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Report No.: PAD1316

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US$100 MILLION

TO THE

PEOPLE'S REPUBLIC OF CHINA

FOR A

HUBEI JINGZHOU HISTORIC TOWN CONSERVATION PROJECT

December 17, 2015

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

CURRENCY EQUIVALENTS
(Exchange Rate Effective March 20, 2015)

Currency Unit	=	Renminbi (RMB)
RMB6.15	=	US$1
US$0.16	=	RMB1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

BOD	Biochemical Oxygen Demand
COD	Chemical Oxygen Demand
CPS	Country Partnership Strategy
CMC	Construction Management Center
CVM	Contingent Valuation Surveys
DA	Designated Account
EA	Environmental Assessment
EIRR	Economic Internal Rate of Return
ECOP	Environmental Code of Practice
EMP	Environmental Management Plan
FIRR	Financial Internal Rate of Return
FM	Financial Management
FMM	Financial Management Manual
GDP	Gross Domestic Product
HPFB	Hubei Provincial Finance Bureau
HPAO	Hubei Provincial Audit Office
ICB	International Competitive Bidding
ICRR	Implementation Completion Review Report
IPF	Investment Project Financing
JHT	Jingzhou Historic Town
JMG	Jingzhou Municipal Government
JMFB	Jingzhou Municipal Finance Bureau
M&E	Monitoring and Evaluation
MOF	Ministry of Finance
NMT	Non-Motor Transport
NCB	National Competitive Bidding
O&M	Operation and Maintenance
PDO	Project Development Objective
PLG	Project Leading Group
PMO	Project Management Office
PIA	Project Implementing Agency
RAP	Resettlement Action Plan

RMB	Renminbi
SA	Social Assessment
SACH	State Administration of Cultural Heritage
TTL	Task Team Leader
UNESCO	United Nations Educational, Scientific, and Cultural Organization
WTP	Willingness-to-pay

Regional Vice President:	Axel van Trotsenburg, EAPVP
Country Director:	Bert Hofman, EACCF
Senior Global Practices Director:	Ede Jorge Ijjasz-Vasquez, GSURR
Practice Manager:	Abhas K. Jha, GSURR
Task Team Leader:	Yan. F. Zhang, GSURR
Co-Task Team Leader:	Ji You, GSURR

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Hubei Jingzhou Historic Town Conservation Project (P148523)

PROJECT APPRAISAL DOCUMENT

EAST ASIA AND PACIFIC

0000009349

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Basic Information			
Project ID P148523	EA Category A - Full Assessment		Team Leader(s) Yan F. Zhang, Ji You
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]		
Project Implementation Start Date 01-Jan-2016	Project Implementation End Date 31-Dec-2020		
Expected Effectiveness Date 31-Mar-2016	Expected Closing Date 30-Jun-2021		
Joint IFC No			
Practice Manager Abhas K. Jha	Senior Global Practice Director Ede Jorge Ijjasz-Vasquez	Country Director Bert Hofman	Regional Vice President Axel van Trotsenburg

Borrower: People's Republic of China			
Responsible Agency: Jingzhou Municipal Government			
Contact:	Mr. Yi Xianliang	Title:	Deputy Secretary of Jingzhou Municipal Government
Telephone No.:		Email:	jingzhoupmo@163.com

Project Financing Data (in US$, millions)					
[X]	Loan	[ ]	IDA Grant	[ ]	Guarantee
[ ]	Credit	[ ]	Grant	[ ]	Other

Total Project Cost:	170.51	Total Bank Financing:	100.00
Financing Gap:	0.00		

Financing Source	**Amount**

Borrower	70.51
International Bank for Reconstruction and Development	100.00
Total	170.51

Expected Disbursements (in US$, millions)

Fiscal Year	2016	2017	2018	2019	2020	2021
Annual	6	22	24	20	20	8
Cumulative	6	28	52	72	92	100

Institutional Data

Practice Area (Lead)

Social, Urban, Rural and Resilience Global Practice

Contributing Practice Areas

Cross-Cutting Areas

[ ] Climate Change

[ ] Fragile, Conflict & Violence

[X] 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 %
Transportation	Urban Transport	50		
Water, sanitation, and flood protection	General water, sanitation, and flood protection sector	50	20	
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	Cultural Heritage	60
Urban development	Other urban development	40
Total		100

Proposed Development Objective(s)	
To conserve cultural heritage and improve water quality and tourism services in selected areas in Jingzhou Municipality.	
Components	
Component Name	**Cost (US$, millions)**
Cultural Heritage Conservation and Tourism Services Improvement	83.27
Water Environment Improvement	55.10
Transport Improvement	21.35
Assistance to Project Management and Capacity Building	5.15

Systematic Operations Risk- Rating Tool (SORT)	
Risk Category	**Rating**
1. Political and Governance	Low
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Moderate
7. Environment and Social	Substantial
8. Stakeholders	Moderate
9. Other	
OVERALL	Substantial

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 [X]
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
Annual Work Plan	Yes	December 15	Annually

Description of Covenant

Section I. A. 5, of Schedule to the Project Agreement. Annual Work Plan shall be finalized and furnished to the Bank no later than December 15 in each year, beginning on December 15, 2015, satisfactory to the Bank.

Name	Recurrent	Due Date	Frequency
Consolidated mid-term review		September 1, 2018	

Description of Covenant

Section II. A.2, Schedule to the Project Agreement. Under terms of reference satisfactory to the Bank, a consolidated mid-term review report for the Project shall be furnished to the Bank no later than September 1, 2018, summarizing the results of the monitoring and evaluation activities carried out from the inception of the Project, and setting out the measures recommended to ensure the efficient completion of the Project and to further the objectives thereof.

Conditions

Source Of Fund	Name	Type
IBRD	Signing of a Subsidiary Agreement	Disbursement

Description of Condition

Section IV. B.1(b) of Schedule 2 to the Loan Agreement. No disbursement under Category 2(a) shall occur until the Jingzhou Municipality and the Jingzhou Cultural Heritage and Tourism Investment Company Limited have entered into a Subsidiary Agreement, satisfactory to the Bank, and in accordance with the provisions of Section I.E.1 of the Schedule to the Project Agreement.

Source Of Fund	Name	Type
IBRD	Signing of a Subsidiary Agreement	Disbursement

Description of Condition

Section IV. B.1(c) of Schedule 2 to the Loan Agreement. No disbursement under Category 2(b) shall occur until the Jingzhou Municipality and the Jingzhou Public Transport Company Limited have entered into a Subsidiary Agreement, satisfactory to the Bank, and in accordance with the provisions of Section I.E.1 of the Schedule to the Project Agreement.

Team Composition

Bank Staff			
Name	**Role**	**Title**	**Unit**
Yan F. Zhang	Team Leader (ADM Responsible)	Sr Urban Economist	GSURR
Ji You	Team Leader	Urban Specialist	GSURR
Yuan Wang	Procurement Specialist	Procurement Specialist	GGODR
Fang Zhang	Financial Management Specialist	Financial Management Specialist	GGODR
Ahmed A. R. Eiweida	Peer Reviewer	Lead Urban Specialist	GSURR
Alejandro Alcala Gerez	Counsel	Senior Counsel	LEGES
Camila Rodriguez Hernandez	Peer Reviewer	Senior Infrastructure Specialist	GTIDR
Chongwu Sun	Safeguards Specialist	Senior Environmental Specialist	GENDR
Guido Licciardi	Peer Reviewer	Senior Urban Development Specialist	GSURR
Haiyan Wang	Team Member	Senior Finance Officer	WFALN
Hannah R. Messerli	Peer Reviewer	Senior Private Sector Development Specialist	GTCDR
Hongwei Zhao	Team Member	Program Assistant	EACCF
Jian Xie	Team Member	Senior Environmental Specialist	GENDR
Sandra Walston	Team Member	Temporary	GSU08
Sing Cho	Peer Reviewer	Engineer	GWADR
Stefania B. Abakerli B	Peer Reviewer	Senior Social Development Specialist	GSURR
Weimin Zhou	Team Member	Transport Specialist	GTIDR
Yu Liu	Team Member		GSURR
Zhefu Liu	Safeguards Specialist	Senior Social Development Specialist	GSURR
Zhuo Yu	Team Member	Finance Officer	WFALN
Extended Team			
Name	**Title**	**Office Phone**	**Location**
Joseph A. Gadek	Environmental Engineer		
Rajagopal S. Iyer	Consultant, GSURR		
Yang Shen	Cultural Heritage Specialist		Beijing
Chuntai Zhang	Financial and Institutional Specialist		Beijing

Locations					
Country	**First Administrative Division**	**Location**	**Planned**	**Actual**	**Comments**
China	Hubei	Jingzhou		**X**	

Consultants (Will be disclosed in the Monthly Operational Summary)	
Consultants Required?	Yes.

I. STRATEGIC CONTEXT

A. Country Context

1. China's rapid urbanization over the past three decades has facilitated impressive economic and social gains. It catalyzed China's brisk gross domestic product (GDP) growth and pulled more than 500 million people out of poverty. Further transition is projected to add another 300 million to China's urban population by 2030 and continue boosting economic growth.[1] With rising living standards, the public's awareness and appreciation of cultural heritage assets have been increasing, leading to an expansion of the cultural tourism sector. Cultural heritage is considered not only to be an essential element of national history and pride, but also an asset for local economic and social development.

2. Historic cities in China have been facing multiple challenges in leveraging heritage assets, as they strive to: (a) conserve heritage assets under technical and financial constraints; (b) upgrade dilapidated infrastructure in a densely populated urban context; (c) modernize without completely losing each city's distinctive features and indigenous culture; and (d) develop the tourism sector in a sustainable manner that stimulates job creation and local economic development. Without a sound understanding of the local historic urban fabric and a proper and efficient regulatory framework, investments for new constructions might be made inappropriately, imitating ancient architecture or copying development patterns in other cities. This may jeopardize the value of existing historical relics as well as the potential for tourism development. It may also lead to the loss of the uniqueness of such cities.

