Document of
The World Bank

**FOR OFFICIAL USE ONLY**

Report No: PAD 747

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US$ 150 MILLION

TO THE

PEOPLE'S REPUBLIC OF CHINA

FOR A

# SHAANXI SMALL TOWNS INFRASTRUCTURE PROJECT

August 22, 2014

Social, Urban, Rural and Resilience Global Practice
East Asia and Pacific Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 18, 2014)

| | | |
|---|---|---|
| Currency Unit | = | Renminbi Yuan (RMB) |
| US$ 1,00 | = | RMB 6.13 |
| RMB 1.00 | = | US$ 0.16 |

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| CPS | Country Partnership Strategy |
| CPMO | County Project Management Office |
| CQS | Consultant's Qualification Selection |
| DA | Designated Account |
| DRC | Development and Reform Commission |
| EA | Environmental Assessment |
| ECOP | Environmental Code of Practice |
| EIA | Environmental Impact Assessment |
| EIRR | Economic Internal Rate of Return |
| EMP | Environmental Management Plan |
| FB | Finance Bureau |
| FM | Financial Management |
| FMM | Financial Management Manual |
| FY | Fiscal Year |
| GDP | Gross Domestic Product |
| GOC | Government of China |
| GAAP | Governance and Anti-Corruption Action plan |
| GT | Guan-Tian Corridor (Guanzhong-Tianshui Economic Area) |
| IBRD | International Bank for Reconstruction and Development |
| ICB | International Competitive Bidding |
| IFR | Interim Financial Report |
| M&E | Monitoring and Evaluation |
| MIS | Management Information System |
| NCB | National Competitive Bidding |
| NDRC | National Development and Reform Commission |

| | |
|---|---|
| O&M | Operation and Maintenance |
| ORAF | Operational Risk Assessment Framework |
| PAD | Project Appraisal Document |
| PDO | Project Development Objective |
| PIA | Project Implementing Agency |
| PIF | Project Investment Lending |
| PIP | Project Implementation Plan |
| PLG | Project Leading Group |
| PPMO | Provincial Project Management Office |
| QBS | Quality-Based Selection |
| QCBS | Quality-and-Cost-Based Selection |
| RAP | Resettlement Action Plan |
| RMB | Renminbi |
| SA | Social Assessment |
| SPFB | Shaanxi Provincial Finance Bureau |
| SOE | Statement of Expense |
| SPG | Shaanxi Provincial Government |
| SPAO | Shaanxi Provincial Audit Office |
| VSL | Variable Spread Lending |
| WA | Withdrawal Application |
| WBG | World Bank Group |

| | |
|---|---|
| Regional Vice President: | Axel van Trotsenburg, EAPVP |
| Country Director: | Klaus Rohland, EACCF |
| Sector Director: | John A. Roome (through June 30, 2014) |
| Global Practice Senior Director: | Ede Jorge Ijjasz-Vasquez (from July 1, 2014) |
| Global Practice Director: | Marisela Montoliu-Munoz (from July 1, 2014) |
| Sector Manager: | Abhas K. Jha (through June 30, 2014) |
| Practice Manager: | Abhas K. Jha (from July 1, 2014) |
| Task Team Leader: | Guangming Yan, GURDR |

**CHINA**
**Shaanxi Small Towns Infrastructure Project**

**TABLE OF CONTENTS**

**Page**

**PAD DATA SHEET**

*China*

*Shaanxi Small Towns Infrastructure Project (P133069)*

**PROJECT APPRAISAL DOCUMENT**

*EAST ASIA AND PACIFIC*

GURDR

Report No.: PAD747

| **Basic Information** | | | |
|---|---|---|---|
| Project ID<br>P133069 | EA Category<br>B - Partial Assessment | | Team Leader<br>Guangming Yan |
| Lending Instrument<br>Investment Project Financing | Fragile and/or Capacity Constraints [ ]<br>Financial Intermediaries [ ]<br>Series of Projects [ ] | | |
| Project Implementation Start Date<br>08-Dec-2014 | Project Implementation End Date<br>30-Jun-2020 | | |
| Expected Effectiveness Date<br>22-Dec-2014 | Expected Closing Date<br>31-Dec-2020 | | |
| Joint IFC<br>No | | | |
| Practice Manager/Manager<br>Abhas Kumar Jha | Senior Global Practice Director<br>Ede Jorge Ijjasz-Vasquez | Country Director<br>Klaus Rohland | Regional Vice President<br>Axel van Trotsenburg |

| | | | | | |
|---|---|---|---|---|---|
| Borrower: PEOPLE'S REPUBLIC OF CHINA | | | | | |
| Responsible Agency: Foreign Debt Management Office, Shaanxi Provincial Development and Reform Commission | | | | | |
| Contact: | Mr. Wang Shuangcang | | Title: | Director | |
| Telephone No.: | 86-29-87294692 | | Email: | waidaiban@163.com | |

| **Project Financing Data(in USD Million)** | | | | | |
|---|---|---|---|---|---|
| [ X ] Loan | [ ] IDA Grant | [ ] Guarantee | | | |
| [ ] Credit | [ ] Grant | [ ] Other | | | |
| Total Project Cost: | 256.90 | | Total Bank Financing: | 150.00 | |
| Financing Gap: | 0.00 | | | | |

| Financing Source | Amount |
|---|---|
| Borrower | 106.90 |
| International Bank for Reconstruction and Development | 150.00 |
| Total | 256.90 |

**Expected Disbursements (in USD Million)**

| Fiscal Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 0000 | 0000 |
|---|---|---|---|---|---|---|---|---|---|
| Annual | 5.00 | 10.00 | 25.00 | 40.00 | 40.00 | 20.00 | 10.00 | 0.00 | 0.00 |
| Cumulative | 5.00 | 15.00 | 40.00 | 80.00 | 120.00 | 140.00 | 150.00 | 0.00 | 0.00 |

**Proposed Development Objective(s)**

The project development objective is to improve the infrastructure and service delivery in selected small and medium towns in Shaanxi Province.

**Components**

| Component Name | Cost (USD Millions) |
|---|---|
| Infrastructure and Service Upgrading | 253.90 |
| Town Management Improvement and Project Implementation Support | 3.00 |

## Institutional Data

**Practice Area / Cross Cutting Solution Area**

Social, Urban, Rural and Resilience Global Practice

**Cross Cutting Areas**

[ ] Climate Change

[ ] Fragile, Conflict & Violence

[ ] Gender

[ ] Jobs

[ ] Public Private Partnership

**Sectors / Climate Change**

Sector (Maximum 5 and total % must equal 100)

| Major Sector | Sector | % | Adaptation Co-benefits % | Mitigation Co-benefits % |
|---|---|---|---|---|
| Water, sanitation and flood protection | General water, sanitation and flood protection sector | 40 | | |
| Transportation | Rural and Inter-Urban Roads and Highways | 60 | | |
| Total | | 100 | | |

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

**Themes**

Theme (Maximum 5 and total % must equal 100)

| Major theme | Theme | % |
|---|---|---|
| Urban development | City-wide Infrastructure and Service Delivery | 60 |
| Environment and natural resources management | Water resource management | 40 |
| Total | | 100 |

## Compliance

**Policy**

| | | |
|---|---|---|
| Does the project depart from the CAS in content or in other significant respects? | Yes [ ] | No [ X ] |
| Does the project require any waivers of Bank policies? | Yes [ ] | No [ X ] |
| Have these been approved by Bank management? | Yes [ ] | No [ ] |
| Is approval for any policy waiver sought from the Board? | Yes [ ] | No [ ] |
| Does the project meet the Regional criteria for readiness for implementation? | Yes [ X ] | No [ ] |

| **Safeguard Policies Triggered by the Project** | **Yes** | **No** |
|---|---|---|
| Environmental Assessment OP/BP 4.01 | **X** | |
| Natural Habitats OP/BP 4.04 | | **X** |
| Forests OP/BP 4.36 | | **X** |
| Pest Management OP 4.09 | | **X** |
| Physical Cultural Resources OP/BP 4.11 | **X** | |
| Indigenous Peoples OP/BP 4.10 | | **X** |
| Involuntary Resettlement OP/BP 4.12 | **X** | |
| Safety of Dams OP/BP 4.37 | | **X** |
| Projects on International Waterways OP/BP 7.50 | | **X** |
| Projects in Disputed Areas OP/BP 7.60 | | **X** |

**Legal Covenants**

| **Name** | **Recurrent** | **Due Date** | **Frequency** |
|---|---|---|---|
| Implementation | | 30-Jun-2016 | |

**Description of Covenant**

The Project Implementing Entity shall cause Wugong County: (a)by no later than June 30, 2016, to

furnish to the Bank a time-bound action plan, prepared following terms of reference satisfactory to the Bank, to increase connections to the new water supply system through regulation and incentives, and to terminate the use of untreated ground water as the drinking source;

| Name | Recurrent | Due Date | Frequency |
|---|---|---|---|
| Implementation | | 01-Jan-2017 | |

**Description of Covenant**

The Project Implementing Entity shall cause Wugong County:(b)by no later than January 1, 2017, to commence implementation of the action plan referred to in paragraph (a) of this Section, taking into account the comments, if any, made by the Bank thereon.

| Name | Recurrent | Due Date | Frequency |
|---|---|---|---|
| Implementation | **X** | | Yearly |

**Description of Covenant**

The Project Implementing Entity shall, and shall cause the Project Counties/Districts, to carry out the Project in accordance with the provisions of the GAAP and the Anti-Corruption Guidelines.

## Team Composition

**Bank Staff**

| Name | Title | Specialization | Unit |
|---|---|---|---|
| Alejandro Alcala Gerez | Senior Counsel | Senior Counsel | LEGES |
| Wendao Cao | Senior Rural Development Specialist | Senior Rural Development Specialist | GAGDR |
| Wenyan Dong | Operations Analyst | Operations Analyst | GAGDR |
| Xiaowei Guo | Senior Procurement Specialist | Senior Procurement Specialist | GGODR |
| Haixia Li | Sr Financial Management Specialist | Sr Financial Management Specialist | GGODR |
| Zhefu Liu | Senior Social Development Specialist | Senior Social Development Specialist | GURDR |
| Artessa Saldivar-Sali | Municipal Engineer | Municipal Engineer | GURDR |
| Chongwu Sun | Senior Environmental Specialist | Senior Environmental Specialist | GENDR |
| Jian Xie | Senior Environmental Specialist | Senior Environmental Specialist | GENDR |
| Guangming Yan | Urban Specialist | Team Lead | GURDR |
| Jun Zeng | Social Development Specialist | Social Development Specialist | GURDR |
| Hongwei Zhao | Program Assistant | Program Assistant | EACCF |

| Non Bank Staff | | |
|---|---|---|
| **Name** | **Title** | **City** |
| Chandra Godavitarne | Consultant | Washington |
| Ning Wu | Finance Analyst | Beijing |
| Rufei Zhang | Urban Planner and Institutional Specialist | Shanghai |

| Locations | | | | | |
|---|---|---|---|---|---|
| **Country** | **First Administrative Division** | **Location** | **Planned** | **Actual** | **Comments** |
| China | Shaanxi | Shaanxi | | **X** | |

# I. STRATEGIC CONTEXT

## A. Country Context

1. China's urbanization rate increased from less than 20 percent in 1978 to more than 52 percent today. This rapid urbanization has been highly successful in supporting high GDP growth, economic transformation, productivity increases, income, and employment creation. Over the next 20 years, urbanization is projected to reach about 65% to 70%, adding another 300 million urban inhabitants. By 2030, about one billion people will be living in China's cities, seeking jobs, housing, infrastructure, and other services.

2. Although China's GDP growth has been significant over the past two decades, it has been geographically uneven. In 2006, the State Council's Leading Group Office of Poverty Alleviation and Development designated 592 national level poverty-stricken counties based on population living below the poverty line, per capita net income, and per capita government revenue. Most of these counties are located in the mountainous and western regions. With 50 poverty-stricken counties, Shaanxi Province ranks second only to Yunnan Province in number of counties. Special budget allocations are made for provision of food, clothing, access to education, basic medical services and housing in these poverty-stricken counties. However, without sufficient focus on the quality of infrastructure (a fundamental factor in the development of local industries and jobs), these subsidies may not fully achieve the goals of the Government of China (GOC) poverty alleviation program.

3. To further stimulate growth in the lagging western region, GOC launched the *Western Development Initiative* in 2000, prioritizing the development of infrastructure (transport, hydropower plants, energy, and telecommunications), enticement of foreign investment, increased efforts in ecological protection (such as reforestation), promotion of education, and retention of human capacity within the target provinces. In 2009, GOC further enhanced the regional development strategy through the designation of two new cross-provincial economic development zones. These zones are the *GuanTian Corridor*[1] (Guanzhong-Tianshui Economic Area) in northwest China, and the *ChengYu Corridor* (Chengdu-Chongqing Economic Area) in southwest China, intended to be regional development hubs. There are numerous small and medium towns in these zones that have the potential to create jobs and absorb a new wave of rural migrants.

4. Despite the latent potential of small towns, investments and public resources in China have historically been directed to the highly urbanized cities, leaving the less urbanized towns with far less funding for development: the annual fiscal expenditure per capita in 2006 was RMB 4,000 in cities and just RMB 500 in towns. While towns are home to 60% of the country's total population, they receive a mere 9% of total fixed asset investment[2]. Public services and utilities in towns accordingly lag behind those in cities; hence, the development of infrastructure for basic urban services in towns has been listed as a critical target in the 12th Five Year Plan.

[1] Official definition of Guanzhong-Tianshui Economic Area consists of seven prefecture-level municipalities in Shaanxi Province, including Xi'an Municipality as a core, Tongchuan, Xianyang, Weinan, Yangling, Shangluo and Tianshui municipality in Gansu Province.
[2] World Bank. 2012. China Small and Medium Towns Overview.

5. The State Council recently issued the *National Plan on New Urbanization* (2014-2020), which highlights the need to comprehensively improve the 'quality' of urbanization and equalize basic urban service provision to all residents in existing towns, rather than the urbanization of land or construction of new cities that end up with high vacancy rates. Using city clusters as the main form of urbanization, the Plan gives higher priority to the coordinated development of small cities and towns, recognizing their role in linking the cities and rural areas, and their potential to accommodate rural-urban migration. It also promotes the co-building and sharing of infrastructure and public service facilities.

6. This New Urbanization Plan is based on the principles of efficiency, inclusiveness and environmental sustainability. Key features include: (i) agglomeration of smaller cities and neighboring towns, which have sufficient specialization and linkages to other urban areas; (ii) compact urban development to limit low density and encroachment on farmlands and nature reserves; (iii) minimizing scattered and fragmented urbanization, to enable efficient and cost-effective provision of infrastructure and services; and (iv) improved connectivity between cities to facilitate access to local, regional, and global markets for inputs, outputs and jobs.

## B. Sectoral and Institutional Context

7. Located in the western part of China, Shaanxi Province covers an area of 205,800 square kilometers and has a population of 37.9 million. Administratively, Shaanxi comprises 10 municipalities/prefectures, 83 counties, 24 cities and districts, and 1,581 towns and townships. Geographically, the Province is further divided into three main regions defined by its topography and natural features: Guanzhong ("Central Shaanxi"), Shaannan ("Southern Shaanxi"), and Shaanbei ("Northern Shaanxi"). Characterized by a large central plain, Guanzhong region is the core economic region in Shaanxi, which includes 60 percent of the province's total population, and accounts for two thirds of the province's GDP and agricultural production.

8. Like all the provinces in China, Shaanxi Province experienced rapid economic growth over the last decade (2002~2012) with an average GDP growth rate of 16.3% per year, substantially higher than the national average growth rate of 12.4% during the same period, and is ranked 16th among all the provinces in China, with the highest growth rate among western provinces. The average GDP per capita in Shaanxi grew from RMB 10,594 in 2005 to RMB 38,557 in 2012. The average annual income per capita for urban and rural residents reached RMB 20,734 and RMB 5,763, with annual growth rates of 13.6% and 14.6%, respectively. Shaanxi's population living in cities and towns is 50.2%, compared to the national average of 52.5%.

9. Despite its rapid growth, Shaanxi still lags behind the national average in terms of GDP per capita and urbanization rate, due to its low base of economic development. The Shaanxi Province development strategy defines the *GuanTian* (GT) *Corridor* as the engine of economic growth and urbanization, enabling the development of industries and jobs that can accommodate rural migrants, particularly from the surrounding poverty-stricken areas. The GT Corridor is expected to contribute over one third of the total regional GDP of northwest China by 2020. The urbanization rate in the GT Corridor is projected to rise, from 50% in 2012, to 60% by 2020,

implying rural-to-urban migration of about 4 million people. To accommodate this urban growth target, the GT Plan defines a five-tier urban settlement system, comprising: (i) one metropolitan core as the first tier (Xi'an metropolitan area with planned population of 10 million by 2020); (ii) six sub-regional central cities as the second tier (typically, the seats of prefecture-level cities, with planned population of 0.5~0.8 million for each); (iii) 40 county seat cities (planned population of 0.1~0.2 million for each) as the third tier; (iv) 100 key towns as the fourth tier (key towns of provincial level); and (v) many small towns in rural areas as the fifth tier.

10. Based on current trends of rural-to-urban migration, the carrying capacity of the metropolitan core (first tier) and sub-regional central cities (second tier) to provide additional jobs and urban services of substantial scale is limited. Recognizing the strategic role and potential for the third- and fourth- tier towns to absorb migrants, divert the pressures of urbanization from the first- and second-tier cities, the SPG strategy gives high priority to promoting the development of county seats and selected key towns of provincial level in the GT Corridor. This is supported through a package of policy reforms and incentive policy instruments, such as relaxing *hukou* restrictions, improving access, supporting industrial development and urban infrastructure investments. Substantial efforts and investments from the central, provincial and local governments have been made or planned, and encouraging outcomes have been achieved under various sectoral programs and initiatives.

11. However, development of small cities and towns in GT Corridor is still constrained by prevailing urban infrastructure deficiencies and service levels both in existing built-up areas and urban expansion areas, deteriorating environmental conditions, and weak finances and city management capacity. The average per capita investment for basic urban infrastructure in Shaanxi's small cities and towns is only 68% of the national level, the percentage of population with access to water supply, road space per resident, and length of drainage pipes per $km^2$ of built-up area are substantially lower than the national level (89%, 74%, and 67%, respectively), and operation and maintenance (O&M) is minimal. The poor urban infrastructure services and the lack of expertise and experience in town management severely hinder small towns' development and expansion.

