Prelim Bits 07-07-2018

NASA Solar Probe

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• NASA plans to send its first robotic spacecraft "Parker Solar Probe" to the Sun.

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• It will travel directly into the sun's atmosphere about 4 million miles from the star's surface.

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• The mission is to study why the surface of the Sun, called the photosphere, is not as hot as its atmosphere, called the corona.

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- \bullet The surface temperature of the Sun is only about 5,500°C but the atmosphere above it is an over two million degrees Celsius. \n
- The mission may also ascertain why the Sun occasionally emits high-energy particles that are a danger to unprotected astronauts and spacecraft.
- **Recent Development** NASA's Parker Solar Probe has recently got its revolutionary **heat shield** permanently attached to the spacecraft.
- The shield is made of superheated carbon composite material sprayed with a specifically formulated white coating on the sun facing side to reflect the sun's energy away from the spacecraft.
- As the spacecraft approach the sun, temperatures on the heat shield will reach nearly 1,300 $^{\circ}\text{C}$ but the spacecraft will be kept at about 30 $^{\circ}\text{C}$. \n
- The shield will help the spacecraft remain safe as it collects data about the inner workings of the corona.

Temperature in the Sun's Atmosphere

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• The sun's atmosphere corona is much hotter than its visible surface Photosphere.

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- \bullet Normally, the layer closest to a source of heat, the Sun's surface, in this case, would have a higher temperature than the more distant atmosphere. \n
- But the reason for the high temperature is the constant eruption of tiny solar flares in the solar atmosphere.
- The solar flares produce hard X-rays, whose wavelengths are much shorter than the light humans can see and it is a signature of extremely hot solar material.

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Mudumalai Tiger Reserve

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- Mudumalai Tiger Reserve is a critical part of the Nilgiris Biosphere Reserve.
- The reserve, comprising the wildlife sanctuary and the national park, was declared a core tiger habitat in 2007.
- It extends over a core area of 321 sq.km and buffer area of 367 sq.km.
- Union Ministry of Environment has recently issued notification declaring 438 sq.km of area around the Mudumalai Tiger Reserve as an **ecosensitive zone**.

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- The notification followed a Supreme Court order calling for an eco-sensitive zone around all national parks
- The declaration of an eco-sensitive zone would place restrictions on polluting industries but it would not stop agriculture activities in the area.
- \bullet The following activities are restricted/prohibited in the eco-sensitive zone, \n

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1. Commercial mining,

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2. Setting up of industries causing pollution,

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3. Establishment of major hydroelectric projects,

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4. Use or production or processing of any hazardous substances,

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- 5. Discharge of untreated effluents into natural water bodies or land area and
- 6. Setting up of new saw mills or brick kilns.

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• But resorts already present in the area would not be forced to stop functioning.

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Gaming University

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• The UNESCO, specialised agency of United Nations, entered into an agreement with the Andhra Pradesh Economic Development Board for the establishment of a gaming digital learning hub.

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• Visakhapatnam will soon have a Design university for gaming.

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• The hub is seen as potential medium for creating around 50,000 jobs in 10 years.

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Common Service Centre

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- The Common Service Center (CSC) Scheme is an integral part of "Digital India" initiative of Ministry of Electronics and Information Technology.
- CSCs are the access points for delivery of various electronic services to

villages.

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- In addition to it, CSCs promote rural entrepreneurship, community participation and collective action for social change.
- CSC e-Governance Services India Limited is a Special Purpose Vehicle (CSC SPV) incorporated under the Companies Act, 1956 to monitor the implementation of the Common Services Centers Scheme.
- \bullet Village Level Entrepreneur (VLE) under CSCs provide service to the rural consumer in villages.
- **Recent development** CSC SPV has entered into agreement with HDFC Bank.

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• This is to enable its three lakh Village Level Entrepreneurs (VLEs) managing the Common Services Centers operate as **Banking Correspondents of HDFC Bank**.

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- They will support the Government initiative to promote financial inclusion and make banking services more accessible in rural areas.
- HDFC Bank will support CSC SPV in converting 1000 identified villages into Digital Villages within this financial year.

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Stree Swabhiman

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• Stree Swabhiman is an initiative under Ministry of Electronics and Information Technology for promoting women's menstrual health and hygiene.

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• Under this initiative, CSC SPV will provide access to affordable, reliable and modern (eco-friendly) sanitary napkins to adolescent girls and women in rural areas.

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- Under this initiative, semi-automatic and manual sanitary napkin manufacturing units will be set up at CSC for producing sanitary napkins.
- HDFC Bank will also support CSC SPV by funding Stree Swabhiman Sanitary Napkin Manufacturing Units.

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Adopt a Heritage Project

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- It is a key initiative of Ministry of Tourism in close collaboration with Ministry of Culture and Archeological Survey of India (ASI).
- It aims to encourage public / private sector companies and corporate citizens
 / NGOs / individuals to take up the responsibility of development, operation
 and maintenance of State heritage and other important tourist sites in India.
- They will be considered as "Monument Mitras" for the development of tourist amenities.

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• In April this year, Dalmia Bharat Group won a bid to take over the maintenance of 'Red Fort', after it signed a memorandum with the Government of India.

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• Recently, one of the heritage site in Delhi has got a monument mitra for its development.

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Source: The Hindu, PIB

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