## PREFACE

It is my great pleasure to hold the AAA+ (Answers to Asian Aquatic Problems) 2013 International Symposium here at the International Conference Hall of Tokyo Metropolitan University (TMU) on 16 November 2013. This symposium is an achievement of our AAA+ Research Project at TMU entitled "Solutions for the water-related problems in Asian metropolitan areas", which started in 2009 with a 5-year span as one of the first Asian Advanced Research Projects financially supported by Tokyo Metropolitan Government (TMG). TMG established the "Asian Human Resources Fund" in 2008 in order to implement policies aiming at fostering excellent human resources that will contribute to the development of Asia in the future. Under the "Asian Human Resources Fund" program, the Graduate Schools of TMU started accepting excellent international students from Asian countries for their Ph.D. courses, and conducting advanced research contributing to development and solutions for a wide range of problems in Asia. I am confident that the scholarship granted for the selected outstanding Ph.D. students is one of the best ones in Japan including tuition exemption, housing assistances, and reasonable research expenses.

There is a great regional diversity in water issues and their relationship with human activities. The water issues in Asian regions are not always adequately recognized and addressed in the world's water-related societies. Especially in Asian metropolitan areas, people are concentrated mainly on alluvial plains formed by flood sediments transported from the fragile upper river basins. Further, Asia has a unique monsoon climate. Besides these natural conditions, Asia is the most densely populated area in the world, supporting about 60% of the present world population which is still growing. One out of five persons in the region has no access to safe drinking water, and half of the population has no access to sanitation facilities. The rapid growth and concentration of population, industries, residences and energy consumption has drastically increased the living standard, as a consequence, the water demand. The threat of recent global warming and heat island phenomenon will surely make water problems even more serious in the world. Consequently, we have many water issues and research topics particular to Asian metropolitan areas.

In AAA+ Research Project, 12 professors at the Graduate School of Urban Environmental Sciences, TMU, along with 11 Ph.D. course students from various Asian countries such as Vietnam, Korea, Philippines, Indonesia, and India have been dedicated to examine water-related problems in Asian metropolitan areas. The objectives have been to propose practical solutions, policy scenarios and possible technological methods that can be adopted by each metropolitan area from the various viewpoints of society, economy, history, law, culture etc. Especially in this AAA+ Research Project, our target water-related problems have fallen under two categories. One is water environmental problems concerning groundwater resources,

hygienic drinking water supply, water quality deterioration of rivers and reservoirs, and the other is water disaster problems associated with torrential rainfall, urban flooding, and coastal erosion.

AAA+2013 International Symposium aims to offer multi-disciplinary discussions among water experts and non-experts including students, from inside and outside the Asian region, to exchange their views and research findings on a wide range of water problems in Asian metropolitan areas. I am very pleased to have two excellent keynote speakers and four invited presenters as well as five presentations by Asian Ph.D. course students according to the objectives of the AAA+ Research Project.

Coincidentally, the United Nations General Assembly declared 2013 as the United Nations International Year of Water Cooperation. The objective of this year is to raise awareness, both on the potential for increased cooperation, and on the challenges facing water management in light of the increase in demand for water access, allocation and services.

I would like to extend my appreciation to the AAA+2013 Executive Committee members, who are playing an important role in organizing and steering this symposium. I hope that AAA+2013, which is being organized in a cordial atmosphere with the spirit of friendship, mutual understanding and cooperation, will be a successful completion of the project and benefit all valued participants, as well as enhance good collaboration between them. I do expect that this AAA+2013 will lead to fruitful and promising results that lay the foundation for the next step of the AAA+ Research Project.

Finally, I wish to acknowledge the Tokyo Metropolitan Government for their warm understanding of our activities, and also for its generous financial support.

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