12. The proposed project will support nine Counties/Districts[3] within the GT corridor and its influence area that have demonstrable potential for economic growth and increase in jobs and incomes, particularly for rural migrants. The project is aligned with WBG's twin goals of ending extreme poverty and promoting shared prosperity among the population living in small towns and lagging areas of Shaanxi Province through: (i) inclusion of five project counties/districts, that are designated as national level poverty-stricken counties (Chengcheng County, Chunhua County, Xunyi County, Yintai District and Hanyin County), and (ii) focusing on infrastructure service improvement in older built-up areas and areas affected by the closing of industries, inhabited mostly by low-income people and rural migrants. Table 1 below illustrates the status of poverty (2013) in the project counties/districts as a whole, and urban and rural poverty in the proposed project areas.

[3] The nine project Counties/Districts selected for Bank support are: (i) Yanliang District; (ii) Chengcheng County; (iii) Wugong County; (iv) Chunhua County; (v) Xunyi County; (vi) Chencang District; (vii) Yintai District; (viii) Hanyin County; and (ix) Hantai District.

**Table 1: Overview of Poverty Status of Project Counties and District in 2013**

| County/ District | County/District | | | | Project Area | | | |
|---|---|---|---|---|---|---|---|---|
| | Total Population | Pop. Below Poverty Line[4] | | | Total Population | Pop. Below Poverty Line[4] | | |
| | | Total | Urban | Rural | | Total | Urban | Rural |
| Yanliang | 284,000 | 10,452 | 2,434 | 8,018 | 131,700 | 6,747 | 367 | 6,380 |
| Chen-cang | 600,000 | 117,701 | 11,666 | 100,035 | 143,000 | 16,606 | 10,499 | 6,107 |
| Wugong | 421,000 | 83,058 | 4,158 | 78,900 | 46,800 | 2,042 | 561 | 1,481 |
| Chunhua | 204,000 | 47,332 | 2,632 | 44,700 | 8,220 | 2,999 | 316 | 2,683 |
| Xunyi | 294,420 | 81,801 | 8,358 | 73,443 | 40,060 | 13,550 | 2,107 | 11,443 |
| Chengcheng | 406,000 | 93,511 | 4,901 | 88,610 | 135,000 | 8,044 | 3,313 | 4,731 |
| Yintai | 226,200 | 60,700 | 39,800 | 20,900 | 70,600 | 21,400 | 13,900 | 7,500 |
| Hantai | 540,000 | 76,000 | 16,000 | 60,000 | 53,000 | 4,944 | 1,064 | 3,880 |
| Hanyin | 308,870 | 74,300 | 10,402 | 63,898 | 77,200 | 12,785 | 2,046 | 10,739 |
| **Total** | **3,284,490** | **644,855** | **100,351** | **538,504** | **705,580** | **89,117** | **34,173** | **54,944** |

13. *Rationale for Bank Involvement.* The project is part of a series of recent urban operations in the Bank's portfolio in China that increasingly focus on small towns. The project is proposed at a time when China is conducting a retrospective review of the successes and weaknesses of its urban development policies and approaches adopted during the past two decades, and will benefit from the Bank's global experience in urban development operations and from lessons learned and technical expertise from the ongoing portfolio of similar projects in the country. It draws on the recommendations of the Bank's ongoing AAA studies, including the comprehensive urbanization study "*Urban China: Toward Efficient, Inclusive and Sustainable Urbanization"* jointly developed with the Development Research Center of the State Council. These recommendations include: (i) making better use of existing urban land, through improving commercial and residential infrastructure in former industrial areas; (ii) promoting coordination among city clusters and improving infrastructure in third- and fourth-tier towns to manage congestion in first- and second-tier cities; and (iii) improving local government management by introducing asset management practices.

## C. Higher Level Objectives to which the Project Contributes

14. The proposed project is consistent with, and part of SPG's strategy and investment program to promote small town development. The project is also consistent with the Bank's Country Partnership Strategy (CPS) for 2013-2016 (Report No. 67566-CN) dated October 11, 2012, and focuses on two strategic themes: supporting greener growth, and promoting more inclusive development. The proposed project supports the two CPS themes, and will contribute to three outcomes of enhancing urban environmental services, enhancing opportunities in rural areas and small towns, and improving transport connectivity for more balanced regional

[4] Poverty threshold in Shaanxi for rural areas is RMB 2,500 per capita net income per year. Poverty threshold for urban areas varies in project counties/districts from RMB270-RMB 540 per capita disposable income per month.

development. The project is also aligned with the WBG's twin goals of ending extreme poverty and promoting shared prosperity.

## II. PROJECT DEVELOPMENT OBJECTIVE

### A. PDO

15. The project development objective is to improve infrastructure and service delivery in selected small and medium towns in Shaanxi Province**.** The objective will be achieved through financing new construction and rehabilitation of urban infrastructure, and expanding coverage of urban services, and strengthening town management capacity.

### B. Project Beneficiaries

16. The direct project beneficiaries are the 705,580 people that are currently living in the project towns, as well as the county/district governments that will receive support to improve their town management capacity.

### C. PDO Level Results Indicators

17. The PDO will be achieved through the following outcome indicators: (i) people provided with access to improved water sources under the project (CSI); (ii) people provided with access to improved sanitation facilities under the project (CSI); (iii) area provided with new and improved drainage services (adapted CSI); and (iv) increase in area with access to newly built or rehabilitated roads. Detailed outcome and intermediate indicators are described in the Results Framework in Annex 1.

## III. PROJECT DESCRIPTION

### A. Project Components

18. The project consists of 2 components. A summary of the proposed components is presented below, and a detailed description is provided in Annex 2.

19. **Component 1: Infrastructure and Services Upgrading** (Base Cost: RMB 1,265.4 million; US$206.3million). The component includes two subcomponents: (i) **Infrastructure Improvement,** including new construction and upgrading of urban roads and missing links in project counties/districts; and (ii) **Infrastructure Rehabilitation**, including rehabilitation and expansion of water supply source development and distribution networks; wastewater collection networks; storm drainage networks; and associated road pavement improvements.

20. **Component 2: Town Management Improvement and Implementation Support** (Base Cost: RMB18.4 million; US$3.0 million)**.** This component includes three subcomponents: (i) town management improvements in project counties/ districts through introduction of asset management practices comprising: improved O&M plans and budgets, infrastructure mapping, preparation of asset registers, and provision of training, study tours and office equipment; (ii) carrying out of policy advisory studies and provision of advice to Shaanxi Province in order to

strengthen institutional policies and planning practices, focusing on balanced development, efficient growth, poverty reduction, sustainable infrastructure service provision, and improved environmental quality in small towns; and (iii) implementation support for project management, design reviews, monitoring, evaluation, and reporting, etc.

## B. Project Financing

21. The project will be financed by an IBRD Investment Project Financing (IPF) in the amount of US$150 million. The loan will be on standard IBRD term for a LIBOR-based US Dollar denominated, variable spread loan (VSL), with a maturity of 29 years, including a 6-year grace period, and a front-end fee of 25 basis points.

### Project Cost and Financing

22. Project costs are estimated at US$ 256.90 million, inclusive of price and physical contingencies. Table below summarizes the project costs and IBRD financing by component. Detailed project costs are provided in Appendix 2 of Annex 2.

| Component | Total Cost (US$ million) | IBRD Loan (US$ million) | % Financing |
|---|---|---|---|
| **Component 1**: Infrastructure and Services Upgrading | 206.3 | 110.0 | 53% |
| **Component 2:** Town Management Improvement & Implementation Support | 3.0 | 3.0 | 100% |
| **Baseline Cost** | 209.3 | 113.0 | 54% |
| Physical and Price Contingencies | 35.7 | 25.1 | 70% |
| **Total Project Cost** | 245.0 | 138.1 | 56% |
| Front end Fees | 0.4 | 0.4 | 100% |
| Interest During Construction | 11.5 | 11.5 | 100% |
| **Total Financing Required** | 256.9 | 150.00 | 58% |

## C. Lessons Learned and Reflected in the Project Design

23. Project design has incorporated lessons learned from similar operations, both globally and in China, including:

(i) ***Appropriate infrastructure design standards.*** Overly optimistic forecasts for economic and population growth often result in overdesign and under-utilization of capacity for a long period of time. Solid demand analysis and realistic projection of infrastructure needs were conducted, and technical standards have been reviewed carefully to ensure that appropriate design parameters have been adopted.

(ii) ***Special attention to availability of Counterpart Funds.*** Small towns often face difficulties in raising counterpart funding to support their proposed investments. Small towns with weak financial capacity were screened out by the Provincial Finance

Bureau at the project identification stage. During project preparation, each project county/district demonstrated to the Bank that they have explicitly budgeted counterpart funds for the World Bank-financed project in their annual expenditure plans.

(iii) ***Readiness for implementation.*** Delays occur frequently when projects have not been prepared to a stage ready for implementation. Subprojects with high social risks including land acquisition delays, were screened out and project counties/districts are required to prepare feasibility studies, as well as draft detailed designs and procurement documentation for at least 20% of works prior to loan negotiations.

(iv) ***Management of urban assets in a sustainable manner is often not given adequate attention.*** Decision-makers always give higher priority to new infrastructure over operation and maintenance of existing infrastructure. The project will assist the project counties/districts, through technical assistance support, to introduce key management improvements including preparation and implementation of improved O&M action plans and asset management plans, linking asset management requirements with sustainable budget preparation and financing processes, to further improve overall town management and service delivery.

## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

24. **Provincial Project Leading Group (PPLG).** The Provincial Project Leading Group (PPLG) has been established, chaired by the General Director of Shaanxi Provincial DRC, with representatives from all related provincial government departments including the Development and Reform Commission (DRC), Finance Department, Housing and Construction Department, and Audit Bureau. It will provide overall policy and strategic guidance to project preparation and implementation. It will also be responsible for facilitating inter-agency coordination and resolving any major issues identified during project preparation and implementation.

25. ***Provincial Project Management Office (PPMO).*** The PPLG has designated the existing Provincial Project Management Office (PPMO) under the Provincial DRC to coordinate the preparation and implementation activities of the counties/districts' proposed investments. It will have overall responsibility of project management, monitoring and evaluation, and consolidation of project reporting specified in the project legal agreements. PPMO will also help to facilitate the materialization of the counterpart funding agreed by each county/district. The PPMO has had previous experience in implementing projects financed by World Bank and Asian Development Bank (ADB). The PPMO is staffed with competent and committed staff in the field of procurement, financial management, and safeguards and will provide necessary guidance to the counties/districts to make sure they are implementing the project following the right policies and procedures.

26. ***County PLG, PMOs and PIAs****:* Each of the nine project counties/districts has established project leading groups (PLG) chaired by the respective county/district governors or vice governors to provide local level policy directions for the implementation of the project in their

respective jurisdictions. Necessary arrangements have also been made for county/district level Project Management Offices (PMO) and local Project Implementing Agencies (PIA) within the relevant line agencies. PMOs will be responsible for overall project coordination and facilitation, and local PIAs for project implementation and the operation and maintenance (O&M) for the assets created under the project. More details for the project's institutional and implementation arrangements are provided in Annex 3.

### B. Results Monitoring and Evaluation

27. The primary tool to monitor and evaluate project results will be the Results Framework detailed in Annex 1. The PPMO will consolidate information and data at project level to measure the project performance and the achievements of the targets set, and prepare semi-annual progress reports, in accordance with a format outlined in the Project Implementation Plan (PIP). The purpose of these reports is to provide Shaanxi Province and the World Bank timely and updated information on the progress of project implementation, achievement of outcome and output indicators, and constraints and obstacles.

### C. Sustainability

28. The proposed project is aligned with SPG's strategy to promote small town development. SPG and participating counties/districts have demonstrated high commitment by establishing project organizations at all levels to oversee and manage project preparation and implementation. Necessary human and financial resources have been identified for project implementation and O&M of the assets created by the project. Project interventions have laid emphasis on rehabilitation of existing infrastructure over new construction, increased coverage of infrastructure and service levels in built up areas through adoption of cost-effective, reliable and replicable technologies and approaches to reduce cost and increase the direct beneficiaries.

29. Component 2 specifically focuses on Project sustainability, by supporting a number of initiatives to enhance town management. The measures include: (i) introduction of asset management practices, e.g., improved O&M and the associated budgeting, infrastructure mapping and preparation of asset registers; (ii) formulation of sustainable approaches to manage the rapid urban development and urban-rural integration; and (iii) rationalizing infrastructure planning through service sharing to achieve economies of scale.

## V. KEY RISKS AND MITIGATION MEASURES

### A. Risk Ratings Summary Table

| Risk Category | Rating |
|---|---|
| **Stakeholder Risk** | **Moderate** |
| **Implementing Agency Risk** | |
| - Capacity | **Substantial** |
| - Governance | Substantial |
| **Project Risk** | |

| | |
|---|---|
| - Design | Substantial |
| - Social and Environmental | Moderate |
| - Program and Donor | Low |
| - Delivery Monitoring and Sustainability | Substantial |
| **Overall Implementation Risk** | **Substantial** |

## B. Overall Risk Rating Explanation

30. Overall implementation risk is rated 'Substantial' because of (i) the large number of counties/districts involved, which have weak technical capacity and no previous experience in implementing Bank-financed projects; (ii) the fiduciary risks due to unfamiliarity with Bank procurement procedures in project counties/districts; and (iii) lack of adequate O&M arrangements posing risks to sustainability of investments. Measures have been incorporated into the project design to mitigate these risks, including: (i) consultant services for detailed design and bid document review, construction supervision, monitoring and evaluation; (ii) more frequent procurement reviews by the Bank; (iii) a Governance and Anti-Corruption Action plan (GAAP); and (iv) Component 2, which will support preparation and implementation of satisfactory O&M plans, and introduction of asset management practices.

# VI. APPRAISAL SUMMARY

## A. Economic and Financial Analysis

### Economic Analysis

31. Economic Analysis: Economic justification, together with financial, technical, and other evaluation criteria, has been taken into account in the project identification to ensure the selection of economic attractive investment activities for preparation. During the project identification, a few investment activities proposed by clients have been dropped or alternated based on economic objectives and justification. Economic consideration also played a role in deciding investment scale such as length and width of roads, water and sewerage mains.

32. Economic benefits of each investment activities have been identified. The main benefits include: savings in travel time and transport costs, productivity increases, improved accessibility by local residents to public services, and pollution emission reduction owing to improved road condition in project areas; amenity and environmental improvement owing to better road connection, water supply and wastewater collection network. The economic costs of the project are capital investments costs and O&M cost, including associated environmental mitigation, resettlement and social costs of the investments.

33. The types of investments in nine counties/districts were grouped into three categories for economic analysis: road construction and rehabilitation, water supply, and wastewater collection and treatment. A mix of cost-benefit analysis and cost-effectiveness analysis were applied in the economic analysis.

34. Cost-benefit analysis was used to evaluate the economic viability of each road construction and rehabilitation sub-projects (including investments in associated water supply and wastewater pipelines along the roads which costs are difficult to be separated from road construction costs) in nine counties/districts as well as that of water supply in four counties/districts. The economic internal rate of returns (EIRR) of all these subprojects varies between 11.02% - 16.5%. Sensitivity analyses are carried out assuming a 10% increase in total costs and a 10% decrease in total benefits. Under these assumptions, the EIRR ranges from 8.37% -14.0%. The results of the cost-benefit analyses show that the proposed investments are economically viable. Detailed analysis is provided in Annex 6.

35. Investments in wastewater collection networks contribute to achieving local water environmental targets set by local government. These targets are based on their importance to public health and the quality of life of local residents and the environmental protection plans of project counties/districts. Water pollution causes water-borne deceases; however, it is difficult to draw direct causal link from proposed investments to diseases, and to quantify and monetize public health benefits of the investments. Therefore, the cost-effectiveness approach (CEA) is used to ensure the selection of the least-cost design options to achieve the development targets.

36. Given the objectives and the variety of economic benefits of the proposed investments, local populations including vulnerable groups in the project areas would benefit from the project, and are supportive of improve local infrastructure and environmental protection facilities. As local governments will shoulder most of the project investment costs, the project anticipates no negative impacts on the poor.

**Financial Analysis**

37. Financial analysis was carried out to assess: (i) the adequacy of financial resources of the counties/districts to finance the proposed investments, maintain and operate the assets created under the project, and meet the debt service requirements; and (ii) financial rate of returns (FIRR) for water supply investments in selected project counties/districts.

38. All the project counties/districts have committed to provide counterpart funds for the implementation of the project and allocate budget for the O&M of the assets created under the project. The fiscal revenues of project counties/districts over the past years were reviewed and those for the future years were projected. The results of these projections and analyses show that the contribution to the project made by the project counties/districts is less than 3% of their available fiscal revenues each year. The debt service requirements of project counties/districts is about less than 1% of their available fiscal revenues projected from 2021 to 2040. The project counties/districts have the capacity to provide counterpart funds to the project and debt service requirement will not have any negative impact to the project counties/districts.

39. The financial analysis of water supply investments in Yanliang, Wugong, Hanyin, and Changcang counties/districts was carried out. The analysis indicates that the FIRRs of these investments vary from 1.8%-6.5%, greater than the weighted average cost of capital (WACC) of 1.6%, which means the investments are profitable.

## B. Technical

40. The project design of physical investments was based on the results of detailed assessments of infrastructure deficiency and service levels in project counties/districts, identified service gaps, and prioritized expansion of key infrastructure needed to support projected urban growth. Project design lays emphasis on rehabilitation of infrastructure over new construction, increased coverage of infrastructure and service levels in built up areas, and town management improvements, including improved O&M.

41. For *Infrastructure Improvement* investments, project interventions focus on improving connectivity in project counties/districts and facilitating compact town development through supporting construction of corridor roads that connect old urban areas with industrial areas and new expansion areas, as well as construction of missing links and neighborhood lanes in towns' road networks. New roads to be constructed in project counties/districts have been designed in accordance with national and provincial standards required for road-specific features (number and width of lanes, pavement and structural designs) and for urban features (footpaths, pedestrian facilities, drainage, etc.). In all project counties/districts, efficiency in the use of available road space was assured through the introduction of traffic management improvements.

42. Most investments proposed under *Infrastructure Rehabilitation* comprise rehabilitation, upgrading of water supply, wastewater collection and drainage networks, with associated road pavement improvements. Where technically and economically feasible, trunk infrastructure will be shared between towns, e.g., wastewater from towns will be transferred to treatment facilities in county seat towns, which have improved management capacity to operate such facilities. A lower-cost technology with low maintenance costs has been introduced to treat the wastewater collected in Wugong Town.