B. Sectoral and Institutional Context

3. Cultural heritage conservation is incorporated into national development strategies. China's National 12th Five-Year Plan highlights the conservation of historic relics, listed historic cities, and intangible heritage as ways of enhancing inheritance and expanding the utilization of cultural capital for local economic development. The national urbanization strategy, called the National New-type Urbanization Plan (2014–2020), identifies inadequate conservation of heritage assets and the loss of cities' uniqueness as two critical challenges that require immediate attention. The conservation of distinctive historic urban landscapes, environmental improvement, and enhanced resource management are key goals.

4. Tourism is a high-priority sector in China's National 12th Five-Year Plan, which attaches great importance to balancing conservation and development of tourism resources. The government's main measures to promote tourism development include (a) strengthening tourism infrastructure; (b) promoting the development of key tourism regions and travel routes; (c) facilitating markets and diversifying tourism products; and (d) designing in-depth cultural tourism experiences. Recently, the State Council issued a number of guidance notes to promote tourism reform and development. By 2020, total tourism spending is expected to reach RMB5.5 trillion (US$887 billion), accounting for more than 5 percent of national GDP.

[1] World Bank and the Development Research Center of the State Council, P. R. China. 2014. *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization.* Washington, DC.

5. Jingzhou Municipality, located in south-central Hubei Province, is endowed with rich cultural heritage assets. It is the center of the Jing[2]-Chu[3] culture. It has a long and fabled past in Chinese history and in the imagination of the people. Many of the well-known episodes in Three Kingdoms, an ancient novel and a part of the national literary canon, take place there. Jingzhou was among the first set of cities listed as a national historic city in 1982. Within and in the proximity of the Jingzhou Historic Town (JHT), there are three heritage sites listed at the national level (ancient City Wall, Kaiyuan Temple, and Xuanmiao Temple), eight provincial and municipal registered heritage sites, and more than 70 identified historic buildings and other relics. JHT is surrounded by a 12 km City Wall, one of the best preserved and complete city walls in China. Recognized as a national cultural heritage asset since 1996, it is now on the tentative list—along with other walled cities in China—for nomination to be submitted to the United Nations Educational, Scientific, and Cultural Organization (UNESCO) as a World Heritage Site. The water environment is a distinguishing feature of the historic town, with its series of inner and outer lakes, outer canals, moat, and numerous smaller ponds. Historically, the town's water bodies were interconnected and subsequently flowed into the nearby Yangtze River. Another heritage asset of immense value is the recently excavated Xiongjiazhong Graveyard, 45 km northwest of the historic town, which is a high-level noble graveyard of the Chu Kingdom (until 223 BC). With its largest and grand horse-and-chariot chamber and an extraordinary jade article collection, the excavation site has been increasingly known as the 'Terracotta Army in the South'.

6. Unfortunately, lack of funds and limited asset management capacity have led to a piecemeal approach to restoration of the ancient City Wall, its moat, and other heritage sites within the historic town, as well as a delayed implementation of a fully equipped Xiongjiazhong Archaeological Park. Rapid economic development and poor enforcement of planning and environmental regulations have put pressure on the conservation of heritage assets. The city moat along with other water bodies is now heavily polluted (worse than Class V) due to discharge of raw sewage, non-point source pollutants, and urban drainage runoff. Many of the linkages between the city moat and the water bodies have disappeared. The pressure for commercially driven large-scale urban redevelopment has left little of the historic buildings within the City Walls. The few surviving historic buildings and the historic streets where they are located are experiencing increasing degradation due to the lack of maintenance and continued pressure for gentrification. The degradation of heritage assets is an urgent challenge facing Jingzhou Municipality, in particular around the JHT which also serves as a densely populated city core.

7. According to the Western Hubei Eco-Cultural Tourism Circle Plan, Jingzhou is among the top 10 major tourist destinations in Hubei Province. Jingzhou also considers tourism as one of the pillar industries for local economic development, with the Chu, Three Kingdom, and Water cultures being major tourism assets. However, the tourism sector of Jingzhou is underdeveloped, signaled by the limited contribution of tourism to local economic development. A majority of the tourists stay for a short period[4] and revenues generated from the tourism industry accounted for only about 6.2 percent of Jingzhou's GDP in 2010, which is much less

[2] Three Kingdom Period, AD 220–280.
[3] Shang through the Warring States Period, 1030–223 BC.
[4] According to the tourist survey conducted as part of the Project Feasibility Study, 40 percent of the surveyed tourists stayed for 1–2 days and 28 percent stayed for less than 6 hours.

than the provincial level of 9.2 percent.[5] Recent surveys of tourists to Jingzhou Municipality have indicated that the lack of variety in tourism products, the limited attraction of cultural heritage assets (partially the lack of adequate interpretation and exhibition), inadequate urban environment (not in harmony with the characteristics of the cultural heritage, poor water environment, and sanitation), and lack of tourism services have all contributed to the short stay of tourists in Jingzhou. While Water-culture-focused tourism (such as boating in the city moat) has the potential to add to the menu of tourism products, the current state of the water bodies is not suited for this purpose.

8. Access to the cultural heritage sites in Jingzhou has presented an increasingly significant challenge. The City Gates, an integral part of the national cultural heritage asset, cannot and should not be physically modified. During peak hours, there are long delays in the movement of vehicles in and out of the gates.[6] Therefore, promoting non-motor transport (NMT) and public transport is a pivotal strategy for JHT to accommodate travel demand.

9. While NMT is still the dominant mode of transport for residents and tourists inside the historic town (85 percent and 59 percent, respectively), the space for NMT is often intruded by vehicular traffic and parking, which compromises the connectivity of NMT paths and threatens the safety and comfort of residents and tourists. Public transport is one of the important modes of transport for tourists for travel inside the historic town; 22 percent of tourists take buses to the different historic sites. The bus service currently has problems, including low frequency, no timetable, poor bus stop facilities, and long delays at junctions. Improvement in bus services will help keep public transport more attractive for both tourists and residents. Due to the lack of a tourism signage system, tourists have difficulty in understanding instructions on the transport mode to take to reach the destination as well as orientating themselves inside historic attractions.

10. A combination of the above factors has constrained the development of the tourism sector as a strong driver for local economic development and poverty reduction in Jingzhou. A number of well-targeted investments and interventions are urgently needed to gain regional competitiveness and to attract more visitors from major neighboring destination cities, such as Yichang (the Three Gorges) and Wuhan (the capital of Hubei Province). The proposed project will support Jingzhou Municipality to address these key constraints in an integrated manner.

C. Higher Level Objectives to which the Project Contributes

11. The project is aligned with the World Bank Group's China Country Partnership Strategy (CPS) FY 2013–2016 (Report No. 67599-CN) dated October 11, 2012, specifically the objectives set under focus area I 'supporting greener growth'. The project's focus on cultural heritage conservation, sustainable tourism development, and improved water environment contributes to the CPS outcomes of 'enhancing urban environmental services' and 'demonstrating pollution management'. The focus on access to tourism sites through multimodal transport contributes to the CPS outcome of 'promoting low carbon urban transport'.

[5] Hubei Statistic Yearbook 2011. To be updated.

[6] Currently, 27 percent of the entry/exit trips to/from the historic town are by car, 26 percent by public transport, and 26 percent by bicycles.

12. **Alignment with the twin goals.** The project supports the World Bank's twin goals of boosting shared prosperity and eliminating extreme poverty. While project activities aim to improve tourism resources and services, the ultimate goal is to stimulate job creation and local economic development through sustainable tourism. Global experience demonstrates that investments in conservation of cultural heritage assets of historic cities develop tourism, a labor-intensive industry that provides proportionally more income opportunities for low-skilled laborers and the poor.[7] Although there is lack of disaggregated data regarding the spatial distribution of poverty in Jingzhou, the project is built on the premise that by virtue of being a labor-intensive activity, improved tourism development as a result of enhanced cultural heritage can allow unemployed and underemployed individuals greater access to jobs and in turn create the conditions for a sustained and broad-based growth.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

13. The project development objective (PDO) is to conserve cultural heritage and improve water quality and tourism services in selected areas in Jingzhou Municipality.

B. Project Beneficiaries

14. Direct project beneficiaries are 600,000 people who live, work, and visit Jingzhou Municipality, including local residents and tourists from surrounding areas, within China, and from abroad. Local residents are the primary targeted group who will directly benefit from better preserved cultural heritage assets, improved water environment, and enhanced accessibility. Tourists will benefit as a result of project interventions—better conserved and exhibited cultural heritage sites, more tourist products, upgraded tourism facilities, and improved tourism services. Elevated spending by tourists would help bring economic benefits to local residents.

C. PDO Level Results Indicators

15. At the project level, PDO indicators for the proposed project include the following:

(a) Direct project beneficiaries, of which female (number, percentage)

(b) Number of cultural heritage sites conserved/rehabilitated under the project (number)

(c) Moat water meets Class IV for biochemical oxygen demand (BOD) for at least 10 months of the year (yes/no)

(d) Tourists' satisfaction with tourism services within project areas (percentage)

[7] Economics of uniqueness: investing in historic city cores and cultural heritage assets for sustainable development (2012).

III. PROJECT DESCRIPTION

A. Project Components

16. The project includes four components: Component A: Cultural heritage conservation and tourism services improvement; Component B: Water environment improvement; Component C: Transport improvement; and Component D: Assistance to project management and capacity building. This package of interventions offers an integrated approach to achieve the PDO. Project investments are prioritized according to their potential contribution to the conservation of cultural heritage sites and tourism development. Heritage sites chosen are those with the most historical value, among the top tourist destinations (the ancient City Wall and the Jingzhou Museum), and with the greatest potential to become anchor tourism destinations (Xiongjiazhong Archaeological Park and the City Moat). Improvement in accessibility to these cultural heritage sites and water quality will help achieve the synergies necessary sustainably to contribute to the twin goals.

17. **Component A: Cultural Heritage Conservation and Tourism Services Improvement (Total Cost US$83.27 million, IBRD US$45.58 million).** This component comprises six sub-components.

(a) Sub-component A1: Carrying out of conservation and restoration activities over selected segments of Jingzhou's Historic City Wall, including the construction of a retaining wall, landscaping and vegetation improvements.

(b) Sub-component A2: Carrying out of conservation activities in the Kaiyuan Taoism Temple [8] including, *inter alia*, (i) improvements to basic infrastructure, and (ii) preservation and restoration of cultural heritage assets, including stone tablets, inscriptions and other archaeological artifacts.

