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

- 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

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