

## Prelim Bits 28-11-2019

### NuGen Mobility Summit-2019

- NuGen Mobility Summit-2019 is the first in a series of the conference organized by International Center of Automotive Technology (ICAT), Manesar in Haryana.
- It is the largest automotive technology event covering relevant topics of alternate fuel systems and E-Mobility.
- In the three-day conference, Automotive technology experts from 15 countries including India will be presenting more than 120 technical research papers.
- ICAT, Manesar is a division of NATRIP Implementation Society (NATIS) under the Ministry of Heavy Industries and Public Enterprises.

### 15<sup>th</sup> Finance Commission

- Article 280 of the Constitution states that the President shall constitute a Finance Commission at the expiration of every fifth year or at such earlier time as the President considers necessary.
- Union Cabinet has extended the term of 15<sup>th</sup> Finance Commission (15<sup>th</sup> FC) headed by N.K.Singh by one-year to October 30, 2020.
- The term was originally set to end in October 2019.
- It means the Commission will recommend its award to six fiscal years, instead of the usual five.
- The 15<sup>th</sup> FC can give recommendations for six years through two reports (2020-21 to 2025-26) and 16<sup>th</sup> FC will consider devolution for 2025-26 to 2029-30.
- The proposed change in coverage of the period will help medium-term resource planning for the state governments and the central government.
- **Finance Commission** is a quasi-judicial body and its recommendations are only of advisory nature and hence, not binding on the government.
- It is constituted to make recommendations to the president about the distribution of the net proceeds of taxes between the Union and States and also the allocation of the same amongst the States themselves.
- It is also under the ambit of the Finance Commission to define the financial relations between the Union and the States.
- They also deal with devolution of non-plan revenue resources.

- According to the recommendation of 14<sup>th</sup> Finance Commission, the share of states in the net proceeds of the shareable Central taxes should be 42%.

## **New Snake Species**

- Researchers have discovered a new species of non-venomous burrowing snake named 'Trachischium aptei' in Arunachal Pradesh.
- It was found under fallen logs inside a thickly forested area of the Tally Valley Wildlife Sanctuary near the town of Ziro in Arunachal Pradesh.
- *Trachischium* species are commonly called slender snakes.
- They are seldom seen due to the burrowing habits and hence remain poorly studied.
- They are currently known by seven species that are distributed across the Himalayas, and the Indo-Burma and Indo-China regions.
- *Trachischium aptei* was named so to honour the contribution of Deepak Apte, well-known marine biologist and Director of the Bombay Natural History Society.

## **Madden-Julian Oscillation**

- The Madden-Julian Oscillation (MJO), is a moving band of rain clouds that travels around the globe spanning 12,000-20,000 km across the tropical oceans.
- Global warming has been expanding the size of the warm pool which affects its normal interaction period.
- In its journey, it interacts with surface waters of the Indo-Pacific Ocean, the largest pool of warm water in the globe and the lifecycle of the MJO gets affected.
- The MJO clouds on average are spending only 15 days, instead of 19, over the Indian Ocean and increased by 5 days over the west Pacific.
- It is this change in the residence time of MJO clouds that has altered the weather patterns across the globe.
- When the MJO appears in the Indian Ocean during the monsoon months of June-September, it can increase rains over India.
- This year, India was poised to receive below normal monsoon rainfall in April but ended up with excessive rain partly due to the MJO.
- The change in the MJO could drift warmer surface water towards the Bay of Bengal and increase cyclones.
- The changes in MJO behaviour have increased the rainfall over northern Australia, west Pacific, Amazon basin, southwest Africa and southeast Asia (Indonesia, Philippines and Papua New Guinea).
- At the same time these changes have brought a decline in rainfall over central Pacific, along the west and east coast of U.S. (e.g., California), north

India, east Africa and the Yangtze basin in China.

- Scientists have asserted that the frequent California fires, droughts in Africa and East Asian floods and cyclones in the Bay of Bengal may be linked to these changes in global weather.
- This MJO phenomenon haven't been as extensively studied as say the El Nino.

### **Exercise HIM VIJAY**

- Exercise HIM VIJAY is a routine military exercise conducted to validate operational capabilities of our combat formations.
- It is to test mobility, communication and coordination of such huge body of fast-moving troops in difficult terrain.
- Three Battle Groups, , each comprising around 4000 soldiers, are participating which will include troop mobilisation, mountain assault and air assault.
- Air force and Army helicopters will be transferring troops and equipment at the terrain of upto 15,000 ft.
- This year, it was taken place in Arunachal Pradesh.

**Source: PIB, The Hindu, Business Standard**