Kalai-II Hydroelectric Project

Prelims: *Current events of national and international importance | Environment & Ecology*

Why in News?

Recently, Union Environment Ministry's Expert Appraisal Committee (EAC) has recommended environmental clearance (EC) for the Kalai-II hydroelectric project on the Lohit River.

Project Details

- **Developed by** – Tehri Hydro Development Corporation Limited (THDC) India Ltd.
- **Location** – Lohit River (a tributary of the Brahmaputra in Anjaw's Hawai village, Arunachal Pradesh).
- **Capacity** – 1,200 MW.
- **Type –** Run-of-river with pondage project.

> *A standard run-of-river project generates electricity by using the natural flow and elevation of the river.*

- **Structure** – Concrete gravity dam with underground powerhouse.
- **Environmental Impact Assessment (EIA) Consultant** – Water & Power Consultancy Services (WAPCOS) Ltd.
- EIA's Avian fauna chapter listed 28 species on 19 families; but omitted white-bellied heron, failed to mention *under – threat* species.

Significant locations under threat

- **Lohit River Basin** – Supports free-flowing riverine habitats crucial for fish diversity and endangered avifauna.
- *Avifauna – The collective bird population of a specific region, habitat, or geological period.*
- **Kamlang Tiger Reserve** – Misrepresented only as a sanctuary in EIA; Habitat for *white-bellied heron* also home to tigers, elephants, and rich biodiversity.
- **Namdapha Tiger Reserve** – Known for heron nesting sites; one of India's richest biodiversity zones with endemic flora and fauna.
- **Walong (Anjaw district)** – Only other nesting site of white-bellied heron in India; records of nest abandonment due to anthropogenic disturbance.
- **Parshuram Kund (downstream Lohit)** – Pilgrimage site; ecological and cultural significance.

White-Bellied Heron (*Ardea insignis*)

- The *2nd largest* heron in the world after Goliath Heron.
- **Habitat** – Free-flowing rivers with rapids, low disturbance zones.
- **Threats** – Hunting and habitat loss are the major threats.

- **Population** – Less than 250 globally; 60 estimated in wild; 4–5 breeding pairs in Bhutan, fewer in eastern Arunachal.
- **Conservation Status**
  - **IUCN Red List –** Critically Endangered
  - **Wildlife Protection Act –** Schedule-I

Reference

- The Indian Express | Kalai II Hydroelectric Project

