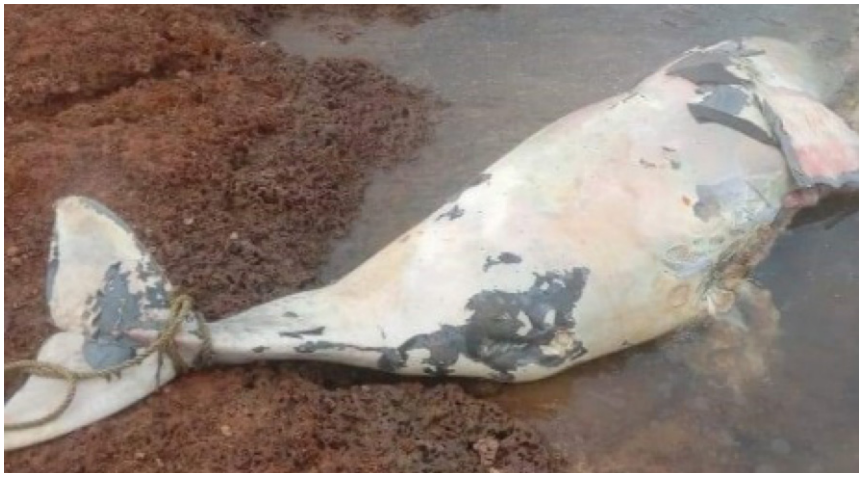
Loss of two Ganges River Dolphins in Kulsi River, Assam, highlights the need for conservation action

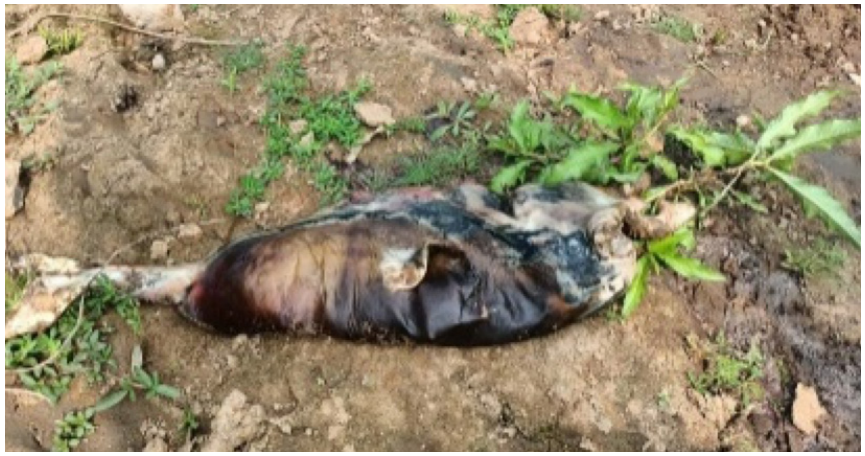
The Ganges River Dolphin *Platanista gangetica*, a freshwater dolphin found in the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu River systems in India, Bangladesh, and Nepal, is currently at high risk of extinction (Khan & Bhardwaj 2022). It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972, Appendix I of CITES and categorized as Endangered in IUCN Red List. A population survey by Wildlife Institute of India in Brahmaputra River system in February 2018, estimated 877±19 numbers of dolphins (Braulik et al. 2021). The same survey puts the dolphin population in Kulsi River at 37 individuals (Braulik et al. 2021) and it varied between 29–32 over the years (Wakid 2009; Qureshi et al. 2020a).

Recently, the unnatural death of two Ganges River dolphins in early February 2023 was recorded in Kulsi River, Assam, which could severely impact the small dolphin population in the river. The deaths were

