1. Country and Sector Background

China is experiencing rapid urban growth, with 40% of the population currently living in urban areas, up from 29% in 1995. Over the next 15 years, that trend is expected to continue with the urban population projected to reach 50%. This increase in the urban population is a result of several factors, notably the government’s decision to reduce controls governing population mobility and a falling demand for farm labor. This rapid urban growth is pressuring cities to expand their public infrastructure, increase municipal services and provide employment for migrants. To relieve some of these pressures, government policy is now focused on secondary cities and peri-urban areas, where the aim is to create conditions and facilities necessary to attract investments and to accommodate growing populations.

Chongqing Municipality is the administrative equivalent to a Chinese province, consisting of the main city of Chongqing, and 31 other units of local government (4 smaller cities, 6 districts and 21 counties). These administrative units govern a land area covering 82,000 square kilometers (size of Austria), with a total population exceeding 31 million. The Municipality has a two-tiered economy, with 67% of the population living in rural areas earning, on average, Y2,098 ($250) in 2002, and the other 33% residing in urban areas earning Y7,238 ($870) per capita in that year. This significant differential in earnings is propelling movement of surplus rural labor to the urban economies at a fast pace.

As part of western China, Chongqing’s overall development status lags well behind more prosperous regions in many respects. A relative lack of basic infrastructure is a significant development bottleneck, discouraging outside investment, contributing to poor environmental conditions, and limiting opportunities to promote growth. Within the Municipality, Chongqing city is privileged by its relatively large resource base and its position on the Yangtze River. Furthermore, the construction of the Three Gorges Dam and the implementation of the Central
Government’s "Go West" program have created favorable conditions for the city’s redevelopment and urban expansion. Since its separation from Sichuan province in 1997, Chongqing Municipality and the main city in particular, have enjoyed a sizable increase in their revenues (although from a low base) and a growing affluence of its citizens.

Within the main city, environmental infrastructure development is proceeding at a fast pace. The Bank-financed Chongqing Urban Environment Project (CUEP) is contributing to reducing serious wastewater and solid waste management problems, and was recently restructured to support basic infrastructure improvements in eight districts and counties mostly in the western part of the Municipality. This initiative was an initial step to mobilize more international expertise and financial resources to accelerate urbanization and infrastructure development in the smaller local governments within the Municipality.

Infrastructure deficiencies generally found in the smaller cities and towns are: (i) poor quality and intermittent supplies of drinking water due to inadequate water resources and mountainous topography, which hinder the development of reliable urban water supply systems; (ii) inadequate transportation networks, and structurally incomplete road connections between urban centers and new expressways; (iii) low resistance to flooding and other natural disasters, as many cities are built along rivers, on steep valleys or adjacent to flood plains, resulting in insufficient land for urban expansion; and (iv) unsatisfactory sanitation conditions and insufficient drainage and wastewater treatment.

The Municipal Government is committed to use its improving financial position to help address these deficiencies, but wants the smaller local governments who are responsible for infrastructure services to adopt better policies and institutional arrangements to ensure their sustainability. This was one of the main reasons for requesting the Bank’s recent assistance to focus on the smaller cities, districts and counties. The infrastructure investments proposed for Bank financing under CSCP are consistent with the revised policy directions and urbanization strategy, as confirmed in the Medium-Term Development Plan of Chongqing, developed by international and local experts over the past year.

2. Objectives

The project development objective is to support emerging small cities to improve the efficiency and effectiveness of infrastructure service delivery, to accommodate the rapid urban growth.

Key outcome indicators include evidence of improvements: (a) in effectiveness and reliability of water supply service delivery; (b) financial viability and sustainability of water supply services; (c) urban service revenues in areas upgraded; and (d) reduced travel times and congestion between, and within main urban areas.

3. Rationale for Bank Involvement

The Bank has worked successfully with Chongqing Municipality on numerous projects including CUEP. Through the recent restructuring of CUEP, the Bank and the Municipality have gained valuable experience in helping smaller local governments in the Municipality to design and
adopt improved processes and procedures for identifying and preparing priority investment projects. Under CSCP, the Bank would expand support to the Municipality by sharing its extensive global and China experience in urban development for water supply, flood protection, road infrastructure, institutional development, and financial management. It would also introduce to a new group of local governments and their local consultants more rigorous analytical methods to prepare and optimize project designs. The value-added during project implementation will include cost savings through procurement under Bank guidelines, as well as improved construction and project management and quality control.