(c) Sub-component A3: Upgrading of the Jingzhou Museum, including comprehensive rehabilitation of the treasure halls, redesign of the exhibition schemes, and procurement of protective display equipment.

(d) Sub-component A4: Carrying out of piloting interventions for the conservation and regeneration of selected historical buildings along Dongti and Nanmen streets in Jingzhou's Historic Town, and the conversion of a vacant lot into a tourism services facility.

(e) Sub-component A5: Provision of support to the Xiongjiazhong Archaeological Park, including, *inter alia*, the construction of an exhibition center, display buildings and archaeological park management facilities, as well as installation of lighting and interpretation in the exhibition halls, associated park signage, website development and tour guide systems.

(f) Sub-component A6: Construction of a tourist information center alongside Jingzhou's Historic Town, creation and/or improvement of green areas, and development of tourist signage and tour navigation systems in selected areas.

[8] The conservation and restoration work for the main buildings in the temple has been funded by the State Administration of Cultural Heritage (SACH).

18. **Component B: Water Environment Improvement (Total Cost US$55.10 million, IBRD US$37.08 million).** This component aims to systematically improve the water ecosystem in the moat, lakes, and ponds through the following sub-components:

(a) Sub-component B1: Dredging of the moat and lakes within and immediately around Jingzhou's Historic Town, including the removal and safe disposal of inorganic and organic deposits.

(b) Sub-component B2: Carrying out of infrastructure improvements of Jingzhou's Historic Town internal drainage and sewer network, including interceptor sewers along the Town's moat.

(c) Sub-component B3: Creation of wetlands along Jingzhou's Historic Town moat and lakes, including the construction of an ecology embankment.

(d) Sub-component B4: Carrying out of activities aimed at enhancing Jingzhou's Historic Town water bodies, including flow augmentation, construction and provision of culverts, conveyance pipes, rubber dams, pump stations, and ancillary facilities.

19. **Component C: Transport Improvement (Total Cost US$21.35 million, IBRD US$13.14 million).** This component aims to facilitate access to the cultural heritage sites for residents and tourists alike by improving NMT and public transport options. It will also help improve movement of tourists by upgrading signage. It will include the following sub-components:

(a) Sub-component C1: Improvement of urban roads, including the rehabilitation of Jingzhou's Historic Town inner ring road and optimization of key road junctions.

(b) Sub-component C2: Carrying out of activities aimed at improving non-motorized transportation (NMT) including, *inter alia*, the establishment of color-paved bicycle lanes and rehabilitation of protected road spaces, pedestrian crossings, and facilities to enhance pedestrian safety.

(c) Sub-component C3: Improvement of public transportation through, *inter alia*, (i) upgrading the mini-bus tourism system, (ii) establishment of new tourism bus lines, improvement of bus stops, and procurement of new hybrid buses.

(d) Sub-component C4: Installation and upgrade of signage systems, including the provision of static and variable message signs at key locations in Jingzhou's Historic Town, as well as provision of real-time parking guidance signage.

20. **Component D: Assistance to Project Management and Capacity Building (Total cost US$5.15 million, IBRD US$3.95 million).** This component aims to strengthen the technical and institutional capacity of the Project Management Office (PMO) and the Project Implementing Agencies (PIAs):

(a) Sub-component D1: Provision of support for project management, monitoring, and supervision and independent monitoring of environmental and social safeguards, including the provision of office equipment and supplies.

(b) Sub-component D2: Carrying out of capacity building activities, including training, organization of workshops and study tours for relevant staff and key stakeholders.

(c) Sub-component D3: Provision of technical assistance, including the realization of studies on conservation and restoration of historic sites and neighborhoods, as well as on traffic management for Jingzhou's Historic Town.

B. Project Financing

21. **Lending instrument.** The proposed lending instrument for this project is Investment Project Financing. The borrower has chosen a US Dollar denominated, commitment-linked variable spread loan, based on six-month LIBOR plus an additional variable spread. It has also selected all conversion options, a level repayment profile, payment of the front-end fee with IBRD loan proceeds, and a final maturity of 25 years, including a 5-year grace period.

Project Cost and Financing

22. The project cost is estimated at US$170.51 million. Table 1 provides details of project costs and financing,

Table 1. Project Costs and Financing

Project Components	Project Cost (US$, million)	IBRD Loan (US$ million)	Percentage of Project Costs
Component A. cultural heritage conservation and tourism services improvement	83.27	45.58	55
Component B. Water environment improvement	55.10	37.08	67
Component C. Transportation improvement	21.35	13.14	62
Component D. Assistance to project management and capacity building	5.15	3.95	77
Sub-total	**164.87**	**99.75**	
Interest During Construction	4.56		
Commitment Fee	0.83		
Front end fee	0.25	0.25	100
Total project cost	**170.51**	**100**	**59**

C. Lessons Learned and Reflected in the Project Design

23. The Bank has gained substantial experience in supporting cultural heritage conservation and sustainable tourism development across the world, with an increasing focus on the intersection between cultural heritage conservation, sustainable tourism development, employment creation, and poverty reduction. In China, initially the Bank incorporated cultural heritage into development projects, and then expanded the engagement to stand-alone projects in Gansu (2008), Guizhou (2009), and Shandong (2011). The project design builds on the Bank's substantial experience with cultural heritage projects across the globe as well as from China.

(i) General Lessons Learned from Cultural Heritage Projects Worldwide

24. **Preserving and revitalizing historic sections of cities and villages can promote local economic development.** Bank projects in Morocco, Jordan, Lebanon, Georgia, and China

revealed that cultural and historic assets have the potential to stimulate local economy, foster the place's vitality and attractiveness, and help create jobs. The design and implementation of this project leverages the Bank's strength in multisectoral expertise to help realize the dividend of cultural heritage conservation in promoting local economic development.

25. **Taking an integrated approach without being overly complicated.** Investment in cultural heritage could produce public goods and services, create jobs, and promote well-being of local communities.[9] An integrated approach, combining cultural heritage conservation, sustainable tourism promotion, and urban infrastructure upgrading can drive a powerful economic dynamic. However, in attempting to be comprehensive, project design could become too complex and cover a large set of activities and stakeholders, as well as spread resources too widely across locations and sectors. Lessons from similar projects in Georgia, Lebanon, Jordan, and China highlight the need to understand the different aspects of multisectoral efforts and identify interventions that will maximize economic impacts. The ICRR of the Jordan Cultural Heritage, Tourism & Urban Development Project brings out the need to avoid spreading efforts too thinly in too many locations. While the proposed project's interventions cut across three sectors (cultural heritage, water, and transport), the project focuses investments geographically within one municipal jurisdiction.

(ii) Lessons Learned from Implementing Cultural Heritage Projects in China

26. **Implementation arrangements.** A multisectoral project could easily lead to a complicated institutional setup and the cultural heritage authority in China typically does not have strong convening power. Thus, it is essential to lodge the PMO within an agency with strong coordinating and convening power and with full political support. Jingzhou Municipality has already set up a Project Leadership Group and a Project Management Office (PMO) is under the leadership of the Deputy Mayor.

27. **Domestic approval for cultural heritage conservation activities.** Local legislation requires that cultural heritage conservation works for national-, provincial-, or municipal-level listed heritage assets must obtain approval from the cultural heritage administration at the corresponding level. The standards for techniques, materials, and methods to be applied are generally rigorous. If local design institutes and implementing agencies lack the requisite skills to undertake such design work, the approval could take considerably more time than anticipated and will result in long implementation delays (as was the case in the Shandong Confucius and Mencius Cultural Heritage Conservation Project). It is critical to incorporate the time needed for obtaining all approvals for cultural heritage conservation activities in the implementation schedule, and that sub-projects that have been conceptually approved by the State Administration of Cultural Heritage (SACH) and with existing acceptable techniques are given priority in the selection of investments. The PMO has prepared a detailed time table for all approvals required from different levels of government to factor into the implementation schedule and help prepare relevant documents to ensure smooth approvals.

[9] Licciardi, Guido, and Rana Amirtahmasebi, eds. 2012. *Economics of Uniqueness: Investing in Historic City Cores and Cultural Heritage Assets for Sustainable Development*. Washington, DC: World Bank.

28. **Implementation readiness associated with prerequisite planning and studies.** Some cultural heritage projects require the completion of higher level planning studies and approval by the relevant authority before any work can begin. Delays in the studies themselves or their approval inevitably lead to delays in works, as shown in the aforementioned Shandong project. The essential planning and design studies for critical infrastructure works should therefore be completed before project launch as much as possible, even if retroactive financing would be needed for this. This project does not require any high level planning studies to be undertaken for sub-project implementation. Project preparation is progressing well with technical designs for all sub-projects, and all detailed designs have been completed for Component 2 (water environment improvement).

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

29. Jingzhou Municipal Government (JMG) will be responsible for the Bank loan and project implementation. JMG has established a complete institutional framework for project implementation. A PLG has been created, headed by the mayor of JMG and is composed of four municipal leaders and 14 directors from relevant municipal departments and composed of senior government officials from relevant departments (see Annex 3). The PLG will provide strategic guidance and oversight to the PMO and the Project Implementation Agencies (PIAs). The PMO, established under JMG, will be responsible for overall project coordination, management, and supervision. It will monitor implementation progress and will be responsible for implementation of Component 4. Six PIAs will implement the physical investment components of the project: (a) Jingzhou Culture Heritage & Tourism Bureau - cultural heritage conservation- and presentation-related activities; (b) Jingzhou Culture Heritage & Tourism Investment Company Limited - several tourism promotion activities; (c) Construction Management Center (CMC) of Jingzhou Housing and Construction Committee -water improvement component and road rehabilitation activities; (d) Jingzhou Public Transport Company Limited - public transport sub-component; (e) Jingzhou Transport Management Bureau - traffic signage sub-component; and (f) Jingzhou District Government - land acquisition and resettlement.

