

Leapfrog beyond 'modern' water paradigm

Sunita Narain

People who understand water management will tell you that India is a traditional water economy and that it has to make the transition to a modern water economy. In other words, the water sector has to become part of the formalised economy. As with any feel-right challenge, this is normally accepted to be true.

The point to understand is what this modern and formal water economy means in the rest of the world and what it will mean for us. In the industrialised world, industry and urban households use over 70 per cent of the water resources, while agriculture gets the remaining 30 per cent. In traditional water economies like India, the reverse is true: agriculture consumes over 70 per cent and industry and urban areas the rest. The point is not where we are. The point is: where are we heading?

The fact is that urban areas and industrial hubs in our part of the world are now putting greater pressure on water resources. Cities across the country need more water. They are powerful. Their elected masters work overtime to source water from far, and further, away. Delhi will get water from the Tehri dam, over 300 km away in the Himalaya; Hyderabad, from Nagarjunasagar dam on the Krishna river 105 km away;



Bangalore, from the Cauvery, about 100 km away. Udaipur used to draw its water from the Jaisamand lake but its drying up, and so the city is desperately seeking a way out of this new thirst. Add to all this industrial growth. Yes, the modern water economy is indeed at our doorstep.

But wait before rejoicing at the change. The fact also is that the 'informal' water economy of rural India, tillers and all, still exists. The economy has not transformed from being agriculture-dependent to a manufacture-service sector driven one. The old needs water. The new demands more and more. Surely the change will come - carried on the shoulders of strife, even bloodshed: thousands of small and big mutinies, from Rajkot in Gujarat and Sri Ganganagar in Rajasthan, in which farmers have died defending their first right over water.

There is no denying India's water sector needs to be reformed, indeed transformed, so that it can provide clean and adequate water to all. But there is no established model for our transformation. We will have to leapfrog over the modern economic paradigm, to create our own - hybrid - version of the water future.

If we accept there is no model for us to emulate, then we are free to choose and reinvent our way of working water, based on need. We can then mix the new with the old to brew our own special bottle of the water of life. But most importantly, this also means that we cannot afford to be dogmatic about water-works.

Take irrigation. We know that over 20 million individual wells and tubewells rule India's world of irrigation. Groundwater is the main source of irrigation to agriculture, even as we have maximised our investments in creating surface water systems. Here, distribution losses and inefficiencies push up the cost, as compared to the informal world of the groundwater agriculturists who have learnt to maximise the value of their water investment

in making crops grow. But in the formal water vision, there is no place for the informal world of groundwater users. No policy can even account for them. No policy plans for them, for nobody understands how to manage this army of water users.

The point is to innovate, by borrowing from the past. The challenge is to enlist this army into managing their resource better; they merely need to recharge the well to live off its annual water interest. We can learn **DEVELOPMENT POLICY** here from traditional systems of harvesting water. Millions of disaggregated and diverse structures across the county. But all of them built to also recharge the groundwater - holding the rain, like Earth's sponges, and enhancing subsurface flows. Is it possible to root for conjunctive irrigation - combine the big and the small, maximise our rainfall endowment and minimise distribution losses? Dare we re-discover the magic of the old systems of water augmentation and combine these with all the new answers - water efficient crops, diversification of crops, pricing electricity to ward off over-extraction of water?

Now take the modern dogma of managing water through pricing. We should price water: rich cities and the industries of rich India need to pay for the water they use. But the rich water-users are also becoming great wasters of water, and aren't leery of financing it. And as every city today extracts water from cleaner upstream sources and discharges its wastewater downstream, people living here find the water they get is not fit for drinking.

So let's innovate, learn the water-prudence of the modern world. A city like Copenhagen, from using 200 litres per capita per day of water, today uses less than 110 litres per capita per day. Why should Indian cities first become wasteful, and then learn the science and art of efficiency? Similarly, the world has only now begun to understand that it will need to practice the art of recycling and reusing wastewater. Why should we not, as we begin to generate more and more waste, invent the most modern

waste management system that reuses every drop of water discharged?

To be modern is not to 'catch up and keep up'. Being modern is being novel; it is a mindset that skips nimbly beyond. I believe all that stops us is our own lack of imagination. Can't we be modern, turn this lack into the freedom to dream of water for all? ▶

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Water reforms