Beyond this, addressing urbanization issues in Chongqing’s smaller population centers presents a unique opportunity to partner with a progressive municipality in western China. The involvement of the Bank could influence development policies, improve management practices, and introduce public sector reforms for service delivery both in the Municipality and possibly elsewhere in China. Following a PSP Options Study (financed by PPIAF), opportunities exist for introduction of market mechanisms in Chongqing city. The adoption of PSP operations by smaller local governments would, however, be a longer term goal.

4. Description

The project consists of five broad components

(i) Water Supply
- Diangjiang Water Supply. Enhancement of water treatment, and network expansion in three areas of Diangjiang.
- Songji Regional Water Supply. Supply of raw water to one city – Yongchuan.
- Tongguanyi Regional Water Supply. Regional water supply scheme supplying 16 towns in water scarce areas in the planned western expansion areas.
- Tongnan Water Supply. Enhancement of water treatment, and network expansion in three areas of Tongnan.
- Yongchuan Water Supply. Enhancement of water treatment, and network expansion in three small towns located close to Yongchuan city.

(ii) Flood Protection
- Nanchuan: Flood protection embankments provided to protect land for urban expansion.
- Rongchang: Floor protection embankments to mitigate against serious flooding.
- Shizhu: Extension of existing flood protection embankment on south side of river.

(iii) Road Improvement and Construction
- Qianjiang: Spine road in new development area.
- Shizhu: Shizhu expressway link road.
- Tongnan: Link from Chongqing-Chengdu expressway to key secondary city of Tongba.
- Yubei: Access road to tourist site from Y-L expressway.

(iv) Environmental Sanitation
- Public toilet upgrading and reconstruction in Chongqing city.
- Solid waste management transfer system improvements in Chongqing city.
(v) **Institutional Strengthening**

- Technical assistance to: improve quality of design and implementation; strengthen finances, management and operations of utility companies; improve management capacity of parent units of local governments managing companies engaged in infrastructure development; contract a company for PSP operations; explore availability of ground water; develop policy, and pricing mechanisms for regional water supplies; develop an efficient solid waste transfer system for Chongqing; training, study tours; and future project preparation.

The proposed investments were first self-selected by local governments, then subjected screening and several iterations to prioritize and optimize them.

5. **Financing**

<table>
<thead>
<tr>
<th>Source</th>
<th>($m.)</th>
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<tr>
<td>BORROWER</td>
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<td>INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>295.5</strong></td>
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</table>

6. **Implementation**

6.1. **Partnership arrangements**

The project is free-standing and does not have any co-financiers.

6.2. **Institutional and implementation arrangements**

Chongqing Municipality has established a leading group to give policy guidance to its agencies, departments and local bodies. It has nominated its existing Chongqing Project Management Office (CPMO) to coordinate the preparation activities of the city/district/county local governments’ proposed investments. The CPMO has had previous experience in coordinating the preparation and implementation of Bank-financed-projects, including CUEP.

At the city/district/county level, project management offices (PMO) have also been established to provide policy guidance, and to coordinate the preparation and implementation of the various project components at the local level. In view of the technical and fiscal weaknesses of the local governments and their implementing agencies, CMG is taking on a major role in project preparation and has agreed also to assure funding in the event a local government cannot raise the entire counterpart funds, or provide funds for debt repayment and operation and maintenance. The Institutional Strengthening and Training component includes assistance to local governments to strengthen their management and financial oversight of their implementing agencies for improved service delivery.

All of the implementing agencies are state-owned companies are owned by either Chongqing Municipality or the participating cities/districts/counties, with a legal person and with powers to borrow and repay loans. With the exception of DWSC and TWSC, which were established in
1964, all other companies have been established only relatively recently, some as late as 2003. The implementing agencies will own and, with three exceptions – Qianjiang, Shizhu and Yubei roads also operate and maintain the project-financed assets. Implementation constraints will be addressed through project financed technical assistance programs for the agencies and parent local governments.

The CPMO will be responsible for implementation of the Institutional Strengthening and Training (IST) component; however, most activity will take place at the agency level.

