



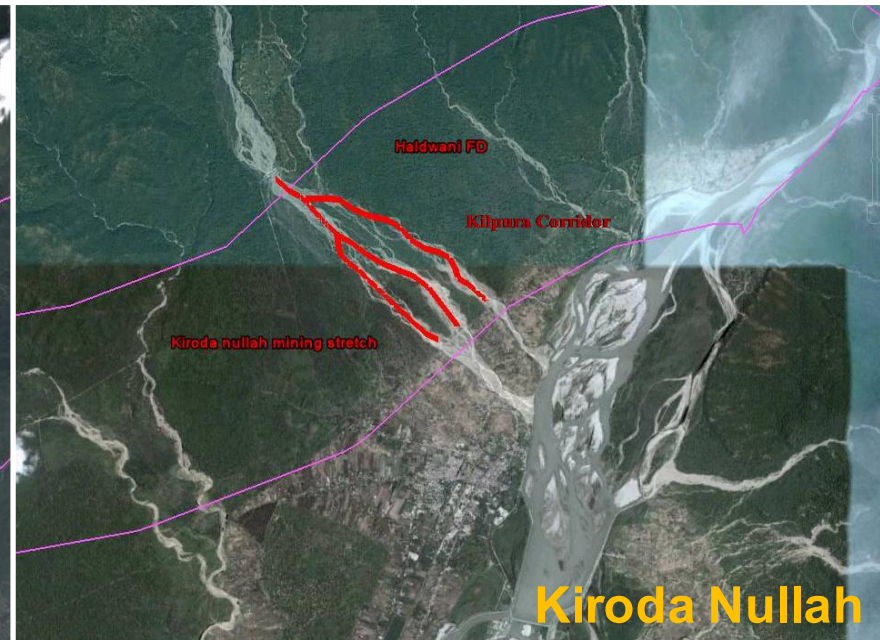
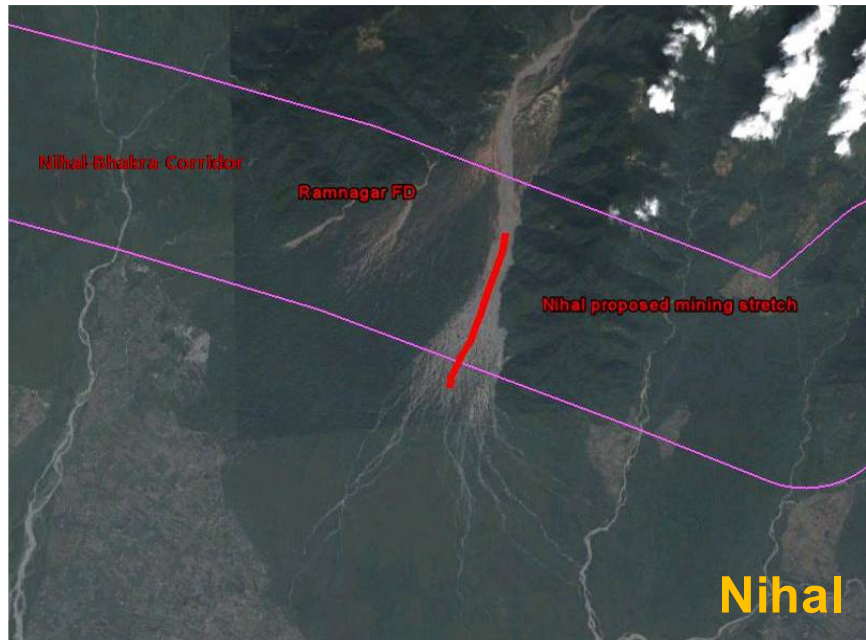


