

# 2006 Stockholm Water Prize winner reflects on world water issues

Prof Asit K. Biswas will be awarded the prestigious Stockholm Water Prize during World Water Week. He has been described in the Citation as a “science-driven water advocate”, who has been willing throughout his career to “challenge the status quo”. *H&D* asked him to share his views on some critical current water issues.

“With regard to future water problems, my main concern is that over the next 20 years, the world of water will change more compared with the past 2000 years. The changes will make water management practices and processes increasingly complex. The forces that will make these changes will include, but not necessarily be limited to, globalization, free trade, a scramble for energy security, information and communication revolution, changing population and urbanisation dynamics, and technological developments (especially in biotechnology and desalination). Unlike in the past, the water profession will have very limited, or even no, control over these new factors: it will have to react to these external forces. Most regrettably, the water profession is not considering any of these issues seriously.

For the past 40 years, the water profession has been proclaiming that ‘business-as-usual’ is not a solution, but it has been behaving as if there is no other solution. It is no longer possible to identify tomorrow’s emerging water problems, let alone find cost-effective and socially acceptable solutions, with yesterday’s knowl-



*Prof Asit K. Biswas speaking last year at the ‘Water for Development Worldwide’ Symposium organized by DSI in Istanbul.*

edge and technology, and the day-before-yesterday’s experience. Yet, the water profession is continuing to behave as if it will have to face only incremental changes, as was the case in the past.

Let me illustrate the case with the Fourth World Water Forum that was held in Mexico City in March 2006. According to the organisers, this event attracted some 19,500 participants from many different countries of the world. The total cost of this event to the world was some \$205 million. Incredibly, not a single paper at this Forum considered seriously the water problems of a coun-

try, region or the world seriously in 2010, let alone in 2020 or beyond. This is not an isolated phenomenon: in the past the water profession has consistently ignored the future, and continues with this practice today. Such continuing neglect is no longer an option.

Let us take the case of energy as an example. The energy requirements of countries like Brazil, China, India and Turkey have been increasing at 6-10 per cent each year. If these countries want to ensure that their citizens have a better quality of life, they must have energy security. If we take electricity, no large-scale energy generation is possible without water. Hydropower generation needs water, and so does electricity generation by fossil or nuclear powerplants, in terms of cooling water. For a country like France, where nuclear power generation is an important consideration, its energy industry is by far the largest user of water. In spite of the fact that the electricity requirements of many important developing countries are now expected to increase by 6-10 per cent each year, not a single country has seriously considered what are likely to be the water implications for such an exponential increase in water demands. Water requirements of the energy industry, both in terms of quantity and quality, are likely to be very substantial in the coming years. The water profession can no longer ignore future implications of water-energy interlinkages.

We have seen many single issue activist groups oppose hydropower developments in the past. Often such opposition comes from dogmatic views and/or because of the vested interests of such groups. Any project that is not good should be opposed, not only in the field of water but also in any other development sector. Equally, however, projects that bring substantial benefits to the society as a whole must proceed. In the 21st century, we know how to plan and implement good water projects. What is needed is a determined effort to maximize the benefits and minimize all the costs, and to ensure that the people who may have to pay the costs of such projects are made explicitly their beneficiaries. We now have enough knowledge and experience to plan, construct and operate

## Multiple honours in 2006 recognize Prof Biswas’s major contribution to world water issues

The 2006 Stockholm Water Prize will be awarded on 24 August to Prof Asit K. Biswas, for his multi-faceted contributions to global water resources issues, including research, education and awareness, water management, and human and international relations, in both developed and developing countries.

In the Citation relating to this Award, it is noted that as main advisor to the Secretary-General of the UN Water Conference in Mar del Plata, Prof Biswas formulated and promoted the International Water Supply and Sanitation Decade. He has also served as adviser numerous international agencies, financial institutions and national aid agencies, and chaired the Middle East Water Commission.

The Citation further describes Prof Biswas as “a science-driven water advocate, who was the driving force to create the socio-economic and political climate needed to support the effective translation of scientific and technical achievements into meaningful measures”.

He has authored 64 books and published more than 600 scientific and technical papers.

Perhaps above all, the Award recognizes that Prof Biswas has had the strength of character throughout his career to challenge the “status quo”, and he has thus fostered a re-think among UN agencies and some national governments about how to improve the delivery of water and sanitation services, and to manage water resources, in the less developed countries.