43. The technical feasibility of the proposed investments has been appraised, and found satisfactory. An additional check will be done at the stage of review of detailed designs and bidding documents, by the consultants who will provide implementation support under Component 2. All selected infrastructure investments represent the least-cost and affordable solutions, derived from an analysis of alternatives, and sized to avoid creating excess capacity. Standard design criteria and design principles have been appropriately modified to suit local conditions and requirements. Project costs were estimated using unit rates from recent contracts and market rates. The project also includes measures to assure sustainability of the investments and capacity for town management, including preparation of O&M plans and budgets, infrastructure mapping and preparation of asset registers.

## C. Financial Management

44. The Bank's financial management assessment concluded that the project meets the Bank's financial management requirements, as stipulated in OP/BP 10.00, and has adequate financial management arrangements acceptable to the Bank to provide reasonable assurance that the proceeds of the loan will be used for the purposes for which the loan is granted. Annex 3 of the PAD provides additional information on financial management.

45. Funding sources for the project include the Bank loan and counterpart funds. The Bank loan will be signed between the Bank and the People's Republic of China through its Ministry of Finance (MOF), and on-lending arrangements for the Bank loan will be signed between MOF and the SPG through its SPFB, then between SPFB and municipal government through its municipal finance bureau and finally between municipal finance bureaus and county government through it county finance bureau. All of counterpart funds are from appropriations of project county government and will be contributed by county finance bureaus.

46. No retro-active financing is planned to be used for any project activities.

## D. Procurement

47. Procurement under the project will be managed by PPMO with oversight by the PLG. The key risks identified in the procurement capacity and risk assessment of the PPMO and project counties/districts, and the record of procurement overseen by the PPMO under a recently closed Bank-financed project are: (i) bidders, contractors and their agents, subcontractors and their personnel may not observe the highest standards of ethics during the procurement and execution of contracts; (ii) the PPMO and the counties/districts may not give sufficient attention to identifying and addressing red flags of unethical practices in procurement and contract execution; and (iii) the large number of implementing agencies scattered in 9 counties/districts which will make coordination and supervision a challenge.

48. Mitigation measures incorporated in the project include: (i) the adoption by the PPMO of a Governance and Anti-Corruption Plan (GAAP), which is agreed with the Bank at project negotiations; (ii) use of the Procurement Management Manual, which was used in the recently closed Bank-financed project in the province, which has been updated to fit the project needs; (iii) two training workshops organized by the PPMO during project preparation for all key staff from the province, and the participating counties/districts, to improve their procurement capacity; (iv) the Bank has worked with the provincial authorities to: create awareness in governance and anti-corruption; and provide training in ethics and identifying red flags of fraud, corruption and collusion during project preparation with further training to be provided during project implementation; (v) The PPMO to hire a qualified Procurement Agent with experience in procurement under Bank (or other IFI)-financed projects and under TOR acceptable to the Bank, to process procurement under the project including procurement by the participating counties./districts; and (vi) The PPMO to supervise and review procurement by the participating counties/districts.

49. The PPMO with the inputs of the participating counties/districts has prepared a draft procurement plan including contracts for which procurement action is expected to take place in the first 18 months of project implementation. The plan was reviewed by the Bank mission at appraisal and comments provided to the PPMO. The procurement plan is finalized and agreed with the Bank at negotiations. Further details on procurement are provided in Annex 3.

## E. Social (including Safeguards)

50. The project has significant social benefits as it supports the improvement of infrastructure service delivery in the small and medium towns of nine counties/districts. A social assessment

covering various social aspects was carried out for each of the proposed components. The project triggers OP 4.12 due to the land acquisition and resettlement requirements.

51. **Involuntary Resettlement OP4.12.** The project will require the permanent acquisition of 94.3 hectares of land, including 84.2 hectares of cultivated land and 10.1 hectares of housing lots. The dominant current land use is growing wheat and corns. The project will require 76,278 square meters of structures, including 62,452 square meters of concrete and brick houses, 6,805 square meters of brick and wood houses, 4,206 square meters of muddy and wood houses, and 2,815 simple houses. As the result, the project will impact 1,008 families, including 649 families with 2,487 persons by land acquisition and 359 families with 1,337 persons by housing demolition. A Resettlement Action Plan (RAP) was prepared including details on resettlement policy procedures and requirements that will be followed during project implementation, and compensation rates, mitigation measures to restore livelihoods, and institutional and monitoring arrangements. A resettlement policy framework was prepared to guide any project modifications that might cause any resettlement and land acquisitions, and local funded projects that will be linked to the Bank supported project prior to the close of the Bank loan.

52. **Consultation and Disclosure.** Public consultation and participation contributed significantly to the preparation of the RAP. Affected persons and enterprises were consulted and encouraged to participate in the resettlement planning process and the preparation of the project. Their feedback was incorporated in the project design and RAP. The RAP and other project related documents have been disclosed locally through various means (e.g., websites, newspapers, etc.). A resettlement information booklet providing details regarding compensation rates, social security policies and other entitlement policies and grievance procedures will be distributed to the displaced people prior to the resettlement implementation. The RAP was disclosed through Bank's InfoShop on April 15, 2014.

53. The social assessment was undertaken. Local people's concerns were incorporated into the project design and mitigation measures were appropriately undertaken to reduce the negative impacts caused by land acquisition and resettlement relocation. The affected people considered that the project would provide opportunities to develop their small businesses and improve their living standards. The people in the project area also consider that the poor infrastructure is the main reason that slows down local economic development. It constrains their household economic development, businesses, attractiveness for investment, causes high costs and low efficiency in mobility, safety concerns, and hinders tourism development. The affected people welcome the opportunity to improve their living conditions and increase their family income through the development that will be brought about by the project.

54. **Gender.** As part of SA, a disaggregated gender analysis in the affected villages/communities was undertaken by Shaanxi Social Academy with support from local agencies. Women's expectations, ideas and recommendations were incorporated in the designs of subprojects. Gender disaggregated information were also collected and used in the RAP to ensure that women's interests could be safeguarded during any resettlement implementation. Women will play increasingly important roles in the project implementation. They could participate in training courses for their family business development and family decision-making. The team will continue to monitor gender impacts during project implementation.

## F. Environment (including Safeguards)

55. Based on environmental screening, the Bank policy OP 4.01 Environmental Assessment (EA) is triggered, as the proposed project components will have some environmental, safety and health impacts during construction and operation. The project is a Category B project as per the Bank's OP 4.01 Environmental Assessment. It is expected that the major environmental impacts are site-specific and few would be irreversible.

56. An Environmental Impact Assessment (EIA) was carried out for the proposed project components, and a freestanding environmental management plan (EMP) was prepared to determine and lay out the mitigation measures, environmental monitoring program and necessary institutional arrangement as well as capacity building development. The documents have been prepared on the basis of Chinese legal and policy framework for environmental protection, master plans and environmental plans as well as applicable Bank safeguard policies.

57. Environmental Benefit: The project will have significant benefits in terms of providing improved urban infrastructure and services in the project towns. Investments under Component 1 include civil works for urban infrastructure such as road construction, water supply and sewer collection pipes, depending on the scale and actual needs of each town.

58. Potential environmental and social impacts include construction impacts related to disturbance to traffic and local people's daily life, soil erosion, noise, dust, and transport and disposal of construction waste; and operational impacts related to wastewater treatment capacity with increased wastewater collection.

59. Public Consultations and Information Disclosure: Two rounds of public consultations have been carried out during the EA process. The technique used for the public consultations include surveys using public opinion questionnaires, focused group discussions, public meetings with key stakeholders and interviews with some project affected persons. The issues raised during consultations have been incorporated in the EIA and EMP. Furthermore, feedbacks to the concerns and issues collected in public consultation have been provided to the concerned groups and documented in the EIA. The environmental safeguards documents and other project related documents have been disclosed locally through various means (e.g., websites, newspapers, etc.), as required by national and Bank's policies. The environmental safeguards documents were disclosed through Bank's InfoShop on April 15, 2014.

## G. Other Safeguards Policies Triggered

60. OP/BP 4.11 Physical Cultural Resources is triggered according to screening, mainly because of three cultural relics were found. In the EA process, mitigation measures in line with Bank policy and the national regulatory and legal framework concerning cultural heritage are developed including Chance finds procedures and some site specific measures, which have been agreed on with the concerned parties and will be included in all construction contracts.

## Annex 1: Results Framework and Monitoring

## CHINA: SHAANXI SMALL TOWNS INFRASTRUCTURE PROJECT

| Results Indicators | Core | Unit of Measure | Baseline 2014 | Cumulative Target Values | | | | | | Frequency | Data Source/ Methodology | Responsibility for Data Collection | Description (indicator definition etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | | |
| **PDO Level Results Indicators** | | | | | | | | | | | | | |
| PO-1. People provided with access to improved water sources under the project.<br>Of which<br>---Women | X | Number | 0<br>0 | 0<br>0 | 20,000<br>9,900 | 83,000<br>39,200 | 130,000<br>62,200 | 141,000<br>67,400 | 151,000<br>72,200 | Annually | Data collected and monitored | PPMO,Yanliang, Wugong, Chengcang, and Hanying PMOs | For project Counties/Districts with water supply investments |
| PO-2. People provided with access to improved sanitation facilities under the project<br>Of which<br>---Women | X | Number | 0<br>0 | 0<br>0 | 31,900<br>15,100 | 79,200<br>38,000 | 117,500<br>56,500 | 158,400<br>76,200 | 194,500<br>94,000 | Annually | Data collected and monitored | PPMO/CPMOs | For all project Counties/Districts |
| PO-3 Area provided with new and improved drainage services | X | Square Kilometers | 0 | 0 | 38.8 | 71.9 | 96.6 | 143.6 | 165.2 | Annually | Data collected and monitored | PPMO/CPMOs | For all project Counties/Districts |
| PO-4. Increase in area with access to newly built or rehabilitated roads | | Square Kilometers | 0 | 0 | 3.8 | 9.3 | 13 | 19.8 | 21.7 | Annually | Data collected and Monitored | PPMO/CPMOs | For all project Counties/Districts |

| Results Indicators | Core | Unit of Measure | Baseline 2014 | Cumulative Target Values | | | | | | Frequency | Data Source/ Methodology | Responsibility for Data Collection | Description (indicator definition etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | | | | |
| **Intermediate Outcome Indicators (IO)** | | | | | | | | | | | | | |
| **Component 1: Infrastructure and Services Upgrading** | | | | | | | | | | | | | |
| 1.Roads constructed | X | Km | 0 | 0 | 6.8 | 17.7 | 25 | 36.3 | 40 | Annually | Data collected and monitored | PPMO/CPMOs | |
| 2. Roads rehabilitated | X | Km | 0 | 0 | 4.9 | 8.5 | 20 | 30.7 | 34 | Annually | Data collected and monitored | PPMO/CPMO | |
| 3. Wastewater sewers and storm drains constructed / rehabilitated | | Km | 0 | 0 | 34.4 | 75.6 | 108 | 145.8 | 168 | Annually | Data collected and monitored | PPMO/CPMOs | |
| 4.Length of water supply pipes laid | | Km | 0 | 0 | 11.5 | 17.7 | 38 | 42 | 45.5 | Annually | Data collected and monitored | PPMO/CPMOs | |
| **Component 2: Town Management Improvement and Project Implementation Support** | | | | | | | | | | | | | |
| 1.Counties/Districts implementing improved O&M plans with recommended budget allocations | | Number | 0 | 0 | 0 | 5 | 9 | 9 | 9 | Annually | Data collected and monitored | PPMO/CPMOs | Annual budget allocations for O&M will be included in O&M plan |
| 2.Counties/Districts completed infrastructure mapping | | Number | 0 | 0 | 0 | 5 | 9 | 9 | 9 | Annually | Data collected and monitored | PPMO/CPMOs | |
| 3.Counties/Districts prepared asset registers | | Number | 0 | 0 | 0 | 5 | 9 | 9 | 9 | Annually | Data collected and monitored | PPMO/CPMOs | |

## Annex 2: Detailed Project Description

## CHINA: Shaanxi Small Towns Infrastructure Project

1. The proposed project development objective is to improve infrastructure and service delivery in selected small and medium towns in Shaanxi province. The objective will be achieved through financing new construction and rehabilitation of urban infrastructure, and expanding coverage of urban services, and strengthening town management capacity.

2. **Project Beneficiaries.** The project will benefit the following stakeholders in the selected counties/districts:

| Beneficiaries | Project benefits |
|---|---|
| Residents | Better access to jobs, schools and public services; improved water quality; reduced flooding due to improved drainage |
| Farmers | Better access to markets through improved road conditions, lower cost of transporting goods |
| Road users | Better road conditions, reduced travel time |
| Local industries enterprises | More efficient transportation of inputs, goods, and labor; development of tourism and other service industries |
| Women | Upgraded user experience (through better road design and drainage), leading to lower time-poverty |
| Tourists | Enhanced travel experience |
| Government agencies | Strengthened institutional capacity in town management |

3. **Selection Criteria for Project Towns**. According to the five-tier urban settlement structure defined in the *GT Corridor Plan*, county seats (third tier) and key towns (fourth tier) in the GT Corridor are positioned to play a strategic role in absorbing rural-urban migration and diverting the urbanization pressure from the Xi'an metropolitan core (first tier) and six sub-regional cities (second tier). The following criteria were used to select project towns: (i) demonstrable potential for economic growth and increase in jobs and incomes; (ii) availability of planning frameworks, e.g., urban development master plan, roads, water supply, drainage, and sewerage plans; (iii) town expansion plans based on realistic expectations of growth; (iv) priority for infrastructure improvements in county seats, and towns close to county seats; (v) priority for developing quality and efficiency of infrastructure services over expansion of town areas; (vi) agreement to address infrastructure gaps in the old built up areas so that benefits accrue to all residents; and (vii) priority for investments with minimal social problems.

4. **Proposed Project Counties/Districts**. The nine project Counties/Districts selected for Bank support are: (i) Yanliang District ;(ii) Chengcheng County; (iii) Wugong County ;(iv) Chunhua County ; (v) Xunyi County ; (vi) Chencang District ; (vii) Yintai District ;(viii) Hanyin County; and (ix) Hantai District.

Policy Priorities Supported by Project Activities

| County/ District | Facilitating agglomeration | Improving connectivity | Facilitating economy growth and job creation | Promoting infrastructure sharing | Supporting compact town dev. |
|---|---|---|---|---|---|
| Yanliang | Y | Y | | Y | |
| Chengchang | | Y | Y (Logistics) | | Y |
| Wugong | | | Y (Tourism) | | Y |
| Xunyi | | | Y (Trade) | Y | |
| Chunhua | Y | | | Y | |
| Chencheng | | Y | | Y | |
| Yintai | | Y | Y (Tourism) | | |
| Hantai | Y | | Y(Manufacturing) | Y | |
| Hanyin | | Y | | | Y |

5. The project consists of two components: (i) **Infrastructure and Service Upgrading;** and (ii) **Town Management Improvement and Implementation Support.** The total project cost is US$ 256.9 million, of which the IBRD loan is US$ 150 million. The following is the content of the project appraised, including summary of project investments by county/district (Table 1), profiles of project county/district (Appendix 1), and project costs by County/District (Appendix 2).

**Detailed Description of Project Components**

6. **Component 1: Infrastructure and Services Upgrading (**US$242million**)**. Based on key recommendations of the study on *Urban China: Toward Efficient, Inclusive and Sustainable Urbanization* by the Bank and the Development Research Center of the State Council, infrastructure investments were selected to support compact town development. This will be done by: (i) addressing gaps in basic urban infrastructure services in existing built-up areas, supplemented with priority infrastructure in the town's expansion areas; (ii) facilitating the agglomeration of neighboring towns towards larger cities or county seats through improvement of connectivity; and (iii) prioritizing the construction of urban infrastructure that have the added value of facilitating job creation or economic development in project towns.

7. The component includes two subcomponents: (i) **Infrastructure Improvement,** including new construction and upgrading of urban roads and missing links; and (ii) **Infrastructure Rehabilitation**, including rehabilitation and expansion of water supply source and distribution networks; wastewater collection networks; storm drainage networks; and associated road pavement improvements.

**Yanliang District, Xi'an Municipality**

8. Project interventions will support Yanliang master plan to focus on expanding basic urban infrastructure services of water supply and wastewater services from the district seat to the two neighboring towns (*Wutun, Guanshan*), and improving connectivity between towns and

district seat. Project investments will include: (i) installation of two water supply transmission mains from district seat to the towns of Wutun and Guanshan, which at present suffer from an unreliable water supply service; (ii) construction of a corridor road connecting *Wutun* town with Yanliang's existing urban area; (iii) upgrading and rehabilitating infrastructure including roads, wastewater, and drainage pipelines in *Wutun* town.

**Chencang District, Baoji Municipality**

9. Project investments will support (i) regeneration of the old industrial area to make it a logistics service hub through: rehabilitation of storm water, wastewater system and improved road access to connect this area with Chengcang's central business and residential areas; and (ii) construction of roads with associated water supply, storm drainage and wastewater collection pipelines in the urban expansion area on the north side of rail line, to link the urban expansion area with the existing urban area.

**Wugong County, Xianyang Municipality**

10. Project activities will concentrate on addressing the gaps in basic infrastructure services in Wugong town, which is the pressing need for both local residents and tourists, through an integrated package of investments, including: development of water supply source and installation or rehabilitation of water distribution pipelines, storm drainage and wastewater pipelines under the town's main streets and small lanes, as well as street pavement improvement.

**Xunyi County, Xianyang Municipality**

11. This subproject has two parts: (1) Project investments in the ***County Seat*** will support the installation of wastewater collection pipelines along the four tributary gullies that run through the county seat, and installation of trunk sewers to transport collected wastewater to the existing WWTP for treatment; (2) Project investments in ***Zhitian Town*** will improve the basic infrastructure services through installation of wastewater and drainage pipelines and pavement rehabilitation of the main streets.

**Chunhua County, Xianyang Municipality**

12. Project investments will support: (i) installation of drainage pipelines, wastewater collection systems in *Run Town* together with associated road pavement rehabilitation works; (ii) construction of a trunk sewer to transport waste water from Run Town to the exiting WWTP in county seat for treatment.

**Chengcheng County, Weinan Municipality**

13. Project investments will include: (i) rehabilitation of wastewater and drainage pipelines in the old built up area with associated road pavement works to improve the environment conditions; (ii) construction of connection roads and missing segments in the road network to improve the connectivity and access between old area, industrial area and expended area.

**Yintai District, Tongchuan Municipality**

14. This subproject consists of two parts: (1) investments in ***District Seat*** will improve the urban infrastructure services through construction of riverside roads including river embankment rehabilitation and neighborhood lanes with associated pipelines in Beicheng area; (2) investments in ***Chenlu Town*** will improve access to local residents and tourists through road safety improvements in the two existing access roads that connect this heritage town with the major highways.