All feasibility studies, preliminary designs, cost estimates and procurement plans were completed by appraisal. Some agencies have engaged design institutes for preparation of detailed designs. Prior to implementation, detailed design reviews will be carried out, and all bid documents will be reviewed prior to bidding, by two key consultants who will be recruited by mid 2005.

7. Sustainability

Chongqing Municipality has showed strong ownership of the project, starting by mobilizing grant funding from the government of France to assist the CPMO and the participating local governments in preparing their sub-projects. The Municipality has provided assurances that the necessary human and financial resources will be available to carry out project implementation. During project preparation, the CPMO was assigned more staff and budget to carry out its functions, and further strengthening will be part of the project. In addition, the participating local governments have established PMOs to implement their subprojects, and have designated or created autonomous agencies to operate and manage the investments in water supply, flood protection and roads funded by the project. The water supply companies will be required to meet financial and other covenants in the legal agreements. The local agencies that implement the roads and flood protection sub-projects have provided assurances that adequate budgets will be available for the satisfactory operation and maintenance of these subprojects once they are completed.

8. Lessons Learned from Past Operations in the Country/Sector

China has the largest portfolio in the Bank, and its quality is among the best performing. OED and QAG assessments have confirmed satisfactory project implementation, outcomes and project management. Experience from a full range of projects financed by the Bank in the infrastructure sector points to the importance of borrower ownership, appropriateness and efficiency of planning of capital investments, as well as financing and institutional arrangements for proper operation and maintenance. The project will incorporate these lessons as it makes efficiency and sustainability a main project objective.

A key lesson from previous Bank projects is that local governments tend to over-design basic infrastructure, especially water supply and wastewater systems, due to the use of unrealistic population projections and per capita consumption levels, which lead to a waste of resources and higher than necessary user changes. This concern was addressed in the proposed project by scaling back the initial population projections and consumption levels proposed by the
participating local governments, and agreeing on forecasts that reflect recent trends and/or sensible increments.

Cost estimates have been a problem on many recent Bank urban projects in China, including CUEP. Adherence to traditional cost estimation methods (which are based on "norms" rather than on market prices) have frequently resulted in overall project cost estimates being too high. In this project, international consultants have conducted a rigorous independent check of costs estimates to ensure that the costs reported in the preparation studies for all components are as close to market as possible.

Smaller local governments, especially in western China, tend to have weaker financial capacity, making it difficult for them to provide counterpart funds on a timely basis, and to ensure adequate resources for operations and maintenance. In this project, while the participating smaller local governments are expected to provide the needed counterpart funds and budgets for operations and maintenance of the assets created, and their efforts will be reinforced by appropriate covenants, any shortfalls in their contributions will be covered by the larger, more financially capable Chongqing Municipal Government.

Politically-mandated early completion deadlines on CUEP components has lead to hasty preparation, poor engineering designs and subsequent excessive changes and variation orders on construction contracts. This issue was addressed in CSCP by agreeing with Chongqing authorities on a new framework for project preparation and implementation that requires the use of separate independent qualified consultants (i) to certify that subcomponent designs and implementation schedules meet agreed criteria before using loan proceeds and (ii) to supervise the construction of works in accordance with international standards (under arrangements similar to FIDIC terms).

9. **Safeguard Policies (including public consultation)**

<table>
<thead>
<tr>
<th>Safeguard Policies Triggered by the Project</th>
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<tbody>
<tr>
<td><strong>Environmental Assessment</strong> (<a href="#">OP/BP/GP 4.01</a>)</td>
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<td>Natural Habitats (<a href="#">OP/BP 4.04</a>)</td>
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<td>Safety of Dams (<a href="#">OP/BP 4.37</a>)</td>
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<td>Projects on International Waterways (<a href="#">OP/BP/GP 7.50</a>)</td>
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</table>

*By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*
10. List of Factual Technical Documents


17. Resettlement Action Plan

18. Environmental Impact Assessments

19. Environmental Management Plan

20. Project Detailed Financial Analysis (Appraisal document)


22. Project Detailed Procurement Arrangements (Appraisal document)

11. Contact point
Contact: Thomas L. Zearley
Title: Lead Operations Officer
Tel: 5788+7760
Fax: 5788 7800
Email: Tzearley@worldbank.org
Location: Beijing, China (IBRD)

12. For more information contact:
The InfoShop
The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 458-5454
Fax: (202) 522-1500
Web: http://www.worldbank.org/infoshop