

Managing water in Brazil's southeast

By Daniel Bland - Wednesday, June 17, 2015



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São Paulo, Rio de Janeiro and Minas Gerais, the most populous area of Brazil, is currently facing a drought which is exerting pressure on the states' water utilities ability to ensure adequate water supply for the public.

This week, BNamericas talks with water economist David Zetland regarding his recommendations for managing water resources in the region, as well as ways to balance profits for utilities and their social responsibility.

BNamericas: A water supply dispute between states of São Paulo, Rio de Janeiro and Minas Gerais over the federally-controlled Paraíba do Sul river is in its early stages. How can it be decided who should get the water?

Zetland: There's no good way to determine who "deserves" it, as that's a political and social matter. Tradition calls for allocating the water in proportion to prior use, justice calls for allocating it in proportion to the population, and sustainability advocates say that it should be shared in accordance with the "needs" of the ecosystem.

Regardless of the choice taken, the possibility of water reallocation is often a good idea. Buyers can pay "owners" for the right to use their water temporarily or to own their water forever. Doing this via the market is the best way since pricing is transparent. However, politicians dislike this as they can't just give water to their friends.

BNamericas: Home to a third of Brazil's residents, these three states in the region have been facing pressure to start rationing water to sustain water supplies. At what point is water rationing necessary by providing intermittent services?

Zetland: There's no good answer to that, as providing intermittent supply can actually increase demand and even damage water infrastructure. As an alternative, I would work on ways to reduce bulk demand from users such as farmers and other large-scale users.

BNamericas: What alternatives are there to water rationing?

Zetland: In the short term, outdoor irrigation could be banned and wells in over-exploited basins could be shut down until meters are installed and user allocations are set and limited to encourage farmers to use less. Furthermore, urban water prices could be doubled to lower demand and the resulting excess revenue could be set against fixed costs.

Over the long run, I'd work on other initiatives, such as connecting water utilities to larger networks to optimize water use, charging farmers and other industries most of the costs of resolving water contamination issues, and returning water to ecosystems.

BNamericas: São Paulo and Minas Gerais are home to the largest public water utilities in Brazil, these being Sabesp and Copasa, respectively. How can these companies balance out their focus on providing adequate water for the population and satisfying shareholder interests?

Zetland: Water utilities have a duty to provide a service and that means getting water to as many people as possible. Consequently, lower water sales may imply fiscal losses.

I've advocated for years that utilities should get more revenue from higher fixed charges (base rate) as opposed to fees dependent on variable charges which are increased in the event of a water crisis. When water is short, a surcharge should be implemented on top of the fixed and variable charges to reduce demand.

About David Zetland

Biography: David Zetland is currently an assistant professor at Leiden University College in the Netherlands, where he teaches various classes on economics.

With a PhD in Agricultural and Resource Economics from UC Davis, he blogs and give talks on water, economics and politics. He has also written two books: "Living with Water Scarcity" and "The End of Abundance: economic solutions to water scarcity".

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