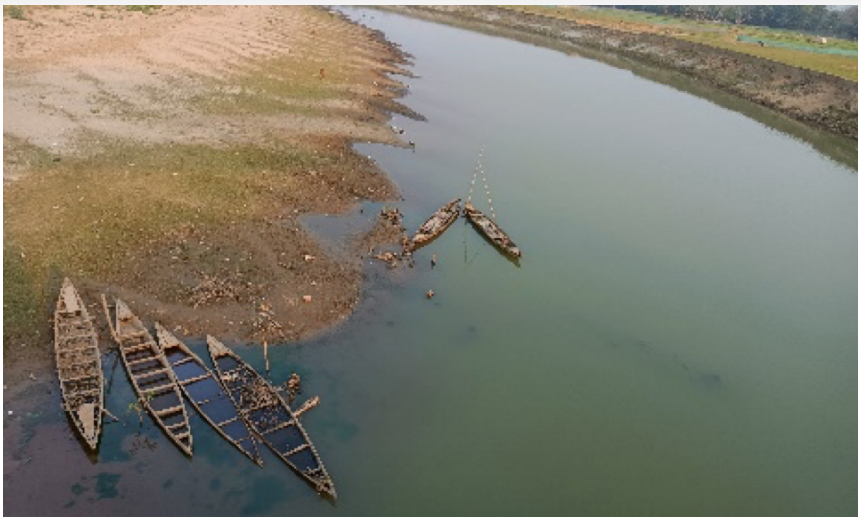
Ganges River Dolphin in Kulsi River.



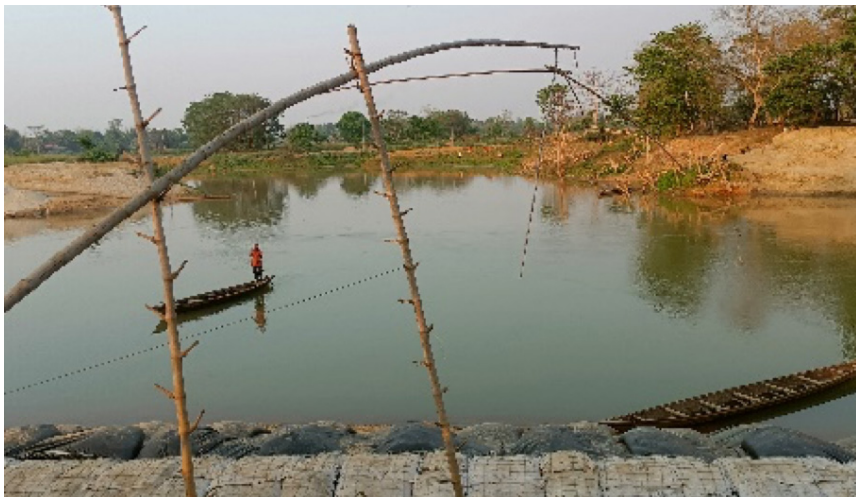
Carcass of dolphin recovered at Bherbheri on 02Feb2023.



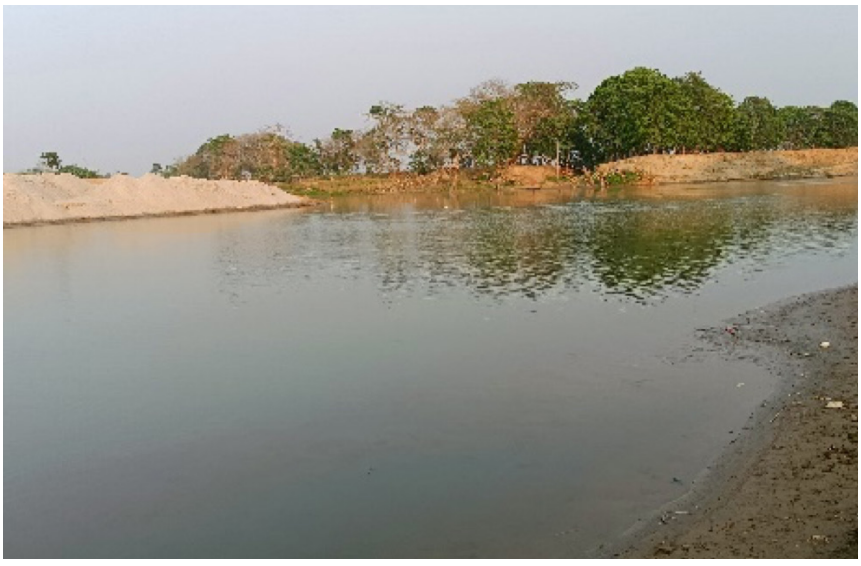
Carcass of dolphin recovered at Dakuapara on 05Feb2023.



