

## CONFERENCE REPORT

### **Water Leaders Roundtable, Singapore International Water Week, Singapore, 3 June 2014**

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The Water Leaders Summit is a pillar event of the Singapore International Water Week (SIWW). It brings together leaders in the field to discuss pressing issues. This roundtable was one of the high impact sessions organized within the Water Leaders Summit. There was a deliberate attempt this year to make the Roundtable more exciting, forward-looking and impact-oriented. The Chair and Moderator, Asit K. Biswas, set the scene by explaining the new way this particular event was structured and outlined the outputs expected at the very beginning of the session.

The session had six very distinguished panellists who were given one specific question to answer. The panellists were Tan Gee Paw, Chairman, Public Utilities Board of Singapore; Angel Gurría, Secretary-General of Organisation for Economic Co-operation and Development (OECD); Chen Li, Minister of Water Resources of China; Benedito Braga, President of World Water Council; Herbert Oberhaensli, Vice-President of Nestlé; and Patrick Dekker, Chief Executive Officer (CEO) of Xylem. Cecilia Tortajada was the rapporteur.

Each speaker was given five minutes to answer a specific question, and at the end of their responses the rest of the time was spent in interactions with the audience of some 500 participants.

The discussions revolved around various concerns of the water industry. While many of the key issues such as climate change, the appropriateness of integrated water resource management, the potential of information technology, the role of social media, water pricing, the need for better political governance, mechanisms of financing large water infrastructure, and the energy–water nexus were addressed, dialogues mainly focused on possible solutions.

The main themes that surfaced during the event can be broadly classified under the following headings.

#### **Climate change**

Changing climatic patterns are now forcing water professionals to think about how best to plan for a future under uncertainty. Various assessments have concluded that the increasing average global temperature, rising sea level and increased frequency of extreme events imply a changing climatic pattern, largely as a result of human activities.

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Parts of the world are already facing abnormal high rainfall and high tides, while other regions are being subjected to prolonged droughts. There appears to be a rise in the number of climate-related disasters such as tsunamis, floods, droughts and heat/coldwaves. The recent International Panel on Climate Change (IPCC, 2014) report projects an increase in the average global temperature, a faster rate of polar ice cap melting, and a gradual rise in the ocean level that may threaten to submerge many coastal cities in future.

These events of varying scales and intensities need sustained and widespread attention and swift decisions to be made. It is thus imperative that risk mitigation and disaster management should receive urgent consideration.

It is necessary to consider adaptive, resilient infrastructure for existing utilities so that that they can effectively withstand unexpected climatic fluctuations. Additionally, urgent considerations are needed about how best new and innovative policies can be formulated to deal with extreme climatic events in terms of urban planning, energy generation and agricultural production.

One of the major problems in planning for climate change is predicting the range of uncertainties under consideration. Prediction of these events or fluctuations in terms of location, magnitudes and durations is an immediate challenge we face. This brings to light the necessity of promoting and employing mechanisms for more policy and practice research-based decision-making.

### **Water and Information Technology Advancement**

Technology advancements are changing the world. The massive leap in data analytics and information technology has enabled industries to become smarter and more efficient.

Technology-supported solutions have revolutionized the water industry and are likely to support future improvement. While technology-driven advancements have greatly improved infrastructure and treatment systems, data analytics and information technology now have the capacity for effective monitoring of the water loop. This real-time monitoring and analysis now enables well-informed and timely decisions to be taken. The prediction of possible scenarios allows the utilities to incorporate risk-mitigation techniques more effectively.

Agriculture and energy are biggest consumers of water. Technical advancements in the areas of bioengineering, wherein crops can be engineered to grow with less water, saline water etc., can dramatically decrease agricultural water use. Additionally, advancements in the supply chain of the food segment reduces food wastage, indirectly reducing the global water requirement.

There is at present a misconception that technological innovation would solve the world's water woes. Technology cannot in itself be a solution. It can provide a strong backing for what is urgently needed all over the world: better water governance, significantly enhanced political will, a reduction in public apathy and increased media attention to water mismanagement.

### **Financial constraints**

There are only a handful of countries globally where the water utilities have a self-sustaining business model and even fewer where they are actually a profit-making centre. Most governments driven by political agenda have subsidized the price of water for domestic, industrial and agricultural uses. Thus, utilities face a shortage of funds to maintain and improve the existing infrastructure, let alone for needed investments in research and innovation.

We are witnessing today a shift from political reluctance to price water economically to devising solutions so that subsidies can be gradually removed and water can be priced to

reflect its true value. Users must pay appropriately for the service, and only the poor should receive targeted subsidies.

