

## Country Water Action: People's Republic of China Integrated Solutions for Integrated Water Problems

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### CONCENTRATING ON WATER CHALLENGES

During a recent interview with an ADB film crew in the People's Republic of China, Vice Minister of Water Resources Suo Lisheng said the country has no shortage of water problems.

"China has quite a lot of water problems. To put it simply," he said, "we can use eight Chinese characters -- much water, little water, dirty water, muddy water."

When the country is not losing 1 percent of its GDP to flood damage, he said it is dealing with the drying up and shrinking of water resources and a chronic water supply shortage in more than half of its 600 cities. Industrial waste and untreated sewage contaminates 80 percent of the rivers and lakes in cities. Making matters worse is the 5 billion tons of silt transported in PRC's rivers each year. The Yellow River alone transports 1.6 billion tons every year, doing double damage by causing soil erosion upstream and flood hazards downstream.

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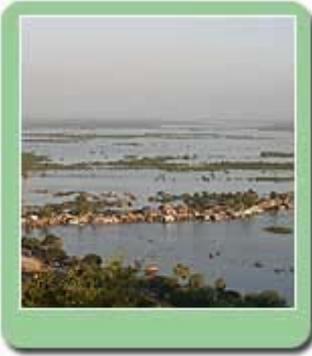
### SOLUTIONS: EXECUTION OF IWRM IS KEY

It is not PRC's water problems, though, that are gaining the country attention. Rather, it is the way the county is solving its water problems.

PRC is meeting its water challenges through the globally accepted practice of integrated water resource management, or IWRM. And apparently, PRC is doing a good job at it. In 2003, the Global Water Partnership conducted a baseline survey of 108 countries to measure their success with IWRM. PRC was one of only 11 countries in the developing world to have earned the highest rating possible, having "made good progress toward integrated approaches." Kazakhstan and the Kyrgyz Republic were the only other Asian countries to fare as well.

"Countries that have made the most progress towards adapting and reforming their water management systems," the report says, "have often started by focusing on specific water challenges."

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## THE YELLOW RIVER: A CASE FOR IWRM

The Yellow River basin illustrates the major water challenges facing PRC and makes a defensive case for IWRM. The Yellow River is the country's second longest river and the world's most silted one. Its importance to Chinese civilization has earned it the name "Mother River," but its tempestuous history of floods and death has labeled it "River of Sorrow."

"Everybody knows the Yellow River is the most difficult river to manage in the world," said Xue Songgui, chief engineer for the Yellow River Conservancy Commission (YRCC). "The river has little water and a lot of sediment. This characteristic has caused a series of problems."

While prone to flooding in the rainy season, the average flow of the Yellow River is relatively low. Yet the thirst for its water is insatiable. Farmers need its water for irrigating fields, while economic development has increased the demand for industrial, commercial and domestic water uses-to the point that the river frequently dried up completely in the lower reaches, harming the wetlands and delta ecosystem.

A water allocation center run by the YRCC monitors the river and controls supply gates in the lower reaches to balance the water demands with what the river has to offer at a given time.

No one understands better the inter-related uses of the Yellow River than the people in Gansu Province.

"It supplies water for agricultural production, industrial production, and it provides drinking water for the rural and urban populations," said Kang Guo Xi, deputy director of Gansu Water Resources Bureau. "It is a river that gives life. It provides for our basic needs. Along the Yellow River, water is drawn for irrigation. Only one-third of agricultural land is irrigated, but it feeds two-thirds of the total population of the province and produces 70 percent of our grains."

It isn't enough for a water resource like the Yellow River to just meet the demands exacted upon it. Demands must be met in ways that sustain, not threaten the water resource. IWRM plays an important role in managing the water resource and balancing the different demands.

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## IWRM: WHAT IT OFFERS

IWRM is a process, rather than an end in itself. The Global Water Partnership describes IWRM as a way to "address a country's key water related development problems-water for health, for food, for energy, for environment-more effectively and efficiently than is possible using traditional approaches." ADB views water resources as a vital social and economic good that needs to be managed in holistic ways.

Traditional approaches usually divide the water sector between numerous government agencies and institutions, that often-and without consulting each other-make decisions on matters that affect water resources and how others use that resource. Consequently, water resources are managed to meet the limited

interests of specific groups rather than holistically to meet everyone's needs appropriately and sustainably.

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## INGREDIENTS FOR SUCCESS

To get IWRM to work, three basic elements are needed:

- An enabling environment of appropriate policies, participatory processes and international cooperation
- Appropriately designated roles of institutions and stakeholder groups
- The tools to manage, which involves regulation, monitoring and enforcement—all of which ultimately feeds sound information to decision makers

IWRM is a major component of the ADB water policy. In the past, ADB noted that projects tended to not be a part of a larger, coordinated strategy for water resources, or that they even considered the water uses within the project area but outside the main objectives of the project. The policy advocates IWRM as a means for re-emphasizing the importance of sustainable water resources themselves, rather than just their productive uses. To protect and manage a water resource, IWRM focuses on both quantity and quality issues.

Through its water policy, ADB pledges to help developing member countries undertake comprehensive water sector assessments, particularly at the most basic level—river basins. These assessments are critical for the overall reform process that IWRM calls for.

In PRC, ADB has assisted the government in undertaking a comprehensive study of strategic options for its water sector. The study provides an overview of the issues facing the country and a coordinated program of recommended policy reforms and initiatives. More recently, ADB has been assisting the YRCC in improving its flood control methods.

Although PRC does not have a specific IWRM plan, it has been applying an IWRM approach in all the fields of water resources management, according to the baseline survey. The national government agenda prioritizes water resource issues, and an institutional and legal framework for IWRM is evidenced in the country's Water Law.