Dry river towards Brahmaputra, just after meeting of Kukurmara and Kulsi rivers.



Fishing activity near Ganges River Dolphin view point.



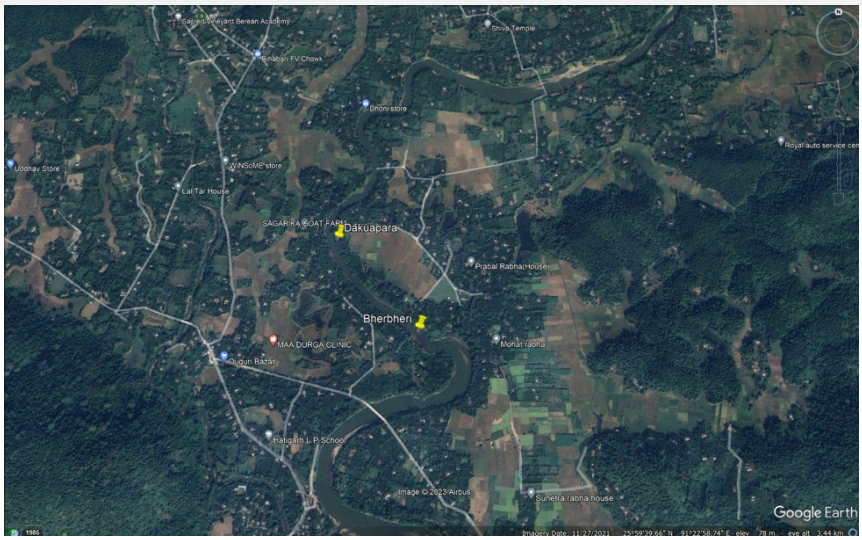
Kukurmara Kulsi before meeting at Brahmaputra.

considered unnatural as the location where the carcasses were found was not their normal habitat, moreover, the water level was also low that indicated the unfavorable condition for its survival and thereby leading to unnatural death. The dolphin carcasses were recovered from Kulsi River at Bherbheri (25.9957N, 91.3784E) and Dakuapara (25.9955N, 91.3799E), Kamrup, Assam. As observed by the first author, the length of the first individual that died on 02 February 2023 was approximately 5 ft with 80 kg body weight, whereas, the second individual that died on 5 February 2023 was approximately 3.5 ft with 42 kg body weight.

The main threats to its survival come from water development projects like sluice gate that is constructed at Kulsi Batha confluence, by-catch of the species, illegal hunting, and contamination of rivers with chemicals (Kelkar et al. 2022). Many of the minor tributaries of Kulsi River (Batha, Jagalia) have already lost their smaller sub-populations of dolphins, and leading in a historical and continuing range decline in upstream areas (Braulik et al. 2021). In 2019, a wall was built at the junction of Kulsi-

Batha rivers for ITC Ltd. soap and biscuit factory. However, illegal sand mining is taking place in the Kulsi River and during the dry season, the river water is solely utilized for irrigation. This requires the use of water pumps which cause significant noise pollution in the surrounding environment (Qureshi et al. 2020b). For fishing activities in the river, Kulsi fisherman use mosquito nets where the entire width of the river is blocked off with bamboo poles in order to guide the fish towards the nets and prevent the dolphins from moving freely (Qureshi et al. 2021).

The wall of ITC must be removed at the junction of Kulsi-Batha and measures must be put in place to oversee and regulate sand mining, particularly with the use of mechanized pumps (Qureshi et al. 2021). It is necessary to establish a community network that focuses on protecting dolphins. This network should consist of citizens who will undergo training and will be connected with local forest departments. Their role will be to inform the authorities about dolphin sightings, changes in their natural environment, and any potential dangers that may arise over time (Khan & Bhardwaj 2022). On a positive note, the forest department has reportedly halted the sand mining activity in the area after the recent death incident of these two dolphins.



A satellite imagery of the river with the two locations of carcass recovery.

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