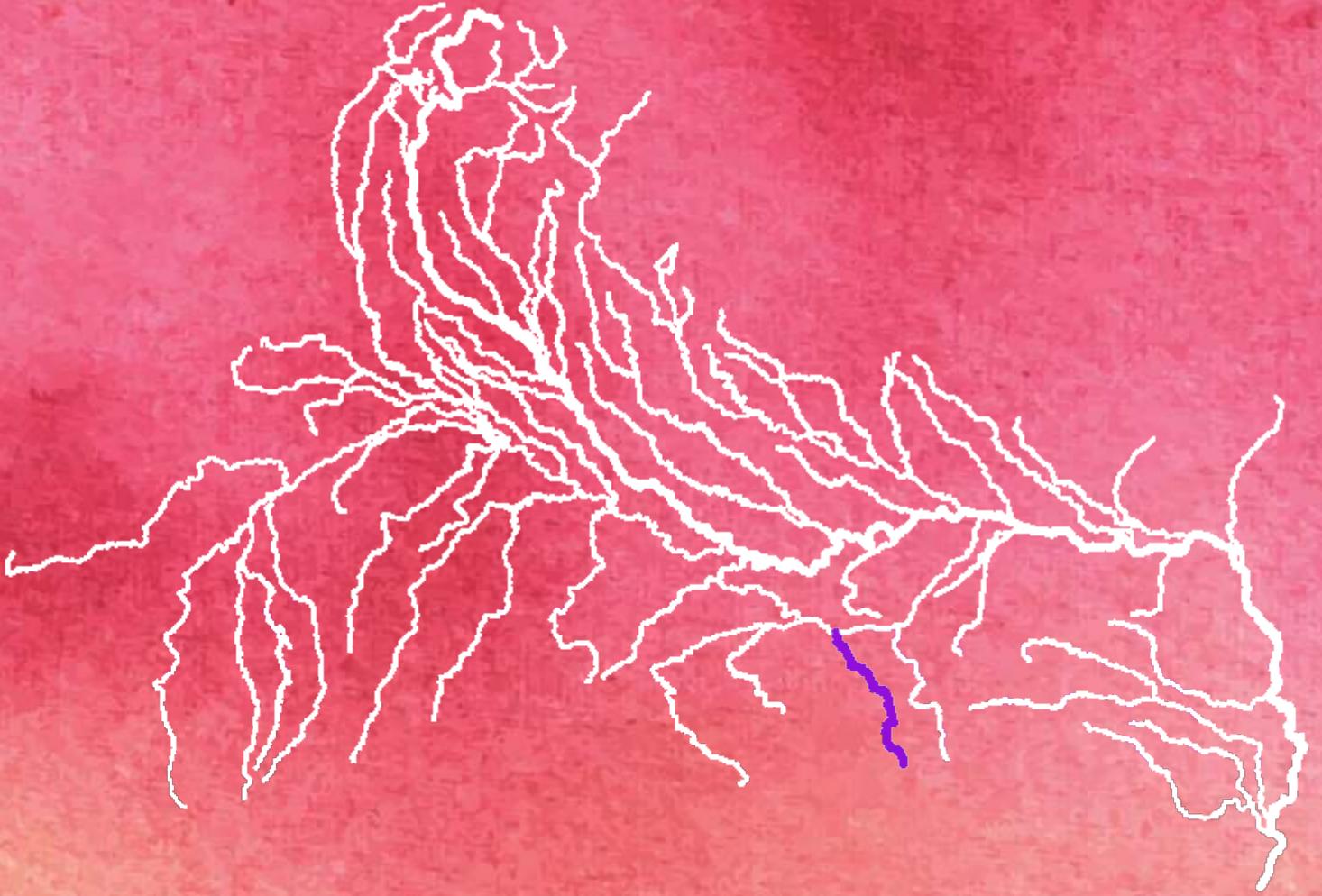


VIBRANT GANGA



भारतीय वन्यजीव संस्थान
Wildlife Institute of India



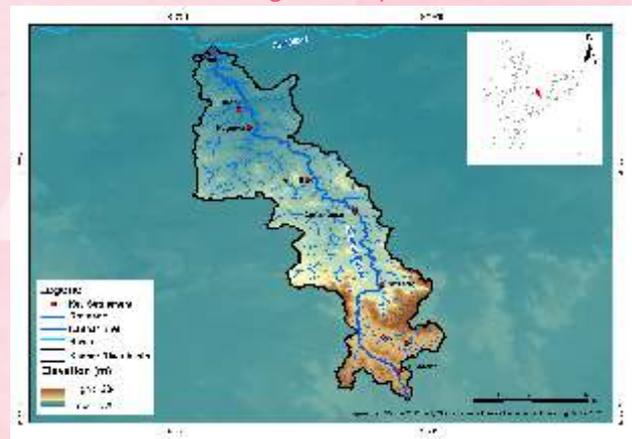
Kanhar

GENERAL INFORMATION

- Kanhar River, a tributary of the Son River, originates near Sonkyari village at Gidha-Dhodha on the Khudia Plateau in Jashpur district, Chhattisgarh, and flows for about 260 km through the districts of Jashpur and Balrampur in Chhattisgarh, Garhwa in Jharkhand, and Sonbhadra in Uttar Pradesh.
- It joins the Son River near Kota village, Sonbhadra district.
- Kanhar River basin spans an area of around 5,654 km² (Figure 1).
- The basin lies within the Deccan Peninsula (Chhota Nagpur – 6B) biogeographic zone.
- Kanhar basin experiences a tropical monsoon climate characterised by hot, dry summers, a wet monsoon, and cooler, drier winters.
- Kanhar basin comprises steep, forested hills and relict erosion surfaces in its upper reaches, a denuded plateau with hillocks and waterfalls in the middle reaches, and a gently sloping alluvial plain dominated by sediment deposition in the lower reaches.
- Lauwa, Malia, Pagan, Kursa, Sendur, Galphulla and Riger are the major tributaries of the Kanhar River.

- The population density along the River is 306.45 persons/km².
- Decadal LULC transitions in the Kanhar basin (2008-09 to 2018-19) recorded a significant increase in area under kharif crop (15.14 %) and double/triple cropping (1.52%), and decrease in current fallow land (-12.77%), wasteland (-2.92%) and rabi crop (-1.11%), indicating a shift towards agricultural intensification. Deciduous forest (0.06%), scrub forest (0.04%), water bodies (0.03%) and built-up area (0.01%) increased marginally, while plantation remained the same (Figures 2a and 2b).

Figure 1: Map of Kanhar River basin



BIODIVERSITY VALUE