In June Prof Biswas received two further honours: on 5 June (World Environment Day) President Iglesias of Aragon and the Spanish Environment Minister Cristina Narbona awarded him the prestigious Aragon Environment Prize. This award was made for his “outstanding contributions to water management and environment for more than four decades”. On 10 June, Prof Biswas was given the Man of the Year Award by Canadian Prime Minister Harper.

good water projects. To improve the quality of life of poor people in developing countries, we must consider how water projects can best be executed so that they can become engines for development of economically disadvantaged regions. Detailed and comprehensive analyses carried out by our Third World Centre for Water Management of the Bhakra-Nangal Project in India, Ataturk dam in Turkey and at the High Aswan Dam in Egypt clearly indicate that their overall positive impacts on the regions they served have been very, very substantial. These studies are based on observed facts and scientific analyses. Details of these studies can be seen at: [www.thirdworldcentre.org](http://www.thirdworldcentre.org).

Not all water projects are good. For example, studies undertaken by our Centre indicated that the water diversion plan from the River Ebro, under the Spanish National Hydrological Plan, was neither cost-effective nor

necessary. We had no hesitation to call this plan a “white elephant”. Primarily because of the objective analyses carried out by our Centre, the Spanish Parliament cancelled the Plan. Thus, what is important is to ensure that ‘the baby is not thrown out with the bath water’, which sadly has many times been the case for important water development projects in various parts of the developing world. This negative mind-set has to change.

There are now positive signs that many mind-sets are indeed changing. For example, the Asian Development Bank announced this year that its investments in water development projects are being doubled. The new President of the World Bank, in his first official press conference, pointed out the need for accelerated infrastructural development in developing countries.

All the recent developments now indicate that the tide of negative on-

slaughts, often based on poor knowledge and understanding of the issues, hidden agendas and vested interests, is turning. As long as the water profession ensures that only good projects are put forward for implementation, the world will be an increasingly better place to live in for the increasing number of its inhabitants.”



*President Marcelino Iglesias of Aragon and Spanish Environment Minister Cristina Narbona award the Aragon Environment Prize to Prof. Biswas on World Environment Day, at a ceremony in Zaragoza, Spain.*

## Mission and roles of the Third World Centre for Water Management

The Third World Centre for Water Management is an independent knowledge-based, application- and policy-oriented think tank. Established as a non-profit organization in Atizapan, Mexico, in 1999, nearly 90 per cent of its present activities are outside Mexico. It is currently working in 18 countries.

The Centre focuses on four specific aspects of knowledge: generation, synthesis, application and dissemination. It is a unique Centre in the water sector in terms of: its overall philosophy; scientific and objective approach to assessments, analysing and resolving specific water-related problems; modality of its operation; and, its intersectoral and multidisciplinary nature. It is at present the only water institution in the world having a priority programme on water management beyond 2020.

Its future-oriented approach is based on its view that the world of water management will change more during the next 20 years compared with the past 2000 years. The boundary conditions of water management are changing so fast that the tomorrow's most important water problems cannot even be identified, let alone resolved, with yesterday's knowledge-base and day before yesterday's experience. Issues like globalisation, free trade, energy security, changing population and urbanisation dynamics, information and communication revolution, technological developments, immigration, etc., are changing the boundary conditions of

water management dramatically. The water profession needs a whole new mind-set to identify and solve the future water-related trends and problems.

Unlike other international institutions, the Centre has concluded that many of the most popular water management paradigms of today are not universally applicable. For example, its comprehensive and objective analyses indicate that some of the most popular paradigms like integrated water resources management and integrated river basin management are not applicable in most parts of South and Southeast Asia or Latin America. Furthermore, in spite of the current global rhetoric, they are unlikely to work in most countries at macro- and meso-level policies, programmes and projects.

One of the major findings of the Centre is that there are no universal paradigms or solutions for the water problems of a highly heterogeneous world. We need to consider simultaneous existence of variety of paradigms, depending on the specific conditions of any location. In addition, there often is a time dimension for the application of a paradigm. Thus, what was applicable in Japan or China 25 years ago, may not be the right solutions for similar problems for the same countries at present. For example, dams are absolutely essential for the regional developments of all countries at a certain time. However, as time passes and the most economical dam

sites are developed, needs for future dams must be carefully assessed. Similarly, the private sector has made remarkable contributions to water supply and sanitation in certain cities, but equally it has failed dismally in others. The world's most efficient water supply system belongs to the public sector, as does the worst system. In the field of water, one size simply does not fit all.

The Centre has carried out a series of knowledge synthesis studies by issues and regions. It has already published a series of definitive knowledge-synthesis studies for Latin America in the areas of integrated river basin management, water quality management, water pricing, public-private partnerships, water policies and institutions, integrated water resources management and professional women and water management. Similar region-specific studies have been published for North America, Middle East and North Africa, and South and Southeast Asia. The Centre also has published authoritative books on impacts of large dams, water management in megacities, management of international rivers, impacts of megaconferences on the water sector, water institutions!, etc. It publishes the well-established *International Journal of Water Resources Development*. Details of the current activities of the Centre and its publications can be seen at:

[www.thirdworldcentre.org](http://www.thirdworldcentre.org)