**Hantai District, Hanzhong Municipality**

15. Project investments will support (i) improvement of environmental conditions in the old urban area through rehabilitation of drainage and wastewater systems and road pavements; and (ii) construction of road corridors, highway by-pass to connect the industrial area in the south with densely populated old area in the middle and freight railway station in the north.

**Hanyin County, Ankang Municipality**

16. Project investments includes (i) construction of a road with associated wastewater drainage pipelines to connect the existing urban area with the large public housing community being built, and a riverside road including river embankment improvement; (ii) extension of water supply service from county seat to the densely populated neighboring rural settlements and logistic park; and (iii) the road safety improvement along the highway.

**Table 1 Summary of Project Investments by County/District**

| No. | Description of Project Contents | |
|---|---|---|
| | **Infrastructure Improvement** | **Infrastructure Rehabilitation** |
| **1.** | **Yanliang District** | |
| | (1) Construction of Hongyao Road (L=10.3km, W=18m) and associated water supply and wastewater pipelines.<br>(2)Construction of two roads with total length of 2.2 km and associated water, wastewater and storm drainage pipelines in Wutun town. (Guangsan Road L=1.3km, W=12m; Guangyang Bei Street L=0.8km, W=12m) | (1) Installation of two water transmission mains with total length of 16.6km ( WTP-Wutun Town, WTP-Guanshan Town)<br>(2) Installation of water distribution pipelines (3.6km), wastewater (4.7km) and storm drainage pipelines (3.6km) under Zhenguan and Xihuan roads with associated road pavement improvement in Wutun Town. |
| **2.** | **Chencang District** | |
| | (1) Construction of three roads with total length of 5.6km and associated water supply and wastewater and storm drainage pipelines (Longhai Bei Road L=3.5km,W=18m, Beikai Road L=0.8km, W=24m, and Heping Road L=1.3km W=24) | (1) Rehabilitation of water, wastewater and drainage pipelines with a total length of 3.6 km under Dazhong Road (L=0.9km, W=24m), Shuilianxi Road (L=0.8km, W=15m), Pijiunanmen Road (L=0.9km, W=18m), and Dongxin Road (L=0.9km, W=18.5) with associated road pavement works.<br>(2) Installation of 1.6 km water distribution pipelines along the Chengcang Zhong Road. |
| **3.** | **Wugong County** | |
| | | (1) Construction of water supply wells (3000t/d) and 20.8km distribution pipelines in Wugong Town.<br>(2)Rehabilitation of wastewater and drainage pipelines with a total |

| | | |
|---|---|---|
| | | length of 5.1 km for each under the main streets of Renyi Road, Dongjie, Nanguan Road and Laoxibaobeixian together with road pavement improvement.<br>(3) Installation of 4.9 km sewers/drainage pipelines under back streets and small lanes in Wugong Town.<br>(4) Construction of a wastewater treatment facility (1,500t/d) and collection networks. |
| **4.** | **Xunyi County** | |
| | | (1) In Xunyi County seat: installation of water and wastewater pipelines totaled 1.1km for each under three main streets with associated road pavement rehabilitation (Beidajie L=0.3km, Nandajie L=0.4km, Taita Road L=0.5km); Installation of wastewater pipelines totaled 1.7 km under three riverside roads with associated road pavement rehabilitation (Donghedi Road, Songjiagou Xihedi Road, Nanzhigou Xihedi Road); Installation of storm drainage pipelines under Yangguang Dadao Road (L=2.8km).<br><br>(2) In Zhitian town: installation of water supply, wastewater and drainage pipelines totaled 2.6 km for each under two roads with associated sidewalk improvement (Zhitan Dajie L=1.4km, Zhitian Xinjie L=1.2km). |
| **5.** | **Chunhua County** | |
| | | (1) Installation of 12km sewer trunk to transport wastewater generated in Run town to county WWTP.<br>(2) Installation of water, wastewater and drainage pipelines under four main streets and selected small lanes with associated road pavement rehabilitation in Run town (Chuangxin Street L=1.2km W=12m, ChuangyeBei Street L=1.4km W=12m, Huimin Street L=0.73km W=12m, Chuangye Dadao L=1.4m W=22m ,and selected small lanes L=2.5km W=5m); Installation of water, wastewater and drainage pipelines totaled 4.9km for each under three roads (Runwu Road L=1.4km W=18m, Runbu Road L=1.5km, W=22m, Zhenxin Dada L=2km W=30m); |
| **6.** | **Chengcheng County** | |
| | (1)Construction of three roads with total length of 5.3km and associated wastewater and storm drainage pipelines (Huifu Road L=3.2km W= 27m, Yangguang Road L=1.7km W=24m, Dongba Road L=0.4km W=25m) | (1)Rehabilitation of drainage pipelines with a total length of 2.9km under Qingzhen Road (L=2.2km W=26m) and Dongliu Road (L=0.7km W=22m), and installation of wastewater pipelines under Changning Street (L=2.2km) together with associated road pavement works. |
| **7.** | **Yintai District** | |
| | (1) In Yintai District seat: construction of two riverside roads totaled 6.4 km (Binhexi Road L=3km W=15m, Binhedong Road L=3.4km W=14m) and six neighborhood lanes (L=1.2km W=12m) with associated drainage and wastewater pipelines; Traffic safety improvement of Shunjin Nan Road.<br>(2) In Chenglu Town: Road Safety improvement along Napo-Chenglu Road (L=4.5km W=3m) and Taocichang-Chenglu Road (L=2.2km W=3m) | |
| **8.** | **Hantai District** | |
| | (1)Construction of three roads with total length of 6 km and associated wastewater and storm drainage pipelines in Pu Town(Lianfeng Road L=0.8km W=16m, Lianhua Road L=2.4km W=32m, Bei'er Road L=2.9km W=12m) | (1)Rehabilitation of drainage systems (total length of 1.1km)and road pavement in the Dongjie and Xijie Area and environmental improvements in several neighborhood lanes with a total length of 2.3km including drainage, light, pavement etc.;<br>(2)Traffic safety improvement of Xinan street and Puhan road. |
| **9.** | **Hanyin County** | |

| | | |
|---|---|---|
| | (1) Construction of two roads with total length of 4.4 km and associated wastewater and storm drainage pipelines (Nanqu Road L=2.4km W=16m, Binhenan Road L=1.4km W=19m)<br>(2) Installation of traffic management and road safety facilities | (1)Installation of 6.6 km water supply pipelines from Fanggu Street to Yuehe logistic park. |

17. **Component 2: Town Management Improvement and Implementation Support (US$3.0 million).** This component includes three subcomponents: (a) town management improvement in project counties/districts; (ii) carrying out of policy advisory studies and provision of advice to Shaanxi Province in order to strengthen institutional policies and planning practices, focusing on balanced development, efficient growth, poverty reduction, sustainable infrastructure service provision, and improved environmental quality in small towns; and (iii) implementation support for project management, design reviews, monitoring, evaluation, and reporting, to assist the PPMO and project counties/districts, and implementing entities to implement the project to sound engineering standards..

18. **Town Management Improvements (US$ 1.6 million)**. This subcomponent will strengthen the capacity of the project counties/districts to manage the urbanization process and improve infrastructure service delivery. It will finance mainly: (i) introduction of asset management practices through introduction of key management improvement approaches including improvement of O&M and the associated budgeting, preparation of infrastructure mapping and asset registers; (ii) training and study tours for participating county/district officials, procurement of office equipment for CPMOs.

(i) **Improving O&M (US$ 0.2 million)** Preparation and implementation of annual O&M plans and budget allocation are aimed at internalizing the discipline of preventive maintenance to improve service delivery, prolong asset life and defer capital investments. Project consultants will assist project counties/districts to assess infrastructure to be maintained, appropriate frequency of maintenance, resource requirements including staff, materials, equipment and annual budgets, and supervisory staff, based on overall funding available for allocation for O&M. The consultant will prepare an O&M manual for the different types of infrastructure, which will serve as the guide for continuing O&M activities.

(ii) **Preparation of Infrastructure Maps (US$ 0.2 million)** Preparation and updating of infrastructure maps for each project county/district, including roads, storm drainage, water supply, and wastewater. The city-scale maps will be produced at the appropriate scale (1:5000 or 1:10,000) and recorded on a durable format (e.g., cloth backed paper).

(iii) **Preparation of Asset Registers (US$0.2 million).** Preparation of a register of all infrastructure assets owned by the town, including: description of assets; date of construction and cost; date of repair or renewal including cost; frequency of breakdowns, depreciated value; decision on renewal. The registers will be updated annually thereafter.

(iv) **Training, Study Tours and Office Equipment (US$1.0 million).** The project will support training and study tours for participating county/district officials to build their capacity on technical, operational and institutional aspects for sustainable urban infrastructure service

management in small towns. Office equipment will be provided for the project management offices of the nine project counties/districts.

19. **Policy Advisory Studies on Shaanxi's Small Town Development Initiative (US$ 0.3 million)**. Policy and planning advice to assist Shaanxi Province to strengthen policies and planning practices conforming to the *New Urbanization Agenda*, focusing on balanced development, efficient growth, sustainable infrastructure service provision, and improved environmental quality in Shaanxi's small towns. The studies will cover spatial and investment planning, managing urban growth and small town development, options for regional infrastructure service provision, and appropriate technologies for small towns' environmental infrastructure.

20. **Project Implementation Support (US$ 1.1 million)**. The subcomponent will provide support to the PPMO and project counties/districts on project management, including design review, information management system (MIS), training, monitoring and evaluation (M&E), reporting, and preparation of the Implementation Completion and Results (ICR) report.

## Appendix 1 Profiles of Participating Counties/Districts

### 1. Yanliang District, Xi'an Municipality

Yanliang District is located in the heart of Guanzhong plain, about 50 km from downtown Xi'an. As one of China's three aviation industry bases, Yangliang's economy is dominated by aviation industries of aircraft research, design and manufacturing, and related industries of aluminum materials, electronics, chemicals and food processing. The current population in the district seat is 112,000 and the planned population by 2020 is about 400,000. The District has two towns (Guanshan and Wutun), where the population is about 30,000 in 2012 with planned population of 58,000 residents by 2020. The district is positioned to host population and industries relocated from the main urban districts of Xi'an.

### 2. Chencang District, Baoji Municipality

Chencang District is one of the two urban districts that form the urban area of Baoji Municipality. It's the east gateway of Baoji, 22km away from Baoji downtown and 147km from Xi'an on the east. Existing population is 143,000, including 90,000 urban. The planned population is 210,000 and the build-up areas of 100 km2 by 2020 from current 50km2.

### 3. Wugong County, Xianyang Municipality

Wugong County is located in the west of Guanzhong Plain, 87km away from Xi'an downtown and 50km from Xianyang. With favorable natural conditions and the fertile farm land in the Plain, it is one of the traditional grain producers in Shaanxi Province. Wugong town is 18 km northwest of Wugong county seat, with population of 18,000 in 2012 and planned population of 30,000 by 2020. The town has rich stock of heritage assets accumulated from its long history, and was designated by Shaanxi Provincial Government in 2011 as one of the province's 31 ancient towns prioritized for tourism development.

### 4. Xunyi County, Xianyang Municipality

Xunyi County is located at the north border of the Guanzhong Plain, 150 km northeast of Xianyang and 170km from Xi'an. The tourism and commerce have been promoted to improve employment opportunities and income generation. Situated in a deep gully, the county seat of Xunyi has a population of 35,000 in 2012 and planned population of 60,000 by 2020.

Zhitian Town is located at a confluence of three counties in Shaanxi and Gansu Province, 15 km away from Xunyi county seat. It is a traditional trading post in the region. It has a population of 8,400 in 2012 and planned population of 12,000 by 2020. It attracts over 10,000 people from the surrounding areas to trade their agricultural products on market days.

### 5. Chunhua County, Xianyang Municipality

Located in the north of Xianyang on the hilly Loess Plateau, Chunhua is a typical farming county. The county seat of Chunhua is built on a narrow strip of a hilly deep gully, and is densely populated. This county seat is severely constrained by its disadvantageous topography, and has no land space to accommodate additional urban growth and the influx of urban residents from rural-urban migration. Run Town, 11 km upstream from the county seat, is positioned to host partial of county government functions in the future. The town is listed as one of the province's 100 key towns prioritized for promoting urbanization process. Run Town at present has 8,000 inhabitants, and is project to reach 15,000 by 2020.

### 6. Chengcheng County, Weinan Municipality

Located in the northeast of Guangzhong Plain, 180 km from Xi'an, the Chengcheng County seat has 135,000 residents. Over the last decade, Chengcheng's traditional agriculture dominated economy saw an encouraging trend of transition to industries, benefitting from the county's abundant mineral resources and agricultural production. Driven by the robust industrialization process, the county seat is expected to accommodate additional 55,000 new urban residents by 2020.

### 7. Yintai District, Tongchuan Municipality

Located in central Shaanxi, 90km northbound from Xi'an, Yintai District is one of the three urban districts that form the urban area of Tongchuan Municipality. The district seat is situated on a narrow strip along a hilly, deep gully, and is densely populated with a total of 50,100 inhabitants at present. The urban area of the district seat is extended northward to accommodate additional 20,000 residents by 2020.

Chenlu Town: Chenlu Town, 33 km southeast of Yintai District seat, is an ancient town well-known for its pottery manufacturing history over 1,300 years. It's listed as a provincial-level heritage town, and the ancient pottery kilns in the town are designated as cultural heritage of national level, which attracts tourists from various parts in China. The town has 7,200 inhabitants and is experiencing rapid tourist increasing in recently years.

### 8. Hantai District, Hanzhong Municipality

Haitai District, located 442 km away from Xi'an, is the only urban district that forms the urban area of Hanzhong Municipality, which is the regional anchor of south Shaanxi. Pu Town is located in the 6km southeast of the District, with population of 44,000 residents. The town is identified by province as one of 100 key towns and the urban population is projected to reach 80,000 by 2020.

### 9. Hanyin County, Ankang Municipality

The Hanyin County is located in Qingba mountain area in south Shaanxi, 303km away from Xi'an. The county seat of Hanyin is situated in a narrow strip of mountainous valley along Yuehe River. The county seat has 60,400 inhabitants at present and projected population by 2020 is 120,000.

## Appendix 2 Project Costs by Project County/District

| | Project Cost | | Bank Financing | | |
|---|---|---|---|---|---|
| | RMB million | US$ million | RMB million | US$ million | % |
| **Infrastructure and Service Upgrading** | **1,557.4** | **253.9** | **901.6** | **147.0** | **58** |
| Yanliang | 317.1 | 51.7 | 187.1 | 30.5 | 59 |
| Chencang | 221.5 | 36.1 | 114.7 | 18.7 | 52 |
| Wugong | 120.2 | 19.6 | 79.1 | 12.9 | 66 |
| Xunyi | 70.5 | 11.5 | 47.2 | 7.7 | 63 |
| Chunhua | 126.4 | 20.6 | 79.7 | 13.0 | 63 |
| Chengcheng | 203.7 | 33.2 | 105.5 | 17.2 | 52 |
| Yintai | 151.5 | 24.7 | 90.2 | 14.7 | 60 |
| Hantai | 175.4 | 28.6 | 98.1 | 16.0 | 56 |
| Hanyin | 171.1 | 27.9 | 100.0 | 16.3 | 58 |
| **Town Management Improvement and Implementation Support** | **18.4** | **3.0** | **18.4** | **3.0** | **100** |
| Package A | 9.6 | 1.6 | | | |
| Package B | 1.9 | 0.3 | | | |
| Package C | 6.9 | 1.1 | | | |
| **Total to be financed** | **1,575.8** | **256.9** | **920.0** | **150.0** | **58** |

## Annex 3: Implementation Arrangements

## CHINA: Shaanxi Small Towns Infrastructure Project

### Project Institutional and Implementation Arrangements

1. **Project Leading Group (PLG).** A Project Leading Group has been established and is chaired by the General Director of the Shaanxi Provincial Development and Reform Commission (DRC). The PLG comprises of representatives from the senior management of the provincial Financial Department, Audit Department, Environmental Protection Department, and the Department of Housing and Urban Rural Construction. The PLG will provide overall policy and strategic guidance and review the annual work program. It is also responsible for facilitating the inter-agency coordination and for solving any major issues during project preparation and implementation.

2. **Provincial Project Management Office (PPMO).** The PLG has designated the existing Provincial Project Management Office (PPMO) under the Provincial Development Reform Commission (DRC) to coordinate the preparation activities of the counties/districts' proposed investments. PPMO has had previous experience in coordinating the implementation of World Bank and Asian Development Bank financed projects. The PPMO is staffed with competent and committed staff in the field of procurement, financial management, and safeguards. Its major responsibilities are: (a) overall project coordination, management and monitoring; (b) annual budget preparation; (c) project-wide quality assurance; (d) progress reporting to the Bank and PLG; (e) interagency coordination and procurement management; and (f) training facilitation.

3. **County/District Level PLGs, CPMOs and Project Implementing Agencies (PIA).** Each of the nine project counties/districts have established similar leading groups (PLG) chaired by respective county/district governors or vice governors to provide local level policy direction to the subsequent implementation of the project in their respective jurisdiction. They have also made necessary arrangements regarding their own County/District Project Management Office (CPMO) and Project Implementation Agency (PIA). The coordination and implementation arrangements at the project county/district level for the different sub-project activities are shown in the table below:

| County or District | PMO | PIA |
|---|---|---|
| Yanliang District | Yanliang District DRC | Yanliang Water Resource Bureau<br>Yanliang District Urban Rural Construction Bureau |
| Chencang District | Chencang District Urban Rural Construction Bureau | Chencang District Urban Rural Construction Bureau |
| Wugong County | Key Town Construction Management Commission of Wugong County | Key Town Construction Management Commission of Wugong County |
| Xunyi County | Xunyi County Economic Development Bureau | Xunyi County Urban Rural Construction Bureau |
| Chunhua County | Chunhua County Economic Development Bureau | Chunhua County Urban Rural Construction Bureau |
| Chengcheng County | Chengcheng County Urban Rural Construction Bureau | Chengcheng County Urban Rural Construction Bureau |
| Yintai District | Yintai District Economic Development Bureau | Yintai District Urban Construction Bureau |
| Hantai District | Pu Town Government | Pu Town Government |
| Hanyin County | Hanyin County Urban Rural Construction Bureau | Hanyin County Urban Rural Construction Bureau |

4. **Designs and Project Management.** The project counties/districts are responsible for preparation of detailed designs and bidding documents, obtainment of clearance by the respective bureaus. The PPMO will manage the procurement process by inviting bids, and evaluating bids jointly with project counties/districts, following which project counties/districts execute the contracts. A firm of consultants would support PPMO in overall project management, advisory services and reporting , including: (a) reviews of detailed engineering designs and bidding documents; (b) construction supervision and contract management; and (c) monitoring and evaluation, etc.

