solar Probe in honor of astrophysicist Eugene Parker.
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- The probe successfully completed its first flyby of Venus at a distance of about 1,500 miles earlier.
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Index of Industrial Production (IIP)

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- IIP for the month of September 2018 stood at 4% higher compared to IIP of September 2017.
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- IIP denotes the level of economic activity in different sectors, including manufacturing, mining and power.
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- It measures actual production output across the industrial sector.
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- It is calculated by Central Statistical Office (CSO) under Ministry of Statistics and Program Implementation.
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- The base year for calculating IIP is 2011-12.
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- The total number of items in IIP is 809 within major categorization of manufacturing, mining and electricity.
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- The manufacturing is given the highest weightage (77%) followed by mining (14%) and electricity (7%).
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- Within IIP, there are 8 core industries which includes Coal, fertilizer, electricity, crude oil, natural gas, refinery products, steel, and cement.
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- These 8 core industries comprise 40% of the weight of items included in IIP.
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National Investment Infrastructure Fund (NIIF)

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- NIIF is going acquire controlling interest in private infrastructure lender IDFC.
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- This acquisition is the first investment from NIIF's Strategic Fund and the first control transaction for NIIF.
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- The NIIF is a trust that raises debt to invest in the equity of infrastructure finance companies.
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- It acts like a bankers' bank in infrastructure financing. Government owns 49% of NIIF.
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- It provides equity support to NBFCs/ Financial Institutions (FIs) engaged in infrastructure financing.
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- It also provides equity/ debt to commercially viable projects, both Greenfield and Brownfield, including stalled projects.
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- It is being considered as an Alternative Investment Fund (AIF) under SEBI regulation.
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- A typical sovereign wealth fund (SWF) will be a state-owned investment company owned by governments and invests their own money in foreign countries.
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- Though the NIIF acts like an SWF, it does not invest in assets such as stocks, bonds, real estate, commodities etc like an SMF do and therefore cannot be called so.
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- The Abu Dhabi Investment Authority (ADIA) became the first institutional investor in the NIIF with an investment of $1 billion.
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- An India-UK Green Growth Equity Fund (GGEF) is also being set-up under

the fund of funds under NIIF.
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- GGEF shall receive funds worth 120 million each from Government of India (through NIIF) and Government of UK.
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- The fund aims to leverage private sector investment from the City of London to invest in Green Infrastructure Projects in India.
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National Action Plan for Conservation of Migratory Birds

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- Union government has come out with a 5-year national action plan to conserve habitats of migratory birds.
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- It specifically covers species which take long distances from Siberia in Russia to make the country their temporary home during winter.
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- The action plan is brought out by Union Environment Ministry which spans 2018-2023.
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- It is meant for coordinated actions among states for securing and enhancing population of migratory birds in India within their range across the Central Asian Flyway (CAF).
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- A flyway is a geographical region within which a single or a group of migratory species completes its annual cycle – breeding, moulting, staging and non-breeding.
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- CAF is one of the 9 flyways in the world.
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- CAF covers northernmost breeding ground in Siberia to the southernmost non-breeding grounds in west and south Asia, the Maldives and the British Indian Ocean Territory.
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Source: PIB, The Hindu, Business Standard

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