

IWA 5th World Water Congress and Exhibition 'Sustainable Water Management Practices' 10-14 September 2006, Beijing China

IWA World Water Congress

International Water Association (IWA) is a member driven organisation with the vision to connect water professionals worldwide to lead the development of effective and sustainable approaches to water management. Among many other things IWA organizes a biennial World Water Congress, and the 5th congress was held in Beijing, China, in September 2006. More than 4,000 delegates were expected to attend the Congress, which featured parallel sessions of technical presentations, scientific poster displays, workshops and discussion groups, and a large exhibition of products and services. Over 800 submissions were selected for presentation in a number of formats, including: long platform presentations (15 minutes), short platform presentations (5 minutes), poster presentations, workshops and keynote presentations. The Congress programme was divided into seven tracks or themes:

- Appropriate and non-conventional wastewater systems
- Drinking water treatment
- Health and the environment
- Integrated water resources and river basin management
- Operating and managing water and wastewater systems
- Strategic management of water in urban areas
- Wastewater treatment

The Congress opening and welcome reception was on Sunday the 10th. The seminars and workshop, in more than 10 parallel sessions, covered Monday through Thursday. Three technical tours were organized on Friday the 15th. Sweden was represented in eight oral presentations and four short presentations and posters (out of around 300). There were more than 40 Swedish delegates attending the Congress. Due to the high number of participants from all over the world, the Congress provided many opportunities for meetings with both known colleagues and new ones. There were no sessions specifically targeting water and sanitation in peri-urban areas, however, there were many interesting presentations and two workshops that I found extra fruitful. The workshops were:

- *WHO: Guidelines for the safe use of wastewater, excreta and greywater in agriculture and aquaculture.* The guidelines are issued in four volumes (Policy and regulatory aspects; The use of wastewater for agriculture; The use of wastewater and excreta in aquaculture; The use of excreta and greywater in agriculture). The third edition of these guidelines were presented, discussed and launched at the workshop.

- *Sanitation 21: innovative sanitation options.* The workshop dealt with a paper called 'Sanitation 21: simple approaches to complex sanitation – a draft framework for analysis' intended to help IWA members and interested professionals think about how excreta management could be better planned so that investments are more likely to generate the needed health and environmental benefits. The main idea with the paper is to provide a framework which can be used to develop appropriate, sustainable and effective solutions tailored to a specific time and place. The workshop included discussions about the need for a new IWA specialist group.

IWA specialist group meetings

The specialist groups within IWA are self-managed and include groups covering all-important topics in the water management sector. Many of the groups had organised meetings during the Congress. As a member of SG 'Small water and wastewater systems' I attended a scheduled meeting on the 12th. A short report about the last specialist conference (Mexico, March 2006) was presented by the organizer, however, the discussion was mainly about the coming conference in Coimbatore, India 2008. Two workshops were proposed, one about ecosan and the other about decentralised systems. Another interesting topic is the implementation of small WWTPs versus centralised systems, regarding issues such as operation, management, experiences and problems that can arise, especially in developing countries. In the context of peri-urban areas, the choice of appropriate systems for water and sanitation services is essential.

Some about China

During the Congress there were several presentations about China, among them I attended a workshop called 'Water and sanitation in China: World Bank experience and case studies'. In short: the China Urban Water program started in the 80's, mainly targeting the mega-cities, e.g. Shanghai, Beijing, Chongqing and Tianjin. Today medium and smaller cities are included. During 1995-2005, RMB 350 billion (US\$ 44 billion) has been invested. According to the World Bank sector study the future challenges for water and sanitation in China are: 1) *Dealing with urban diversity.* The coverage of water supply and wastewater treatment is low, Table 1, and policies needs to be adopted for the different kinds of cities. 2) *Meeting sector investment needs.* Since the year 2000 more money is invested in wastewater treatment than water supply. 3) *Enhancing utility operational performance.* The water losses are high, around 70 m³ per km pipeline per day, and WWTP performance variable. 4) *Improving investment efficiency.* Overcapacity of water treatment plants and WWTP sizing problems. Underinvestment in pipe networks. High standards result in expensive plants. 5) *Achieving financial sustainability.* Problems with wastewater revenue collection. Usually collected on the water supply bill, so the question is how to charge large industries that have their own water supply system but discharge to the wastewater system.

Table 1. Coverage of water supply and wastewater treatment in China's 661 designated cities and country capital towns.

	Number of cities	Population (Million)	Wastewater treatment (%)	Water supply coverage (%)
Super cities GDP per capita >\$3,000 Population > 2 million	21	93	59	93
Medium cities All other cities	320	197	39	92
Developing cities GDP per capita <\$1,500 Population < 0.5 million	321	6	21	86
Country capital towns Population > 100,000	1,636	96	11	82

Of course there will be many presentations from the country that hosts the Congress, and it is quite obvious that China has many challenges concerning water and sanitation, as well as other environmental issues. However, many of the insights about China in general were gained during other extra curricular activities during the week. In Beijing, one thousand new cars are introduced every week, where ever you look there is a tower crane rising to the sky, signs reminding of the Olympic Games 2008 are abundant, the concept of Yin and Yang is present in almost everything, when you go shopping do not hesitate to bargain, Chinese is very difficult and the food is excellent!

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