

MUMBAI, INDIA TO RECEIVE WATER FROM POTENTIALLY DISASTROUS RIVER INTER-LINKING PROJECT



Some of the largest cities in India, including Mumbai, are now slated to receive water from a very controversial river inter-linking project. Slated at \$130 billion, the mega-project aims to divert portions of India's largest rivers, such as the Yamuna, to arid areas in the country. The project was suspended more than two decades ago amid concerns of environmental degradation. However, with a new federal majority government in place, the project is back on the table.

River inter-linking proposals in India have received substantial criticism from environmentalists, politicians and social rights activists, including Medha Patkar, Arundhati Roy and Vandana Shiva. Part of the concern is the unpredictable effects that river inter-linking may have on fragile ecosystems. However, other issues such as flooding of forests and conservation areas, forcible eviction of tribal peoples, and the possible privatisation of the new water routes, mire the current rhetoric around combating water scarcity.

River linking is not a new technique. In fact, it has been implemented in Europe since the 1920's. Germany's Rhine-Main-Danube canal is one early example. However, most European river links have been used for increasing connectivity for shipping. India's projects are to combat water scarcity and are therefore much larger. With over 30 proposed river inter-linkages nationwide, this may be the largest river interlinking project ever conceived.

Indian farming is highly dependent on seasonal monsoon rains which are becoming increasingly erratic due to climate change. Part of the recent government's push for the project could be seen as trying to forestall a potential future water irrigation crisis. However, this is only half the story. The other big factor is that the appetite for freshwater in India's major urban centres is voracious, and steadily growing.



It therefore comes as no surprise that the first of two river interlinking projects announced this January are scheduled to supply Mumbai and growing industrial regions in the neighboring state of Gujarat. The process is also expected to displace over 100,000 people from Maharashtra's tribal belt. These decisions have unsettling parallels to projects in North America, where thousands of hectares of land have been flooded during dam building in Indigenous territories. It seems that whether or not a country is industrialized or industrializing, in the battle between local interests and urban demands, urban demands are currently winning.

The question is – does there have to be such a battle in the first place? Just like undrinkable water, water ethics is a murky issue.

However, options better than river inter-linking do exist. Rather than building dams that cause socio-ecological displacement, techniques such as plumbing efficiency and groundwater recharge can be more effective in addressing urban water scarcity. Even professional urban planning chiefs, such as Mumbai Metropolitan Commissioner Shri. UPS Madan, have agreed that most of Mumbai's water shortages are not due to supply but rather efficiency losses. In a program on NDTV, he also goes on to say that large scale water infrastructure projects should be avoided due to the problems they bring down the line.



PHOTO India is economically stronger than it was in the past, allowing it to invest in heavy infrastructure.

However, in doing so, India is repeating many of the mistakes industrialized countries have made concerning large scale infrastructure. This is unfortunate as the country already has proven and inexpensive grass-roots green design solutions. In fact, India already has internationally recognized pioneers in the area of water security.

In Rajasthan (one of India's most arid regions), several water tables are now being replenished using 'johad' technology. Traditional technologies like johads (small-scale water retention reservoirs) and abheneris (large communal step-wells) have been used in Rajasthan for centuries. However, most had been abandoned with the introduction of motorized tube wells. The tube wells depleted aquifers rapidly, which led to water shortages, social strife and the desertion of villages. With the reintroduction of johads, not only are villagers and crop yields back, so are trees and wildlife. As both depend on aquifer water, the johad is a human-made traditional technology that is supporting both people and the surrounding ecosystems. The man who reintroduced it, Rajendra Singh, was listed among The Guardians "50 People who could Save the Planet."

Source: <http://www.globalsiteplans.com/environmental-design/landscape-architecture/mumbai-india-to-receive-water-from-potentially-disastrous-river-inter-linking-project/>