



Kanwar Lake | Bihar | 17 May 2024

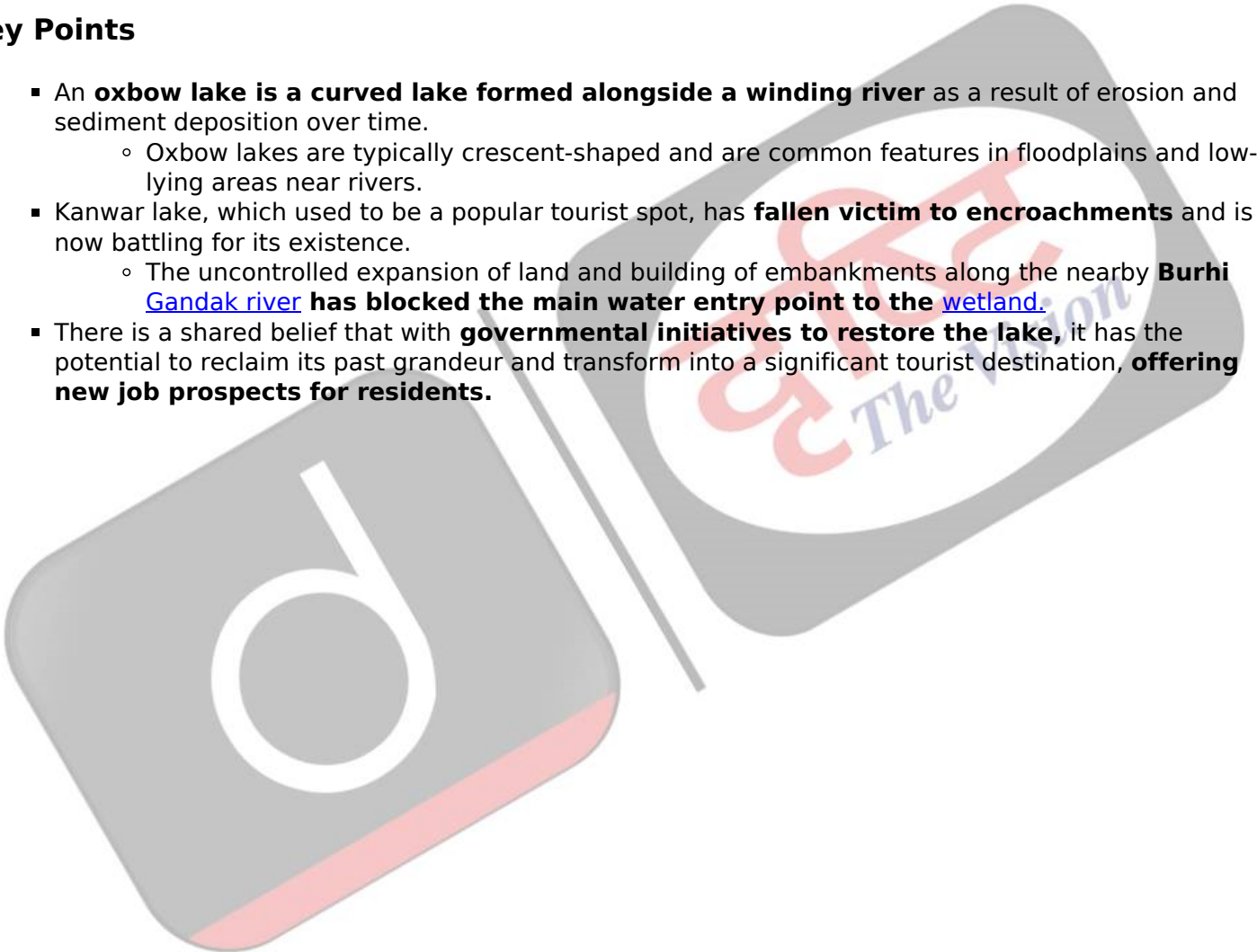
Why in News?

Once a haven for [migratory birds](#), Asia's largest **freshwater oxbow lake** and Bihar's only [Ramsar site](#), Kanwar is gradually disappearing.

Key Points

- An **oxbow lake is a curved lake formed alongside a winding river** as a result of erosion and sediment deposition over time.
 - Oxbow lakes are typically crescent-shaped and are common features in floodplains and low-lying areas near rivers.
- Kanwar lake, which used to be a popular tourist spot, has **fallen victim to encroachments** and is now battling for its existence.
 - The uncontrolled expansion of land and building of embankments along the nearby **Burhi Gandak river** **has blocked the main water entry point to the wetland**.
- There is a shared belief that with **governmental initiatives to restore the lake**, it has the potential to reclaim its past grandeur and transform into a significant tourist destination, **offering new job prospects for residents**.

