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# RSIS COMMENTARIES

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## **Singapore a Global Hydrohub: From Water Insecurity to Niche Water Diplomacy**

By Mely Caballero-Anthony and P K Hangzo

### **Synopsis**

*Singapore's water-related diplomatic efforts have evolved from bilateral agreements with Malaysia in the early years to international pacts offering water-related expertise to water-stressed countries.*

### **Commentary**

THROUGH STRATEGIC planning and investment in research and technology, as well as strong political will and effective governance, Singapore has emerged from water insecurity to become a global hydrohub. It has built a robust and diversified range of water sources and in the process successfully addressed its water challenges.

As a result it has earned international recognition as a model city for water management. This has also led to its water diplomacy changing in character from being centred on securing water supply from Malaysia to a new direction in its water diplomacy.

### **Domain expertise and “niche diplomacy”**

Singapore has in recent years capitalised on its domain expertise in water management to transform its water diplomacy into an area of “niche diplomacy”. The term was coined by strategic thinkers to describe the role of middle powers and how, through their ideas and positive international impression, they can influence international issues regardless of their size and lack of military power. Singapore, in this context, has been able to turn its niche in the management of an increasingly important resource - water - into a viable approach to diplomacy that allows it to enhance its regional and international standing as well as influence.

It has done this through various means – engaging in international standards setting, sharing of water expertise and humanitarian activities. Singapore's growing expertise in water management has increased its international clout and enabled the country to set the agenda on a number of global water issues including water standards which remains a challenge worldwide. Singapore signed a Cooperation Arrangement with the World Health Organisation (WHO) in 2007 to promote safe management of drinking water in water-scarce regions.

In March 2012, the Technology and Water Quality Office of Singapore's PUB was designated a WHO Collaborating Centre for safe drinking water management and integrated urban water management. Under this arrangement, Singapore would serve as the WHO's regional policy research hub on relevant concerns such as

regulatory issues, water industry structure and water pricing. In addition, it would conduct capacity-building activities and training courses for WHO member states, particularly those in Southeast Asia and the Western Pacific region.

### **Sharing water management expertise**

Urban water security has become an important policy agenda in most countries. Cities in developing countries are under pressure to meet the burgeoning demand for water brought about by rapid economic and population growth. With the number of people living in urban area projected to increase from 3.6 billion in 2011 to 6.3 billion by 2050 – or 67% of the world's population - the situation is set to become more critical. However it presents significant opportunities for Singapore to contribute to tackling global water security challenges.

Among the several projects along these lines, the Singapore Cooperation Enterprise (SCE) signed an agreement in 2011 with the government of Mauritius to assist it in the following areas: develop a system capable of providing an uninterrupted supply of potable water; reduce non-revenue water to a minimum; improve the country's Total Water Management system; and develop a plan to meet increasing and changing needs. In June 2012 the SCE and Singapore's Temasek Foundation signed an agreement with the Delhi Jal Board in India to set up waste-water treatment plants to generate water for consumption.

The programme is co-funded by the Temasek Foundation, which committed SGD463,000 in grants, and the Delhi Jal Board and will establish a water reclamation plant with 40mgd capacity. It is projected that this plant will benefit 3-4 million consumers. Singapore will, through various advisory and capacity-building activities, help the Delhi Jal Board understand the challenges involved in developing an integrated water management framework that includes the reuse of treated sewage and waste-water.

The SCE and Temasek Foundation also established a similar arrangement with the city of Bangalore in India to assist the Bangalore Water Supply and Sewage Board (BWSSB) by providing advice on and capacity-building services in waste-water management and water supply. BWSSB officials will be trained to manage, operate and maintain recycle-and-reuse plants. The programme will also help the BWSSB officials to develop strategies to raise public awareness and acceptance of recycled waste-water.

### **Providing humanitarian assistance**

Singapore is increasingly integrating its water expertise into its response strategy in times of humanitarian emergencies in Southeast Asia. In the wake of the devastating floods in Thailand in 2011 which caused more than 800 deaths, PUB delivered water quality monitoring equipment to Thailand's Metropolitan Waterworks Authority (MWA). PUB, together with industry partners, also provided training to MWA staff on risk assessment and water safety plan formulation as well as laboratory services for the testing of water samples.

Singapore also supplied 4,000 water filtration sets to Cambodia in response to the flood in 2011. Other initiatives have involved tackling more chronic needs. Through the Water for Life project launched by the Singapore International Foundation (SIF) in 2010, Singapore helped rural communities in Siem Reap, Cambodia, gain access to clean water, with some 2,000 bio-sand filters which could help to reduce the incidence of water-borne diseases. This was followed by a project in Kampong Speu to provide 8,400 Cambodian villagers with access to clean drinking water through the installation of 1,400 bio-sand water filters in rural households over three years.

Singapore has made determined efforts to bring its water expertise beyond its shores. In the process its niche expertise in water has proven valuable in strengthening its ties with other states and increasing its influence at the regional and international level. In the early years Singapore's water diplomacy focused on ensuring national water security through protecting its access to sufficient water from Malaysia.

In recent years the evolution of its water diplomacy has shifted in emphasis towards niche water diplomacy. With the diversification of its water options coming to fruition, Singapore's expertise in water technology and urban water management has increased currency and water has become a significant platform for Singapore to raise its regional and international stature and influence.

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