B. Results Monitoring and Evaluation

30. The M&E system has been established to monitor implementation progress and progress towards achievement of the PDO indicators and intermediate results indicators, as well as safeguards compliance. The PMO, with inputs from the PIAs, will be responsible for data collection and reporting on progress and results. Independent specialized monitoring institutes will monitor and report on the implementation of, and compliance with, environment management plans and resettlement action plans (RAPs). An external implementation support consultant team will be involved to assist with overall project supervision as well as the M&E. The costs of M&E have been included in the costs of the three project components. See Annex 1 for more details on M&E arrangements

C. Sustainability

31. As evidenced in its various plans, JMG is committed to cultural heritage conservation, tourism development, and improving water environment. Under the leadership of the municipal government, the project has been designed with the intensive involvement of the implementation agencies, supported by a set of feasibility studies. Project design draws from international and local good practices, as well as lessons learned in cultural heritage conservation (and related tourism development) and urban infrastructure upgrading projects in general. Technical, economic, and financial analyses have been conducted to ensure that the required resources and capacities will be in place to construct, operate, and maintain the facilities. The concerned municipal line agencies that will take responsibility for implementing the respective project activities and the O&M of related project facilities after completion have been identified upfront. Technical assistance and capacity building in the sectors will contribute to the city's sustainable development. Continued involvement of the beneficiary communities and stakeholders throughout the project cycle will also contribute to project sustainability.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

32. The SORT table in the Data Sheet provides the overall risk rating of the project (substantial) as well as the risk ratings of the various risk ratings; all risk elements, except technical design of the project, institutional capacity for implementation and sustainability, and environmental and social (which are rated substantial), are rated either moderate or low.

33. **Project design.** The project takes an integrated approach, which includes a number of sectors and implementation agencies, rendering implementation, supervision, and project monitoring a challenge. To mitigate the risk associated with the complex design, investments initially proposed were examined carefully, and some proposed interventions were dropped to avoid adding to the complexity. Multisectoral interventions requires strong collaboration and close coordination across government agencies. For example, moat cleaning and transport improvement needs to take into careful consideration of their potential impacts on the heritage sites, and their design and implementation needs to be coordinated with relevant cultural heritage agencies at municipal, provincial and national levels. Strong leadership of the PLG and coordination of the PMO are warranted to mitigate these risks.

34. **Institutional capacity.** This is the first Bank-financed project in Jingzhou Municipality, and the PMO and PIAs are unfamiliar with Bank project requirements. Having the PLG headed by the mayor and the PMO by the deputy mayor carries substantial weight in authority and coordination. However, there remains a risk that limited attention will be given to the project due to competing demands; further, there could be leadership changes, which may cause delays as it takes time to get new leadership on board. In addition, the limited technical capacity of the PMO and PIAs may cause delays. Jingzhou Municipality has committed to fully staffing PIAs with qualified managers and engineers, as well as financial management and procurement professionals. A procurement agency has also been engaged. The Bank has provided targeted training on policies and procedures during project preparation, and will monitor that PMO staff continue to receive further training, as needed, during project implementation. .

35. **Environment and social risks.** Project civil works for building rehabilitation, water, drainage, and transport facilities may lead to negative environmental and social impacts, especially during construction. The PMO's lack of capacity and implementation experience in social and environmental safeguards renders these risks substantial. The Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), Resettlement Policy Framework (RPF), and Resettlement Action Plan (RAP) comply with Bank requirements. Additional safeguards training will be provided during project implementation and the Bank will monitor ESMP implementation and provide further guidance and support as required.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

36. **Economic Analysis**. Cost-benefit analysis was employed to investments in the historical town and at the Xiongjiazhong Archaeological Park, based on a quantification of direct use benefits to visitors and local residents; other benefits were not included due to limitations on data. The economic internal rate of return (EIRR) is 14.30 percent for investments in the historic town and 12.65 percent for the Xiongjiazhong Archaeological Park. The EIRR of the entire project is 14.05 percent, which is higher than the 8 percent used as a benchmark rate by the Chinese government. Sensitivity analysis, assuming a 10 percent reduction in economic benefits and a 10 percent increase in investment costs, shows that the investments in the historic town and in Xiongjiazhong continue to be robust with an EIRR of 11.57 percent and 10.01 percent, respectively. See Annex 5 for further details. Investment cost will be monitored carefully during implementation and attention paid to quality of services to maximize economic and financial returns.

37. **Fiscal analysis**. Counterpart fund requirements for the project are relatively small, and represent only about 0.55 percent of the total revenue and 0.39 of the total government expenditures during the project implementation period. JMG has confirmed that counterpart funding for the first year has been included in the budget and that it is committed to allocating annual sufficient funds during project implementation.

38. The government debt was 60 percent of the total municipal expenditure in 2014. Considering the fast economic development and comparing that with other similar cities, such government debt level is likely in a manageable range. To better manage the debt, the government JMG has established a debt repayment fund in its annual expenditure budgets to ensure timely repayment of its debt (which at the end of 2014 was about 60 percent of the total expenditure of the municipality). JMG is committed to enhancing debt management, including closely monitoring debt status, optimizing the debt structure, establishing adequate debt repayment funds, and seeking upper level government's financial support, if necessary. The fiscal analysis concludes that with the mitigation measures taken, JMG has sufficient borrowing space and will be able to provide adequate counterpart funding for the Project. (See Annex 5 for more details).

39. **Financial analysis**. The Xiongjiazhong Archaeological Park (phase II) and the public transport sub-components will generate substantial revenue during operations. The FIRR for the Xiongjiazhong Archaeological Park was estimated at 13.5 percent before tax and 10.8 percent after tax; these are higher than the average financial discount rate (8 percent) for the tourism sector in China. FIRR for the public transport sub-component was estimated at 6.2 percent before tax and 2.6 percent after tax; these are above the project's weighted average cost of capital of 1.6 percent. The two sub-components continued to be financially viable for most of the tested sensitivity scenarios. (See Annex 5 for more details).

B. Technical

40. **Cultural Heritage Conservation and Tourism Services Improvement Component.** Investments under this component address the major constraints to the development of tourism in Jingzhou: the lack of variety in tourism products, the limited attraction of cultural heritage assets (partially owing to the lack of adequate interpretation and exhibition), and lack of tourism services. This component will help tourism development and support better conservation and interpretation of the top heritage sites in the city – the City Wall and the Jingzhou Museum including its neighboring Kaiyuan Temple – and the recently developed Xiongjiazhong Archaeological Park which has substantial potential to draw a considerable number of tourists in the near future. It will also pilot conservation and adaptive reuse of 12 historical buildings with one vacant lot in historical streets such as the Dongti Street and Nanmen Street, which constitute an important part of the historical urban fabric. A tourist center will also be constructed to respond to the demand for efficient and effective one-stop-shop tourist service facility in Jingzhou.

41. **Water Environment Improvement Component**. This component will support the improvement of the water quality of the moat surrounding the historic town and surrounding lakes from its current lower than Class V levels to at least Class IV and, for some parameters, Class III. The focus is on reducing pollutant loads as well as increasing the amount of oxygen available in the moat and lakes. Investments in dredging will help remove inert inorganic materials and oxygen-depleting organic substances from water bodies. Investments in improving internal drainage and the completion of the combined drainage and wastewater interceptor network around the historic town will greatly decrease the organic pollutant loads from entering into the moat and lakes.

42. Investments in the expansion of wetlands around the moat and lakes will help purify the water, and increase oxygen levels in the moat and lakes. Interconnectivity of the water bodies will be further enhanced under this component through a series of strategic civil works and designed mechanical interventions. In addition, investments in the diversion of water from the Yangtze River-Han River Canal to the connected moat and lakes will help restore a significant flow of water through these water bodies, and positively impact the overall water quality and surrounding environment. The impacts of these project investments have been carefully modelled to assess water quality improvements over time.

43. **Transport Component**. The design of this component focuses on improving access, safety and attractiveness of pedestrian facilities, bicycle infrastructure, and public transport systems in and to the historic town. It includes investments in better signage to guide tourists to

walk and bicycle around the historic town. The Inner Ring Road will be converted to a one-way traffic street to improve traffic flows and provide room for bicycle lanes. Parking facilities will be provided at the tourist information centers and minibuses will transport tourists to the major attractions in the historic town. Illegal parking issues inside the historic town will be further studied to ensure that the improved walking, biking and public transport facilities will not be compromised in the future.

C. Financial Management

44. The PMO will centralize all financial management (FM) functions including counterpart fund management and payments, project accounting, and financial reporting. However, each PIA has assigned an FM staff as a focal point to be responsible for collecting and maintaining project accounting documents, bookkeeping of the subcomponent activities, and preparing the withdrawal applications. Hubei Provincial Finance Bureau (HPFB) will manage the designated account (DA).

45. The FM capacity assessment identified the lack of experience of the PMO and the PIAs in managing Bank-financed projects as a major FM risk. In addition, the current PMO staff will require additional support to perform all centralized FM functions. The following FM risk mitigation measures have been taken/ agreed: (a) a Financial Management Manual (FMM), acceptable to the Bank, defines the roles and responsibilities of relevant parties and standardizes project FM procedures; (b) FM and disbursement training was provided by the Bank during project preparation and will be supplemented during project implementation through additional training and workshops for knowledge sharing that will be organized by HPFB and the Bank; and (c) qualified consultants will be engaged, under Terms of Reference agreed with the Bank, to strengthen FM capacity and supervision for the Jingzhou PMO and PIAs. Hubei Provincial Finance Bureau (HPFB) will manage the designated account (DA). With implementation of these actions, project FM arrangements will satisfy Bank requirements under OP/BP 10.00. See Annex 3 for additional information.

D. Procurement

46. The PMO will manage all procurement activities under the project with the assistance of a procurement agent who has been recruited. Contracts will be signed and supervised by the six PIAs. The procurement capacity assessment identified the principal risk to be the lack of experience of the PMO with Bank procurement policies and procedures, which might result in the PMO unintentionally using domestic procurement practices instead of Bank Procurement Guidelines. To address this risk, the Bank provided training during project preparation on the Bank's procurement policies and procedures. Tailored training will continue to be provided to procurement and project management staff throughout implementation. A detailed action plan for procurement capacity strengthening and risk mitigation has been agreed. With the implementation of the proposed actions to strengthen procurement capacity, the PMO will have adequate capacity for project procurement. Annex 3 provides additional information on procurement arrangements.

