

## FOREWORD

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The management of our water supply and its delivery to the rapidly increasing global population is one of the key challenges of the next century. Today, 2.7 billion people already suffer from some form of water scarcity. The World Economic Forum's *Global Risks 2014* report found that water crises were the third-highest area of concern among survey respondents. At a 2013 Global Water System Project conference in Bonn, 500 of the world's leading water scientists projected that water shortages could affect half of the world's 9 billion people by 2050. Water scarcity has a huge impact on a wide range of policy issues, from food security to industry, from energy to health.

Water infrastructure is an essential element in water management. Together with institutions, policies and regulation, water infrastructure provides basic services to growing populations, especially in developing countries, where much of the growth is taking place. In the Asia-Pacific region, populations are growing not only in size but also in affluence, compounding the strain on existing infrastructure and supply. While 79% of total water use in Asia occurs in agriculture, the fastest increases in demand are emanating from industry and from urban households, a natural consequence of the fastest industrialization and urbanization process in history. By 2030, more than 55% of Asia's population will live in urban areas, an increase of 1.1 billion people.

It is important to emphasize that it is not just in developing countries that water infrastructure is an area of concern. In developed countries, much of the drinking-water infrastructure needs upgrading or replacement, a significant undertaking because in many cases the infrastructure is more than 100 years old. The American Water Works Association estimates that changing all of the water pipes in the United States would cost more than USD 1 trillion.

The increasing magnitude and urgency of our water management needs make this new publication on water infrastructure from Cecilia Tortajada and Asit Biswas truly timely. These in-depth studies on water infrastructure challenges and policy solutions from the Himalayas to Mexico, from Australia to China, are invaluable tools in the fight against water insecurity, a challenge facing vast swathes of the world's population and nearly all governments at all levels in coming years.

Our school is proud that Asit Biswas, a distinguished visiting professor, and Cecilia Tortajada, who has worked closely with our school, have produced another excellent publication that bears the school's imprimatur. Their earlier volume, *The Singapore Water Story*, was widely acclaimed. I am confident that this publication will be equally well received and will help fulfill our school's mission of helping to improve governance in Asia and beyond.

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## References

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