The sceptics who say that the poor will never pay for water are mistaken. Analyses from all over the world indicate that the poor are often more willing to pay for water if they are provided with a safe and predictable water supply at reasonable tariffs.

While water supply pricing can be gradually adjusted to restore the financial health of utilities, this does not immediately solve the financing needed to build and maintain infrastructure to account for population and economic growths and to combat potential climate change.

The new Asian Infrastructure Investment Bank and the BRICS Bank are likely to alleviate the situation. However, the major problem continues to be formulation of bankable water projects because of political interferences with cost recovery from consumers.

### **Need for a better policy environment**

Water is being increasingly recognized as both an economic and a social good. Its additional emotional value, makes water very politically complex. The key concerns of the policy sector that were highlighted were the following.

Long-term goals have been mostly neglected in favour of short-term and ad-hoc goals. Policies often change with the changing of utility heads. Fundamental institution changes are needed to ensure that the policies are sustainable and forward-looking. It should start with the appointment of capable utility heads for reasonable periods who are held responsible and accountable for performance of the utilities.

Another concern is policy inertia. Policies take a long time to be formulated and implemented and an even longer period to be amended. Given today's fast-paced and result-driven socio-economic environment, there is a need for policies to be adaptive and proactive, and not reactive.

The policies of any country should recognize and address the increasing competition for water states or provinces, but also between various users and interest groups. Integrated water resource management is being pushed by donors, even though they have not managed to implement it in their own countries over the past seven decades. The food–water–energy–environment nexus is becoming the perfect storm. Coordination between institutions and policies has become a major problem.

### **Social media**

Water is a human right and an integral part of our lives. Echoing these sentiments, the United Nations (UN) set the Millennium Development Goals that were recently claimed to have been achieved. However, the real situation is very different. Recent studies by the Third World Centre for Water Management show that at least 3.6 billion people around the world do not have access to safe water, in stark contrast to the UN's claims that it is 'only' 780 million. Similarly, the centre estimates that only about 10% of people in Asia and Latin America have access to proper wastewater collection, treatment and disposal.

Easy solutions that look good on paper need to be abandoned in favour of hard actions that benefit society at large, even though they may not make much difference over the short-term.

Social media is playing increasingly important roles in highlighting and raising the awareness of water issues. People are now interconnected over a common platform and share concerns and solutions. With the connectivity that social media has offered, people from different countries, backgrounds and strata of society are becoming increasingly

aware of the services available globally and they freely question the unavailability of services in their own backyard. This mass wave of enlightenment and pressure has added a bottom-up thrust on governments to deliver on their promise of a neat and clean future.

One of the biggest advantages that social media offers over traditional media is that it can, and does, act as a source free from government influence and can eschew vested interests. On a more realistic scale social media is changing the client–customer relationship. Utilities and service providers are forced to face the concerns of consumers. Otherwise, there is an immediate and irrevocable loss of trust. Equally, can utilities use social media to create awareness and generate cohesion and consensus, education and even healthy debate on topical issues?

Policies, laws and good infrastructure alone are not enough to solve today’s water problems. Social media can influence behaviour and mindset. For example, consumers can take appropriate actions themselves to mitigate the impacts of droughts rather than being forced into water rationing by governments.

Social media could also be a platform for disseminating wrong ideas and erroneous facts. Thus, utilities have to learn to manage it effectively.

### Conclusions

The concerns that were expressed are not new – they have been on the tables of policy-makers, utility heads, technology providers and academicians for a considerable amount of time. It is an established fact that the water industry has problems and that multiple solutions, or rather, multiple solutions in sync with good practices, are needed to be put into effect to yield tangible results.

With the immense advancements in technology and the exponential growth in information management, we now have the technology, management expertise and even resources to solve the world’s water problems. Although there is no ‘one size fits all’ solution for the water woes of the entire planet, there are a few key points that can be identified across the board. To start with, we need strong and able leadership to tackle the problem top to bottom. Unless the leader of the utility is qualified, competent and accountable, good results will not follow. Additionally, the utility managers must stay for reasonably long periods to understand how the utility functions, identify necessary changes and then diligently follow them through. The second critical factor that enables the smooth running and improvement of any utility is its financial health. There is no free lunch; everything comes with a price. Free water is not sustainable. Subsidies have to be revisited and eliminated wherever necessary and water has to be priced appropriately to depict its true value.

In retrospect, the experiment to revamp the event was successful. The common consensus among the participants was that it was the best such event from the very beginning of the SIWW.

### Reference

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