5. **Town Management Improvements.** Consultants will assist project counties/districts to design, operationalize the asset management practices and train officials. Project counties/districts will adopt a proactive approach to introduce town management improvements, by designating a core group of officials to work with consultants, and manage these activities. Dedicated staff will be assigned for preparing updating O&M plans, maintaining infrastructure mapping and asset registers. The Project counties/districts are required to link the annual financial requirement for O&M to their respective annual budgets.

**Financial Management, Disbursements and Procurement**

**Financial Management**

6. Overall, the residual financial management risk after mitigating measures for the project is assessed as Moderate.

7. Although SPFB, PPMO and three county PMOs have previous Bank financed projects experience, the other six county PMOs are new to Bank operations. To address the lack of knowledge in managing Bank-financed projects, PPMO will (a) provide various kinds of training workshops to county PMOs; (b) provide close collaboration with SPFB and project auditors on the review, supervision and oversight of the project FM documents and matters; and (c) develop and issue a designated project financial management manual (FMM) to coordinate and standardize the project FM procedures. SPFB will also provide related guidelines and FM/disbursement training to project financial staff, as well as assist PPMO in the preparation of the Project's financial reports, prepare WB Withdrawal Applications (WA) and review payment supporting documents. Service standards will be established and stated in the FMM to avoid any delays in reimbursements to implementing agencies.

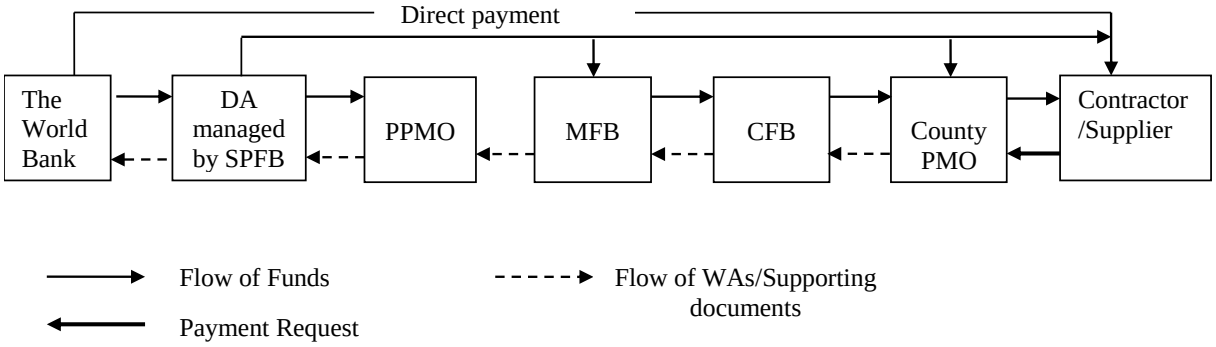
8. Since the PPMO and county PMOs are established within existing government agencies e.g. DRC or construction bureau, they will be utilizing their existing institutional structure, system and processes as well as supplementing or creating some new ones customized for the project.

9. **Funding sources for the project include Bank loan and counterpart funds.** The Bank loan will be signed between the Bank and the People's Republic of China through its Ministry of Finance (MOF), and on-lending arrangements for the Bank loan will be signed between MOF and the Shaanxi Provincial Government through its SPFB, then between SPFB and municipal government through it municipal finance bureau and finally between municipal finance bureaus and county government through the county finance bureau. All of counterpart funds are from appropriations of project county government and will be contributed by county finance bureaus.

10. **Budgeting.** The budget for counterpart funds committed by the PMOs will be reviewed and approved by its People's Congress and be included in their fiscal budget. In the government's budget and accounting system, expenditures are executed when counterpart funding is transferred to the project. Uses of these project resources are budgeted and accounted for outside the government's institutional systems. The annual project implementation plan including capital budget will be prepared by each PMO. The project budget and project expenditures are recorded in a project accounting system(s). Budget variance analysis will be conducted regularly by the PMOs, providing periodic information on project execution progress thus enabling timely corrective actions.

11. **Funds Flow.** One segregated designated account (DA) in US dollar will be opened at a commercial bank acceptable to the Bank and will be managed by SPFB. SPFB will be directly responsible for the management, maintenance and reconciliation of the DA activities of the project.

12. Contractors and suppliers will be paid by the county/district PMOs which will request reimbursement from the DA through withdrawal applications. The county/district PMOs will prepare reimbursement request and other supporting documents to request reimbursement of expenditures and submit them through municipal finance bureaus (MFBs) and/or county finance bureaus (CFB) for PPMO review and then for approval and verification by SPFB. SPFB will transfer the reimbursement through MFB/CFB to the county/district PMOs or directly contractors/suppliers. SPFB will prepare and send a WA to the WB to replenish the DA as needed. The proposed flow of WA's/supporting documents are as follows:




13. **Accounting and Reporting.** The PPMO and each county/district PMO will customize their existing accounting system (for those who do construction accounting) or create a new separated accounting system (for those who do not do construction accounting), either manually or computerized, to set up individual account profiles for this project and follow the requirement set out in *Circular 13 (2000)* to maintain project accounting records and prepare project financial statements which will be consolidated by the PPMO to generate the overall project financial statement.

14. The PPMO and each county/district PMO will manage, monitor and maintain the project accounting records for components they implement. The PPMO will work with SPFB to prepare the consolidated project financial statements. The interim unaudited project financial statements should be consolidated, prepared and furnished to the Bank by the PPMO no later than 60 days following each

semester (due dates will be August 31 and February 28), in form and substance satisfactory to the Bank. The PPMO will also consolidate the financial statements prepared by the county/district PMOs for the annual audit.

15. **Internal Control.** The related accounting policy, procedures and regulations have been issued by MOF and will be followed by all the PMOs. The FMM aligns the financial management and disbursement requirements and procedures among various implementing agencies.

16. **Audit.** Shaanxi Provincial Audit Office (SPAO) has been identified as the auditor for the project. According to the agreement reached with MOF and CNAO, the audit report and audited financial statements will be made publicly available in both World Bank and SPAO's official websites. The annual audit report of project financial statements will be due to the Bank within 6 months after the end of each calendar year. This requirement is stipulated in the loan agreement. The Project consolidated financial statements should be submitted by the PPMO on June 30 of each calendar year.

**Disbursements**

17. Four disbursement methods: advance, reimbursement, direct payment and special commitment are available for the project. The primary Bank disbursement method will be advances to the DA. Withdrawal Applications (WAs) will be prepared to request Bank disbursements and to document the use of Bank financing. WAs will include supporting documents in the form of Statement of Expenditures (SOEs) and Summary Sheets (SS) and source documents identified in the Disbursement Letter issued by the Bank.

18. The Bank loan would be disbursed against eligible expenditures (taxes inclusive) as in the following table:

**Table 3-1: Proposed Allocation of Loan Proceeds**

| Category | Amount of Loan Allocated (Expressed in Dollars) | Percentage of Expenditures to be financed (inclusive of Taxes) |
|---|---|---|
| 1. Works | 132,836,305 | 80% |
| 2. Goods, consultants' services and Training | 4,876,539 | 100% |
| 3. Interest on the Loan accrued on or before the last Payment Date immediately preceding the Closing Date | 11,912,156 | 100% |
| 4. Front end fees | 375,000 | 100% |
| **Total** | **150,000,000** | |

No retro-active financing is planned to be used on any project activities.

**Procurement**

19. **Capacity Assessment.** The key risks identified by the procurement capacity and risk assessment of the PPMO and project counties and the record from procurement overseen by the PPMO under a recently closed Bank-financed project[5] are: (i) bidders, contractors and their agents, subcontractors and their personnel may not observe the highest standards of ethics during the procurement and execution of contracts; (ii) the PPMO and the participating counties/districts may not give sufficient attention to identifying and addressing red flags of unethical practices in procurement and contract execution; (iii) large number of implementing agencies scattered in the 9 participating counties/districts which will present some challenges in coordination and supervision. Mitigation measures include: (i) the PPMO has prepared a Governance and Anti-Corruption Plan (GAAP) which was reviewed by the Bank during project appraisal and agreed with the Bank at project negotiations. The GAAP will be updated as necessary during project implementation, (ii) The Procurement Management Manual which was used for a Bank-financed project in the province which recently closed has been updated to fit this project's needs, (iii) The PPMO has organized twice during project preparation, procurement training for all key staff from the province, and the participating counties/cities; (iv) The Bank has worked with the provincial authorities to, (a) create awareness in governance and anti-corruption, and, (b) provide training in ethics and identifying red flags of fraud, corruption and collusion during project preparation. Further training will be provided periodically during project implementation; (v) The PPMO to hire a qualified Procurement Agent to provide procurement support to all implementing agencies; (vi) The PPMO to review and supervise procurement by the participating counties/districts; and (vii) The PPMO to report on the implementation of the GAAP during project implementation, and review by MOF and the Bank of implementation of actions during project supervision. The overall procurement risk is considered 'Substantial'.

20. **Applicable Guidelines**. Procurement will be carried out in accordance with the "*Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers*" dated January 2011; the "*Guidelines: Selection and Employment of Consultants by World Bank Borrowers*" dated January 2011; and the provisions stipulated in the Loan Agreement. National Competitive Bidding (NCB) shall be carried out in accordance with the *Law on*

[5]The PPMO was responsible for procurement oversight for the Shaanxi components under the Western Provinces Rural Water and Sanitation Hygiene Project (P095315) which closed September 30, 2012. According to the Implementation Completion Report (Report No. ICR2450) for the project which is available on the Bank's external website "2.4.8 Procurement Management. Procurement was generally carried out in accordance with the Bank's procurement procedures and the agreed procurement plans. However, during post reviews carried out over the period 2010 to 2013, indications of possible collusive practice were identified three times with the procurement of small NCB contracts for village water supply managed by CPMOs in both provinces. These collusion indicators were pervasive, and the Bank, after each post procurement review, (PPR) presented its findings and recommendations to the PPMOs and CPMOs with the expectation that the necessary corrective actions would be taken, including identifying red flags of collusion during bid evaluation; and investigating and reporting these cases to the relevant authorities for possible sanctioning. However the PPMOs, the CPMOs and the Procurement Agent failed repeatedly to take timely actions to address these issues. For this reason, the Bank established, as a condition of approval of extending the closing date in September 2012, a requirement that the PPMOs develop and adopt specific provincial level Governance and Anti-Corruption Action Plans (GAAPs). For a number of contracts where the indicators of collusion were serious, the provinces agreed that they would not seek reimbursement from the Bank for these expenditures. Unfortunately, the final PPR conducted in 2013, gave no indication that the agreed GAAPs were being fully implemented in either province. The findings of each PPR were referred to the office of the Integrity Vice-Presidency (INT) of the Bank, for action in accordance with Bank policy. Compliance with Bank procurement policy is rated unsatisfactory."

*Tendering and Bidding of the People's Republic of China* promulgated by Order of the President of the People's Republic of China on August 30, 1999 subject to the modifications stipulated in the Loan Agreement in order to ensure consistency with World Bank Procurement Guidelines.

**Procurement Arrangements**

21. **Procurement of Works and Supply and Installation of Plant and Equipment.** Works procured under this project will include: roads, drainage, water supply tube wells and distribution networks, wastewater collection networks including pumping stations. Procurement of these works will be done using the Bank's Standard Bidding Documents (SBD) for all ICB and National MBD agreed with or satisfactory to Bank.

22. **Procurement of Goods and Non Consulting Services**. Goods procured under this project will include: office/computer equipment for PPMO, project counties/districts to support town management improvements, etc. The procurement will be carried out using the World Bank's Standard Bidding Documents for all ICB and National Model Bidding Documents agreed with or satisfactory to the Bank for all NCB. Non-consulting service procurement would be used for procuring organizers of training or workshop and for the purpose of public awareness on small town's development planning, etc.

23. **Selection of Consultants**. Consulting services will be required under this project and cover a variety of tasks at both the province and sub-projects level for Policy and Regulation development or promotion; The Bank's SRFP will be used for the competitive selection of consulting firms. Individual consultants will be selected using the procedures in Section V of the Consultant Guidelines.

24. **Training and Workshops.** Training including study tours and workshops will be required under the project. Detailed programs will be developed by PPMO and project counties/districts during project implementation and included in project annual work plan, for Bank's review. Actual expenditures incurred in accordance with the approved detailed programs will be used as the basis for reimbursement.

25. **Procurement Plan.** A consolidated Procurement Plan (PP) for the first 18 months of project implementation has been prepared by the PPMO. The PP was reviewed by the Bank during appraisal and comments provided to the PPMO. The procurement plan is finalized and agreed with the Bank at project negotiation. The plan will be available in the project files and on the World Bank's external website. The PP will be updated annually or as required to reflect implementation needs and improvements in institutional capacity.

26. **Frequency of Procurement Supervision.** Regular procurement supervision would be carried out at least once a year. Procurement post reviews will be carried out by the Bank or by independent external auditors every 12 months. The procurement post review sampling ratio will be one out of ten contracts.

27. **Thresholds for Procurement Methods and Prior Review.** The PP will set forth those contracts which are subject to prior review by the Bank. The procurement method and prior-review thresholds for the initial period of project implementation are indicated in the table below.

**Table 3-2: Thresholds for Procurement Methods and Prior Review**

| Expenditure Category | Contract Value Threshold(US$ thousands) | Procurement Method | Prior Review Threshold (US$ thousands) |
|---|---|---|---|
| **Goods and Non-Consulting Services** | ≥3,000 | ICB | All |
| | <3,000 | NCB | First 2 NCB contracts and all contracts valued ⩾1,000 |
| | <100 | Shopping | First Contract |
| | -- | Direct Contracting | All |
| **Works and Supply and Installation of Plant and Equipment** | ≥25,000 | ICB | All |
| | <25,000 | NCB | First 2 NCB contracts and all contracts valued ≥15,000 |
| | <200 | Shopping | First Contract |
| **Consultants Services** | ≥300 | QCBS/QBS | All |
| | <300 | CQS | First Contract |
| | | Single-Source Selection (firm) | All |
| | | Individual Consultant | Only in exceptional cases e.g. long term TA |
| | | Single-Source Selection (individual) | ≥20,000 |

**Environmental and Social (including safeguards)**

**Social (including safeguards)**

28. The project has significant social benefits as it supports the improvement of infrastructure service delivery in selected small and medium towns in nine counties/ districts by addressing accumulated maintenance backlog, completing service coverage, upgrading and construction of urban infrastructure.

29. **Affected people.** According to the social impact analysis, people will be affected in any of the following ways: (i) their standard of living is adversely affected; (ii) their houses, land (including housing land acquisition, farm land), and other fixed and non-fixed assets are adversely affectedly, or their land is occupied temporarily or permanently; (iii) they have the right to use, either temporarily or permanently, productive resources that are adversely affected; or (iv) their business, occupations, and working or living areas are adversely affected.

30. **Involuntary Resettlement OP4.12.** The project triggers OP 4.12 due to the land acquisition and resettlement requirements. The project will require the permanent acquisition of 94.3 hectares of land, including 84.2 hectares of cultivated land and 10.1 hectares of housing lots. The dominant current land use is growing wheat and corns. The project will require 76,278 square meters of structures, including 62,452 square meters of concrete and brick houses, 6,805 square meters of brick and wood houses, 4,206 square meters of muddy and wood houses, and 2,815 simple houses. As the result, the project will impact 1,008 families, including 649 families with 2,487 persons by land acquisition and 359 families with 1,337 persons by housing demolition. A Resettlement Action Plan (RAP) was prepared including details on resettlement policy procedures and requirements that will have to be followed during project implementation, including compensation rates, mitigation measures to restore livelihoods, and institutional and monitoring arrangements. A Resettlement Policy Framework (RPF) was also prepared to guide any changes of the project components and local funded projects that will be linked to the Bank supported project prior to the Close of the Bank loan.

31. Public consultations and participatory process during project preparation enabled the project to incorporate some of the stakeholders' concerns and demands in project design and to reduce the number of people affected by land acquisition and resettlement. The social consultant conducted the census and social survey, the social impact analysis and public consultation. Affected persons were consulted and encouraged to participate in the resettlement planning process and the preparation of the project. Their feedbacks were incorporated into the RAP. This contributed significantly to the preparation of the RAP, including minimizing house demolition and land acquisition.

32. The social assessment was undertaken. Local people's concerns were incorporated into the project design and mitigation measures were appropriately undertaken to reduce the negative impacts caused by land acquisition and resettlement relocation. The affected people considered that the project would provide opportunities to development their family business and improve their living standards. The people in the project area also considered that the poor infrastructure was the main reason that slowed down local economic development. It constrained their family economic development, the attractions to investment projects, high cost and low efficient for going-out, less safety and poor business, and tourism development. They are desirable to improve their living and increase their family income through the project development.

33. **Gender Analysis and Development.** The Social Assessment (SA) included a gender analysis. Shaanxi Social Academy (social consultant) with support from local agencies, conducted a disaggregated gender analysis in affected villages/communities, listened to women's expectations, and collected ideas and recommendations that were incorporated in the designs of subprojects. Gender disaggregated information were also collected and used in the RAP to ensure that women's interests could be safeguarded during any resettlement implementation. The team will continue to monitor gender impacts during project implementation.

34. **Information dissemination.** Relevant project information has been provided to the affected people through media, posters and public meetings. The RAP was locally disclosed on February 28 in the provincial governmental website. The RAP was disclosed through Bank's InfoShop on April 15, 2014. A resettlement information booklet providing details regarding compensation rates, social

security policies and other entitlement policies and grievance procedures will be distributed to the displaced people prior the resettlement implementation.

35. **Institutional Arrangements.** Resettlement offices will be established in each project county/district responsible to the resettlement implementation and resettlement budget allocations to the affected families and entities, and the PPMO will supervise the resettlement implementation. The land and resources bureaus of the project county/district will be responsible for the land acquisition. An experienced national consulting firm will be contracted prior to the resettlement implementation to serve as the independent monitoring agency of the resettlement program. The project will be monitored and the living standards of the project-affected people will be evaluated over the course of project implementation. The monitoring results will be reported twice a year and, remedial actions will be implements, as necessary.

36. **Linked projects.** Two locally funded projects: (i) Shuibei water treatment plant in Yanliang District, and (ii) waste water treatment plant in Hanying County were identified as the linked projects within two years prior to the project identification mission. Due diligence review of the locally funded projects was undertaken and confirmed that Chinese land law, Shaanxi provincial land administrative management regulation and local regulation have been followed and the affected people received their resettlement compensation.