- Kanhar basin is dominated by non-forest areas (51.52%), followed by open forest (21.91%), moderately dense forest (21.32%), very dense forest (4.93%), and scrubland (0.32%) (Figure 3).
- Kanhar basin is characterised by Northern Tropical Moist Deciduous Forest in the upper reaches with *Shorea robusta* and *Terminalia tomentosa*, transitioning to Northern Tropical Dry Deciduous Forest with *Anogeissus latifolia* and *Butea monosperma* in the middle reaches, and tropical riverine forests dominated by *Acacia nilotica*, *Tamarindus indica*, and *Ficus benghalensis* in the lower reaches, with localised patches of Northern Tropical Thorn Forest represented by *Ziziphus mauritiana*.
- Semarsot Wildlife Sanctuary, in the basin, harbours the Vulnerable leopard (*Panthera pardus*) and sloth bear (*Melursus ursinus*), Near Threatened striped hyaena (*Hyaena hyaena*), and prey species like chital (*Axis axis*) and northern red muntjac or barking deer (*Muntiacus vaginalis*). The Sanctuary is a key migratory corridor for the Endangered Asian elephant (*Elephas maximus*).
- The lower Kanhar basin, encompassing the districts of Jashpur and Balrampur, falls within the Surguja region of Chattisgarh and borders the Palamau Tiger Reserve on the west. A total of 361 bird species have been recorded from the Surguja region, while 169 birds species have been recorded from the Palamau Tiger Reserve, including the Critically Endangered white-rumped vulture (*Gyps bengalensis*), Indian vulture (*Gyps indicus*) and red-headed vulture (*Sarcogyps calvus*).
- 31 fish species have been documented from the Kanhar River, including the Vulnerable *Bagarius bagarius* and *Wallago attu*, and Near Threatened Gangetic ailia (*Ailia coila*).

Figure 2a: LULC map of Kanhar River basin (2008-09)

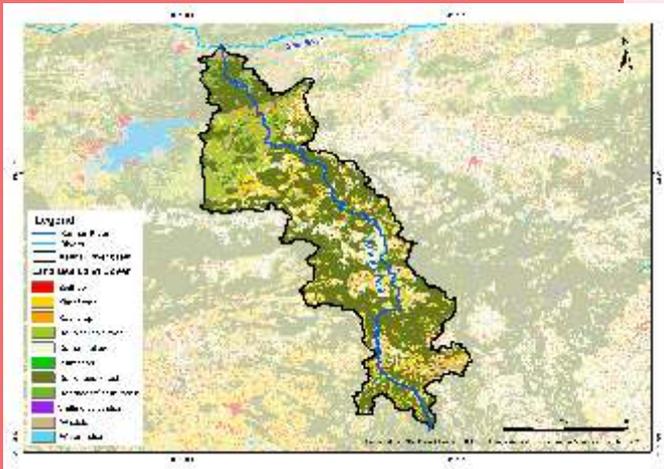


Figure 2b: LULC map of Kanhar River basin (2018-19)

