

中国

China Country  
Water Resources  
Assistance Strategy

# 水资源援助战略

The World Bank East Asia and Pacific Region

世界银行东亚及太平洋地区 著

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# 序言

随着全球水危机的加剧，世界各国都将水资源作为战略资源予以高度重视。水问题是 21 世纪全球性的热点问题，实现水资源的可持续利用，支持和保障经济社会的可持续发展，是世界各国共同面临的紧迫任务。

我国是一个水资源短缺的国家，水资源时空分布不均。干旱缺水、洪涝灾害、水资源恶化和水土流失是当前水资源领域面临的主要问题。由于人口的增长，到 2030 年，我国人均水资源占有量将从现在的  $2200\text{m}^3$  降至  $1700 \sim 1800\text{m}^3$ ，需水量接近水资源可开发利用量，干旱缺水问题将更加突出。解决我国水资源面临的问题，必须坚持以人为本，树立全面、协调、可持续发展观。近年来形成的可持续发展水利思路和治水新实践，符合我国国情、水情，符合时代发展需要，符合科学发展观的要求。新时期水利工作要在牢固树立和认真落实科学发展观的基础上，继

续走可持续发展的道路。在学习、借鉴国外成功经验和技术的同时，结合中国治水理论与成功实践，实现由传统水利向现代水利、可持续发展水利的转变，以水资源的可持续利用支持经济、社会的可持续发展。

世界银行为进一步加强与中国政府在水资源管理领域的合作，在 2003 年研究提出了中国水资源援助战略报告，围绕我国目前面临的水资源问题，提出有关对策和建议。该战略报告对于水利工作者了解世界银行对中国水利行业的援助战略和有关建议，具有一定的参考价值。

水利部副部长



2004 年 3 月于北京

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- RBM** — River Basin Management  
流域管理
- SDPC** — State Development Planning Commission  
国家发展计划委员会
- SEPA** — State Environmental Protection Administration  
国家环保局
- SIDD** — Self-Managing Irrigation and Drainage District  
经济自立灌区
- SOCAD** — State Office for Comprehensive Agricultural Development  
国家农业综合发展办公室
- TA** — Technical Assistance  
技术援助
- TBWRC** — Tarim Basin Water Resources Commission  
塔里木流域水资源管理局
- TVIE** — Township and Village Industrial Enterprises  
乡镇企业
- WCP** — Water Conservation Project  
节水项目
- WRMP** — Water Resources Management Policy  
水资源管理政策
- WRSS** — Water Resources Sector Strategy  
水行业发展战略
- WSC** — Water Supply Corporation  
供水公司
- WSO** — Water Supply Organization  
供水组织
- WUA** — Water Users Association  
用水户协会
- WWTP** — Waste Water Treatment Plant  
废水处理厂

# The World Bank: China Country Water Resources Assistance Strategy

## I . Introduction

1. China faces a water resources crisis of multiple dimensions throughout the country, but the problems are particularly acute in dry northern China—that is, north of the Yangtze River Basin—and even more so in the catchments of the Huang (Yellow), Huai and Hai Rivers. The importance of water resources management is well recognized and considered to be a priority issue at the highest levels of the Chinese Government. As noted in Premier Zhu Rongji's Report on the Tenth Five Year Plan:<sup>①</sup>

“Lack of water resources is a serious limitation on the economic and social development of our country. We need to put water conservation high on our work agenda, establish a rational system for management of water resources and a rational pricing mechanism, comprehensively adopt water conservation technologies and measures, develop water-efficient industries, and raise the entire society's awareness of water conservation. Prevention and control of water pollution should be strengthened. We should improve sewage treatment and utilization. We need to expedite the planning and building of projects to divert water from the south to the north.”

2. China has very serious water problems despite substantial

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① Premier Zhu Rongji's Report on the Outline of the Tenth-Five Year Plan for the National Economic and Social Economic Development (2001-2005), delivered at the Fourth Session of the Ninth National People's Congress on March 5, 2001.



