

# BLink

## The missing link



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A cormorant's perch. The Ken supports a complex ecosystem, including several species of birds.  
Photo: Dinesh Kothari

Is the river-linking project a simple idea that would solve all water security issues? Or is it another ‘mad project’? The Ken river in Bundelkhand would rather not find out

We have the good fortune to be situated next to one of the cleanest, most unspoilt rivers in India: Before passing us, the Ken River flows only through forests and rural landscapes, and thus avoids much of the pollution of our more urban areas. There is one small dam on the upper stretch but in general its ecology is pretty well-preserved, and its good health is evident in its clear waters and abundant aquatic life. It therefore, also supports a rich array of bird and animal life along its banks, especially within the Panna Tiger Reserve. Indeed a boat ride on its tranquil waters provides a holiday highlight for many of our guests.

The Ken, a tributary of the Yamuna, is considered one of the major rivers of Bundelkhand. However, for some time now a sword of Damocles has hung over its pristine waters — the Ken features prominently in discussions of the oft-touted river-linking project.

The idea of linking rivers has been around since the 19th century but fortunately remained little more than a thought until the 1980s. Those that understand river ecology and the environment quite succinctly refer to river-linking as a ‘mad project’. On the face of it, the idea of using the river systems to take water from an area of abundance to one that is dry may seem an attractive, simple idea that would solve all water security issues. In fact it appears so attractive that even prime ministers, presidents and Supreme Court judges have been won over, and around 30 such projects have been discussed and promoted. However, a more in-depth view of the details immediately reveals inherent dangers and disadvantages, and the potential disasters in terms of environmental, hydrological and ecological costs.

It is strange that the ‘experts’, India’s National Water Development Agency (NWDA) seem so keen. Their report says that our Ken river basin is water surplus, while its sister river, the Betwa is “water starved”. Such disparity sounds questionable — the Betwa is also a Yamuna tributary, and both rivers get their waters from the Vindhya ranges of central India. Thus if drought or scanty rainfall affects one, the other suffers too. In-depth analysis of the link proposal by the South Asia Network on Dams, Rivers and People (SANDRP) reveals how figures seem to have been designed to fit the concept, rather than a presentation of facts supporting a rational conclusion. For example, for unexplained reasons, the figure used to calculate water needed for

irrigation in the Ken river basin is 830 cubic metre per hectare less than the one used for the Betwa basin — a 16 per cent difference. Strangely this irrigation requirement figure changes again when calculating the benefit of a Ken-Betwa canal — the even lower figure used in this calculation, helps increase the ‘benefits’ of the project.

But one of the main reasons why the proposal appears unconvincing and more like justification for a pre-conceived idea is that the study fails to look at, or take into account, groundwater potential and use in the respective basins. It does not look at rainwater as a resource nor the potential of rainwater harvesting to decide deficiency and surplus.

Indeed would it not be rational to explore the feasibility of rainwater harvesting and other less intrusive and less destructive ways to provide the required objective of extra irrigation? The negative implications of proposed river links are large enough to behave a full and dispassionate study weighing all alternatives. But we do not see this.

For the Ken-Betwa link the disadvantages loom large. The proposed dam would flood a large area of the protected Panna Tiger Reserve, home to many of India’s endangered species, including the tiger. Several thousands of people will be displaced and affected as villages, forests and agricultural lands are submerged. The 230km canal route cuts across natural drainage and may affect the movement of subsurface groundwater increasing the number of those adversely affected.

And incredibly, the balance study for this project seems to completely omit the fundamental issue of environmental flow requirements below the proposed six dams. Environmental flow refers to the quantity and quality of water required to maintain a river’s ecosystem. World over this has become a crucial part of any development project involving river systems. It is a particularly significant aspect for the Ken River since the waters not only flow through one of India’s designated tiger reserves but downstream of the dams is also the Ken Gharial Sanctuary — another protected area, and one designed specifically to protect the highly endangered aquatic gharial.

Water is an irreplaceable natural resource; one that needs to be handled intelligently. It has been estimated that by 2025 over half of the world’s population will be facing water-based vulnerability. We need to make more serious assessments in our management of freshwater systems and fully understand the nature and environments that sustain them. This is not just an issue of tranquil boat rides for visitors, river systems support innumerable lives from single cell creatures to complex beings like crocodiles and ourselves; they affect the environment from source to sea and way beyond their banks.

We shouldn’t be seduced by the ‘spin’ of grand designs. Local, cost-effective solutions are often the best. If the government keeps its promise to “take care... of ecological concerns”, this is where they should be looking.