**Environmental Safeguards**

37. The Bank policy OP 4.01 Environmental Assessment is triggered and the project has been classified as Category B according to the environmental screening and the proposed investment activities and its scale, as well as the major impacts are site-specific and few would be irreversible.

38. An Environmental Impact Assessment (EIA) was carried out for the proposed project components, and a freestanding associated environmental management plan (EMP) was prepared to determine the mitigation measures, environmental monitoring program and necessary institutional arrangement as well as capacity development. The documents have been prepared on the basis of Chinese legal and policy framework for environmental protection, master plans and environmental plans as well as applicable Bank safeguard policies.

39. Environmental Benefit: The project will have significant benefits in terms of providing improved basic infrastructure and services in the project towns. Investments under Component 1 include civil works for infrastructure such as flood roads, water supply and sewer collection pipes, depending on the scale and actual needs of each project town.

40. Potential environmental and social impacts include: (i) construction impacts related to disturbance to traffic and local people's daily life, soil erosion, noise, dust, and shipping and disposal of construction waste; as well as (ii) operational impacts related to wastewater treatment capacity with increased wastewater collection.

41. Impact Assessment and Mitigation Measures: The project will have significant benefits in terms of providing improved basic infrastructure and services in project towns. Investments under Component

1 include civil works for water infrastructure such as road construction, water supply and sewer collection pipes, depending on the scale and actual needs of each project towns.

42. Environment Management Plan (EMP): A freestanding EMP has been developed. The EMP includes policies basis and applicable environmental standards, environmental management system, key environmental impacts, mitigation measures, Environmental Codes of Practice (ECOPs), monitoring plans, institutional arrangements, training and capacity building, and estimated costs for the mitigation measures and monitoring programs for both the construction and operation phases.

43. There were two ECOPs included in the EMP covering the design, construction and operational phases, i.e., generic environmental management in the construction phrase and special environmental management during construction phase (related to the sensitive points). Details contained in the EMP that was disclosed through Bank's InfoShop.

44. The EMP also includes environmental monitoring programs for both construction and operation phases. The parameters to be monitored include noise, dust, and water quality. To ensure the strict and efficient implementation of the mitigation measures proposed, including environmental obligations during construction, a program of monitoring activities has been developed as part of the EMP. The project progress reports furnished by the PPMO will include a section for EMP implementation and related environmental monitoring reports. Institutional arrangement also was determined in the EMP. P PMO will take overall responsibility to coordinate and oversee the EMP implementation, including management and supervision, training, and preparation of project progress report based on the reports and monitoring information from each project county, etc. Each county PMO will take respective responsibility for EMP implementation, including hiring qualified environmental expertise for environmental monitoring, supervising contractor to implement the mitigation measures, promoting good practice of environmental protection measures and technologies. With related mitigation measures and clauses to be incorporated in the bidding documents and contracts, contractors will have obligation and mandates to implement the EMP.

45. Public Consultations and Information Disclosure: Two rounds of public consultations were carried out during the EA process. The technique used for the public consultations include surveys using public opinion questionnaires, focused group discussions, public meetings with key stakeholders and interviews with some project affected persons. The issues raised during these consultations have been incorporated in the EIA and EMP. Furthermore, feedbacks to the concerns and issues collected in public consultation have been provided to the concerned groups and documented in the EIA. The EIA and EMP documents and other project related documents have been disclosed locally through various means (e.g., websites, newspapers, etc.) throughout EIA preparation period, in particular on November 22, 2013 on local newspaper that is widely distributed in Shaanxi Province, as required by national and Bank's policies. The EIA and EMP were disclosed through Bank's InfoShop on April 15, 2014.

46. OP/BP 4.11 Physical Cultural Resources is triggered according to screening, mainly because of three cultural relics – Chenghuang Temple (classified in 1992 as a provincial level protected relic) in Wugong Town; Taita Pagoda (classified in 2001 as a national level relic) in Chengguan Town of Xunyi County and Lianfeng Mosque in Puzhen Town of Hantai District. In the EA process, environmental impacts were screened and assessed, through which to understand the key issues, such as noise and dust from road construction, interruption of daily events at the relics and potential road safety issue during

road construction and operation. Mitigation measures were therefore developed in line with Bank policy and the national regulatory and legal framework concerning cultural heritage, including some site specific measures and Chance finds procedures, which have been agreed on with the concerned parties and will be included in all construction contracts.

**Monitoring & Evaluation**

47. The main outcome indicators for the project and the results indicators for each component are provided in Annex 1. A results framework and monitoring arrangements have been established to evaluate the Project implementation progress, and analyze Project results towards achieving the project development objective. The achievement of indicators will be updated every year by the PPMO with support from project counties/districts and presented in the semi-annual Progress Reports.

48. **Reporting.** The PPMO will provide semi-annual progress reports to the Bank on the basis of indicator data collection, verification and analysis. The reports should include the agreed key outcome and output indicators in coordination with financial and physical progress reporting. The reports should also include overall procurement, construction and disbursement progress against agreed targets/plan and identification of any issues that need special attention and follow. The environmental monitoring and evaluation report, the social evaluation report, and the resettlement monitoring and evaluation report, carried out by the external consultants should be included in the Annexes of the reports, with summary of main issues in the main text.

## Annex 4: Operational Risk Assessment Framework (ORAF)

## CHINA: Shaanxi Small Towns Infrastructure Project

<table>
<tr><td colspan="7">Project Stakeholder Risks</td></tr>
<tr><td>Stakeholder Risk</td><td>Rating</td><td colspan="5">Moderate</td></tr>
<tr><td rowspan="3">Description:<br><br>Participating counties may not be fully committed to the project design and development objectives, and may change their priorities during project implementation.</td><td colspan="6">Risk Management:<br><br>Project leading groups at provincial and county level, with representatives from all related government departments including DRC, FB, Construction Bureau, Environmental protection Bureau, etc. have been established and will provide strategic guidance to the project implementation.<br>Bank's task team will closely monitor the project implementation status and provide timely implementation support to the project counties/districts.</td></tr>
<tr><td>Resp:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td><td>Status:</td></tr>
<tr><td>Both</td><td>Implementation</td><td>x</td><td></td><td>Yearly</td><td>In Progress</td></tr>
<tr><td colspan="7">Implementing Agency Risks (including fiduciary)</td></tr>
<tr><td>Capacity</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td rowspan="3">Description:<br><br>The PPMO has experience managing Bank funded projects and is now implementing the Bank financed Western Provinces Rural Water Supply, Sanitation and Hygiene Promotion Project. All the key staff will be retained and will manage this new project. However, all of the participating counties are new to the Bank's operations and are not familiar with Bank’s fiduciary and safeguards requirements. Project management capacity varies a lot among different counties/districts.<br><br>There is also the risk that the counterpart funding is not provided in a timely manner which will cause project implementation delay.</td><td colspan="6">Risk Management:<br><br>Training on Bank policies and procedures, project management, procurement and financial management, etc. will continued to be provided to the PMOs and the implementing agencies during project implementation.<br><br>Project management consultants will be engaged to provide support to the PPMO and project counties/districts on project management, including design review, training, monitoring and evaluation etc.<br><br>Project implementation management responsibility has been retained at the County level. A project implementation plan (PIP) has been prepared to guide project implementation.<br>Commitment letters have been provided by each county to guarantee the provision of the counterpart funding.<br>Bank will review the annual budget plan of the project counties/ districts during project supervision each year.</td></tr>
<tr><td>Resp:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td><td>Status:</td></tr>
<tr><td>Both</td><td>Implementation</td><td>x</td><td></td><td>Yearly</td><td>In Progress</td></tr>
</table>

<table>
<tr><td>Governance</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td rowspan="3">Description:<br><br>This project involves several sectors including transport, water and wastewater, and will be implemented by 12 county seats/towns in 9 counties/districts. Preparation and implementation of the project require strong and efficient coordination among multiple agencies at various levels. Lack of proper coordination among those main stakeholders may cause project delays.</td><td colspan="6">Risk Management:<br><br>PLGs at provincial and county level, with representatives from government agencies concerned have been established and will help to facilitate the inter-agency coordination.<br><br>A Governance and Anti-Corruption Plan (GAAP) has been prepared and agreed by the PPMO and the Bank to guide and monitor the project implementation.</td></tr>
<tr><td>Resp:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td><td>Status:</td></tr>
<tr><td>Both</td><td>Implementation</td><td>x</td><td></td><td>Yearly</td><td>In Progress</td></tr>
<tr><td colspan="7">Project Risks</td></tr>
<tr><td>Design</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td rowspan="3">Description:<br><br>Infrastructure Investments.<br>Although none of the infrastructure investment proposals is technically complex and there are well established national standards guiding the technical design and construction, there is a tendency of overdesign of infrastructure without solid demand analysis and realistic projection, especially roads, which could promise the sustainability of the investments.<br>There is the risk that certain project activities may be dropped during implementation due to the conflict with project timeline.<br>Town Management Improvements.<br>Project counties/districts will give higher priority to invest physical construction rather than town management capacity improvements.</td><td colspan="6">Risk Management:<br><br>Bank’s task team agreed with the client a comprehensive list of project sites selection criteria. The criteria would guide the client to think through its regional development plan, and integrate the project into their short term and long term development goals.<br><br>Introduction of international consultants to work with town governments to develop tailor-making town management plans and monitor their implementation status.<br><br>It was agreed that all the World Bank project implementation timetable should be fully taken into consideration when selecting appropriate projects sites to be included into the project.<br><br>Implementation of improved O&M plans and budgeting arrangement by all project counties/districts has been included as an outcome indicator to be closely monitored.<br><br>Consultants will be engaged to assist all the project counties/districts to complete the infrastructure mapping and prepare asset registers.</td></tr>
<tr><td>Resp:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td><td>Status:</td></tr>
<tr><td>Both</td><td>Implementation</td><td>x</td><td></td><td>Yearly</td><td>In Progress</td></tr>
</table>

<table>
<tr><td>Social and Environmental</td><td>Rating</td><td colspan="6">Moderate</td></tr>
<tr><td rowspan="2">Description:<br><br>Limited capacity and experience of county level PMOs manage and implement the safeguards activities (EIA/EMP/RAP), etc. This may result in non-compliance of safeguard policies during implementation.</td><td colspan="7">Risk Management:<br><br>EA/EMP/RAP has been prepared according to Bank’s requirement which will guide the project implementation from the safeguard aspect. Continued training and capacity building on these subjects will be conducted during project implementation.</td></tr>
<tr><td>Resp:<br>Both</td><td>Stage:<br>implementation</td><td>Recurrent:<br>x</td><td>Due Date:</td><td>Frequency:</td><td>Status:<br>In Progress</td></tr>
<tr><td>Program and Donor</td><td>Rating</td><td colspan="6">Low</td></tr>
<tr><td rowspan="2">Description:<br><br>There are no related donor programs and risk management measures are not necessary.</td><td colspan="7">Risk Management: NA</td></tr>
<tr><td>Resp:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td><td>Status:</td></tr>
<tr><td>Delivery Monitoring and Sustainability</td><td>Rating</td><td colspan="6">Substantial</td></tr>
<tr><td rowspan="2">Description:<br><br>There is the risk that there will not be sufficient funds available after project is completed to conduct long term operations and maintenance of the urban infrastructure constructed under the project. The service delivered by the infrastructure will then not be sustainable.<br><br>There is the risk that users will continue using untreated ground water after the completion of the new water supply system financed by the project in Wugong County.</td><td colspan="7">Risk Management:<br><br>Project design has emphasized rehabilitation and addressed enhanced operation and maintenance. Introduction and implementation of improved small town management system will help to ensure the sustainability of the project.<br><br>In the project agreement, a covenant has been included that requires Wugong County to implement regulations and incentives for users to connect to the new water supply system and terminate the use of untreated ground water.</td></tr>
<tr><td>Resp:<br>Both</td><td>Stage:<br>Implementation</td><td>Recurrent:<br>x</td><td>Due Date:</td><td>Frequency:<br>Yearly</td><td>Status:<br>In Progress</td></tr>
<tr><td colspan="8">Overall Risk</td></tr>
<tr><td>Implementation Risk Rating:</td><td colspan="7">Substantial</td></tr>
<tr><td colspan="8">Description: The implementation risk of the project is considered Substantial. The key risk is associated with the overall low capacity of small town management in Shaanxi province and lack of experience of project counties with Bank’s fiduciary requirements. A Governance and Anti-Corruption Action Plan (GAAP) has been prepared to guide the project implementation. Project implementation responsibility will be kept at County level.</td></tr>
</table>

## Annex 5: Implementation Support Plan

## CHINA: Shaanxi Small Towns Infrastructure Project

### Strategy and Approach for Implementation Support

1. The strategy for implementation support has been developed based on the risk assessment through the ORAF process. It focuses on those risk categories rated substantial, i.e., Implementing Agency (IA) risks and project risks (design, and delivery monitoring & sustainability). The implementation support plan will be reviewed and updated based on the periodic assessments of the risks and appropriateness of the mitigation measures implemented.

2. **Technical Guidance**. To mitigate the risk of compromising sustainability of the investments caused by overdesign of infrastructure without solid demand analysis and realistic projection, specific expertise on urban planning, road engineering and traffic management, water supply and sanitation will be assembled during semi-annual supervision mission to review and provide advice on technical designs and implementation. In addition, PPMO, local PMOs and PIAs will receive technical assistance in reviewing project designs and bidding documents.

3. **Governance**. The project will mitigate governance risks through a social accountability system to ensure transparency and inclusiveness, and improve project performance to mitigate governance risks through third party monitoring, and project level grievance redress mechanisms. These are captured in the Governance and Anti-corruption Action Plan (GAAP), which will provide an additional tool to monitor actions to mitigate governance risks. The Bank will enhance oversight in the areas of procurement and financial management.

4. **Capacity.** Lack of capacity in the project counties/districts to implement a project of this size and complexity has been identified as the key risk to project implementation. The project includes comprehensive capacity building technical assistance for (i) consultant services to PPMO/CPMO for project implementation and management, monitoring and evaluation, etc.; (ii) targeted training programs including domestic and overseas study tours to PMOs staff to strength their capacity in managing their respective components. Bank implementation support missions will monitor the effectiveness of these arrangements (especially fiduciary aspects) and provide appropriate guidance to resolve any issues.

5. **Delivery Monitoring and Sustainability.** To mitigate the risk of unsustainable investments and low quality of service delivery caused by missing or insufficient funds available after project completion for O&M, implementation support missions will pay special attention to the preparation of enhanced O&M budgeting and maintenance schedules by project counties/districts.

6. **Procurement Management**. Procurement implementation support will include: (a) provide trainings to all procurement staff in a timely manner; (b) guide PPMO on preparation and implementation of Procurement Management Manual (PMM) to govern and manage the project procurement; (c) review procurement documents and providing timely feedback on the results of prior reviews and regular post reviews; and (d) monitoring procurement progress against the agreed Procurement Plan.

7. **Financial Management.** The FM specialist will provide support during supervision missions on the implementation of the agreed FM arrangements for the project, and resolve any issues which may occur. She/he will also review FM reports, including IFRs, annual financial statements, and audit reports, and will follow-up on issues identified. She/he will pay special attention to the timely provision of counterpart funds by each of the project agencies and highlight any shortfalls to the TTL and to appropriate levels in Government.

8. **Social and Environmental.** Social and environmental risks will be mitigated through the development of EIA/EMP/RAP with support from experienced consultants. Bank social and environmental safeguard specialists will ensure that the required safeguard documents are specific, comprehensive yet practical, and are achievable. The Bank will ensure that sufficient training is provided on safeguards, and that adequate resources are allocated for monitoring the implementation of the EMPs/ECOPs/RAPs. The Bank will review internal and external monitoring reports on safeguards implementation and also carry out intensive site visits during implementation support missions for a first hand assessment of compliance with Bank safeguards requirements. It will follow up with meetings at the appropriate level to resolve issues identified.

9. **Use of Country-Based Staff**. Most of the Bank task team is based in the China country office in Beijing to ensure rapid and effective response to the Borrower's needs for implementation support.

10. **Resources and skills required**. Formal supervision and site visits covering all aspects of project implementation will be carried out semi-annually, and will be supplemented by need-based visits by small groups. A Mid-Term Review will be carried out no later than June, 2018 to evaluate progress and make necessary adjustments. Estimated inputs from different specialists in different stages of project implementation are outlined below.

Table 1: Supervision Input

| Time | Focus | Skills Needed | Resource Estimate |
|---|---|---|---|
| First twelve months | Procurement review, supervision and training | Procurement specialist(s) | 4 SWs |
| | FM and disbursement training and FM supervision | FM specialist | 4 SWs |
| | Social and Resettlement Management | Social development specialist | 4 SWs |
| | Environmental training and supervision | Environmental specialist | 4 SWs |
| | Transportation Management | Transportation Specialist | 4 SWs |
| | Water and Sanitation | Water and Sanitation Specialist | 3 SWs |
| | Team Leadership | TTL | 8 SWs |
| 12-48 months Other | Procurement review, supervision and training | Procurement specialist(s) | 12 SWs |
| | FM and disbursement training and FM supervision | FM specialist | 9 SWs |

| | | | |
|---|---|---|---|
| | Social and Resettlement Management | Social development specialist | 9 SWs |
| | Environmental Management | Environmental specialist | 9 SWs |
| | Transportation Management | Transportation Specialist | 12SWs |
| | Water and Sanitation | Water and Sanitation Specialist | 9SWs |
| | Legal Management | Senior Counsel | 3SW |
| | Monitoring and Evaluation | M&E Specialist | 6SW |
| | Team Leadership | TTL | 24SWs |

SW: Staff Weeks

11. The skills mix required is summarized below.

| Skills Needed | Number of Staff Weeks (SWs) Each Year | Number of Trips | Comments |
|---|---|---|---|
| TTL/Urban Specialist | 10 SWs | 3 | Country Office Based |
| Transport technical specialist | 8 SW | 3 | Country Office Based and Local Consultant. |
| Water and Sanitation Specialist | 3 SW | 2 | Country Office Based |
| Procurement Specialist | 3 SW | 2 | Country Office Based |
| Social Development Specialist | 3 SW | 2 | Country Office Based |
| Environmental Specialist | 3 SW | 2 | Country Office Based |

## Annex 6: Economic and Financial Analysis

## CHINA: Shaanxi Small Towns Infrastructure Project

1. Economic justification, together with financial, technical, and other evaluation criteria, has been taken into account in the project identification to ensure the selection of economic attractive investment for preparation. During the project identification, a few investment activities proposed by clients had to be dropped or alternated based on their contribution to achieving PDOs and economic justification. Economic consideration also played a role in deciding investment scale such as length and width of roads and water and sewerage pipelines.