47. A procurement manual, agreed with the Bank, will guide project procurement activities. A comprehensive procurement plan for the entire project scope, acceptable to the Bank, has been

prepared. The procurement plan will be updated annually, or as required, to reflect project implementation needs. The initial procurement plan and future updates will be available at the PMO, as well as at the project website and the Bank's external website.

E. Social (including Safeguards)

48. The project brings significant social benefits as it supports improvements in conservation of cultural heritage, water quality and tourism services in Jingzhou Municipality. The main negative social impact will be the resettlement of people. The public consultation and participation process during project preparation enabled the project to take into account the people's concerns and demands into the design and minimize the number of people affected by land acquisition and relocation.

49. **Involuntary Resettlement OP 4.12.** The project will permanently require 1.2 hectares of state-owned land, and will temporarily use 37.8 hectares of land including 21.2 hectares of state-owned land and 16.6 hectares of village-owned land. The project will require relocation of 38 families (125 persons) and two company owned shops. Among the structures to be demolished, 13 families (38 persons) have shops. It will also require the demolition of private residential buildings as well as buildings of business enterprises. A Resettlement Action Plan (RAP), acceptable to the Bank, has been prepared to mitigate the impacts of land acquisition and resettlement. The RAP includes details of resettlement policies and procedures to be followed during project implementation, including compensation rates, livelihood restoration, monitoring and reporting arrangements, and clearly defined roles and responsibilities. A Resettlement Policy Framework (RPF) has also been prepared to guide unforeseen resettlement and land acquisition needs.

50. **Linked Project**. The first phase of the creation of the Xiongjiazhong Archaeological Park has been identified as linked to the project financed second phase. A due diligence review of this locally funded project found it to be in compliance with Chinese land law and Hubei Provincial and local land management regulations. All affected people received compensation that they were entitled to, and joined the Chinese pension system for social insurance and medical insurance.

51. **Consultation and disclosure.** Public consultation and participation contributed significantly to the preparation of the RAP. Affected persons and enterprises were consulted and were encouraged to participate in the resettlement planning process and in the preparation of the project. They felt that the project would provide opportunities to develop their family business and improve their living standards. They also considered that poor infrastructure was one of the main reasons that constrained investments from flowing into the municipality, contributed to poor business and lackluster tourism development, and hence their family income growth. This feedback was incorporated in the project design and the RAP. Mitigation measures undertaken minimize the negative impacts of resettlement and land acquisition. The RAP and other project-related documents have been disclosed locally on websites and newspapers. A resettlement information booklet, with details of compensation rates, other entitlement policies, and grievance procedures, will be distributed to the displaced people before resettlement implementation. The RAP was disclosed in a local newspaper on May 15, 2015 and through the Bank's InfoShop on June 14, 2015.

52. **Gender.** As part of the SA, a disaggregated gender analysis was carried out in the affected community. Women's expectations, ideas and recommendations were incorporated in the designs of sub-components. Gender disaggregated information was collected and used in the RAP to ensure that women's interests are safeguarded during resettlement implementation. Women will play an important role in project implementation through participation in training courses for family business development and family decision-making. The PMO will monitor gender impacts during project implementation.

53. **Citizen Engagement**. Consultations have been held with citizens on preliminary project designs and will be continued throughout the project implementation process to solicit citizen's feedback to inform the final design and implementation of the sub-projects.

F. Environment (including Safeguards)

54. Based on the environmental screening, the project triggers OP 4.01 Environmental Assessment and is classified as a Category A project under OP 4.01. The project also triggers Bank safeguards policies OP/BP 4.04 Natural Habitats and OP/BP 4.11 Physical Cultural Resources. The project aims to bring significant benefits through improved water environment, transport services, and tourism services in Jingzhou. Investments under Components A, B, and C will include civil works for building rehabilitation, water, drainage, and transport facilities, which may lead to negative environmental and social impacts during construction and operation. Potential negative impacts include: (a) construction impacts related to disturbance to rivers/streams, short-term water quality degradation, soil erosion, noise, dust, sediment dredging, and shipping and disposal of dredged sediment and construction waste and (b) impacts related to the operation of wastewater treatment facilities due to increased wastewater collection.

55. An Environmental and Social Impact Assessment (ESIA) as well as an Environmental and Social Management Plan (ESMP) have been prepared to determine the mitigation measures, environmental monitoring program, and necessary institutional arrangement and capacity building development. The ESMP summarizes the key environmental impacts and details the environmental management and supervision organizations/institutional arrangement and responsibilities, mitigation measures, training plan, monitoring plan, and budget estimates of ESMP implementation. It includes three sets of Environmental Codes of Practice (ECOPs) for generic environmental issues, physical cultural resources, and dredging activities to be used by contractors; these will be incorporated into bidding documents and contracts to ensure effective implementation. The ESMP also includes mitigation measures to reduce and eliminate the impacts on natural habitats, e.g., wetlands. In addition, the ESMP includes chance-find procedures for cultural artifacts. It also includes environmental monitoring programs for both construction and operation phases; the parameters to be monitored include noise, dust, and water quality. The ESIA and the ESMP comply with the Chinese regulatory and policy framework as well as applicable Bank safeguard policies.

56. The PMO will supervise and monitor ESMP implementation. Project progress reports furnished by the PMO will include a section on ESMP implementation and related environmental monitoring reports.

57. **Public consultations and information disclosure.** Three rounds of public consultations were carried out during the environmental assessment process through surveys, focus group discussions, public meetings with key stakeholders, and interviews with project affected persons. Issues raised during consultations have been incorporated in the ESIA and the ESMP. Concerns and issues collected during public consultations have been provided to the concerned groups and are documented in the ESIA. The ESIA and the ESMP were disclosed locally through websites and newspapers on March 26, 2015. The ESIA and ESMP were disclosed through the Bank's InfoShop on June 14, 2015.

G. World Bank Grievance Redress

58. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints through existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

CHINA: Hubei Jingzhou Historic Town Conservation Project

Project Development Objectives

PDO Statement

To conserve cultural heritage and improve water quality and tourism services in selected areas in Jingzhou Municipality.

These results are at	Project Level

Project Development Objective Indicators

Indicator Name	Cumulative Target Values						End Target 2021
	Baseline 2015	YR1 2016	YR2 2017	YR3 2018	YR4 2019	YR5 2020	
Direct project beneficiaries (Number) – Core Sector Indicator (CSI)	0	170,000	330,000	380,000	460,000	600,000	600,000
Female beneficiaries (Percentage – Sub-Type: Supplemental) – CSI	0	45	45	48	48	50	50
Cultural heritage sites conserved/rehabilitated under the project (Number)	0	0	1	3	5	5	5
Moat water meets Class IV for BOD (< 6 mg/l) for at least 10 of the 12 monthly samples per year (Text)	n.a.	n.a.	n.a.	n.a.	Yes	Yes	Yes
Increased satisfaction of tourists on tourism services within project areas (Percentage)	77	77	78	80	82	85	85

Intermediate Results Indicators

Indicator Name	Cumulative Target Values						End Target 2021
	Baseline 2015	YR1 2016	YR2 2017	YR3 2018	YR4 2019	YR5 2020	
City Wall restored under the project (percentage)	0	0	60%	100%	100%	100%	100%
Wastewater interceptors constructed inside and outside of the moat (Meters)	0	0	3,000	6,000	7,080	7,080	7,080
Dredging of the moat and lakes with safe storage /disposal of the dredged materials (m3)	0	0	100,000	200,000	250,000	250,000	250,000
Roads rehabilitated, Non-rural (Kilometers) – CSI	0	0	0	10.2	10.2	10.2	10.2
Pedestrian crossing upgraded (Number)	0	0	0	12	12	12	12
Bus stop upgraded (Number)	0	0	15	28	28	28	28
Participants rated the training/study tours good or excellent (Percentage)	0	0	70	75	75	75	75
Participants in consultation activities during project implementation (number) – CSI	0	1,200	1,200	1,500	1,800	2,000	2,000
Participants in consultation activities during project implementation – female (Number) – CSI	0	540	540	720	864	1,000	1,000

Indicator Description

Project Development Objective Indicators

Indicator Name	Description	Frequency	Data Source / Methodology	Responsibility for Data Collection
Direct project beneficiaries	Direct beneficiaries are people who directly derive benefits from project interventions. These people live, work, and visit Jingzhou Municipality, and include local residents and tourists from surrounding areas, within China, and from abroad. Local residents who will directly benefit from better preserved cultural heritage assets, improved water environment, and enhanced accessibility. Tourists who benefit as a result of project interventions—better conserved and exhibited cultural heritage sites, more tourist products, upgraded tourism facilities, and improved tourism services.	Annually	PIAs and relevant statistical agencies	PMO in coordination with PIAs and relevant statistical agencies
Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.	Annually	PIAs and relevant statistical agencies	PMO in coordination with PIAs and relevant statistical agencies
Cultural heritage sites conserved/rehabilitated under the project	Cumulative number of cultural heritage sites conserved/rehabilitated under the project	Semiannually	Progress Reports	Jingzhou Culture Heritage & Tourism Bureau and Jingzhou Culture Heritage & Tourism Investment Co., Ltd.
Moat water meets Class IV for BOD that is< 6 mg/l for at least 10 of the 12 monthly samples per year.	As measured at point No. 1 on Figure 2.5 in Annex 2. BOD levels will be measured once a month (for example, during the first 10 days of each month).This indicator will be applicable once the interceptors are constructed and the diverted waters from the Yangtze River – Han River Canal are delivered to the moat.	Annually	Water quality monitoring stations	CMC of Jingzhou Housing and Construction Committee
Increased satisfaction of tourists on tourism services in JHT	This indicator is determined by surveys encompassing satisfaction with improved museum displays, usefulness of the tourist information center, and improved transportation, signage and access to site.	Annually	Tourist satisfaction survey	Jingzhou Culture Heritage and Tourism Bureau and the Jingzhou Culture Heritage and Tourism Investment Co. Ltd.

