

Regulation is meant to keep water resources sustainable

By Daniel Bland - Friday, July 19, 2013



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While water falls freely from the clouds, it is a US\$245bn/y global industry which doesn't seem to be slowing down. Is charging for this natural resource right, and if so, how should this be conducted?

Join BNamericas in Brazil in a conversation with water economist David Zetland from Wageningen University in the Netherlands as we discuss water use rights, regulation, and how the public and private sectors should work together to provide this precious resource.

BNamericas: What types of public-private partnership agreements for waterworks concessions are there and what are the responsibilities of the public and private sectors?


Zetland: There are many types of PPPs, depending on who carries the risk of operations, construction, financing, etc. The better agreements play to the strengths of both the public and private sectors. The public sector is often better at handling inter-agency cooperation and the private sector is often better at delivering cost-effective, measured results.

In either case, the local government plays the most important role as it needs to oversee and regulate all players. Poor regulation can lead to bad results, regardless if projects are done through the private or public route.

BNamericas: With local government, the private sector, and the general public to please, whose best interests should the water regulators look out for and what is the purpose of regulation?

Zetland: Water regulators should focus on consumers, keeping in mind that they should treat commercial clients - from agriculture to manufacturing - and residential clients - from rich to poor – the same, reducing bias, corruption, and other games.

Regulation is meant to keep water resources sustainable, meaning that total use should be less than the total supply. Water markets are not a problem as long as a cap is put on water use to control exploitation.

With this said, regulating also includes combating illegal activity, e.g. misleading authorities by disguising groundwater as  surface water to **acquire more water use rights.**

BNamericas: What details in concessions agreements are not necessarily ideal?

Zetland: I'd reject any project that relied on new loans or government transfers for financing the cost of the project. Moreover, although remuneration from hypothecated tax revenues is good, repayment via tariffs is better as customers who pay are the same ones demanding good service. Concessionaries, who then deliver top quality service, will achieve financial returns.

BNamericas: How can waterworks providers better qualify themselves to obtain financing from international financial institutions like the World Bank, and local ones such as national development bank BNDES here in Brazil.

Zetland: First of all, a potential concessionaire could reduce the share of its loan in the total project cost in order to reduce its loan repayment burden. Furthermore, there's no real way to seize assets or force waterworks operators into bankruptcy, so it's a good idea to provide outside guarantees.

From an operational and planning perspective, it's also good to have documented experience and results, so that financial underwriters understand how the new project will relate, and possibly reproduce, past successes.

BNamericas: While approximately 40% of Brazil's water is lost throughout its water and sewerage systems, Japan has a water loss rate of around 10%. What is the best way for Brazil to cut water losses?

Zetland: Spend more money on pipes, pressure regulation, etc. However, the cost-benefit may not be acceptable if capex is much greater than the value of water lost. With that said, is water really lost if it goes back into the environment?

Leaks, on the other hand, can really cause a problem if wastewater ends up flowing into and contaminating drinking water.

BNamericas: With nearly US\$100bn/y being spent on bottled water throughout the world, do you see this as a lucrative option for water providers and is this alternative a sustainable solution?

Zetland: Companies make lots of money on bottled water and many providers even boast better quality than tap water. However, independent tests need to be made for each case to determine these claims.

Regarding sustainability, environmental problems can arise from failure to collect, recycle, and properly dispose of plastic bottles as well as from over-pumping of groundwater. One way to stimulate more sustainability is to put a deposit on bottles if you want them returned.

About David Zetland

David Zetland is currently a senior water economist at Wageningen University in Amsterdam. With a PhD in agricultural and resource economics from California's UC Davis, he specializes in analyzing, discussing and improving the management of natural resources using the tools of political economy. Zetland is also the author of *The End of Abundance*, a book covering economic solutions to water scarcity.