# 世界银行：中国水资源援助战略\*

## 一、引言

1. 中国各地普遍面临着多方面的水资源危机，在干旱的北方，即长江流域以北地区，特别是黄河、淮河和海河流域，水资源问题尤为突出。中国政府最高层领导已深刻认识到水资源管理的重要性，并把它作为一个优先考虑的问题。国务院总理朱镕基在《关于国民经济和社会发展第十个五年计划纲要的报告》<sup>①</sup>中指出：“水资源短缺，是我国经济和社会发展的严重制约因素。要把节水放在突出位置，建立合理的水资源管理体制和物价形成机制，全面推行各种节水技术和措施，发展节水型产业，建立节水型社会。加强水污染防治，搞好污水处理和利用。加紧南水北调等重大项目的规划和建设。”

2. 尽管中国经济发展成就显著、科技实力很强、政治稳定，但水资源问题非常严重。

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\* 讨论稿，2002年8月7日。

① 朱镕基总理《关于国民经济和社会发展第十个五年计划纲要的报告》是2001年3月5日在全国九届人大四次会议上宣读的。

economic development achievements, strong technical expertise, and political stability. But in terms of its potential and the critical pressing needs for water resources management, China could do much better in managing its water resources. The World Bank's assistance to China in water resources development and management in the past has tended to be reactive and downstream in the project cycle. However, this approach has significantly limited the potential benefits of Bank assistance to China which a more upstream approach, based on a strategic partnership, could provide.

3. In general, the Chinese government has requested assistance from the Bank for projects that the Chinese government has felt would benefit from Bank involvement and after the projects have been basically defined in terms of content. The Bank has then worked with its Chinese counterparts to make adjustments to the already defined projects in order to improve them and incorporate international experience. This has basically been the approach to Bank assistance in China because both China and the Bank have strongly emphasized the importance of the client (China) being in the driver's seat and the Bank providing assistance where and how the client wants. But the result has been failure to gain the maximum value from Bank assistance. In effect, China has treated the Bank as a commercial source of financing rather than a strategic partner in development.

4. The fundamental issues for China are not only technical but concern the institutions and management instruments; their solution depends more on political understanding and strong will from the political leaders at all levels, rather than just funding. In order to accommodate a shift towards improved water resources management and to make better use of Bank assistance, it is important for the Bank to become more involved in upstream dialog and Analytical and Advisory Assistance (AAA) to help in defining the legal and institutional framework, policy, strategy and particularly in planning and implementing the overall water resources management and investment

从水资源管理的潜力和紧迫性来看,中国能够在水资源管理方面做得更好。过去,世界银行(以下简称“世行”)对中国水资源开发和管理方面的援助往往是被动的,并常处于项目周期中的规划后期。这种做法已严重制约了世行援助潜在效益的发挥,而基于战略协作、更接近规划前期和决策初期的做法能够提高援助的潜在效益。

3. 通常,中国政府只就那些它认为世行的参与能带来效益的项目向世行提出援助请求,并且是在项目内容已基本确定的情况下。然后,世行和中方一道对选定项目的内容进行调整完善,引入国际经验。这是世行援助中国的基本做法,因为中国和世行都特别强调客户(中国)的主导地位,世行按照客户的需要提供援助,其结果是中方未能从世行的援助中最大程度地受益。实际上,中国把世行视作一个商业贷款的来源,而非其发展历程中的战略合作伙伴。

4. 中国的根本问题不仅在技术方面,还与机构和管理手段有关。这些问题的解决更多地依靠各级领导的政治认识和意愿,而不能仅仅依靠资金。为适应中国水资源管理水平的提高,使世行援助更好地为中国所用,世行应更多地参与在规划前期和决策初期进行的对话,更多地通过分析性咨询援助,帮助中国确立法律和机构框架、政策、战略,尤其是帮助中国制定和实施全面的水资源管理和投资规划,这些都很重要。对世行参与的项目和活动的选择和确定,包括探讨把世行援助集中用于重点领域的可能性,也应由中国政府 and 世行共同进行。

program for China. Selection of projects and activities for Bank involvement including the possibility of concentrating Bank assistance in critical areas, should also be a mutual exercise of the Chinese government and the Bank. China is now a much more sophisticated and internationally savvy client than it was during earlier years of Bank involvement. There is essentially no risk that China would allow the Bank's assistance to drive the reform agenda, but China could benefit substantially from the Bank's assistance and advice when considering these upstream aspects. As an honest broker with worldwide experience and access to expertise, the Bank can be a very effective partner for open dialogue and debate at all levels, which are needed for effective strategic reform of management in the water resources sector.

