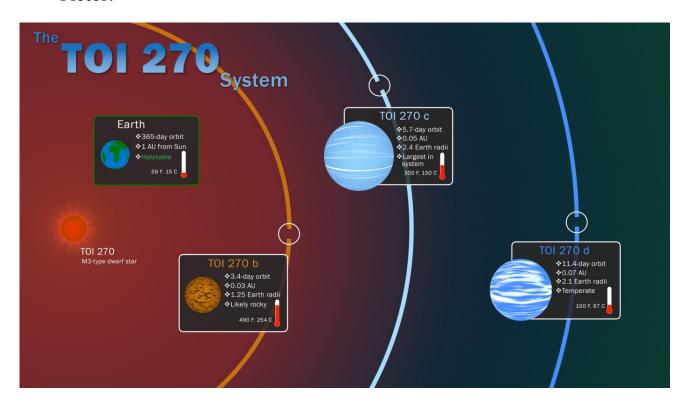


Prelim Bits 31-07-2019

TOI 270

- It is the name of the dwarf star and the planetary system.
- It was recently discovered by NASA's Transiting Exoplanet Survey Satellite (TESS).
- It is about 73 light years away from Earth, and is located in the constellation Pictor.



• TOI 270 b,

- 1. It is the innermost planet in this system.
- 2. It is expected to be a rocky world about 25 per cent bigger than Earth.
- 3. It is not habitable since it is located too close to the star.
- 4. It about 13 times closer than our Solar System's Mercury is from the Sun.

TESS Mission

ullet The Transiting Exoplanet Survey Satellite (TESS) is an MIT-led NASA's

mission.

- It is to spend two years discovering transiting exoplanets by an all-sky survey.
- The primary goal of TESS is to discover planets smaller than Neptune.
- With TESS, it is possible to study the mass, size, density and orbit of a large cohort of small planets.

Mission Shakti

- It was India's successful 'Anti-satellite (ASAT) missile' test.
- An Indian satellite at 300 km in Low Earth Orbit was targeted and destroyed through 'collision' (rather than warheads).
- It made India to join the ranks of the US, Russia and China.
- It gives teeth to India's space programme and military posture.
- It was the prerogative of DRDO.
- The DRDO's Ballistic Missile Defence interceptor was used.
- A BMD, by destroying incoming missiles, provides a strategic umbrella,
- ASAT adopted 'Direct Ascent Kinetic Kill' method.

India & Outer Space

- India has no intention of entering into an arms race in outer space.
- India believes that Outer space is the common heritage of humankind and it is the responsibility of all to preserve it.
- India already implements a number of Transparency and Confidence Building Measures(TCBMs) includes,
- 1. Registering space objects with the UN register,
- 2. Pre-launch notifications,
- 3. Measures in harmony with the UN Space Mitigation Guidelines,
- 4. Participation in Inter Agency Space Debris Coordination (IADC) activities with regard to space debris management,
- 5. Undertaking SOPA (Space Object Proximity Awareness) and COLA (Collision Avoidance)
- 6. Participating in all sessions of the UN Committee on the Peaceful Uses of Outer Space.
- India also supported UNGA resolution 69/32 on 'No First Placement of Weapons on Outer Space'.
- India supports the substantive consideration of the issue of 'Prevention of an Arms Race in Outer Space' (**PAROS**).
- India is a signatory to 1967 Outer Space treaty.
- It prohibits only weapons of mass destruction in outer space, not ordinary

weapons.

Kleptocracy

- It refers to the society whose leaders make themselves rich and powerful by stealing from the rest of the people.
- It is also known as "rule by thieves".
- It is closely associated with military juntas, oligarchies, dictatorships and nepotism or autocratic regimes.
- Russia is often pointed out as an example of a modern kleptocracy.
- Africa has many of the world's kleptocratic leaders, who have driven their economies into ruin.
- There is a common trend in Africa where the poorest and least developed countries are often kleptocracies.
- The US often portrayed as the model of true democracy, but in recent years, has been labeled as a kleptocracy.
- 'Narco-kleptocracy', also known as 'Narco-economies', are nations where drug money has compromised the integrity of the government.
- It is through bribing of senior government officials to allow the illegal drug trade to be conducted within the country. E.g Guinea, Panama, Tajikistan and Venezuela.
- "Digital Kleptocracy" is a means by which rich tech companies mine poor people's data.
- In fact, companies steal, in most cases the person is unaware of their data being harvested and used for profit.
- Each time you click on a link, or even hover your mouse over one, your behaviour is being tracked.
- It is then analysed to understand your preferences, needs and being sold to companies to enable "targeted" advertising.
- Centralising data means that a single data breach can compromise all aspects of the individual life.
- Strong data protection and privacy law can address this issue.

Vembanad Lake

- A group of fishermen have been conducting plastic collection drive every year to get the lake rid of plastic waste in Vembanad Lake.
- The Lake is also known as 'Vembanad Kayal', 'Vembanad Kol', 'Punnamada Lake' and 'Kochi Lake'.
- It is the largest in Kerala and the longest in India.
- The longest railway line in India, Vembanad Rail Bride is also named after

the lake.



- 'Nehru Trophy Boat Race' is held every year in Vembanad Lake.
- It is the 'Wetland of international importance', as defined by the **Ramsar** Convention.
- The 'Kumarakom Bird Sanctuary' is located on the east coast of the lake.
- It is included in the 'National Lake Conservation Programme' (NLCP) for conservation and management of the lake.
- Plastic pollution is the major threat to the lake ecosystem and to the entire biodiversity,
- So, houseboats and resorts in the district have started replacing single-use plastic water bottles with glass jars and glass bottles.
- Other Ramsar sites in Kerala,
- 1. Ashtamudi Wetland
- 2. Sasthamkotta Lake

Ramsar Convention

- The Convention on Wetlands, called the Ramsar Convention, is the intergovernmental treaty.
- It provides the framework for the conservation and wise use of wetlands and their resource.
- Wetlands includes all,
- 1. lakes and rivers,
- 2. underground aquifers,
- 3. swamps and marshes,
- 4. wet grasslands, peatlands,
- 5. estuaries,
- 6. deltas and tidal flats,
- 7. mangroves
- 8. other coastal areas, coral reefs, and
- 9. all human-made sites such as fish ponds, rice paddies, reservoirs and salt pans.
- The Convention works under the "three pillars",
- 1. Work towards the wise use of all their wetlands
- 2. Designate suitable wetlands for the list, Wetlands of International Importance (Ramsar List) to ensure their effective management.
- 3. Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.
- The inclusion of a wetland in the List embodies the government's commitment to take necessary steps to ensure that its ecological character is maintained.

Source: PIB, The Indian Express