## Some sites in Bhabar tracts (Uttarakhand)





## Some sites in Bhabar tracts (Uttarakhand)

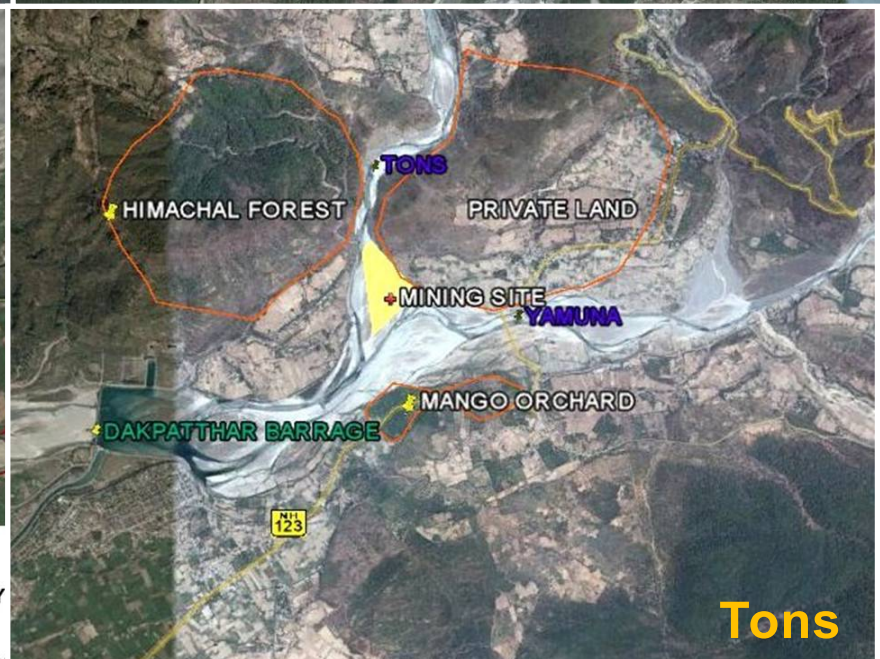


- 1 KHAIR PLANTATION
- 2 WESTERN YAMUNA R.F.
- 3 RAMNAGAR R.F.
- 4 RESERVED FOREST
- 5 EUCALYPTUS PLANTATION

- PROPOSED MINING SITE
- CONSERVATION RESERVE BOUNDARY

Yamuna

0 105 210 420 Mtr





## Sites in Uttarakhand



Gola river



Yamuna river bed near Asan CR  
(Himachal Pradesh side)



