

Singapore can look to some European cities for how using less water can do more

Managing water demand can help too

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For the first time in 17 years, Singapore is raising water prices.

Specifics have not yet been discussed, but the objectives are clear: to conserve water through lower use; to raise funds for building and maintaining water infrastructure; and to ensure that our water needs will be met in the future.

The decision is bound to create some controversy. Proponents point to the need to ensure water security in a future impacted by climate change. Others fear increasing costs of business and wonder if poor households will be able to cope.

However, focusing on managing water demand – reducing the amount of water people use instead of relying on adding new and costly supply – makes sense too.

To see why, let us look at how cities in Europe have tackled their water woes.

European cities are successful in saving water – in a 2015 comparison of water use in 40

cities from OECD (Organisation for Economic Co-operation and Development) countries around the world, the 10 cities with the lowest domestic consumption were all from the European Union, ranging from around 130 to below 100 litres a person a day.

For comparison, every Singaporean uses 151 litres every day.

While all cities share European regulations for water protection and conservation, they have large freedoms to choose how to reach these goals.

Most water provided by utilities in Europe is used by households. So cities developed their individual approaches, tailored to their own specific contexts.

Three cities stand out:

BERLIN

Population: 3.5 million

After Berlin was divided after World War II, West Berlin was forced to rely on water resources located solely on its own territory for nearly 40 years.

In the process, it became an early adopter of water recycling and the closed water cycle approach, similar to Singapore.

In East Berlin, water was provided without restriction and at a negligible cost.

After reunification in 1989 and the merger of East and West Berlin's water suppliers, prices rose from €0.13 to an average of €1.69 a cubic m, plus annual connection fees, in East Berlin.

In the process, household water consumption fell sharply from 200 litres (East) and 156 litres a person (West) down to 113 litres a Berliner today.

COPENHAGEN

Population: 1.3 million

It had very high pollution levels in the 1960s, to the extent that dead fish in surrounding lakes, rivers and coastal areas were a common sight.

Today, the water is so clean that Copenhageners can swim in the city's harbour area.

Like Singapore, Copenhagen made it a priority to enable citizens to use their beautiful waterways for recreation.

Copenhagen initiated a Max100 campaign and is close to reaching its goal of 100 litres a person a day.

Raising the price of water (including wastewater treatment) from €3.46 to €5.00 in the last 20 years helped to reduce water consumption by more than 20 per cent, to currently 104 litres

a person.

ZARAGOZA

Population: 650,000

Located in a semi-desert climate in northern Spain, it has traditionally been battling with drought and water scarcity.

After a particularly bad drought in the 1990s forced the introduction of water restrictions, the city decided to act.

Over a 15-year process, which is still ongoing today, a massive water conservation programme for citizens, schools, public administration, small businesses and industries was established.

Subsidised water-saving kits were made available to residents. The tariff system was reformed to penalise excessive water usage.

In 2010, the price households had to pay for water varied between €0.43 a cubic m for low-end users and up to €2.50 a cubic m for high-end users, with discounts for applicable families.

When the city posed a one-billion-litre water saving challenge, citizens surpassed the goal set within the first year, saving more than 5 per cent of its yearly domestic water consumption.

Since 1997, household water consumption in Zaragoza has gone down by more than 50 per

cent, from 150 litres to 96 litres a person a day today.

Singapore faces similar challenges to these cities: sustained urban growth, limited space, water pollution threats, increasing drought, and resulting water scarcity and insecurity.

It needs to find its own solutions to tackle its water risks too.

As these cases show, tariffs play an important part in signalling the value of water. They draw attention to its scarcity and encourage conservation.

However, they work best if coupled with other measures: protecting water resources, investing in infrastructure, and teaming up with people, creating awareness about water conservation measures and inviting society to participate.

Creating a shared water conservation goal for all Singaporeans will help to make Singapore water-secure for the future.

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