Intermediate Results Indicators

Indicator Name	Description	Frequency	Data Source / Methodology	Responsibility for Data Collection
City Wall restored under the project	Percentage of the City Wall restored under the project	Semi-annually	Progress Report from site inspection	Jingzhou Culture Heritage and Tourism Bureau
Wastewater interceptors constructed inside and outside of the moat	Cumulative wastewater interceptors constructed inside and outside of the moat.	Semi-annually	Project progress report	CMC of Jingzhou Housing and Construction Committee
Dredging of the moat and lakes with safe storage /disposal of the dredged materials	Volume of materials dredged from the moat and lakes and safely stored/disposed.	Annually	Progress report and environment monitoring report	CMC of Jingzhou Housing and Construction Committee
Roads rehabilitated, Non-rural	Kilometers of Inner Ring Road rehabilitated.	Annually	Project progress report	CMC of Jingzhou Housing and Construction Committee
Pedestrian crossing upgraded	Cumulative number of pedestrian crossings upgraded inside the historic town under the NMT Improvement subcomponent to enhance walking and biking safety	Annually	Project progress report	Jingzhou Traffic Management Bureau

Bus stop upgraded	Cumulative number of bus stops upgraded inside the historic town	Annually	Project progress report	Jingzhou Public Transport Co., Ltd
Participants rated the training/study tours good or excellent	Following every training session, study tour or any other capacity building activity, participants will be asked to complete a survey and rate their satisfaction.	Annually	Participant survey	PMO in coordination with responsible PIAs
Participants in consultation activities during project implementation (number)	Number of people who participated in consultation meetings and workshops during project implementation.	Annually	The project administrative records and progress reports.	PMO
Participants in consultation activities during project implementation – female	Number of women who participated in consultation meetings and workshops during project implementation.	Annually	The project administrative records and progress reports.	PMO

Annex 2: Detailed Project Description

CHINA: Hubei Jingzhou Historic Town Conservation Project

1. The project has four components.

Component A: Cultural Heritage Conservation and Tourism Services Improvement

2. This component, which is essential for the achievement of PDO, aims to conserve cultural heritage and improve tourism services within and around the historic town by: (a) systematically conserving the heritage sites of most significance; (b) upgrading the attractions most visited by tourists; (c) building an anchor attraction based on Xiongjiazhong relics; and (d) improving tourism service facilities. Component A comprises six sub-components.

Sub-component A1: Conservation of the City Wall of the Historic Town of Jingzhou

3. Jingzhou's fortified City Wall dates back over 2,000 years. Already a national cultural heritage site, it is also on the tentative list for submission to UNESCO for World Heritage status. The wall is 11,280 m long and has several unique features: (a) an outer brick wall and an inner mud wall covered in lush vegetation, some of which has historic value; (b) six gates, each comprising an external watchtower and an internal entrance to the historic town with a courtyard in between designed to entrap invaders; (c) 20 lookout posts designed to protect the structure of the wall itself, but also to defend the city from invaders; and (d) five 'secret hideouts' or 'caves' for soldiers, each with several cells that are large enough to accommodate two to four persons.

4. Since the 1980s, conservation work has been carried out in a piecemeal manner, based significantly on the availability of funds. A detailed inventory was prepared to document the conditions of the brick face, the top walkway, the condition of the earth wall, vegetation, and details of a retaining wall in numbered 100 m sections.

5. Based on the SACH-approved conservation plan in April 2014, conservation of the City Wall under this project will include: (a) restoring a 12,609 m^2 brick wall, 2,196 m piled brick wall, 4,831 m^2 footpath on top of the wall, and 6,308 m^3 earth wall; (b) constructing a 950 m^3 retaining wall to protect the earth wall from sliding; and (c) improving vegetation to selectively remove some overgrown plants that threaten the health of the City Wall.

Sub-component A2: Support for the Conservation of the Kaiyuan Taoism Temple

6. The Kaiyuan Taoism Temple is located within the premises of Jingzhou Museum. First built during the Tang Dynasty, it has a history of about 1,300 years. The Kaiyuan Temple was listed as a national cultural heritage site in 2006, but is not open to the public partly due to limited conservation. With SACH financing, conservation and restoration work for the main buildings started in August 2015, and is scheduled to be completed in December 2015. To complement these conservation activities, this sub-component includes the following:

(a) Conservation and restoration of walls and environmental improvements, such as repairs to roads, enhancement of landscapes, and creation of scenic nodes of interest, e.g., small squares at the entrance.

(b) Preservation and exhibition of other cultural heritage assets, including the stone tablet and inscriptions, as well as the Jinshi Memorial Archway.

Sub-component A3: Upgrading of the Treasure Pavilion in Jingzhou Museum

7. Jingzhou Museum is a Class I museum which welcomes about 900,000 visitors each year. It is located in the historic town and is among Jingzhou's top tourist destinations. The Treasure Pavilion displays unearthed relics of a Han Tomb, ancient lacquer, and ancient silk fabrics in three separate halls, and is popular with visitors. However, it suffers from obsolete exhibition equipment, lack of interpretation and interactive display, poor maintenance of the building structure, and inadequate tourist service facilities. To improve the tourists' experience, this sub-component will support:

(a) Comprehensive building renovation and remodeling to meet the relevant standards for earthquake resistance, energy saving, and waterproofing and to include some public space and user-friendly facilities for persons with disability.

(b) Upgrading of the three treasure halls to optimize the exhibition schemes and touring routes and procure protective display and other needed equipment.

Sub-component A4: Piloting Conservation and Regeneration of Historic Street

8. The three groups of structures, totaling 12 buildings and one vacant lot, are within one of the Historic Districts identified by the Conservation Plan for Jingzhou as a National Cultural and Historic City. Three buildings are registered as cultural heritage property at the provincial level and another five were identified as historic relics during the third cultural heritage survey. They will be conserved and reused as residences, mixed-use with commercial as well as tourism service facilities. As a cluster, the street section will be revitalized to demonstrate good practices in historic urban neighborhood regeneration by adopting the principle of 'small-scale organic regeneration'.

Sub-component A5: Support to Xiongjiazhong Archaeological Park

9. The Xiongjiazhong Graveyard is located about 45 km away from the historic town. It is the largest and best preserved noble graveyard yet found in China from the Chu Kingdom in the Warring States Period (475–221 BC) and is composed of main tombs, subordinate tombs, sacrificial tombs, sacrificial pits, and horse-and-chariot pits. The horse-and-chariot pits and some sacrificial tombs and sacrificial pits were excavated during 2005–2010.

10. In recognition of its great cultural value, the Xiongjiazhong Graveyard was listed as a national Key Cultural Relic Site in 2013. The proposal for establishing the Xiongjiazhong Archaeological Park was approved by SACH in 2013. The conservation plan, requiring a total investment of RMB640 million (US$103 million), was approved and given priority at national, provincial, and city levels. According to the plan, the Archaeological Park will be built in three phases during 2008–2010, 2011–2015, and 2016–2020. With its own funding and earmarks from SACH, the city invested RMB165.4 million (US$26.7 million) for the first phase of construction, including excavation, land acquisition, field investigation, site preparation, and road construction. However, some essential exhibition space and tourist service facilities planned for

the second and third phases have not been established. The main structure of the exhibition hall for the horse-and-chariot pits was built, but was not fully equipped. The Jingzhou Museum is temporarily exhibiting 1,364 jade articles from the graveyard. This sub-component will support the construction of the Xiongjiazhong Archaeological Park to better protect the heritage site, exhibit these great assets, and realize its potential as an anchor attraction for visitors.

11. In line with the approved conservation plan, this sub-component includes:

(a) Landscaping and tourism infrastructure, including farmland and agricultural landscaping; renovation of the academic research center; and construction of a parking lot, pavement of the main ring road, lawn sprinkler system, a pedestrian path, a boardwalk, and other tourist service facilities.

(b) Relics exhibition and display, including upgrading of interpretation and facilities of the exhibition halls for the horse-and-chariot pits; upgrading of exhibition sheds for five sacrificial tombs; interpretation of sacrificial tombs and sacrificial pits, and protection and display of selected sacrificial tombs and sacrificial pits.

(c) An exhibition center, up to 5000 m^2 in floor area and with surrounding landscapes, to display unearthed relics from Xiongjiazhong and other cultural heritage objects.

(d) Xiongjiazhong Archaeological Park signage and tour guide system, as well as a website.

(e) Xiongjiazhong Archaeological Park management facilities, including safety and surveillance systems.

Subcomponent A6: Support for Tourism Services Development

12. This sub-component includes:

(a) Constructing a tourist information center with proper signage and supporting facilities and creating or improving green spaces associated with the tourist information center. Two sites are proposed for the tourist information center: one located close to the East Gate and the other close to the Mingyue Park.

(b) Establishing the tourism signage and tour navigation system.

(c) Establishing a historic town dynamic traffic guidance control center. This Intelligent Integrated Control Center will provide targeted service to the historic town, given the nature of coexistence of traffic generated by local residents and tourists. Meanwhile, through a port, it will be linked to the municipal traffic command system to realize a part of its function (for instance, function of software and hardware and information associated with the historic town).

Component B: Water Environment Improvement

13. This component will improve the water quality of the moat surrounding the historic town and the lakes within the historic town. Currently, the water quality is measured at Class V levels

and lower. The project aims to improve water quality to levels indicative of Class IV and Class III in various stretches of the water bodies. Indicators of success are tied to specific water quality parameters. The exact parameters, their targeted levels, and monitoring locations have been agreed.

(a) On a monthly basis, the municipality will monitor BOD as per the current sampling protocol of 25 water quality parameters.

(b) On a quarterly basis BOD, COD, NH4, Total N, Total P, SS, and DO will be monitored.

(c) On an annual basis BOD, COD, NH4, Total N, Total P, SS, and DO will be monitored.

14. It is expected that when all four water quality improvement investments are fully implemented, water quality parameters will meet or exceed Class IV standards; some are expected to meet Class III standards.

Sub-component B1: Dredging the Moat and Lakes within the Historic Town

15. Water quality of the moat surrounding the historic town and the lakes within the boundaries of the historic town is extremely poor—Class V and lower. This is primarily due to the impact of increasing urbanization over the past several decades which has greatly reduced, and in some cases cut off, the interconnectivity of the water bodies as well as introduced increased levels of pollution into the water bodies from wastewater and urban storm water runoff. One of the first steps needed to improve water quality in the moat and lakes is dredging to remove the large quantities of inorganic and organic deposits that have been accumulated over decades. Under the project, dredging of the moat and lakes will be contracted to private contractors through competitive bidding. The consultants have preliminarily estimated that 250,000–300,000 m^3 of materials will need to be dredged and disposed of in an environmentally acceptable manner. It is estimated that the dry volume of the materials will be approximately 160,000 m^3.