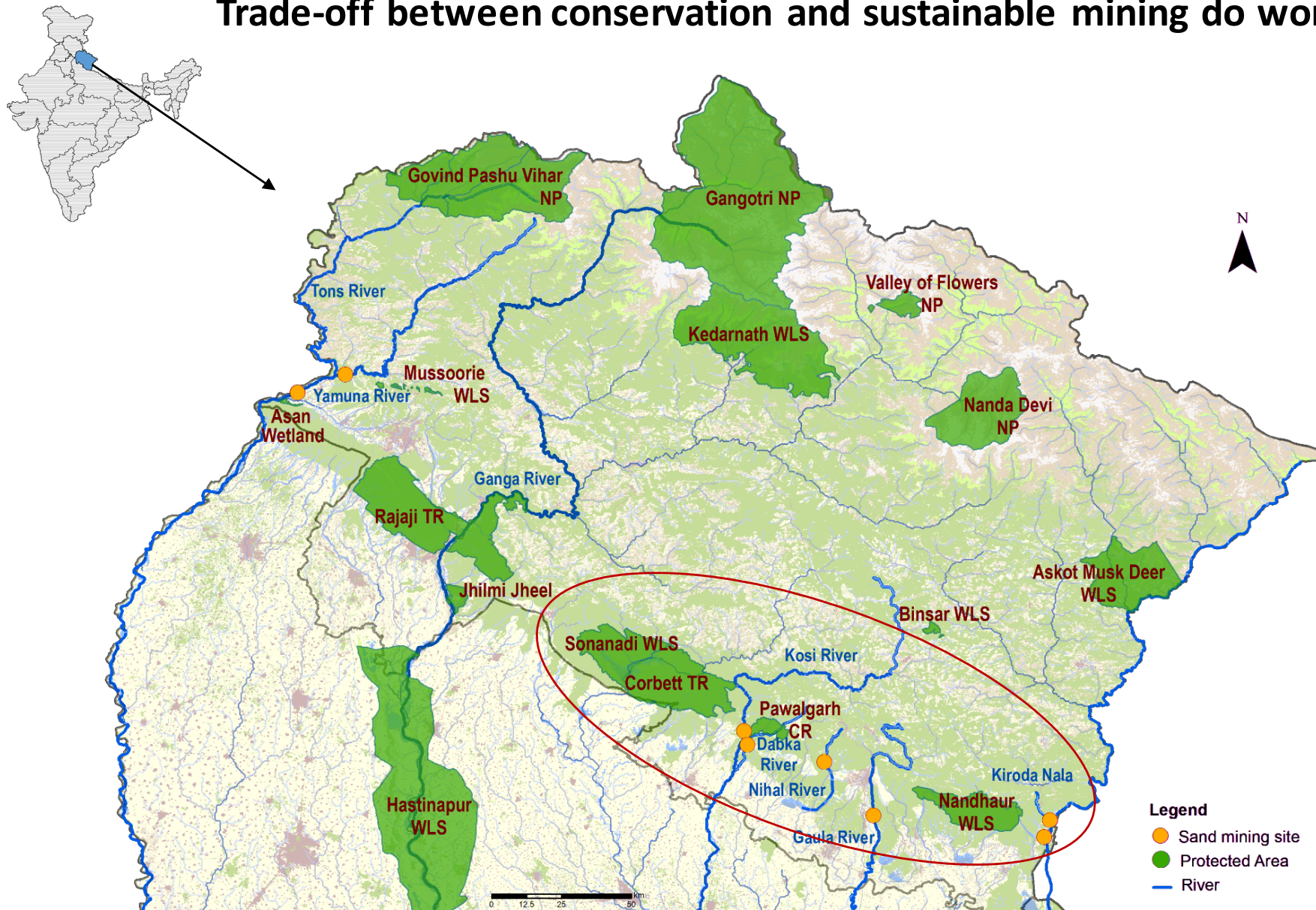
Dabka river south of  
Dabka bridge



Kosi river near Ramnagar



# Trade-off between conservation and sustainable mining do work





# Sand mining in Ganga River

**Downstream Brijghat (Distt Amroha), 7<sup>th</sup> Dec. 2018**



**Downstream Brijghat (Distt Amroha), 7<sup>th</sup> Dec. 2018**



**Downstream Ramghat (Distt Bulandshahr), 13 Dec. 2018**



**Downstream Ramghat (Distt Bulandshahr), 4 Feb. 2020**





**Downstream Saraiyyaghat (Distt- Kanpur Nagar),  
14<sup>th</sup> Oct. 2018**



**Upstream Tella (Distt- Prayagraj), 27<sup>th</sup> Dec.  
2018**



**Upstream Tella (Distt- Prayagraj),  
27<sup>th</sup> Dec. 2018**



**Ganga River, Tella,  
Prayagraj**





**Ganga & Tons river confluence, Prayagraj**



**Ganga River, Patna**



**Ganga River, Prayagraj downstream**

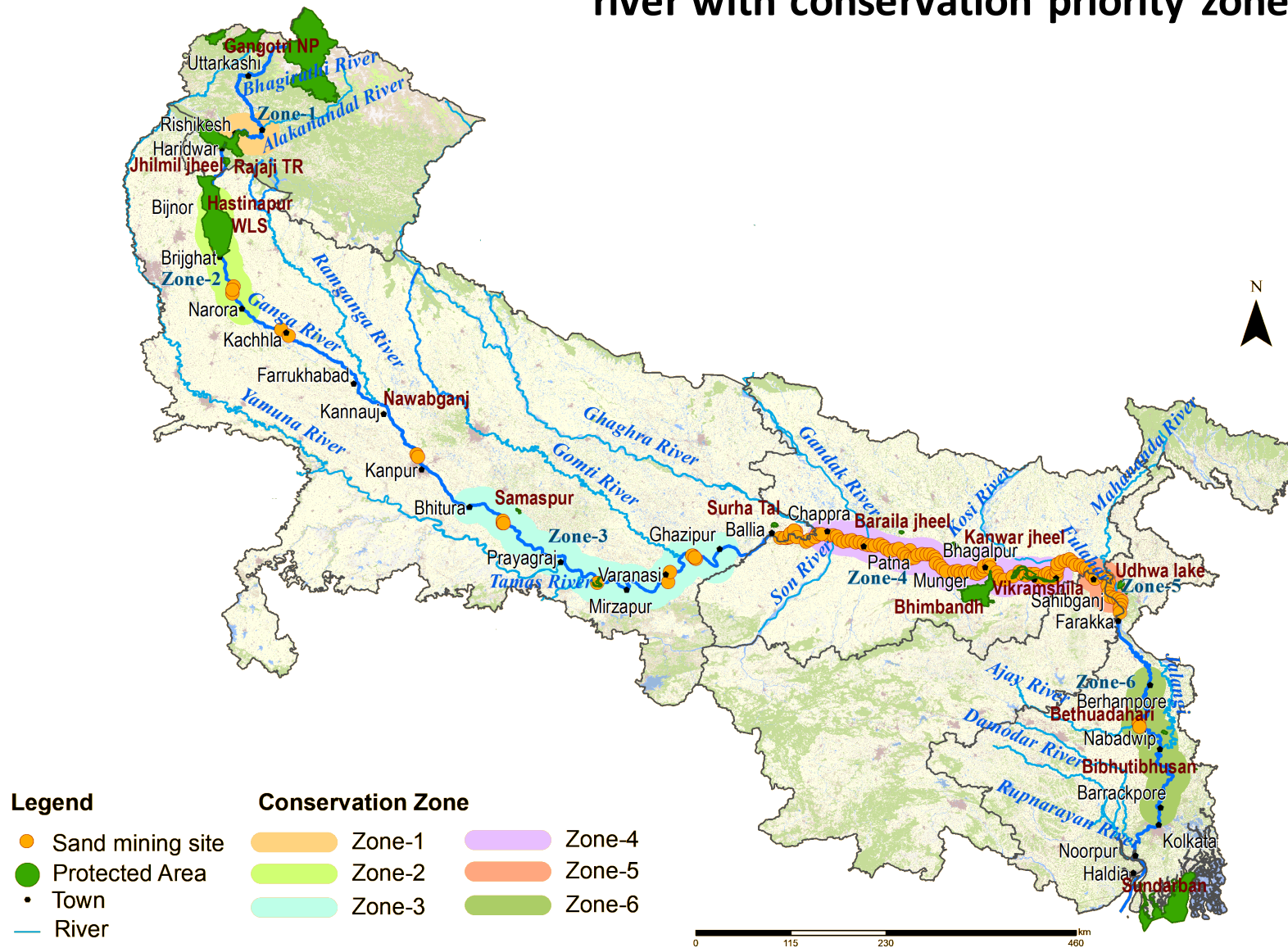


**Ganga River, Begusarai, Bihar**





## Existing sand mining sites along the Ganga river with conservation priority zones





# The Chambal and the Yamuna Rivers





## Biodiversity sustained by undisturbed sand banks



Indian Skimmer



