**Tamil Nadu**

- The Centre has approved the Tamil Nadu government’s proposal to secure a $478.07 million loan from Asian Infrastructure Investment Bank (AIIB) and OFID (OPEC Fund for International Development) for phase II and III of the Chennai Peripheral Ring Road project.

- The phase for which the approval was given will cover 57km — from Thatchur in North Chennai to Sriperumbudur — linking Kolkata, Tirupati and Bengaluru national highways.

- The total project is estimated to cost $827.43 million.

- The ring road will connect various national highways and the Ennore and Kattupalli ports.

- The proposed project is expected to reduce the travel time, decongest city roads and substantially minimize pollution.

- Tamil Nadu entered into a ₹2,470-crore agreement with JICA for the Ennore Port-Thatchur 24.52km phase I early this year.
The proposed 60-metre-wide road will have around 200 grade separators, bridges and culverts.

The land acquisition for around 50% of the project is expected to be ready by October 2020 and the tender process will commence in April.

- **Adani Power**, through its arm Raigarh Energy Generation Ltd (REGL) Chhattisgarh - will supply 185MW to Tamil Nadu over a period of next three years.
  - The REGL, a pit thermal unit (one at the coal mine itself), has a total capacity of 600MW.
  - Apart from supplying power to Tamil Nadu, REGL will also supply 110MW to Telangana.
  - Tangedco needs additional power in the short term as this year the average power demand in the state stood at around 14,000MW.
  - Already Adani solar company supplies solar power to Tangedco.
  - Tangedco is also purchasing coal through another arm of Adani power.

- **TNSMART**, a web-based decision support system developed by the State Disaster Management Authority - has received a positive mention from the Economic and Social Commission for Asia and the Pacific (ESCAP) of the UN.
  - A report on the status of disasters in the Asia-Pacific region has mentioned that TNSMART was used during the 2018 northeast monsoon, particularly during Cyclone Gaja.
  - During the preparedness phase, TNSMART helped its 13,000 registered users understand the risk and communicated the same to field-level functionaries.
  - The report mentioned that TNSMART helped disaster management personnel provide location-based services while responding to communities at risk, saving numerous lives due to timely evacuation.
  - The system was developed by the Commissionerate of Revenue Administration and Disaster Management (CRADM), in collaboration with the Regional Integrated Multi-Hazard Early Warning System (RIMES), Thailand, to overcome technical and institutional barriers.
Paramilitary forces deployed along the sensitive border with Pakistan and in Naxal-infested parts of India will soon get next-generation bulletproof jackets based on a Bhabha Atomic Research Centre (BARC)-developed technology.

- The technology for the bulletproof jackets is called ‘Bhabha Kavach’, named after the father of the Indian nuclear programme Homi J Bhabha.
- It was developed at BARC’s Trombay centre after the Union home ministry made a request for such a jacket in 2017.
- The BARC-patented jacket technology was then transferred to defence PSU Mishra Dhatu Nigam Limited (MIDHANI) last year for limited pilot production for sample testing.
- The jacket, which is lighter than those already available in the market, will offer 360-degree protection to personnel of central armed police forces like CRPF, BSF, CISF, ITBP and SSB.

- The jacket is developed with hard boron carbide ceramics that is hot-pressed with carbon nano-tubes and composite polymer.
- Boron carbide is utilised by BARC in control rods to absorb neutrons and control the fission rate in nuclear reactors.
- The material is so tough that it can provide level 3+ shield from various assault rifles like Ak-47.
AWARDS

➢ The Prime Minister of Bangladesh Sheikh Hasina - was conferred Dr Kalam Smriti International Excellence Award-2019.
  ✔ She was awarded with the honour for the vision of a peaceful South Asia, free of terrorism, conflicts and tensions.
  ✔ Dr Kalam Smriti International Excellence Award was first conferred in 2015 in memory of APJ Abdul Kalam.

OBITUARY

➢ Green Revolution pioneer, Professor Khem Singh Gill (89 years) - passed away in Ludhiana on September 17
  ✔ Gill, who was the former vice-chancellor of the Punjab Agricultural University (PAU), Ludhiana (1989-93), was instrumental in the success of Green Revolution and was honoured with a Padma Bhushan in 1993.
  ✔ Gill’s support in building the wheat programme and developing more than 30 varieties of wheat, pearl millet and other crops was an addition to Green Revolution, progressing in Punjab and rest of the country.
  ✔ The recommendation/ release of WL 711 variety of wheat by Gill and launching of semi-dwarf, high-yielding varieties of wheat helped Punjab to become the ‘wheat granary of India’

SPORTS

➢ Vinesh Phogat - has become first Indian wrestler to quality for the 2020 Olympics

  ✔ She got the opportunity after beating American Sarah Hildebrandt in the World Championships in Nur Sultan, Kazakhstan.
  ✔ Earlier in the championship, she defeated Ukraine's Yuliya Khalvadzhy in the first round of the championship in the 53kg category.