5. This upstream assistance can include Bank support for interchanges with other developing and developed countries dealing with similar water related problems, seminars and workshops, more access of senior Bank water staff to Chinese leaders, improved cooperation and coordination with other multilateral and bi-lateral international organizations, more formal and informal AAA provided by the Bank, etc. But the fundamental requirement for such a partnership to work is that China must decide to use the Bank in a new, more comprehensive way for its strategic development purposes.

6. The Bank's assistance strategy for China in meeting its water resources challenges needs to revolve around three major dimensions:

- Keeping in mind that water resources management improvements are a long-term endeavor, the Bank should provide assistance to China in translating the rhetoric of water conservation and sustainability into practical-realistic programs and policies. The Bank should provide AAA when requested and assist the Government in developing policy and strategic approaches to addressing water resources management needs.

- For Bank financed infrastructure projects, the Bank should

与世行进入中国的前几年相比，如今的中国是一个更加老练、具有更多国际常识的客户。如果中国允许世行参与规划前期和决策初期的对话，并不存在世行会通过其援助来推动中国的改革进程的风险，相反会从世行的援助和建议中受益匪浅。作为一个诚实的、具有广泛国际经验并能获得国际范围内相关经验的中间人，世行可以成为一个在各个层次帮助中方开展公开对话和辩论的非常有效的合作伙伴。这些对话和辩论正是水资源行业进行有效的管理方面的战略改革所需要的。

5. 在规划前期和决策初期世行可以提供的援助包括：资助中国与其他面临类似水问题的发展中国家和发达国家进行交流，支持举办研讨会和讲习班，支持世行高级水利官员更多地接触中国领导人，支持中国改进与其他多边和双边国际组织的协调和合作，提供更多正式和非正式分析性咨询援助等等。但这一合作关系的基本要求是，中国必须决定以更加全面的新方式利用世行的援助，为其战略发展目标服务。

6. 为帮助中国迎接水资源挑战，世行援助战略需要围绕以下三个方面进行：

- 改善水资源管理工作需付出长期的努力，世行应向中国提供援助来把水资源保护和水资源持续利用的有关想法转化成现实可行的规划和政策。中国政府在制定水资源开发政策和战略方针时，如提出请求，世行应提供分析性咨询援助。

- 对世行资助的基础设施项目，世行应提供帮助，

help assist the Government in formulating management components which will be an integral part of the projects, and focus on (a) generating the support of political leaders, and (b) following a “bottom-up and top-down” approach that includes the active participation of water users. The Bank should also work with Government to develop non-infrastructure water resources management projects, such as the proposed GEF Hai Basin Integrated Water and Environment Management Project.

- The Bank should give priority to financing water conservation, watershed management, irrigation and drainage system rehabilitation, water pollution control including wastewater treatment, flood and drought management, bulk water supply for Municipal and Industrial (M&I) uses, rural water supply, hydropower including mini-hydro. The projects should be designed within a basin-wide or regional water resources perspective, with emphasis on poverty reduction and, where appropriate, on eco-system restoration of rivers, wetlands, lakes, and coastal waters.

7. This Strategy Paper identifies China's principal water resources challenges, what China is already doing, and how the Bank can assist in the future. The large size of the Bank's water portfolio and the urgency of the problems, demand a strategic framework for the Bank's support to China. In 2002, the Bank and the Chinese Government are cooperating on the evaluation of the last, and preparation of the new, Country Assistance Strategy. In October 2002, China promulgated a new Water Law, has recently prepared a new five-year plan, and is updating the master plans for the major river basins. The Bank hopes it can assist China in improving its water resources management, and accelerate implementation of reforms through a shared Country Water Resources Assistance Strategy (CWRAS).

