New, fancy high-rise buildings, new highways, new streets, new airports, new residential areas, new policy reforms ... all at a massive scale not seen anywhere else on the planet. For anybody who has observed China over the past two decades it is easy to be astonished or even emotional in a strange bifurcate way on seeing how rapidly the country is changing. Both hopes and fears are huge.

It is more than obvious that the water sector is one of the key ingredients of this change. According to the estimates by the United Nations Population Bureau, China’s urban population is currently growing by more than 15 million persons per year. It needs less than four years for Chinese towns and cities to have more new people than the size of the entire UK population, and another four years to add the population equivalent to the size of France. At the same time the economy swells with two-digit growth rates and the aspirations related to water supply, sanitation and wastewater treatment (denoted below as WSS) are soaring. Housing improves rapidly and family size decreases. All these factors translate into an equation in which water infrastructure and naturally the entire WSS services are undergoing a huge expansion, development and investment boom.

China has much to do to improve its ambient water quality. According to the national criteria, over 60% of the inland waters are still classified as being poor, which is the lowest category available. Equally, there is still much to do on the WSS services side. Well over half of the municipal wastewater goes untreated into watercourses and many existing plants do not function adequately. The aspirations to extend water services from standpipes to the rapidly number of households are enormous.

In order to keep up with the challenges and to remove as many bottlenecks of various types as possible, the WSS sector is undergoing a profound reform. China’s water policy is closely linked to the market reform of the country, e.g. the water law was thoroughly revised in 2002 and it is now leaning towards market-driven instruments such as water pricing, cost recovery and so forth. Due to the contemporary political orientation of these reforms, this creates an unforeseen boom for water companies and industries.

Investment targets as outlined in the 11th five-year plan are ambitious and aggressive, and the move away from state-owned enterprises to private investors and operators is ongoing in a strong dimension. Technology and capacity, including human, is one of the main bottlenecks, and doors are open for foreign expertise. Capacity and quality of the governance system is equally being pledged, and the streamlining of the governance system towards more transparency, efficiency and less corruption is necessary and not at all easy. The availability of finance at present seems to be less of a challenge in China than the above issues.
The 2nd China Water Congress gathered 350 participants to Beijing from the water industry, government bodies and academic institutions, both from China and abroad. A particular, unfortunate challenge for many Chinese government officials was the disastrous earthquake that took place only two days prior to the event in China’s Sichuan province. However, the congress was still held with only a very few modifications in the programme.

The subtitle of the Congress was ‘Uncovering Rules and Boosting Profitability’. This two-tailed sentence was indicative of the underlying theme of the event and the respective contributions and discussions. The title encompasses two basic aspects: governance reform towards clear and transparent rules and regulations, and how to deal with the diverse challenges of moving increasingly towards market-based systems in the WSS sector.

Dr Zhou Jiang, Deputy Director of the Ministry of Housing and Urban-Rural Development, outlined the basic issues from the government standpoint by emphasizing that the WSS sector has been previously dominated by state-owned companies, but now the doors are open for the introduction of private capital, in order to be able to expand the services as has been planned. As the water industry is one of basic foundations of cities’ service structure, the reform of the WSS sector will be at a very central position in China’s economic reform during the next few years.

According to Dr Zhou, the challenges are basically threefold. First, to maintain public interest for urban water safety, including challenging groups who do not provide lucrative business opportunities for market-oriented operators. Second, the governance reform with adequate supervision and management mechanisms, plus legislation reform and quality supervision of water are all more than crucial. Third, the various challenges of defining and maintaining clear responsibilities when setting up a transparent market system.

The Chinese Government sees the open-door policy for private sector involvement instrumental in meeting this four-edged challenge, which consists of:

- Investment and finance challenges, in particular those related to pricing and tariffs.
- Technology challenges in adopting state-of-the-art and new technologies; the 20 years of reform in the water sector of China sets the scene with its own constraints for possible new approaches.
- Governance challenges in regulation, legislation and supervision. Private sector involvement is the major institutional question now, together with the public governance system reform.
- Management at the operational level as volume and service quality needs a major leap forward.

Although seen as a necessity from a financial standpoint, water pricing creates concerns on many fronts. On the one hand cost recovery is essential, but on the other, plenty of social concerns exist. Tariffs must be strongly regulated, even fixed, and profits should be balanced with the economic burden to consumers, particularly the urban poor echelons of the society. Accordingly, approaches and the possible introduction of water tariff audit are being heavily discussed.

The answer to the question with regard to what is a reasonable water tariff varies enormously, and unifying political concepts are necessary. The Asian Development Bank maintains that a family or individual should not need to spend more than 5% of their...
income on water services, and in the case of China where the social discrepancies are
substantial, this requirement cannot be met without notable compensation or subsidies to
the poor.

Clear accounting mechanisms to water companies have come at a very late stage in
China. A great many water enterprises do not know their balance sheets properly. Large
regional differences exist as the Northern part of the country is generally badly behind the
South.

The culture ‘managing in a lump-sum way’ is no longer appropriate since clear and
transparent market approaches are required. This is not only a challenge to water
enterprises but equally to the Chinese Government who lacks the capacity to supervise and
regulate the reform process. Water pricing is subjected to massive ambiguities. The
public-private divide is very unclear on many facets and the boundaries must be made
clearer.

China’s water availability per capita is approximately one-quarter of the global average.
In fact, the situation is much more challenging than that due to two reasons; first, to the
very uneven resource distribution and second, to the massive deterioration in water
resources due to pollution and degradation of catchments. As mentioned above, today 60%
of China’s water resources are classified in the lowest of the four water quality classes.
Those poor quality waters are in the populated areas.

Water technology is a booming business area in China, ranging from high-tech solutions
in fields such as membrane technologies to desalination and from management skills to
capacity building. Several other Asian countries such as Malaysia, Thailand, Singapore
and many others are facing challenges that are similar in many aspects, and information
exchange is growing and increasingly crucial. The exchange of experience and approaches
from other continents, particularly Australia, Europe and North America is equally vital.

China has made astounding steps in many ways during the past decades. Let us see how
it will handle the concurrent expansion of its water supply and sanitation sector. It is being
questioned whether the market-based approach that the government is now embarking
on—the approach that is to be supported by a governance reform that would allow
transparent and efficient regulation and supervision of the water companies—will be a
success or not. Time will tell, perhaps rather sooner than later since the pace of change in
China is indeed high for the time being.

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