16. Under this sub-component, dredged materials will be dewatered and deposited in a few temporary storage piles along the moat and lakes. The ESIA provides information on dewatering sites for the dredged materials, dredging activities and their impacts on the environment and nearby communities, as well as the eventual disposal site. The ESMP contains a specific and appropriate draft ECOP to be inserted into the dredging contractor's Conditions of Contract.

Sub-component B2: Internal Drainage Network and Interceptor Sewers around the Historic Town

17. Within the historic town, the drainage system functions as a combined system for storm water drainage and wastewater collection. Currently much of the pollution to the moat and lakes comes from these combined sewers discharging directly into them. Under the project, improvements will be made to the internal combined sewer network within the historic town and to the ring of interceptor/combined sewer collectors around the historic town to mitigate wastewater pollution and urban storm water pollution.

18. The existing combined sewer network discharges into the moat at 22 primary combined sewer overflow points. Over the past decade, the municipality has been constructing a network of

interceptor sewers which takes the dry-weather flows (primarily wastewater) and transmits these flows to the two surrounding wastewater treatment plants (the Chengnan and Caoshi wastewater treatment plants—both brought on-line in 2012). Under the project, this network of interceptor/combined sewers will be expanded to collect 100 percent of the dry-weather flows and transmit the wastewater to the two existing wastewater treatment plants. As with all combined sewer networks, when storm events occur, the system will operate more as a drainage network and most of the flows coming to the combined sewer overflow structures at the 22 discharge points will overflow into the moat system. The dilution of the rainfall will mitigate the negative impacts of the wastewater discharged to the moat during these storm events.

19. Jingzhou Municipality has been investing in wastewater treatment over the past decade and is planning to continue with such investment to provide for a cleaner water environment. This component of the project fits into, and is complementary to, the objectives and investments of Jingzhou Municipality.

Sub-component B3: Wetlands Creation along the Moat and Lakes

20. An additional investment to supplement the improvement of water resources in and around the historic town is through the development of wetlands in the moat and in the lakes within the historic town. Existing wetlands that have been developed by the municipality to date will be augmented and expanded to assist in the improvement of water resources quality. Under this sub-component, wetland investments will enhance the positive impacts on water resource quality and provide a more aesthetically pleasing environment as well.

Sub-component B4: Enhanced Interconnectivity of Water Bodies and Flow Augmentation

21. This sub-component will have the greatest impact on the improvement of the quality of water resources. The primary intervention is one that draws on a large investment by the national and provincial governments over the past five years. The Yangtze River–Han River Canal (65 km in length) was completed and commissioned in September 2014. This inter-river basin transfer scheme allows for the maximum design transfer of 300 m^3 per second from the Yangtze River to the Han River. At 1 km from the Yangtze River intake, a sluice gate has been constructed to allow for a maximum offtake of 10 m^3 per second to the Gangnan Canal. This offtake is specifically designed for flow augmentation of water resources in and around JHT. Together with the additional water being introduced to the moat and lakes, investments will also be made in reconnecting the moat and lakes to improve the flows into and out of the individual water bodies. Currently, there are several critical water quality 'dead zones' in these water bodies due to the lack of 'healthy' water circulation. Modeling undertaken during the Feasibility Study stage of the studies simulates the final water quality as a result of dredging, drainage collection network and interceptors, wetlands expansion, and flow augmentation. It predicts that the investments proposed will indeed be able to elevate water quality to the targeted levels of Class IV, and to Class III for some of the parameters.

22. It should be noted that the water being brought in from the Yangtze River–Han River Canal and used to augment the flows of the moat and lakes (and therefore improve their water quality), will not be consumed in this process. Only a small fraction of the increased water flows

(at most 5 percent) would be 'lost' to evaporation and seepage. The balance that flows out of the southeastern corner of the moat will be used by local farmers for irrigation of agricultural land.

Component C: Transport Improvement

23. This component will facilitate access to the cultural heritage sites for tourists and residents by improving NMT and public transport options. It will also facilitate tourists' movement by providing parking outside of the historic town to reduce congestion inside the historic town.

Sub-component C1: Urban Streets Improvement

24. This sub-component includes Inner Ring Road rehabilitation and optimization of key junctions within the existing road width to rehabilitate the pavement and reassign road space to bicycles and pedestrians, improve intersection capacity and walking safety by optimizing channelization and traffic signals, as well as the provision of pedestrian facilities.

25. The Inner Ring Road, running parallel to the City Wall of Jingzhou, the main historical heritage of the town, is unpaved for 1.7 km and about 10 percent of the pavement is in need of rehabilitation. The width of the Inner Ring Road in most sections is about 9–10 m, including two vehicle lanes and a sidewalk, but without dedicated bicycle space. With future tourism development, the Inner Ring Road will be the main tourism path in the town, providing access to many tourist attractions besides the City Wall. As 65 percent of future tourists are expected to travel to the different tourist attractions by walk and bicycle, it is proposed to change Inner Ring Road into a one-way road for most sections and reallocate space for bicycles and pedestrians. The transport model forecast analysis supports this proposal.

26. Six junctions are proposed for optimization. Currently, these junctions are experiencing congestion due to poor channelization and signal timings, and pedestrians feel unsafe while crossing due to the lack of safety islands at some junctions. This subcomponent will optimize junction channelization and signal timing, as well as provide safer facilities for pedestrian crossing and bicycles.

Sub-component C2: NMT Improvement

27. This sub-component aims to promote various modes of non-motorized travel and enhance walking and biking safety by improving NMT spaces. A separate bicycle lane and an improved sidewalk will be established, which are protected from roads used by vehicles by furnishing 200 road piles, 16.5 km of guide rails, color-paved bicycle lanes, 729 m^2 of road marking, and associated signage. Inside the historic town, 12 pedestrian crossings will be upgraded.

Sub-component C3: Public Transport Improvement

28. This sub-component aims to upgrade the tourist minibus system and general public bus service. It will include: (a) upgrade of the tourist minibus system running along two loops within the historic town; (b) improvement of general public bus service by providing better equipped bus stops with real-time bus arrival indications; (c) procurement of 30 hybrid buses to be

operated in high demand routes; and (d) establishment of a new tourist bus line to connect to Xiongjiazhong Archaeological Park by investing in 10 hybrid buses and bus stops.

Sub-component C4: Transport Signage

29. This sub-component aims to establish: (a) static and variable parking guidance signage which will guide drivers to available car parking spaces inside the tourist information center located outside the historic town; and (b) a tourist management and control center, built inside the tourist information center, to monitor real-time tourist volumes for management and emergency response purposes.

Component D: Assistance to Project Management and Capacity Building

30. This component aims to strengthen the technical and institutional capacity of the PMO and PIAs. It comprises three sub-components:

(a) **Sub-component D1** - Consulting services for project management, monitoring and supervision, and independent monitoring of the implementation of environmental and social safeguards; support for project management and contract management, including the project management information system, official project website, and procurement of office equipment.

(b) **Sub-component D2** - Training and study tours for project management and strengthening institutional capacity

(c) **Sub-component D3** - Technical assistance complementing investments, including studies on historic neighborhood regeneration and on traffic management for the historic town of Jingzhou.

Annex 3: Implementation Arrangements

CHINA: Hubei Jingzhou Historic Town Conservation Project

Project Institutional and Implementation Arrangements

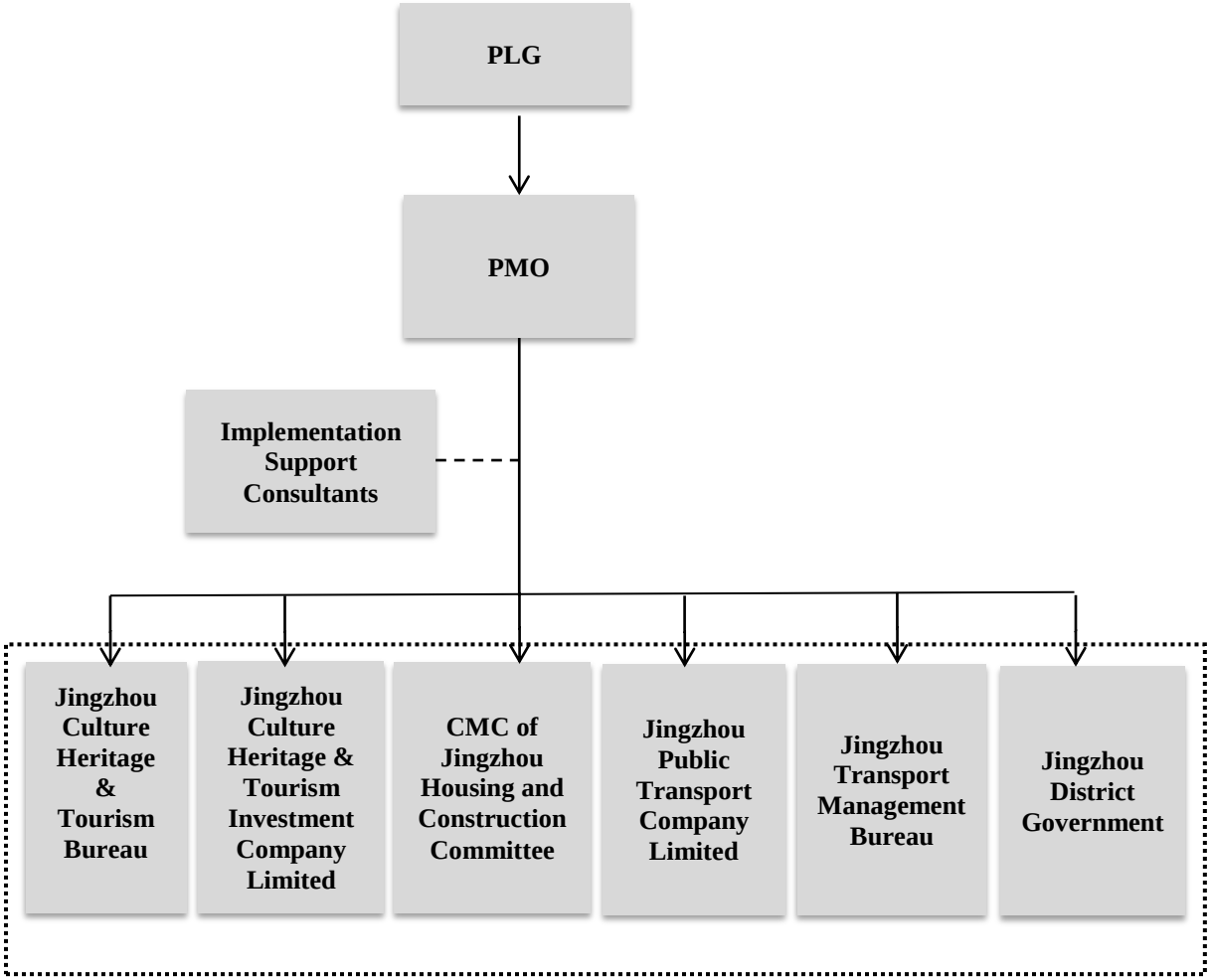
1. **General Arrangements and Project Leading Group (PLG).** The project will be managed at the Jingzhou Municipal Government (JMG) level with oversight from Hubei Province. A PLG has been formed under the JMG.[10] The PLG is led by the JMG mayor and is composed of four municipal leaders and 14 directors from relevant municipal departments. The main functions of the PLG are to: (a) provide policy direction and strategic guidance for project preparation and implementation; and (b) coordinate and make decisions on key project issues, including land related issues, project changes, counterpart funding, and cross-sector collaborations.