8. The Bank's Water Resources Sector Strategy (WRSS) is currently being finalized and will support the 1993 Water Resources Management Policy (WRMP). The holistic approach recommended is generally described as Integrated Water Resources Management

支持政府制定项目管理的内容，以作为项目的一个整体组成部分，世行的帮助主要体现在：①争取行政领导的支持；②采取“自下而上”和“自上而下”的方法，包括用水户的积极参与。世行还应与政府合作开展非设施性水资源管理项目，如讨论之中的利用全球环境基金赠款开展海河流域水资源及环境综合管理项目。

- 世行应优先向节水、流域管理、灌排系统改造、水污染防治包括污水处理、洪水和干旱管理、城市和工业供水、乡村供水、水电包括小水电等方面的项目提供资助。项目的设计应从整个流域和区域水资源的角度出发，以减少贫困为重点，在适当的情况下，把重点放在恢复河流、湿地、湖泊和沿海水域的生态系统上。

7. 本战略报告确定了中国面临的主要水资源问题、中国正在开展的工作，以及世行未来的援助方式等。鉴于世行在水资源领域投入的大量资金和中国水资源问题的紧迫性，需要有一个世行向中国提供援助的战略框架。2002年，世行和中国政府正在开展合作，评估过去的国别援助战略，编制新的国别援助战略。2002年10月，中国颁布了新的《水法》，前不久中国制定了新的五年计划，并正在对主要流域的规划进行修订。世行希望，通过一个双方共同的国别水资源援助战略，帮助中国提高水资源管理水平，加快改革的实施步伐。

8. 世行的《水行业发展战略》目前正处在最后完成阶段，这个战略将对1993年颁布的世行《水资源管理政策》起补充作用。其中推荐的水资源管理办法通常称为水资源综合管理，

(IWRM) and sometimes as Integrated River Basin Management (IRBM). While unified management is an ideal, the integrated approach starts from the present institutions and stakeholders. One of the conclusions of the WRSS is that Country Water Resources Assistance Strategies should be produced for key countries in each of the Bank's six regions. During the Bank's fiscal year 2002, ending June 2002, each region is preparing one CWRAS in consultation with a selected client country. In the case of the Bank's East Asia and the Pacific Region, China has been chosen for the first CWRAS, which is elaborated in this Strategy Paper. A workshop was held in Beijing on June 5, 2002 co-sponsored by the Bank and the Ministry of Water Resources during which this Strategy Paper was discussed. This final version of the Strategy Paper incorporates the comments from the workshop and is an integral part of the process of CAS preparation.

9. The Bank provides AAA on policy-related issues and two recent documents have been used in preparation of this Strategy Paper:

- "Agenda for Water Sector Strategy for North China" is a comprehensive analytical report addressing water scarcity, floods, water for agriculture, water pollution, groundwater, and water management institutions in the Huang-Huai-Hai River Basins (3H basins). It represents the state of the art as far as analytic and technical engineering approaches to water resources management, encompassing water quality as well. It also enables the implications of alternative assumptions about key economic and financial parameters. The basins cover the North China Plain which is the breadbasket of China. The report outlines an action plan and provides an indicative assessment of investment needs.

- "China: Air, Land, and Water-Environmental Priorities for a New Millennium" also deals extensively with water resources management and water pollution issues.



有时称为流域综合管理。虽然统一管理一直是一个理想，但是以上这种综合办法却是由目前的机构和利益相关者提出的。世行《水行业发展战略》的结论之一是，应对世行6个地区中的每个地区的所有主要国家制定国别水资源援助战略。在将截止于2002年6月底的世行2002年财年，各个地区要与选定的一个世行援助国，协商制定国别水资源援助战略。世行的东亚和太平洋地区，选择以中国为对象制定首个国别水资源援助战略，其内容将如本战略报告所阐述的。2002年6月5日，世行和水利部共同举办研讨会对本报告进行了讨论。战略报告的最终稿将结合6月研讨会代表们提出的意见，并成为中国国别援助战略准备过程的有机部分。

9. 世行对有关政策问题提供分析性咨询援助，在准备本战略报告时，使用了以下两个最新文献：

- 《华北水行业战略议程》是一个全面的分析报告，针对的是黄淮海流域的缺水、洪水、农业用水、水污染、地下水以及水资源管理机构问题。它代表了水资源管理分析和技术工程方法的最高水平，并包含了水质内容。它还变换经济财务参数进行了一些研究。流域覆盖了中国粮仓之一的华北平原。报告提出了一个行动计划，对投资需求进行了直观的评估。

- 《中国：大气、土壤和水环境对新千年的重要性》，也广泛涉及水资源管理和水污染问题。