Prelim Bits 07-10-2021 | UPSC Daily Current Affairs

Deep Brain Stimulation

In the US, a patient with severe depression was treated successfully using 'customised' deep brain stimulation (DBS) technique for this patient's case.

- The doctors tried to reset the depressive brain patterns by recognising and tapping the brain circuits linked with these patterns.
- DBS is a surgical procedure in which electrodes or leads are implanted into certain brain areas.
- These electrodes generate **electrical impulses that control abnormal brain activity**. The electrical impulses can adjust for the chemical imbalances within the brain that cause various conditions.

  DBS is the equivalent of using a pacemaker for the heart.

- Traditional DBS system has 3 components,
  1. **Electrode** is an insulated wire inserted through a small opening in the skull and implanted into a specific brain area.
  2. **Extension wire** is insulated wire that is passed under the skin of the head, neck and shoulder, connecting the electrode to the IPG of the system.
  3. **Internal pulse generator** (IPG) is usually implanted under the skin in the upper chest.

- **Conditions** that are traditionally treated using DBS include dystonia, epilepsy, essential tumour, obsessive-compulsive disorder and Parkinson's disease.
- In treating depression, however, DBS has shown limited success because most devices are only able to deliver constant electrical stimulation to one area of the brain.

Corbett National Park

A proposal has been made to change the name of Corbett National Park to Ramganga National Park.

- **Name** - Set up in 1936 as India's - and Asia's - first national park, the national park was called Hailey National Park.
- It was renamed Ramganga National Park (after the river that flows through it) shortly after Independence.
- In 1956, it was rechristened yet again as Corbett National Park.
- **About** - Located in the Himalayan foothills of Uttarakhand, the park encompasses the Patli Dun valley formed by the Ramganga River.
- It has sub-Himalayan belt ecological characteristics, as it falls in the Shivalik and Outer Himalaya geological provinces.
- It has dense moist deciduous forest.

- **Ideal Tiger Territory** - Corbett National Park was the place from where Project Tiger was launched in 1973.
- It is part of the Corbett Tiger Reserve. It has the single largest tiger population in a tiger reserve in the country.
- The national park along with the neighbouring Sonanadi Wildlife Sanctuary makes the critical tiger habitat of the Corbett Tiger Reserve.
- **Other Fauna** - Indian Leopards, Barking Deer, Spotted Deer, Sambar Deer, Jungle Cats, sloth, etc.

Guru Ghasidas & Tamor Pingla Tiger Reserve

National Tiger Conservation Authority (NTCA) approved the Chhattisgarh's proposal to declare the combined areas of the Guru Ghasidas National Park & Tamor Pingla Wildlife Sanctuary as a Tiger Reserve.

- **Approval** - The 11th Technical Committee of the NTCA approved the proposal under the Section 38V (1) of the Wildlife (Protection) Act, 1972.
- [Section 38V (1) of WPA, 1972 (Tiger Conservation Plan) - The State Government shall, on the recommendation of the NTCA, notify an area as a tiger reserve.]
- **About the New Reserve** - The new Reserve is located in the northern part of Chhattisgarh, bordering Madhya Pradesh and Jharkhand.
- Both Tamor Pingla Wildlife Sanctuary and Guru Ghasidas National Park were identified as **reserve forests**.
- Turning Guru Ghasidas into a Tiger Reserve is important as it provides a corridor for tigers to move between Bandhavgarh Tiger Reserve (Madhya Pradesh) and Palamau Tiger Reserve (Jharkhand).

Tamor Pingla Wildlife Sanctuary

- It is located in the Surajpur district of Chhattisgarh, and
    1. Moran River surrounds the northern boundary,
    2. BongaNalla guards the eastern boundary and
    3. Rihand River flows in the western boundary.
- The sanctuary experiences a warm and temperate type of climate.
- It is a part of the Sarguja Jashpur Elephant Reserve since 2011.
- **Fauna** - Asian elephants, Bengal tigers, Indian leopards, bears

Guru Ghasidas National Park

- It is located in the Narmada Valley dry deciduous forests eco-region of Chhattisgarh.
- It was the last known habitat of the Asiatic cheetah in the country.
- Originally a part of the Sanjay Dubri National Park in undivided Madhya Pradesh, it was created as a separate entity in Chhattisgarh's Sarguja region after the formation of the state in 2001.
- **Fauna** - Bengal tiger, Indian leopard, Spotted deer, Sambar deer, wild boar, Nilgai, Chinkara, Civet, Porcupine, Monitor lizard, etc

Source: The Hindu, The Indian Express



SHANKAR
IAS PARLIAMENT
Information is Empowering