### Economic Benefits and Costs Identified

2. The project will bring various economic benefits to people living in and beyond the project areas of Shaanxi Province, especially to those living in small towns. The economic benefits and costs of the project are identified and quantified to the extent possible.

3. The main benefits include: savings in travel time and transport costs, productivity increases, improved accessibility by local residents to public services, and pollution emission reduction owing to improved road condition in project areas; amenity and environmental improvement owing to better road connection, water supply and wastewater collection network. In addition, it is expected that the project will have a significant improvement of the management and institutional capacity with a demonstrative effect on other small towns across Shaanxi Province.

4. The project's economic costs are mostly capital investment costs (including associated resettlement and environmental mitigation costs as identified by environmental and social safeguard analysis) and operation and maintenance (O&M) costs.

### Valuation Methods Used

5. The types of investments in nine project counties/districts were first grouped into three categories for economic analysis: road construction and rehabilitation, water supply, and wastewater collection. A mix of cost-benefit analysis and cost-effectiveness analysis were applied in the economic analysis. For road construction and rehabilitation (including the associated water supply, wastewater and storm drainage pipelines along the roads), where economic benefits can be quantified and monetized fairly easily, economic costs and benefits of each investment component or subcomponent were quantified as much as possible. The cost-benefit analysis is used to quantitatively examine the economic viability of the investments.

6. A number of valuation methods are used to quantify and monetize economic benefits, including the hedonic method (e.g., using the increase in land value as a proxy for economic benefits of improvement of accessibility, amenity and environmental quality). Sensitivity analysis is also conducted to test the robustness of the results of the cost-benefit analysis.

7. For the investments in water supply wells and networks, the cost-benefit analysis was also employed. The contingent valuation method (CVM) was used to quantify the willingness-to-

pay (WTP) of local and nearby population for the improved water supply and estimate economic values of water consumption.

8. For wastewater collection investments, which contribute to achieving local water environmental targets set by local government, it is difficult to draw direct causal link from proposed investments to deceases and quantify and monetize public health benefits of the investments. Therefore, cost-effectiveness approach (CEA) is used to ensure the selection of the least-cost design option to achieve the development targets.

**Economic Analysis on Road Construction and Rehabilitation Investments**

9. This category includes investments in road construction and rehabilitation in nine counties or districts. Because these roads are all urban roads, their investments also include those in water supply and drainage systems along and under the roads as required by the construction standard and norm issued by the governments. Cost-benefit analysis was applied to each of the nine sub-components. A detailed description on the economic analysis of the Chengcheng County sub-component is presented below as an example to illustrate the analysis. The results of eight other sub-components in this investment category were summarized in table 1 at the end of this section.

**Road Construction and Rehabilitation of Chengcheng County**

10. Project investments in Chengcheng county include : (i) construction of three roads with total length of 5.3 km and associated wastewater and storm drainage pipelines (Huifu Street L=3.2km W=27m, Yangguang Road L=1.7km W=24m, Dongba Road L=0.4km W=25m), and (ii) Rehabilitation of drainage pipelines with a total length of 3km under Qingzheng Street (L=2.2km W=26m) and Dongliu Road (L=0.7km W=22m), and installation of wastewater pipelines under Changning Street (L=2.2km) together with associated road pavement works. The total projected capital investment in this component is RMB 193.56 million in a construction period of three years.

11. *Economic benefits*. The main economic benefits of Chengcheng road and associated pipelines include savings in transport time and transport costs based on projection of traffic volumes in each road, increases in the value of the land and properties close to the roads constructed or rehabilitated by the project, and improvements of road accessibility to public services (e.g. shopping, medical care and education), and amenity of local residents. Economic costs of this component consist of capital investment cost and Q&M cost. The project duration in the analysis is twenty-three years: three years of construction and twenty years of operation. The cost-benefit analysis quantified the benefits of transport time and costs saved, cost saving due to reduced traffic congestion, and increases in the land values.

12. To estimate the saving in vehicle operating costs, an empirical model developed by Shanghai Municipal Planning Design Research Institution for the feasibility study of road investments is used. According to the model, vehicle operating costs are a function of vehicle size and average travelling speed. It is assumed that after the project completion, the average speed of motor vehicles in study roads would be 35 km/hour and traffic volumes over year were

also projected based on local economic development and transport demand. The difference in vehicle operating costs between project scenario and non-project scenario would be the estimated saving in travel cost. Taking Huifu Street, a new main road, as an example. When it is in use, its daily traffic of the road was estimated at 6,373, 7,107, 8,413 and 10,406 vehicles in year 2017, 2020, 2025 and 2036, respectively. And accordingly, the saved transportation cost owing to the roads construction was estimated at RMB 8.89 million, 10.85 million, 14.9million and 25.5 million in year 2017, 2020, 2025 and 2036, respectively.

13. Travel time saving is also measured by the change in productivity of passengers and goods. Saving in freight transportation time and saving in passenger travel time are separately measured. Using Huifu Street as an example again, for saving in freight transportation, it is estimated that after the project completion, 6 minutes of traveling time would be saved per vehicle. For saving in passenger travelling time, passengers' value of time is measured by average income of representative local travelers. As to Huifu Street, the daily traffic of the road would be estimated at 6,373, 7,107, 8,413 and 10,406 in year 2017, 2020, 2025 and 2036, respectively. And accordingly, the benefits obtained through travel time saving would be estimated at RMB 0.47 million, 0.69 million, 1.28 million and 4.4 million in year 2017, 2020, 2025 and 2036, respectively.

14. The completion of the construction of roads and associated pipelines would improve accessibility and environmental and living conditions in project areas. Such benefits can be estimated with the hedonic price method. The accessibility and environmental improvement would lead to an increase in the value of the land along the roads. Therefore, the land value increase was estimated as a proxy of the benefit. The total area of land parcels available for new development after the roads are constructed or rehabilitated is 1,360 mu (15 mu = 1 hectare). Using the current price of undeveloped land in the project area and recent transaction of land sales after similar investments done by the government nearby areas, it is estimated that the average land value increase would be RMB 50,000 per mu. According to the urban development plan, the available land is expected to be developed in the period of twenty years. The analysis also assumed that the land development will take place evenly in the twenty years. As a result, the economic benefit of accessibility, environmental quality and amenity improvement was estimated at RMB 3.65 million per year.

15. Although the project duration is assumed only 20 years after the completion of construction, roads and pipelines can last much longer. Taking away capital depreciation, there still is a residual asset value of RMB 90.68 million in the year of 2036. In addition, there are other potential benefits, such as air pollution emission reduction and transport safety improvement. They were not quantified in the analysis because they are difficult to do so. Therefore, the estimated economic benefit of the investment is on the conservative side as costs are fully accounted for while certain benefits are not. Despite the omission of some benefits, the present value of the economic benefit of Chengcheng road-related investment was estimated at RMB 364.1 million.

16. *Economic costs*. It was estimated that total capital cost of Chengcheng County project amounts to RMB 170.1 million in present value. Based on the experience of road maintenance from the existing same grade roads in Shaanxi Province, O&M costs were estimated. A medium-

degree road surface repair would be needed every five years and a major repair needed every ten years during the twenty-year operation period. The O&M cost in a year with medium repair would be about 2 times of the O&M in a regular non-repair year and the O&M cost in a major repair year would be around 3 times that of a regular year. A 2% annual growth of O&M costs is assumed to reflect the increase labor and material cost over time. For example, the O&M cost in the year of 2017 is RMB 1.1 million, RMB 2.0 million in 2021 (when a medium repair is needed), RMB 3.1 million in 2026 (when a major repair is needed), and RMB 3.6 million in 2036. Adding together capital investment costs and O&M costs, the total present value of the economic costs of the Chengcheng County sub-component was estimated at RMB 170.1 million.

17. *Results of the cost-benefit analysis.* The aggregated results of the analysis are summarized in the table below. It shows that the economic internal rate of return (EIRR) of the road investment is 16.5%, its net present value (NPV) is RMB 194.0 million and benefit-cost ratio (BCR) is 2.14.

Table 1 Cost-benefit analysis of road constructions of Chengcheng County

| Benefit/Cost (million RMB) | Present Value (at 8%) | 2014 | 2015 | 2016 | 2017 | 2021 | 2025 | 2026 | 2027 | 2031 | 2035 | 2036 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Benefits** | | | | | | | | | | | | |
| Transport cost saving of vehicles | 287.0 | 0.0 | 0.0 | 0.0 | 21.7 | 29.2 | 38.5 | 40.6 | 42.8 | 52.5 | 64.7 | 68.2 |
| Travel time saving of passengers and goods | 33.2 | 0.0 | 0.0 | 0.0 | 1.4 | 2.3 | 3.9 | 4.4 | 4.9 | 7.8 | 12.5 | 14.0 |
| Land value increase | 28.4 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Subtotal | 364.1 | 0.0 | 0.0 | 0.0 | 26.8 | 35.2 | 46.1 | 48.7 | 51.4 | 63.9 | 80.9 | 176.6 |
| **Cost** | | | | | | | | | | | | |
| Capital Investment | 159.3 | 72.5 | 90.7 | 18.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Operating & Maintenance | 10.8 | 0.0 | 0.0 | 0.0 | 1.1 | 2.0 | 1.2 | 3.1 | 1.2 | 2.3 | 1.2 | 3.6 |
| Subtotal | 170.1 | 72.5 | 90.7 | 18.1 | 1.1 | 2.0 | 1.2 | 3.1 | 1.2 | 2.3 | 1.2 | 3.6 |
| | | | | | | | | | | | | |
| **Net economic flows** | 194.0 | -72.5 | -90.7 | -18.1 | 25.6 | 33.2 | 45.0 | 45.6 | 50.2 | 61.7 | 79.6 | 173.0 |
| **EIRR** | **16.5%** | | | | | | | | | | | |
| **B/C ratio** | **2.14** | | | | | | | | | | | |

18. Sensitivity analysis is carried under the assumptions of a 10% increase in total costs and a 10% decrease in total benefits. Under these assumptions the investment will still provide an EIRR of 14.0% and NPV of RMB 140.6 million with a BCR of 1.75. Therefore, the proposed sub-component of road development in Chengcheng County is considered economically viable and robust.

**Summary of Economic Analyses of Other Road Construction Sub-Components**

19. Table 2 summarized the results of the analysis for the other eight road investment sub-components in Yanliang, Chencang, Yintai and Hantai Districts and Wugong, Xunyi, Chunhua and Hanyin Counties. It indicates that the investments in these eight subcomponents are economically feasible and the results are quite robust.

Table 2 Summary of the cost-benefit analysis results of road construction sub-components in other counties

| Components | NPV (million RMB) | EIRR | BCR | Sensitivity Analysis (assuming 10% cost increase and 10% benefit reduction) | | |
|---|---|---|---|---|---|---|
| | | | | NPV (million RMB) | EIRR | BCR |
| **Yanliang** | 174.39 | 16.04% | 2.20 | 119.49 | 13.38% | 1.80 |
| **Chencang** | 121.15 | 15.97% | 1.99 | 84.54 | 13.37% | 1.63 |
| **Yintai** | 77.77 | 12.31% | 1.54 | 27.97 | 9.91% | 1.27 |
| **Hantai** | 99.23 | 14.42% | 1.66 | 64.20 | 13.75% | 1.36 |
| **Chunhua** | 36.71 | 12.59% | 1.41 | 15.69 | 9.87% | 1.16 |
| **Xunyi** | 17.75 | 12.01% | 1.32 | 6.96 | 9.54% | 1.12 |
| **Wugong** | 42.65 | 14.32% | 1.60 | 24.93 | 11.55% | 1.32 |
| **Hanyin** | 141.30 | 15.58% | 1.96 | 98.17 | 13.11% | 1.61 |

## Economic Analysis on Water Supply Investments

20. This category of investments includes four sub-components: (1) installation of two water supply mains with total length of 16.6km in Yanliang District; (2) installation of 6.6km water supply pipelines from Fanggu Street to Yuehe logistic park in Hanyin County; (3) construction of water supply wells (total capacity is 3000t/d) and 20.8km distribution pipelines in Wugong town; and (4) installation and rehabilitation of 1.6km water pipelines in Chencang District .The cost-benefit analysis was applied to each of them. Detailed description of economic analysis of the Yanliang District is presented below to illustrate the valuation approach used. The results of the others are briefly summarized in table 4.

### Water Supply Investments of Yanliang District

21. The purpose of this subcomponent is to meet water demands of domestic and industrial users by building of two water supply mains. Again, it is assumed that the project duration is 23 years including 3 years of construction and 20 years of operation.

22. *Economic benefits and costs.* The main economic benefits from the improvement in water supply are health and living standard improvement of local residents, increased productivity of industrial and tertiary sectors. A cost-benefit analysis was conducted. In the analysis, two valuation techniques were employed to estimate the benefits of improved and expanded water supply to local residents and industries, respectively.

23. To estimate economic benefits of residential water consumption, the willingness-to-pay value of local residents was estimated and used. The result shows that the average value of WTP

for improved water supply service amounts to RMB 2.9 per cubic meter of water. For the water use benefits of industrial and tertiary sectors, the productivity change approach was utilized to estimate the value of increased productivity of industrial and tertiary sectors owing to expanded and more reliable water supply in these sectors. The result shows that the unit benefit of water consumption for industrial and tertiary sectors is RMB24.1 per cubic meter of water.

24. Economic cost consists of capital investment cost and Q&M cost. The capital investment is needed in three years from 2014 to 2016. It is estimated in present value that total capital cost is 56.4 million RMB and total Q&M cost is 17.9 million RMB.

25. *Results of the cost-benefit analysis.* The final results of the economic analysis are summarized in the table below. It shows that the investment will yield an EIRR of 14.1%, a net present value (NPV) of RMB 44.4 million and a benefit/cost ratio (BCR) of 1.60.

Table3 Cost-benefit analysis of the water supply mains sub-component of Yanliang District

| Benefit/Cost (million RMB) | Present Value (at 8%) | 2014 | 2015 | 2016 | 2020 | 2025 | 2026 | 2030 | 2034 | 2035 | 2036 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |
| **Benefits** | | | | | | | | | | | |
| Water Supply Benefits (Residential, Industriall and tertiary) | 118.7 | 0.0 | 0.0 | 0.0 | 10.2 | 14.9 | 16.1 | 21.9 | 29.8 | 32.2 | 36.8 |
| Subtotal | 118.7 | 0.0 | 0.0 | 0.0 | 10.2 | 14.9 | 16.1 | 21.9 | 29.8 | 32.2 | 36.8 |
| | | | | | | | | | | | |
| **Cost** | | | | | | | | | | | |
| Capital Investment | 56.4 | 6.8 | 27.1 | 33.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Operating & Maintenance | 17.9 | 0.0 | 0.0 | 0.0 | 2.0 | 2.3 | 2.4 | 2.7 | 3.1 | 3.2 | 3.4 |
| Subtotal | 74.3 | 6.8 | 27.1 | 33.9 | 2.0 | 2.3 | 2.4 | 2.7 | 3.1 | 3.2 | 3.4 |
| | | | | | | | | | | | |
| **Net economic flows** | 44.4 | -6.8 | -27.1 | -33.9 | 8.2 | 12.6 | 13.7 | 19.2 | 26.7 | 29.0 | 33.5 |
| **EIRR** | **14.1%** | | | | | | | | | | |
| **B/C ratio** | **1.60** | | | | | | | | | | |

26. Sensitivity analysis was carried out. Under the assumptions of a 10% increase in total cost and a 10% decrease in total benefits, the investment would still provide an EIRR of 11.4% and the NPV of RMB 25.1 million with a BCR of 1.31. Therefore, the economic analysis results of the investment are economically feasible and robust.

**Summary of Economic Analyses of Other Water Supply Investments**

27. Cost-benefit analysis was conducted for the other three water supply subcomponents in Hanyin County, Wugong County, and Chengcang District, respectively. The results of the analyses are shown in the table 4 below. It indicates that the other three sub-components are economically feasible and robust.

Table4 Cost-benefit analysis of water supply of other counties (districts)

| Components | NPV (million RMB) | EIRR | BCR | Sensitivity Analysis (assuming 10% cost increase and 10% benefit reduction) | | |
|---|---|---|---|---|---|---|
| | | | | NPV (million RMB) | EIRR | BCR |
| **Chencang** | 3.93 | 13.30% | 1.63 | 2.29 | 10.99% | 1.33 |
| **Wugong** | 7.04 | 11.02% | 1.21 | 0.89 | 8.37% | 1.03 |
| **Hanyin** | 7.37 | 13.99% | 1.26 | 2.32 | 9.81% | 1.08 |

**Economic Analysis on Drainage and Wastewater Collection Pipelines**

28. This category of investments includes three main sub-components: 1) Installation of 12km sewer trunk to transport wastewater generated in Run town to county WWTP in Chunhua County; 2) Rehabilitation of wastewater and drainage pipelines in Chencang District; and 3) Rehabilitation and installation of wastewater and sewers/drainage pipelines in Wugong County.

29. As the benefits of these components are difficult to quantify and monetize, the cost-effectiveness analysis method was applied to each of them to ensure the selection of the least cost option for delivering the desired outcomes. A relatively detailed description of the cost-effectiveness analysis of two alternatives for solving sewage treatment problems in Run town of Chunhua County, one is to build a sewage treatment plant in the township and the other is to build sewage mains from the township to the county seat, is presented below as an example. Similar analytical approaches were adopted for the economic analysis of the other two wastewater drainage subcomponents in Chencang District and Wugong County.

**Wastewater collection and treatment in Chunhua County**

30. The untreated wastewater is directly discharged into the gully in Run Town of Chunhua County because of lacking of sewage treatment facilities. The untreated discharge, seriously threatening the surrounding environment, resulted in pollution of the groundwater and the soil of Run town. The completion of the proposed project component would contribute to improvements in the environment and in the living quality of the residents in the town.

31. *Economic benefits and costs.* The main economic benefits of this component are improvement in health and quality of living of the local population, increased productivity, and reduced pressure on the local aqua-system (including underground water sources in the project areas). Compared with the "no project" scenario, completion of this component would have considerable benefits although most of the benefits are difficult to quantify in monetary terms. The costs of the component consist of capital investment costs, O&M costs, and the costs of environmental management during construction. As most of the benefits are difficult to quantify and monetize, cost-effectiveness analyses were conducted to identify the least-cost option.

