Prelim Bits 21-02-2018

Solar Cycles and Sun spots

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- The amount of magnetic flux that rises up to the Sun's surface varies with time in a cycle called the solar cycle, which lasts 11 years on average.
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- This cycle is sometimes referred to as the sunspot cycle.
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- Sunspots are regions where the solar magnetic field is very strong.
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- In visible light, sunspots appear darker than their surroundings because they are a few thousand degrees cooler than their surroundings.
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- They are usually concentrated in two bands, about 15 - 20 degrees wide in latitude, that go around the Sun on either side of the solar equator.
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Mahanadi Tribunal

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- The Union Cabinet approved the setting up of Mahanadi Water Dispute Tribunal.
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- The tribunal will settle the row between Odisha and Chhattisgarh on sharing the waters of the Mahanadi River.
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- The tribunal is expected to determine water sharing among basin States on the basis of the
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1. overall availability of water in the complete Mahanadi basin,
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2. contribution of each State,
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3. present utilization of water resource in each State
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4. potential for future development
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- The tribunal will be setup as per the provisions of the Inter-State River Water Disputes (ISRWD) Act, 1956.
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- The Tribunal shall consist of a Chairman and two other Members nominated by the Chief Justice of India from amongst the Judges of the Supreme Court or High Court.
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National Urban Housing Fund

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- The Union Cabinet has given approval for creation of National Urban Housing Fund (NUHF) for Rs.60, 000 crores.
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- The motive of fund is to finance the government’s Housing for All Program, which aims to build 12 million affordable housing units in urban areas by 2022.
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- The newly created fund will be placed under the aegis of the Building Materials and Technology Promotion Council (BMTPC).
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- BMPTC is an autonomous body registered under the Societies Registration Act, 1860, The newly created fund will be placed under the aegis of the

Building Materials and Technology Promotion Council
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- The fund will be raised from non-budgetary sources and help in plugging the budgetary shortfalls.
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Underwater Cave in Yucatan peninsula

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- Recently a biggest flooded cave was found in the Yucatan Peninsula, Mexico, by scuba divers.
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- Archaeologists explored that cave and found fossils of giant sloths and an elaborate shrine of the Mayan god of commerce.
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- The Yucatan peninsula is studded with monumental relics of the Maya people, whose cities drew upon an extensive network of sinkholes linked to subterranean waters known as **cenotes.**
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- Researchers believe that the water level in the caves has fluctuated over time, and that they were a source of water in times of severe drought.
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- Some of the animals and humans who ventured inside never made it out alive, whose remains are a treasure trove for scientists,
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- It enables to piece together bits of the cave’s history dating all the way back to the Pleistocene epoch (2.6 million to 11,700 years ago).
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- The artifacts left inside by humans are burnt human bones, ceramics, wall etchings and more.
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- Similarly the animal remains include gomphotheres — an extinct elephant-like animal — as well as giant sloths and bears, archaeologists told a press conference.
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UNICEF Report- Neonatal Deaths

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- The released UNICEF report states that over 6, 00,000 children died within the first month of their birth in 2016.
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- The country’s neonatal mortality rate at 25.4 deaths per 1,000 live births makes it 12th worst among 52 “lower middle-income countries” that pose risk for newborns.
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- Even among states the difference is stark. For instance, Kerala and Goa‘s neonatal mortality stands at 10/1000 live births, whereas Bihar and Uttrakhand neonatal mortality rate is 44.
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- The causes for the death are preventable and treatable as 80% of these fatalities happen for no serious reason.
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- India is currently not on track to meet the Sustainable Development Goal target for neonatal mortality of 12 by 2030.
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- The study also points out that India had made positive stride in Under-5 mortality rate (under-five mortality fell to 39 from 43 in the previous year).
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Buried Pyramid City- Mexico

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- An Ancient pyramid city was discovered underground in heartland of Mexico.
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- They discovered the lost city known as Angamuco which contained 40,000 buildings by using by using lasers to sends beams of light from an aircraft to the ground in order to construct a map of the area (LIDAR Technology).
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- The lost city was built by Purépecha who were rivals to the Aztecs around 1,000 years ago.
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- The Purépecha are a group of indigenous people from the northwestern region of Michoacán, Mexico
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- Around 100,000 people are thought to have lived in the ancient city between 1000 and 1350AD.
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- The findings have implications for understanding the region’s history of migration, land use and conservation and even early climate changes.
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Source: PIB, The Hindu, Business Standard

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