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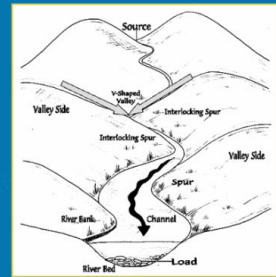


RIVER LANDFORMS

Different types of landforms formed at different courses of a river - Upper, Middle & Lower

UPPER (MOUNTAIN) COURSE

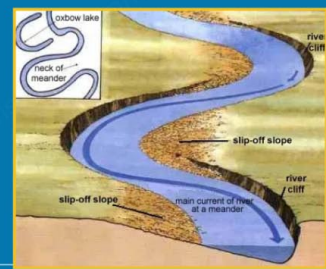
- Starts at source of river (usually a mountain range)
- Very fast speed of river due to steep slope
- Main action of river is vertical corrasion
- Landforms -
 - » V-shaped Valleys (formed due to vertical corrasion)
 - * Lao Valley, Hawaii
 - » Interlocking Spurs
 - * West Liddar valley above Pahalgam, Kashmir
- » Gorges (formed where rocks are too hard and resistant)
 - * Indus Gorge, Kashmir
- » Canyons (formed where rainfall is very low)
 - * Bryce Canyon, US
- » Rapids and Waterfalls
 - * Lava Falls Rapid, US and Niagara Falls, Canada



Corrasion (or abrasion) is the erosion of a rock surface by rock fragments transported over it by water, wind, or ice

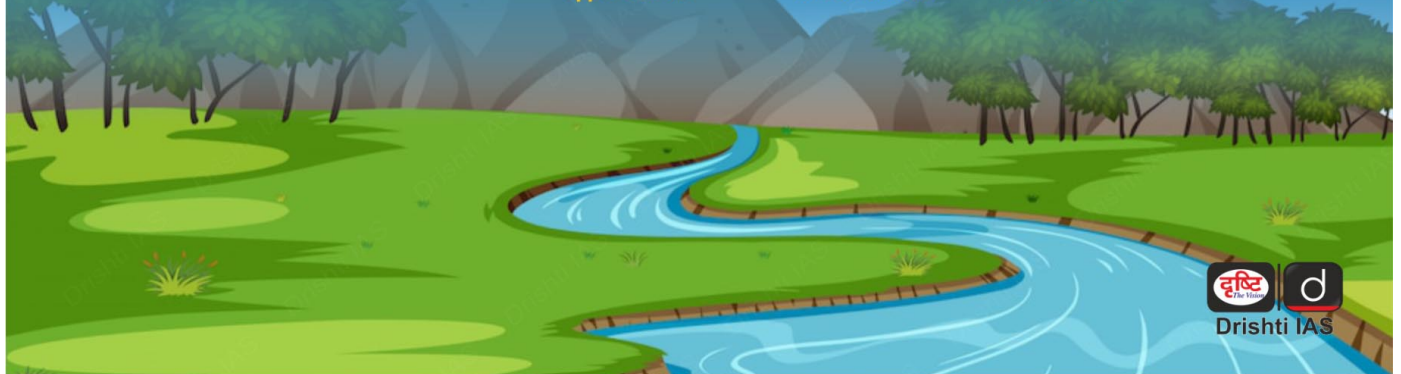
MIDDLE (VALLEY) COURSE

- Here, lateral corrasion overtakes vertical
- Confluence of tributaries → More volume of water → More loaded river
- Transportation main event in the region
- Interlocking spurs also formed on both sides of the valley
- Landforms -
 - » Meanders
 - * Owens River, SE California, US
 - » River Cliffs and Slip-off slope
 - * White Cliffs of Dover, UK



LOWER (PLAIN) COURSE

- River now heavy with material brought down from upper courses
- Vertical corrasion almost negligible, lateral corrasion still active
- Deposition plays key role in formation of riverbeds and extensive flood plains
- More volume in water; finer material carried to the mouth of river
- Landforms -
 - » Floodplains and Levees
 - * Ganga-Yamuna floodplain
 - » Deltas
 - * Sunderbans Delta



Kanwar Lake

- It is also known as **Kabartal jheel**.
- It is a residual oxbow lake, **formed due to the meandering of Gandak river**, a tributary of Ganga.
- It is covering the majority of the **Indo-Gangetic plains** in northern Bihar.
- The Wetland is an important stopover along the **Central Asian Flyway**, with 58 migratory waterbirds using it to rest and refuel.
- It is also a valuable site for fish biodiversity with over 50 species documented.
- **Five critically endangered species** inhabit the site, including **three vultures** - the

red-headed vulture (*Sarcogyps calvus*), white-rumped vulture (*Gyps bengalensis*) and Indian vulture (*Gyps indicus*) - and two waterbirds, the sociable lapwing (*Vanellus gregarius*) and Baer's pochard (*Aythya baeri*).

- **Threats:** Major threats to the site include water management activities such as drainage, water abstraction, damming and canalization.

PDF Refernece URL: <https://www.drishtiias.com/statepcs/18-05-2024/bihar/print>

