

1. PERIYAPURANAM

Context: Exactly 134 years after they were first published, the first four-volume commentaries on **Periyapuram, the poetic history of 63 Shaivite saints**, will be released in Chennai at the Sekkizhar festival.

About Periyapuram:

- ▶▶ **Sekkizhar's Tiruttondar Puranam or Periyapuram**, composed during the rule of **Kulottunga Chola II (1133-1150)**
- ▶▶ It is a Tamil poetic account depicting the lives of the sixty-three Nayanars, the canonical poets of Tamil Shaivism.
- ▶▶ It was compiled during the **12th century** by **Sekkizhar**.
- ▶▶ It provides evidence of trade with West Asia
- ▶▶ The Periya Puranam is part of the corpus of Shaiva canonical works.
- ▶▶ The Periyapuram is considered as a **Fifth Veda in Tamil** and immediately took its place as the twelfth and the last book in the Saiva canon.
- ▶▶ It is considered as one of the masterpieces of the Tamil literature and worthily commemorates the Golden age of the Cholas

2. NAMDAPHA TIGER RESERVE

Context: Conservation of the **Royal Bengal Tiger** has taken a hit in India's easternmost tiger reserve.

- ▶▶ The authorities of the Namdapha Tiger Reserve in Arunachal Pradesh have discontinued the services of 53 frontline staff, all casual employees.

About Namdapha Tiger Reserve:

- ▶▶ Namdapha was originally declared a Wildlife Sanctuary in 1972, then a National Park in 1983 and became a Tiger Reserve under the **Project Tiger scheme**

Geography and Vegetation:

- ▶▶ It is **India's easternmost Tiger Reserve**.
- ▶▶ It is located in the Changlang district of Arunachal Pradesh near the international border with Myanmar.
- ▶▶ The area is located between Dapha Bum ridge of Mishmi Hills, outspurs of North Eastern Himalayas and Patkai Ranges.

- ▶▶ The land cover changes with increasing elevation from **tropical evergreen forest to temperate broadleaf and mixed forest.**
- ▶▶ Namdapha is in fact the name of a river which originates from Daphabum (Dapha is the name of hill, Bum means peak of hill) and meets Noa-Dehing river.
- ▶▶ This river flows right across in a North-South direction of the National Park and hence the name Namdapha has been given.
- ▶▶ In local Singphoo language Nam means water or river and Dapha is the name of a clan of Singphoo tribe.

About Bengal Tiger:

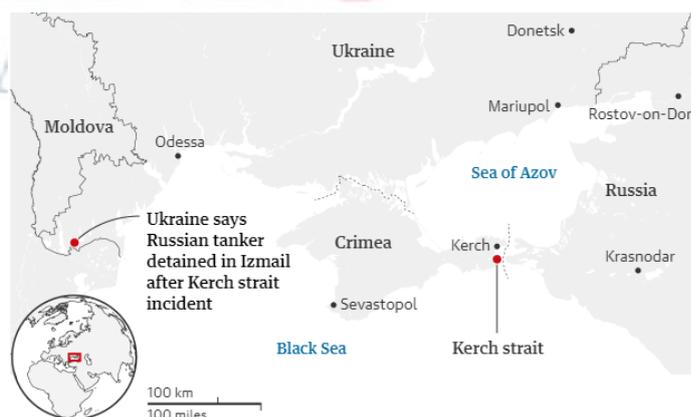
- ▶▶ It is the **National Animal** of both **India and Bangladesh.**
- ▶▶ It is native to the Indian subcontinent.
- ▶▶ It found predominantly in India with some populations in **Nepal, Bhutan, Bangladesh, China and Myanmar.**
- ▶▶ It is threatened by poaching, loss, and fragmentation of habitat.
- ▶▶ It is also known as the **Royal Bengal tiger.**

IUCN Red list	Endangered
Geographical Distribution	Nepal, Bhutan, Bangladesh, China and Myanmar
National Animal	India and Bangladesh.

3. UKRAINE SEIZES RUSSIAN SHIPS IN BLACK SEA

Context: Ukraine seized a Russian tanker called ‘**Nika Spirit**’ for its alleged involvement in the capture of three Ukrainian Navy vessels by Russia

- ▶▶ The crew members were later freed by Ukraine and were on their way home, but the tanker remained in Ukrainian custody in the Danube river port of Izmail.



- ▶▶ Russia annexed Crimea in 2014 and has built a bridge over the **Kerch strait**, which separates the peninsula from Russia.
- ▶▶ Ukrainian ships have to pass through the strait to exit the **Sea of Azov.**
- ▶▶ The 24 sailors seized during the November incident in the strait have been held in Russian prisons since.