32. *Analysis of alternative solutions of wastewater collection and treatment.* In design of wastewater collection and treatment, two alternative solutions are identified: 1) Construction of a small sewage treatment plant in Run town which total cost of construction, land acquisition and

resettlement will amount to RMB 16.53 million, and 2) Construction of trunk sewers to transport sewage from Run town to Chunhua County seat for treatment with the construction cost of RMB 12.51 million. As the total cost of the second alternative is less than that of the first one, it was therefore recommended and selected.

33. The same approach was applied to ensure the least cost option was also selected in the investments in Chencang District and Wugong County respectively.

34. **Impact on the poor.** All of the investments will be shouldered by the local government and there will be no additional fees or charges imposed by the government on local people in the Project Counties and Districts. Therefore, there is no anticipated negative impact on local residents including low income households.

**Financial Analysis**

35. Financial analysis was carried out to assess: (i) the adequacy of financial resources of the counties/districts to finance the proposed investments, maintain and operate the assets created under the project, and meet the debt service requirements of the Bank; and (ii) financial rate of returns (FIRR) for water supply investments in selected project counties/districts.

36. **Counterpart Funds.** According to the financing plan of the project, all counterpart funds will be provided by local governments. To assess the financial capacity of local governments, the fiscal revenues of project counties/districts over the past 8 years and next 25 years were analyzed and projected respectively. The analysis indicated that over the past 8 years, all project counties districts have been experiencing steady and fast increase of fiscal revenues. Table 5 below summarizes the average increase rate of fiscal revenues per annum by project counties/districts.

Table 5 Increase Rates of Fiscal Revenues (2006-2013)

| Project County/District | Yanliang | Chengcang | Wugong | Xunyi | Chunhua | Chengcheng | Yintai | Hantai | Hanyin |
|---|---|---|---|---|---|---|---|---|---|
| Increase rate per annum | 25% | 25% | 28% | 22% | 28% | 26% | 19% | 25% | 24% |

37. The projection of fiscal revenues for next 25 years were carried out assuming (i) a 10% reduction of the future increase rate of fiscal revenues every year based on the above annual rates until the annual increase rate reaches 10%, and (ii) the project implementation period is from 2014 to 2020. The results indicated that project counties/districts have the capacity to provide counterpart funds for the implementation of the project as their contribution to the project is less than 2.4% of their projected available fiscal revenues for the period of project implementation. Table 6 summarizes the results by project county/district.

Table 6 Comparison of Available Fiscal Revenues and Contribution to Project

RMB million

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| **Yanliang** | | | | | | | |
| Available Fiscal Revenues | 1,469 | 1,779 | 2,124 | 2,500 | 2,904 | 3,331 | 3,774 |

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| Government Contribution | 0 | 20 | 29 | 28 | 21 | 17 | 13 |
| % of Available Fiscal Revenues | - | 1.12 | 1.37 | 1.14 | 0.73 | 0.50 | 0.34 |
| **Chengcang** | | | | | | | |
| Available Fiscal Revenues | 1,491 | 2,016 | 2,683 | 3,512 | 4,518 | 5,711 | 7,092 |
| Government Contribution | 0 | 21 | 28 | 17 | 11 | 16 | 10 |
| % of Available Fiscal Revenues | - | 1.02 | 1.06 | 0.49 | 0.23 | 0.29 | 0.15 |
| **Wugong** | | | | | | | |
| Available Fiscal Revenues | 1,221 | 1,428 | 1,647 | 1,877 | 2,114 | 2,362 | 2,628 |
| Government Contribution | 0 | 1 | 10 | 11 | 7 | 4 | 1 |
| % of Available Fiscal Revenues | - | 0.06 | 0.63 | 0.59 | 0.35 | 0.18 | 0.03 |
| **Xunyi** | | | | | | | |
| Available Fiscal Revenues | 1,131 | 1,425 | 1,794 | 2,253 | 2,816 | 3,497 | 4,304 |
| Government Contribution | 0 | 1 | 6 | 9 | 3 | 1 | 1 |
| % of Available Fiscal Revenues | - | 0.10 | 0.35 | 0.41 | 0.10 | 0.02 | 0.01 |
| **Chunhua** | | | | | | | |
| Available Fiscal Revenues | 740 | 851 | 969 | 1,092 | 1,219 | 1,358 | 1,508 |
| Government Contribution | 0 | 5 | 8 | 13 | 7 | 7 | 3 |
| % of Available Fiscal Revenues | - | 0.59 | 0.84 | 1.22 | 0.58 | 0.53 | 0.20 |
| **Chengcheng** | | | | | | | |
| Available Fiscal Revenues | 1,097 | 1,297 | 1,531 | 1,801 | 2,107 | 2,451 | 2,833 |
| Government Contribution | 0 | 0 | 3 | 28 | 29 | 26 | 8 |
| % of Available Fiscal Revenues | - | 0.00 | 0.22 | 1.57 | 1.38 | 1.08 | 0.27 |
| **Yintai** | | | | | | | |
| Available Fiscal Revenues | 684 | 793 | 910 | 1,036 | 1,172 | 1,320 | 1,479 |
| Government Contribution | - | 9 | 12 | 16 | 12 | 7 | 2 |
| % of Available Fiscal Revenues | - | 1.13 | 1.35 | 1.55 | 1.03 | 0.53 | 0.12 |
| **Hantai** | | | | | | | |
| Available Fiscal Revenues | 1,646 | 1,907 | 2,182 | 2,468 | 2,762 | 3,064 | 3,377 |
| Government Contribution | - | - | 7 | 24 | 24 | 19 | - |
| % of Available Fiscal Revenues | - | - | 0.32 | 0.99 | 0.85 | 0.63 | - |
| **Hanyin** | | | | | | | |
| Available Fiscal Revenues | 957 | 1,115 | 1,289 | 1,478 | 1,686 | 1,916 | 2,168 |
| Government Contribution | 0 | 26 | 26 | 20 | 10 | 9 | 4 |
| % of Available Fiscal Revenues | - | 2.36 | 2.01 | 1.37 | 0.61 | 0.45 | 0.19 |

38. **Debt Service Requirements.** The project counties/districts take the responsibility to pay the debt service of Bank loan. During the analysis, it is assumed that the Bank loan will be repaid from 2021 to 2040 equally. The interest rate will be 3.736% which was the 30-year fixed swap rate for USD dated December 3, 2013. The Bank debt service requirements for project counties/districts are about less than 1% of their available fiscal revenues projected from 2021 to

2040 following the same methods above-mentioned. This debt service requirement will not have any negative impact to the project counties/districts. Table 7 summarizes the imposition of debt service requirements on the local governments.

39. **Financial Analysis of Water Supply Investments**. The financial internal rates of return of water supply investments in Yanliang, Wugong, Hanyin, and Changcang counties/districts were calculated. Table 8 below summarizes the results of financial analysis of water supply investments. All FIRRs of water supply investments are greater than WACCs which means the investment in water supply is profitable.

Table 8 Summary of Financial Analysis of Water Supply Investments

| Project county/district | Investment (RMB million) | O&M (RMB million) | Tax (RMB million) | Incremental Water (Million $m^{3)}$ | Incremental Revenue (RMB million) | FIRR | WACC |
|---|---|---|---|---|---|---|---|
| Yanliang | 55.2 | 20.9 | 13.8 | 129.5 | 102.3 | 2.3% | 1.68% |
| Chengcang | 6.4 | 1.7 | 3.0 | 58.7 | 16.6 | 6.5% | 1.72% |
| Wugong | 26.4 | 36.5 | 11.6 | 32.4 | 68.0 | 1.9% | 1.65% |
| Hanyin | 17.2 | 5.3 | 3.9 | 76.4 | 30.5 | 1.8% | 1.69% |

## Table 7 Imposition of Debt Service Requirements on Local Government

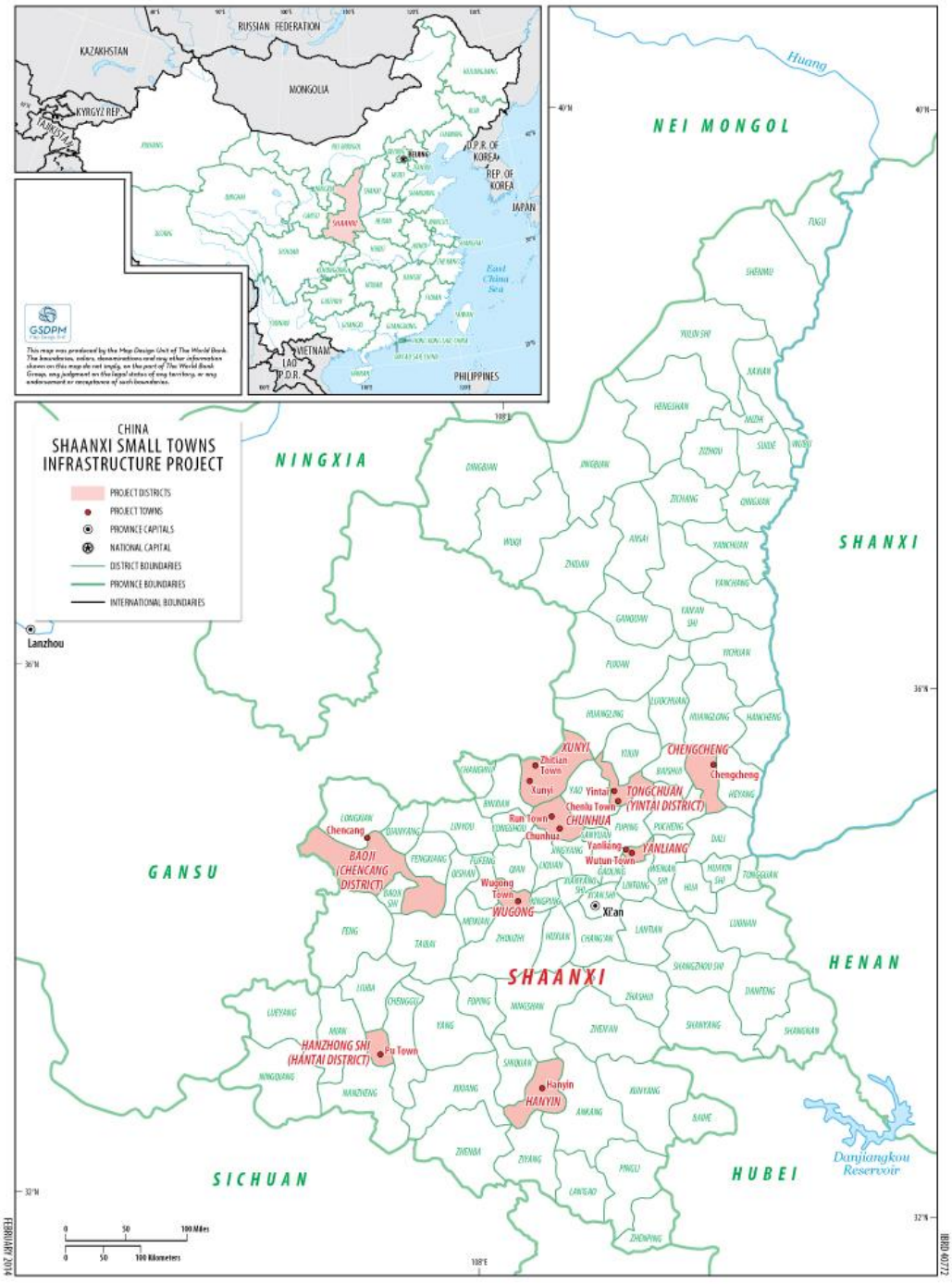
RMB million

| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Yanliang** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 4,229 | 4,691 | 5,155 | 5,657 | 6,208 | 6,813 | 7,477 | 8,205 | 9,004 | 9,881 | 10,844 | 11,901 | 13,062 | 14,338 | 15,739 | 17,278 | 18,970 | 20,830 | 22,874 | 25,122 |
| Debt Service Requirements | 17 | 16 | 16 | 15 | 15 | 15 | 14 | 14 | 14 | 13 | 13 | 13 | 12 | 12 | 12 | 11 | 11 | 10 | 10 | 10 |
| % of Fiscal Revenues | 0.39 | 0.34 | 0.31 | 0.27 | 0.24 | 0.22 | 0.19 | 0.17 | 0.15 | 0.13 | 0.12 | 0.11 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 | 0.05 | 0.04 | 0.04 |
| **Chengcang** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 8,657 | 10,397 | 12,295 | 14,332 | 16,484 | 18,728 | 21,036 | 23,384 | 25,830 | 28,393 | 31,072 | 33,870 | 36,792 | 39,845 | 43,042 | 46,397 | 49,927 | 53,656 | 57,606 | 61,806 |
| Debt Service Requirements | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 |
| % of Fiscal Revenues | 0.11 | 0.09 | 0.07 | 0.06 | 0.05 | 0.05 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| **Wugong** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 2,911 | 3,211 | 3,532 | 3,884 | 4,271 | 4,697 | 5,166 | 5,681 | 6,248 | 6,871 | 7,557 | 8,312 | 9,142 | 10,054 | 11,058 | 12,163 | 13,378 | 14,714 | 16,184 | 17,800 |
| Debt Service Requirements | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 |
| % of Fiscal Revenues | 0.22 | 0.20 | 0.18 | 0.16 | 0.14 | 0.12 | 0.11 | 0.10 | 0.09 | 0.08 | 0.07 | 0.06 | 0.05 | 0.05 | 0.04 | 0.04 | 0.03 | 0.03 | 0.02 | 0.02 |
| **Xunyi** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 5,248 | 6,330 | 7,552 | 8,917 | 10,428 | 12,076 | 13,850 | 15,735 | 17,717 | 19,783 | 21,918 | 24,110 | 26,517 | 29,165 | 32,078 | 35,283 | 38,807 | 42,684 | 46,949 | 51,640 |
| Debt Service Requirements | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 |
| % of Fiscal Revenues | 0.07 | 0.06 | 0.05 | 0.04 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 |
| **Chunhua** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 1,670 | 1,845 | 2,032 | 2,235 | 2,457 | 2,703 | 2,972 | 3,269 | 3,595 | 3,954 | 4,348 | 4,782 | 5,260 | 5,785 | 6,363 | 6,998 | 7,697 | 8,466 | 9,312 | 10,242 |
| Debt Service Requirements | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 |
| % of Fiscal Revenues | 0.40 | 0.36 | 0.32 | 0.28 | 0.25 | 0.22 | 0.20 | 0.17 | 0.15 | 0.14 | 0.12 | 0.11 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 | 0.05 | 0.04 | 0.04 |
| **Chengcheng** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 3,251 | 3,704 | 4,190 | 4,713 | 5,279 | 5,886 | 6,535 | 7,225 | 7,956 | 8,746 | 9,614 | 10,569 | 11,619 | 12,775 | 14,045 | 15,443 | 16,980 | 18,671 | 20,531 | 22,577 |
| Debt Service Requirements | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 5 |

| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % of Fiscal Revenues | 0.28 | 0.24 | 0.21 | 0.18 | 0.16 | 0.14 | 0.12 | 0.11 | 0.10 | 0.08 | 0.08 | 0.07 | 0.06 | 0.05 | 0.05 | 0.04 | 0.04 | 0.03 | 0.03 | 0.02 |
| **Yintai** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 1,648 | 1,827 | 2,020 | 2,228 | 2,450 | 2,695 | 2,963 | 3,259 | 3,584 | 3,941 | 4,334 | 4,767 | 5,242 | 5,766 | 6,341 | 6,974 | 7,671 | 8,437 | 9,279 | 10,206 |
| Debt Service Requirements | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 |
| % of Fiscal Revenues | 0.48 | 0.42 | 0.38 | 0.33 | 0.30 | 0.26 | 0.23 | 0.21 | 0.18 | 0.16 | 0.14 | 0.13 | 0.11 | 0.10 | 0.09 | 0.08 | 0.07 | 0.06 | 0.05 | 0.05 |
| **Hantai** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 3,712 | 4,078 | 4,479 | 4,919 | 5,404 | 5,937 | 6,523 | 7,167 | 7,876 | 8,655 | 9,512 | 10,455 | 11,491 | 12,632 | 13,886 | 15,265 | 16,782 | 18,450 | 20,286 | 22,304 |
| Debt Service Requirements | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 |
| % of Fiscal Revenues | 0.23 | 0.20 | 0.18 | 0.16 | 0.14 | 0.13 | 0.11 | 0.10 | 0.09 | 0.08 | 0.07 | 0.06 | 0.05 | 0.05 | 0.04 | 0.04 | 0.03 | 0.03 | 0.03 | 0.02 |
| **Hanyin** | | | | | | | | | | | | | | | | | | | | |
| Fiscal Revenues | 2,440 | 2,734 | 3,047 | 3,383 | 3,743 | 4,128 | 4,540 | 4,994 | 5,492 | 6,041 | 6,644 | 7,308 | 8,039 | 8,842 | 9,726 | 10,698 | 11,767 | 12,943 | 14,237 | 15,660 |
| Debt Service Requirements | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 5 | 5 |
| % of Fiscal Revenues | 0.36 | 0.32 | 0.28 | 0.24 | 0.22 | 0.19 | 0.17 | 0.15 | 0.13 | 0.12 | 0.10 | 0.09 | 0.08 | 0.07 | 0.06 | 0.06 | 0.05 | 0.04 | 0.04 | 0.03 |

## Annex 7: Project Location Map

## CHINA: Shaanxi Small Towns Infrastructure Project


CHINA
SHAANXI SMALL TOWNS INFRASTRUCTURE PROJECT
PROJECT DISTRICTS
PROJECT TOWNS
PROVINCE CAPITALS
NATIONAL CAPITAL
DISTRICT BOUNDARIES
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES
RUSSIAN FEDERATION
KAZAKHSTAN
MONGOLIA
KYRGYZ REP.
TAJIKISTAN
D.P.R. OF KOREA
REP. OF KOREA
JAPAN
East China Sea
VIETNAM
LAO P.D.R.
PHILIPPINES
NEI MONGOL
NINGXIA
SHANXI
GANSU
SHAANXI
HENAN
SICHUAN
HUBEI
Huang
Lanzhou
Xi'an
Danjiangkou Reservoir
XUNYI
Zhicun Town
Xunyi
CHENGCHENG
Chengcheng
TONGCHUAN (YINTAI DISTRICT)
Yintai
Chenlu Town
CHUNHUA
Run Town
Chunhua
YANLIANG
Yanliang
Wutun Town
BAOJI (CHENCANG DISTRICT)
Chencang
WUGONG
Wugong Town
HANZHONG SHI (HANTAI DISTRICT)
Pu Town
HANYIN
Hanyin
FEBRUARY 2014
IBRD 40772