Gharial nests on sand banks



*Batagur kachuga* at nesting bank



Basking gharials



Basking gharials



*Nilssonia gangetica* on sand bank



# Impact on aquatic wildlife



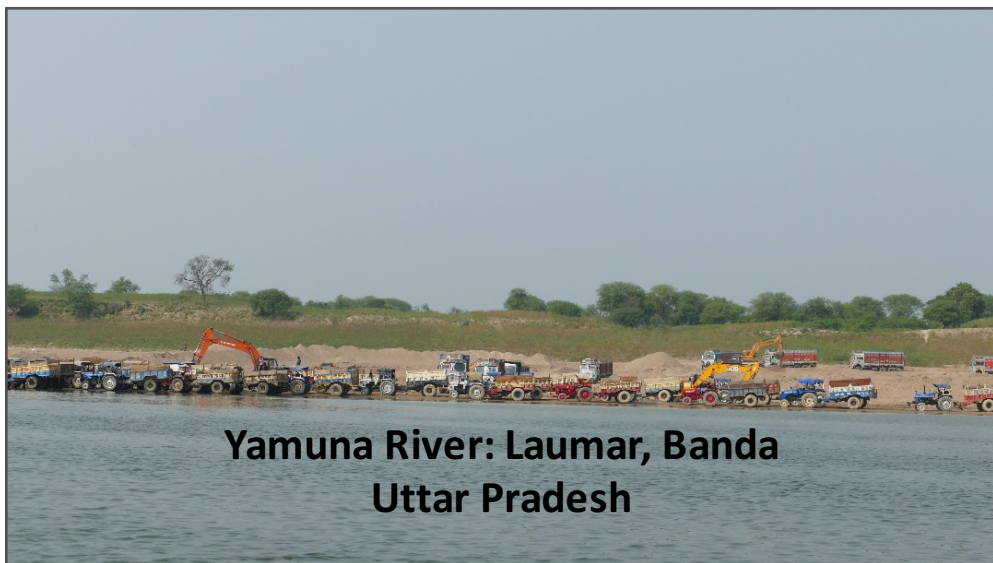




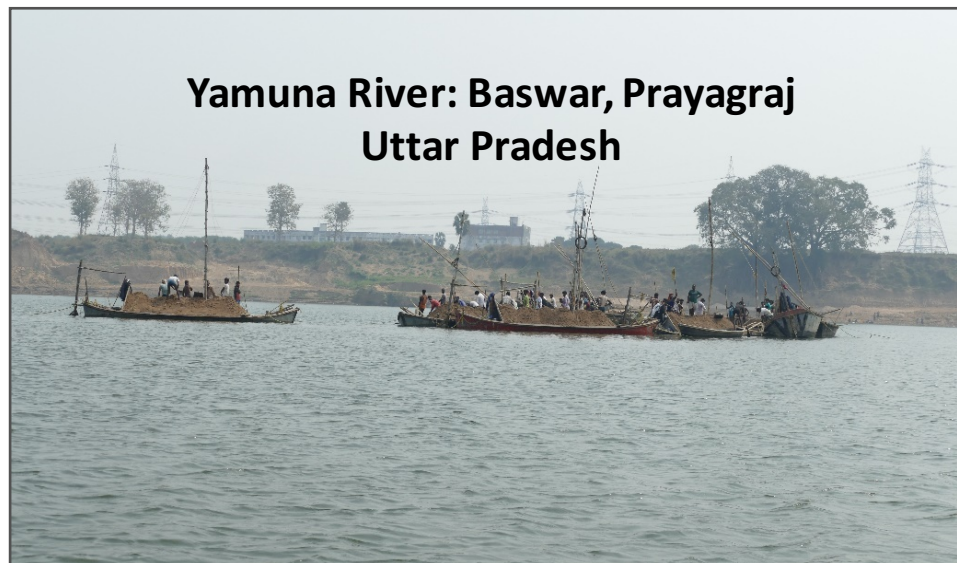




**Yamuna River: Pateora Daria, Hamirpur  
Uttar Pradesh**



**Yamuna River: Laumar, Banda  
Uttar Pradesh**



**Yamuna River: Baswar, Prayagraj  
Uttar Pradesh**



## Sand mining in Yamuna ~50km upstream of Prayagraj



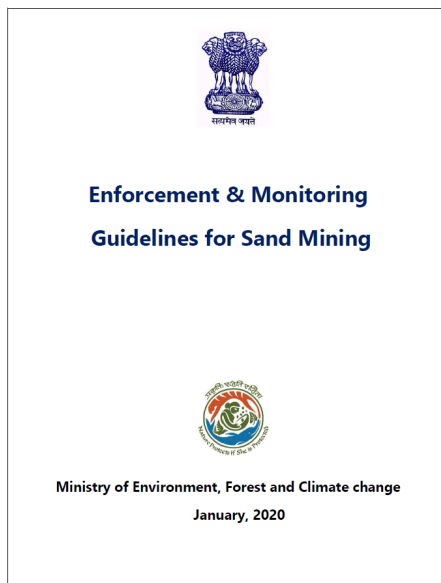


# SUMMARY AND RECOMMENDATIONS



Sand mining in most of the North Indian rivers is unregulated and rampant. Combined with low flow and pollution, the rivers are under severe pressure.

Even though there exist strong guidelines for sustainable mining and monitoring of sites, there is little action on the ground.



Strong policy support and legislation has kept major part of the mainstem Ganga free of mining, indicating that enforcement and political will works.

With increasing demand on River bed materials concerted efforts and conservation planning is required involving all stakeholders for river conservation.



## **SUMMARY AND RECOMMENDATIONS**

- With growing demand sand mining does not seem to be a minor mineral extraction affair any more.
- Strict enforcement of existing guidelines may reduce the impact of mining but monitoring mechanism on ground needs reinforcement.
- It is high time to identify large sand mining sites along the rivers on the basis of scientific study based on the rate of aggregation and degradation rate as done by IIT, Kanpur for the Ganga at the Haridwar stretch.
- Ecologically sensitive and biodiversity hotspots in all rivers need to be identified and mining needs to be avoided and a kind of trade off is required for protecting the riverscapes and/or landscape integrity.
- Creating village level institutions involving relevant stakeholders will develop the stake of the local communities in conserving river ecosystems.



**Thank you**  
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