

Rampant sand mining changing course of Ajay River in Burdwan

STUDY This may make river vulnerable to floods and sand incursions may affect fertile land

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KOLKATA: Rampant and unscientific sand mining from the Ajay River is changing the gradients of the riverbed and the course of the river.

It is also weakening the base of its embankments, a study published recently has said.

If allowed undeterred, sand-mining will make the river more vulnerable to floods and sand incursion on fertile agricultural land will rise when the river overflows.

"River bed degradation is responsible for shifting of the course. Excessive amount of sand mining has had its effects on channel gradient, which ultimately lowers the rate of water discharge and can change the flow of the Ajay in the long term," the report said.

The Ajay originates from the Munger Hills in Bihar and flows through Deoghar

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Nutanhut-bridge. River embankments are also affected by river bed mining," the study noted.

- Birbhum is the one of the districts worst-affected by illegal sand mining. There are an estimated 80 illegal mines in the district. However, the Mamata Banerjee government's recent drive against illegal sand mining has forced several such units to close operations

district of Jharkhand, Dumka district of Bihar and Bakura and Birbhum districts before meeting Bhagirathi at Katwa in Burdwan.

The study was conducted on a stretch between Ilambajar in Birbhum and Mangalkot in Burdwan.

"Removal of sand from active channel and point bar brings changes in the helical flow pat-

tern of the river and it allows hitting directly to the base of the embankment causing toe erosion and ultimately leads to the failure of embankment," the report said. The researchers found several examples of sand mining from 'active channel' and 'point bar'.

While recording the changes, they noted, "In 2006, a perfect cross section existed with all its normal features like mature

point (bar) with narrow channel... In 2014 the whole cross section was changed and it is seen that the mature bar areas have been totally removed from its position."

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The study is titled 'Environmental Impact of Sand Mining: a Case Study along the Lower Reaches of Ajay River' and was published in 2016. It was conducted by Mrinal Mandal, assistant professor, department of geography, Sidho-Kanho-Birsha

University, Debasis Ghosh, assistant professor, department of geography, University of Calcutta and Biswajit Ghosh, Barabazar Bikram Tudu Memorial College.

The study also recorded ecological impacts of such mining activities and said, "Natural morphological characteristics of Ajay are changing and damaging due to over mining of sand."

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"Sand mining will be allowed only on the grant of lease through auction and no objection certificate from the environment department," a senior official of the district told HT.