- ▶▶ **About Kerch Strait:** It connects the **Black Sea and the Sea of Azov**, separating the Kerch Peninsula of Crimea in the west from the Taman Peninsula of Russia's Krasnodar Krai in the east.

About Sea of Azov:

- ▶▶ It is located in **Eastern Europe**.
- ▶▶ To the south it is linked by the **narrow Strait of Kerch to the Black Sea**, and it is sometimes regarded as a northern extension of the Black Sea
- ▶▶ The sea is bounded in the northwest by Ukraine, in the southeast by Russia
- ▶▶ It is the **shallowest sea in the world**
- ▶▶ There is a constant outflow of water from the Sea of Azov to the Black Sea.

4. YAMUNA WATER CONSERVATION PROJECT

Context: NGT nod for plan to tap rainwater along Yamuna.

- ▶▶ Delhi government's ambitious plan to tap the Yamuna rainwater by building a 1,000-acre mega reservoir is set to see the light of day with NGT giving its nod to the project

Aim:

- ▶▶ The project aims at conserving water in the floodplain between Palla on the Delhi-Haryana border and Wazirabad to deal with the water shortage in the capital, particularly during summers.
- ▶▶ The government will build small ponds in the floodplain, which will catch excess water from the overflowing river during monsoons.

5. INDIA'S TEXTILE EXPORTS

Context: The Union Minister of Textiles informed Rajya Sabha about India's share in Global Textile Exports.

- ▶▶ The share of India in global textile exports is 6% in 2017.
- ▶▶ Share of top three textile exporting countries in global textile exports is:

S. No	Country	Share of Textile Export in Global Textile Exports
1.	China	33.6%
2.	USA	6.3%
3.	India	6%

- ▶▶ Share of textile sector export in India's export is reported at 12.9% in 2014-15 and 12.2% in 2018-19.

6. SEROTININ

Context: Extremely tiny **Gold Nanorattle** may help **detect serotonin** levels instantly

- ▶▶ A group of researchers has developed a nanotechnology-based biosensor for detection of serotonin in blood and urine.

About Serotonin:

- ▶▶ Serotonin is a **brain chemical** that plays an important role in controlling a number of **behavioural and cognitive functions**.
- ▶▶ Any fluctuation in its level could result in **psychotic and neurodegenerative conditions**.
- ▶▶ Serotonin is also secreted in the digestive system and its abnormal levels may be indicative of tumors in gastro-intestinal tract.

Biosensor:

- ▶▶ Now a group of Indian researchers has developed a **Nanotechnology-Based Biosensor** for detection of serotonin in blood and urine.
- ▶▶ They have developed a new nanocomposite material made of **Gold Nanorattles**-reduced graphene oxide coated onto glassy carbon electrodes with gold nanoparticles.
- ▶▶ In the new biosensor, serotonin detection depends on direct electron transfer process which is also a self-reporting strategy, where no redox or any other labels are required to get quantifiable signals.
- ▶▶ The biosensor is capable of detecting serotonin in healthy persons as well as those with elevated levels.
- ▶▶ It can detect serotonin in range between 0.3 and 1 micromole in different biological samples like blood and urine within few minutes.
- ▶▶ Due to its wide detection range researchers anticipate it to detect clinically relevant concentrations of serotonin levels.
- ▶▶ Additionally, researchers said, this method would be cheaper compared to existing biochemical assays.

7. HINDON RIVER

Context: NGT panel head on Hindon river resigns, cites 'non-cooperation' from UP government

- ▶▶ Millions of people living along the banks of the Hindon and its tributaries are consuming groundwater that has been contaminated by hazardous toxins
- ▶▶ The National Green Tribunal is hearing a case regarding the hazardous levels of pollution in the Hindon river and its tributaries, which is leading to diseases among local inhabitants, and even deaths.

About Hindon River:

- ▶▶ **Hindon River, a tributary of Yamuna river**, is a river in India that originates in the Saharanpur District, from Upper Shivalik in Lower Himalayan Range.
- ▶▶ The river is entirely rainfed and has an approximate catchment area of 7,083 square kilometres.
- ▶▶ It flows between **Ganges and Yamuna rivers** for 400 km through Muzaffarnagar District, Meerut District, Baghpat District, Ghaziabad, Noida, Greater Noida before it joins Yamuna river just outside Delhi.

Tributary:

- ▶▶ **Kali river**, which originates in the Doon Valley and travels about 150 km passing through Saharanpur, Muzaffarnagar, Meerut and Bagpat districts, merges with Hindon River, before it merges with the Yamuna River.
- ▶▶ The Kali river is also highly polluted and adds to the pollution of the Hindon, as it passes through populated and industrial belt of Uttar Pradesh.