2. **Project Management and Coordination**. A consolidated Project Management Office (PMO) has been established within the Housing and Construction Commission to be responsible for overall project management and coordination. The PMO is headed by a deputy mayor of JMG, who is supported by five deputy directors who are the leaders from related government agencies. The PMO is composed of five functioning departments for different aspects of project implementation, including FM, procurement, engineering, social safeguard, and coordination and liaison. The major responsibilities of the PMO include: (a) managing the loan and project implementation; (b) coordinating with central and provincial governments, related municipal government agencies, and the Bank as a focal point; (c) project planning for annual implementation and fund requirements and approval of required documents; (d) procuring and recruiting for all civil works, goods packages, and consultants services, with technical assistance from implementation agencies; (e) organizing design reviews, providing overall implementation supervision, and participating in project completion acceptance; (f) managing FM, including project funds and preparing loan withdrawal applications (with support from the implementation agencies); (g) overseeing implementation of the RPF, RAP and ESMP; (h) establishing and implementing project M&E, covering project results monitoring, specialized technical monitoring, and safeguards monitoring; (i) implementing capacity-building programs; and (j) preparing reports required by the Bank with assistance from implementation agencies.

3. **Project Implementation.** The project is composed of many subprojects, which will be implemented by six Project Implementation Agencies (PIAs), namely: Jingzhou Cultural Heritage and Tourism Bureau for subcomponents related to cultural heritage conservation; Jingzhou Culture Heritage & Tourism Investment Company Limited for tourism-related subcomponents; Construction Management Center (CMC) of Jingzhou Housing and Construction Committee for urban infrastructure- and water environment-related sub-components; Jingzhou Public Transport Company Limited for public-transport-related subcomponents; Jingzhou Traffic Management Bureau for urban-transport-related subcomponents and the Jingzhou District Government for land acquisition and resettlement.

[10] Jingzhou Municipal Government. 2013. *Notice of Establishing Jingzhou Municipal Leading Group for the World Bank-financed Project*.

Figure 3.1. Project Implementation Organization Chart



4. The main responsibilities of the PIAs include: (a) preparation of bidding documents (technical part), participation in procurement and recruitment, and signing contracts with the contractors, suppliers, and supervision consultants; (b) on-site project management and supervision; (c) contract management, including physical and financial progress, contract variations, and performance of contractors and consultants; (d) assisting FM, mainly preparation of supporting documents for payments and withdrawal applications; and (e) preparation of basic data and materials for the reporting of the PMO. Jingzhou District Government will take major responsibility for land acquisition and resettlement under the overall coordination of the PMO. The PMO will directly implement all capacity-building programs under the project, with assistance from the implementation agencies.

Table 2. Roles and Responsibilities

Component	Sub-component No.	Contents	Procurement and Financial Management (FM)	Implementing Agency	Maintenance Unit
A. Cultural heritage conservation and tourism services improvement	A1	Ancient City Wall rehabilitation and protection	PMO	Jingzhou Culture Heritage & Tourism Bureau	Jingzhou Culture Heritage & Tourism Bureau
	A2	Kaiyuan Temple conservation and environmental improvement	PMO	Jingzhou Culture Heritage & Tourism Bureau	Jingzhou Culture Heritage & Tourism Bureau
	A3	Jingzhou Museum upgrading	PMO	Jingzhou Culture Heritage & Tourism Bureau	Jingzhou Culture Heritage & Tourism Bureau
	A4	Historic street rehabilitation and regeneration	PMO	Jingzhou Culture Heritage & Tourism Bureau and Jingzhou Culture Heritage & Tourism Investment Company Limited	Jingzhou Culture Heritage & Tourism Investment Company Limited
	A5	Xiongjiazhong Archaeological Park	PMO	Jingzhou Culture Heritage & Tourism Investment Company Limited	Jingzhou Culture Heritage & Tourism Investment Company Limited
	A6	Tourism service development	PMO	Jingzhou Culture Heritage & Tourism Investment Company Limited	Jingzhou Culture Heritage & Tourism Investment Company Limited
B. Water environment improvement	B1	Moat and inner lake dredging	PMO	CMC of Jingzhou Housing and Construction Committee	Jingzhou Municipal Infrastructure and Landscape Bureau
	B2	Wastewater pipeline network	PMO		
	B3	Wetland construction	PMO		
	B4	Ecological and water environment improvement	PMO		
C. Transport improvement	C1	Urban road improvement	PMO	CMC of Jingzhou Housing and Construction Committee	Jingzhou Municipal Infrastructure and Landscape Bureau
	-C2	NMT improvement	PMO	CMC of Jingzhou Housing and Construction	Jingzhou Municipal Infrastructure and

Component	Sub-component No.	Contents	Procurement and Financial Management (FM)	Implementing Agency	Maintenance Unit
				Committee	Landscape Bureau
	C3	Improvement of public transport system	PMO	Jingzhou Public Transport Company Limited and Jingzhou Culture Heritage & Tourism Investment Company Limited	Jingzhou Public Transport Company Limited and Jingzhou Culture Heritage & Tourism Investment Company Limited
	C4	Transport signage	PMO	Jingzhou Traffic Management Bureau	Jingzhou Traffic Management Bureau
D. Assistance to project management and capacity building	D1	Consulting services and office equipment	PMO	PMO	JMG
	D2	Training and study visit	PMO	PMO	Not applicable
	D3	Technical assistance/studies	PMO	Jingzhou Traffic Management Bureau Jingzhou Culture Heritage & Tourism Bureau	Not applicable

5. **Project Readiness and Implementation Support.** Preliminary design has been completed under Component B. JMG is carrying out detailed design and procurement of the priority works, such as Jingzhou museum upgrading and Xiongjiazhong Landscaping and tourism infrastructure, after loan negotiation were completed. Core staff of the PMO and PIAs has been appointed and some have received related training. Subsidiary agreements between the JMG and JCHTI and JPT have been drafted and will be signed after loan agreement signing.

6. **Consulting services**. Terms of Reference for the following consulting services have been finalized: (a) project management consultants to assist the PMO in many aspects of project management and implementation; (b) construction supervision consultants to carry out construction supervisions for each subproject; (c) land acquisition and resettlement consultants to assist the PMO in implementing the land acquisition and resettlement plan and carrying out the required monitoring; (d) environment monitoring consultants to assist the PMO in implementing the EMP and carrying out the required monitoring; and (e) social impact monitoring consultants to assist the PMO in establishing the monitoring framework and implementing the annual monitoring program for the PDOs and other social aspects.

Financial Management

7. The main FM risk identified is that the PMO and PIA financial staff, as well as Jingzhou Municipal Finance Bureau (JMFB) staff, lack experience in managing Bank-financed projects. Mitigation measures to address the above risk that have been taken/agreed to are: (a) preparing and issuing an FMM acceptable to the Bank to define roles and responsibilities of relevant parties and to standardize project FM procedures; (b) FM and disbursement training provided by the Bank during project preparation will be supplemented by extensive FM and disbursement training and workshops for knowledge sharing during project implementation; and (c) qualified consultants will be engaged to strengthen FM guidance and supervision for the Jingzhou PMO and PIAs under ToRs agreed with the Bank. Overall, the residual project FM risk after mitigation is assessed as Moderate.

8. To ensure efficient and effective project FM, the project FM functions including counterpart funds management and payments, project accounting, and financial reporting will be centralized at the PMO. Meanwhile, each PIA has assigned one FM staff as a focal point to be responsible for book keeping for the subproject activities and collecting and maintaining project documents for accounting and withdrawal of the Bank's loan proceeds. An FM team has been established with one team lead from the JMFB, one accountant and one cashier, all of whom are experienced with domestic construction projects.

9. **Budgeting.** PIAs will prepare the annual project implementation plan, including the funding resources and budget, for PMO review, comment, documentation, and submission to JMFB to arrange counterpart funds. All counterpart funds will be committed by the local government after local People's Congress approval and will be included in their sectoral budget. Budget variance analysis will be conducted semiannually by the PMO, working together with the PIAs. The PMO will report to the PLG on significant variances from the plan that may need corrective actions.

10. **Funds flow.** The Bank loan will be signed between the Bank and China through its Ministry of Finance (MOF). On-lending arrangements for the Bank loan will be signed between China through its MOF and the Hubei Provincial Government through HPFB. HPFB will further on-lend to JMFB; JMFB will be the final debtor of the Bank loan. The project DA will be opened in USD and managed by HPFB. Payment/reimbursement requests prepared by the PMO before going to HPFB for payment from the DA. Withdrawal applications will be submitted by HPFB to the Bank for disbursement. