**India’s Worsening Water Crisis**

114 million Indians will soon face desperate domestic, agricultural and industrial shortages borne of a water crisis.

**By**[**Ram Mashru**](http://thediplomat.com/authors/ram-mashru/)

April 19, 2014

In northern India, groundwater supplies are being depleted faster than natural processes can replenish them. According to The World Bank, India is the[largest user of ground water in the world, after China](http://www.worldbank.org/en/news/feature/2012/03/06/india-groundwater-critical-diminishing). If something is not done soon, an estimated 114 million Indians will soon face desperate domestic, agricultural and industrial shortages.

What is causing this? “Human activities”: primarily wasteful water use (mainly agricultural over-exploitation), a lack of sustainable water-management policies and insufficient public investment. These failings have each been exacerbated by rapid population growth, increasing population density and climate change.

South Asia is a desperately water-insecure region, and India’s shortages are part of a wider continental crisis. According to a recent [report authored by UN climate scientists](http://www.theguardian.com/environment/2014/mar/22/global-warming-hit-asia-hardest), coastal areas in Asia will be among the worst affected by climate change. Hundreds of millions of people across East, Southeast and South Asia, the report concluded, will be affected by flooding, droughts, famine, increases in the costs of food and energy, and rising sea levels.

Groundwater serves as a vital buffer against the volatility of monsoon rains, and India’s falling water table therefore threatens catastrophe. 60 percent of north India’s irrigated agriculture is dependent on ground water, as is 85 percent of the region’s drinking water. The World Bank predicts that India only has 20 years before its[aquifers will reach “critical condition”](http://www.worldbank.org/en/news/feature/2012/03/06/india-groundwater-critical-diminishing) – when demand for water will outstrip supply – an eventuality that will devastate the region’s food security, economic growth and livelihoods.

Analysts fear that growing competition for rapidly dwindling natural resources will trigger inter-state or intra-state conflict. China and India continue to draw on water sources that supply the wider region, and a particularly concerning flashpoint is the Indus River Valley basin that spans India and Pakistan. The river’s waters are vital to the economies of areas on both sides of the border and [a long-standing treaty](http://en.wikipedia.org/wiki/Indus_Waters_Treaty), agreed by Pakistan and India in 1960, governs rights of access. But during the “dry season,” between October and March, water levels fall to less than half of those seen during the remainder of the year. The fear is that cooperation over access to the Indus River will fray as shortages become more desperate.

Public health is also seriously at risk. The demand for safe drinking water in India is already high, and the situation will only grow more acute as levels drop further. The World Health Organization reports that 97 million Indians lack access to safe drinking water, while 21 percent of the country’s communicable diseases are transferred by the use of unclean water.

In their 2013 Outlook Report, the Asian Development Bank calculated India’s water security based on household, economic, urban and environmental needs, and [concluded that India’s water prospects are “hazardous.”](http://www.livemint.com/Politics/XGAPqx6WQaW2o91Mbdh9iM/India-faces-water-security-threat.html) According to the report, a comprehensive and immediate program of investment, regulation, and law enforcement is necessary. Private-sector groups agree.

The 2030 Water Resources Group, made up of private companies, argues that the “water gap” (between insufficient supply and excess demand) in Asia will only close once countries [limit the water-intensity of their economies](http://www.gwp.org/Global/ToolBox/Publications/Technical%20Focus%20Papers/03%20Water%20and%20Food%20Security%20-%20Experiences%20in%20India%20and%20China%20%282013%29.pdf). In Indian industry, dam construction for hydropower plants and large agribusiness landholdings account for the majority of the country’s water demands.

Parts of India have pioneered successful solutions. The southwestern state of Andhra Pradesh has introduced a highly effective program of self-regulatory water use. Community water-management schemes and awareness campaigns among farmers have seen levels of water consumption fall significantly.

The “Andhra model” provides a set of easily replicated and implemented programs for the consideration of other state governments in India. Self-regulation is a vital short-term solution. For India to be water secure, it would need to ensure long-term access that is affordable, equitable, efficient and sustainable. Major industrial, agricultural and domestic water reform is therefore necessary.