India's First AI Elephant Research Centre in Palamu Tiger Reserve

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Why in News?

Palamu Tiger Reserve in Jharkhand is set to establish first AI powered Human –elephant conflict research Centre in India.

- **Aims –** To Transition Wildlife Management from traditional, reactive methods to proactive, AI tech- driven method.

Core Objectives –

- **Audio – Decoding -** Using AI models to understand elephant vocalizations & Distress alerts correspondence to Grazing, danger, or delivery.
- **Predictive Tracking –** With help of AI to track seasonal Migratory corridors & Behavior patterns, establishing automated early warning system in nearby villages.
- **Uniform Framework -** Creating the nation's first data-driven matrix using captive elephants to evaluate herd-human behavioral dynamics and refine mitigation strategies.

Facts of Palamu Tiger Reserve

- **Location** - Chhotanagpur plateau (Jharkhand)
- **Constituted as -** Protected Forest in 1947, it holds a pioneering position in global wildlife conservation as one of the original 9 tiger reserves designated at the launch of Project Tiger in 1974.
- Its baseline scientific forestry management dates back to 1864 under Dr. Anderson, serving as an administrative archive of Indian forest laws.
- **Total Area -** 1129.93 sq. km.
- **Core Area (Critical Tiger Habitat) -** 414.08 sq. km, which fully encompasses the Betla National Park (226.32 sq. km).
- **Buffer Area -** 715.85 sq. km.
- **Drainage Network -** Drained by 2 Perennial rivers—the North Koel and Burha River alongside seasonal torrents like the Auranga, Satnadi, and Sukri.
- It also features a unique geological half-lock spring called Taru.
- **Located in** - rain-shadow zone
- **Biodiversity –** It Hosts Leopards, Elephants, Sloth Vear, Gaur, Tigers & Indian Wolves.

For Reference: The New Indian Express | IAS Parliament



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