

Editorial

Deterioration of water bodies continues to be one of the most pressing problems facing the world. In Asia, water quality deterioration and the problems it spawns in different sectors are so extensive and serious that they threaten to undermine the economic growth of the region as well as the health and quality of life of its billions of people.

Asia, with 48 countries in central, eastern, southern, south-eastern, and western Asia, containing an estimated 1.8 billion people in urban areas and 2.4 billion in rural areas (approximately 60% of the global population), cannot be considered homogeneous with respect to water quality considerations. Therefore, the associated policies and management practices that have been put in place in the different countries may vary significantly, depending upon their specific economic, political, social, environmental, and institutional considerations. To appreciate the complexities associated with water quality policy and management, it is essential to first acknowledge the multiplicity of interrelated events and issues, often conflicting with one another, both within and outside the water sector that have an impact on them. It is this complexity, as well as the lack of ability of various institutions to work with each other in a systematic and coordinated way, that could explain why, in the second decade of the 21st century, formulation and implementation of efficient water quality management policy for the overall benefit of humankind and the environment has still not been achieved.

A main concern is the very rapid economic growth in Asia, especially China and India, which has made these countries resource users and polluters on a very large scale, at the level of some of the largest developed countries. The economic growth of the Asian countries poses significant challenges to the environment because of the continually increasing resource needs which come from both within and beyond their borders. In the case of water resources, consistently high economic growth rates in the region in recent years are already having major effects in terms of access, quantity, and quality of this resource, as well as equity, management, and investment requirements. As the magnitudes of water quality problems have increased, planning, management, and institutional capacities have not increased commensurately. This has made them even more challenging because policy measures still do not address these issues either adequately or systematically. In the search for implementable and cost-effective solutions, it is not only “what” that should be discussed but also “why” and “how” and their relative priorities.

Regarding good and implementable policies and instruments for natural resources management in Asia, it is clear that they are still needed not only for the water sector but also in related sectors such as energy, agriculture, and environment, so that economic, social, and equitable development can be achieved on a long-term basis. The final results of the very rapid growth rates of the Asian countries could manifest in two ways: in a gradual improvement of water quality in surface and groundwater sources, or in continued

deterioration and its resulting negative impacts. The results would be country specific, depending upon the policy decisions that are taken.

There appear to be two realities in the world at present with respect to water quality: the one the countries and their populations are facing on the ground and a very different one that seems to be the result of the game of global target setting.

In the midst of a very complex situation, where billions of people at the global level face every challenge in terms of water quality, the United Nations has just announced that, as of 2010, the Millennium Development Goal (MDG) regarding drinking water has been achieved. According to this MDG, the number of people who did not have access to “safe” drinking water was to be greatly reduced between 1990 and 2015, and the goal was met in 2010, five years ahead of schedule.

The 2012 update, *Progress on Drinking Water and Sanitation*, states: “Over 2 billion people gained access to improved water sources from 1990 to 2010, and the proportion of the global population still using unimproved sources is estimated at only 11 per cent. This is less than half of the 24 per cent estimated for 1990. Almost 6.1 billion people, 89 per cent of the world’s population, were using an improved water source in 2010. The drinking water target has thus become one of the first MDG targets to be met” (p. 4).

Unfortunately, *improved* source of water does not mean that water is safe and clean, or drinkable without health hazards. According to the UN, “improved water sources include household connections, public standpipes, boreholes, protected dug wells, protected springs, and rainwater collections. Unimproved water sources are unprotected wells, unprotected springs, vendor-provided water, bottled water (unless water for other uses is available from an improved source) and tanker truck–provided water” (WHO, 2012). In addition, people should have *reasonable access* to this water, which is broadly defined as “the availability of at least 20 litres per person per day from a source within one kilometre of the user’s dwelling” (WHO, 2012).

Therefore, according to the UN, half of the more than 6 billion people living in 2010 should have access to 20 litres of water each day from a source that is improved within one kilometre from their premises. This being the goal for drinking water, one would think that billions of people have gained access to clean drinking water within one kilometre from their premises. The situation, however, could not be more different: the drinking water target is based on “improved drinking water sources”, not on actual access to clean drinking water. It could equally be from a polluted well or from a bucket of polluted rainwater that is unfit for drinking; for the UN it does not matter, as long as it fits in the statistics.

In his foreword to this document, the UN’s secretary general further obfuscates the issue. Though in the first paragraph he mentions “safe drinking water”, in the next paragraph he refers to “improved drinking water sources”—as if “improved drinking water sources” meant “safe drinking water”. Nothing could be further from the truth. In many parts of the world, even with these so-called improved drinking water sources, the quality of the resource has deteriorated. For example, in many urban centres, in 1990, people used standard filtering processes before they drank the water. However, the quality of the water during the last 20 years has declined to such an extent that filters have given way to reverse osmosis before people could feel the water has been rendered safe to drink. Use of reverse osmosis at homes is now quite widespread in both urban and rural areas of the developing world. The UN has decided to declare “victory” when in reality the water quality and delivery situations in many regions have actually deteriorated.

Because of the importance and complexities of water quality issues in Asia, the Institute of Water Policy of the Lee Kuan Yew School of Public Policy, National University of

Singapore, decided to focus its Third Policy Forum, July 2011, on *Urban Water Quality Policies and Governance Practices in Asia: Present Status and Future Challenges*. The forum was an associated event of the Singapore International Water Week (SIWW) and was co-sponsored by the International Water Resources Association (IWRA).

Eminent lecturers to the policy forum were invited to prepare papers on different aspects of water quality policy and management in Asia. These papers were modified in the light of the discussions, peer reviewed, and extensively revised. These six lecturers were Dennis Wichelns, James Nickum, S.R. Wate, Ngai Weng Chan, Mukand Babel, and Jun Xia. In this connection, it is worth noting that Professor Jun Xia, a member of the editorial board of this journal, received the recent Award for Outstanding Contributions to Water Management from the Third World Centre for Water Management.

The other six papers of this special issue, which discuss different aspects of water quality policy and management in Asia, are by leading experts on this region. Overall, the papers of the special issue provide comprehensive coverage of the complexities, difficulties, constraints, and challenges associated with managing water quality in this vast continent where more than half of humankind lives. The water quality situation is already grim in this very large region. The immense related problems can only be resolved with concurrent political will, public demand, and institutional ability, as well as with attempts which are determined, systematic, and consistent.

Asia is now at a crossroads with respect to water quality management, and the approaches that will ultimately be taken by the individual countries will determine their water future. While much needs to be done in the coming years, the arguments, analyses, and reflections of all the authors of this special issue will contribute to the debate on managing Asia's water future. The status quo can no longer be considered a solution: countries need very badly to implement innovative solutions that address the multiple challenges in cost-effective and implementable ways.

I am most grateful to Professor Kishore Mahbubani, dean of the Lee Kuan Yew School of Public Policy, Singapore, for writing the foreword for this issue. With his strong support and encouragement, the school is establishing its name as an important institution for education, research, and training in Asia. I would also like to thank Ms. Shahnila Islam, a research associate at the Institute of Water Policy, for her support during the policy forum. Finally, I would like to express my sincere appreciation to the referees who generously reviewed all the papers and gave detailed comments on each one of them. The overall quality of the entire issue is significantly enhanced because of all their perceptive comments.

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