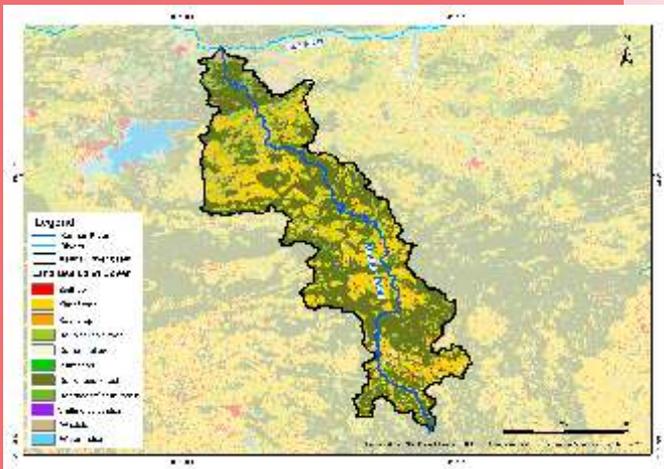
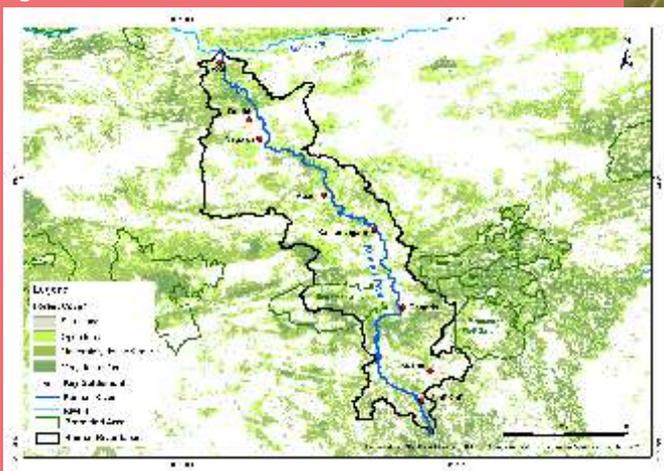


Figure 3: Forest cover of Kanhar River basin (2019)



CONSERVATION SIGNIFICANCE

ENDANGERED

Avifauna

Black-bellied tern *Sterna acuticauda* (Gray, 1832)

Egyptian vulture *Neophron percnopterus* (Linnaeus, 1758)

VULNERABLE

Avifauna

River tern *Sterna aurantia* (Gray, 1831)

Common pochard *Aythya ferina* (Linnaeus, 1758)

Sarus crane *Grus antigone* (Linnaeus, 1758)

Greater spotted eagle *Clanga clanga* (Pallas, 1811)

Fish

Bagarius bagarius (Hamilton, 1822)

Wallago attu (Bloch and Schneider, 1801)

KEY PROTECTED AREAS

Semarsot Wildlife Sanctuary

Mahuadanr Wolf Sanctuary

Palamau Wildlife Sanctuary

Barking deer (*Muntiacus vaginatis*) | ©Subharanjan Sen



DRIVERS OF RIVERSCAPE CHANGE

- Kanhar River flows through mineral-rich districts, including Sonbhadra, within the broader Singrauli–Sonbhadra energy belt, where coal mining, thermal power generation, and in-channel sand extraction contribute to channel destabilisation, water quality degradation and habitat loss.
- Kanhar Barrage (Garhwa district) and the Kanhar Irrigation Project (Sonbhadra district), currently under construction, will fragment the River and alter its natural flow regime, disrupting downstream discharge, sediment transport, and aquatic biodiversity.
- Kanhar basin, particularly across the Chhota Nagpur Plateau and Vindhyan scarps, is underlain by highly erodible sedimentary formations which, combined with undulating terrain, promote intense soil erosion, high sediment loads, channel aggradation, and reservoir siltation.
- Diversion of forest land for river development infrastructure and agricultural expansion has reduced riparian vegetation, increased surface runoff and sediment inflow, and submerged forested areas, thereby disrupting ecological connectivity and wildlife corridors.

INTERESTING FACTS

- Deepadih (Balrampur district), located near the confluence of the Kanhar, Galphulla and Surya, preserves the archaeological remains of a major religious and cultural centre dating from the 8th to 14th centuries. The site features extensive temple ruins, monolithic sculptures, and architectural fragments associated with Shaiva and Shakta traditions, including depictions of Shiva, Vishnu, Durga, Mahishasuramardini, and other deities. These remains, including Panchayatana-style temples and sculptural elements reflecting Khajuraho-style artistry, attest to a once-thriving sacred settlement along the river confluence.
- Tatapani (Balrampur district) is a prominent geothermal site known for its perennial hot water springs. The site holds religious and cultural significance, with local lores attributing the origin of the springs to events associated with Lord Rama and Sita. The springs are regarded as sacred by local communities, who believe that bathing in the hot water has therapeutic properties.
- In the spiritual traditions of local Oraon and Gond communities, waterfalls and deep pools along the Kanhar River and its tributaries, such as the Sukundar, are regarded as sacred sites associated with *Bui-Bonga* (water spirits). These sites are ritually revered, with traditional healers (*Ojhas*) performing ceremonies to ensure protection for people and livestock using the river.



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