

Authority in water resources conservation

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Bulk water security is one of the main problems in the management of our water resources. For most of Indonesia, the problem is not caused by the lack of rainfall, but due to anthropogenic causes such as land conversion, urbanization and industrialization. Thus, cities such as Jakarta have nowhere to turn to for bulk water sources. Surface water is no longer an option since out of 13 rivers flowing in Jakarta, only one is healthy.

Groundwater is not an option either since land conversion into buildings and roads does not allow water to percolate into aquifers. Furthermore, over-abstraction of groundwater has caused the destruction of groundwater sources leading to saltwater intrusion and land subsidence.

One of the solutions currently envisaged is through water transfer. I understand that the government is currently planning to construct long underground pipes that would connect water from the Jatiluhur dam to Jakarta as the current surface connection is unable to meet quality and quantity demand. However, there are significant environmental and social costs associated with water transfer, especially when conducted between river basins.

The most sustainable solution is to conserve and use water sources that are naturally available. In the case of Jakarta, this could be in the form of restoring the 13 rivers, investing in open green spaces, harvesting rainwater and subsequently recharging groundwater sources and prohibiting and limiting groundwater extraction.

Of all stakeholders in water resources management, it is the water utilities that are most capable of water conservation tasks, and I shall explain the reason why. Other stakeholders such as drinking water consumers certainly have an interest in quality bulk water, but their interests are diffused and their per capita stakes are low.

For example, each household consumers' interest would only be tens of thousands rupiah and they need to do other things, such as going to work, running errands and taking care of their families. The government also has an interest in water conservation but this interest is relative to other priorities in land use and water allocation planning and, more importantly, its interest is often short-lived.

The problem of corruption aside, this is probably the reason why regional governments choose to allocate available space for building malls rather than open green spaces: they provide quick cash for local income and absorb unemployment.

On the other hand, water utilities interest in bulk water security is focused: it is their main task to safeguard quality bulk water and their per capita stakes are high compared to other stakeholders. Poor bulk water quality contributes directly to higher operation and maintenance costs and decreases their profits.

This is not to say that water utilities are benign and that they are insulated from short-termism. Water utilities can, and oftentimes do, compromise the environment for the sake of their own profits. However, such is not a sound business strategy as it almost always directly backfires.

Thus, since water utilities have a direct interest in water conservation, they should be given more authority and be encouraged to get involved in matters related to the security of bulk water supplies. This could take several forms.

First, local water utilities should have some power to adequately manage important reservoirs. At present, most powers to manage reservoirs are held by the Public Works Ministry or local governments.

These institutions often lack funding or the willingness to manage the reservoirs properly, the problems of which have caused infrastructure breakdown and flooding. These powers should be transferred to water utilities, provided that they have the financial capability.

Second, water utilities should have a veto power over any plan to convert open green spaces into other forms of land use. At present, water utilities are only one participant in spatial planning. The law should be reformed so that they can manifest their water-services function through spatial planning.

Third, water utilities should be encouraged to engage with environmental activists and communities living along riverbanks. River pollution caused by household waste is a major issue in bulk water security. This happens, among other reasons, because of a lack of adequate solid and liquid waste management systems for communities living on riverbanks. These are threats, but when perceived from another point of view, they are an investment opportunity.

Fourth, in some cities such as Jakarta, water utilities should be allowed to provide incentives to customers in exchange for the closure of wells and other water conservation measures. Of course, monitoring can be difficult and it depends on the reliability of the water service that the utility can provide but the technology is already available.

Finally, conservation costs should be a part of the tariffs that water consumers pay and in an accountable framework, water utilities together with relevant stakeholders should manage the conservation projects.

This could be in the form of investment in open green spaces or protection of riparian buffer zones. At present, most tariff structures do not incorporate conservation costs. Not all consumer groups should pay such costs, there are ways to differentiate them based on their ability to pay.

At the moment, in Indonesia, water utilities are perceived only as manufacturers that process drinking water from bulk water, without deeper reach as to how this bulk water can be secured. Currently, under the law, the task for procuring bulk water for treatment lies with local governments.

However, as I have explained above, local governments often do not have enough incentive to secure bulk water sources.

Water utilities realize that they are dependent on bulk water sources, but they do not have the authority to secure them. As a result, our water law and policies suffer from “water services-water resources disconnect”.

In order to reconnect drinking-water services to water-resources management, water utilities must be given greater authority to manage water resources.

The writer is the founder of DropByDrop, a Melbourne-based water governance consultancy firm. The opinions expressed are personal.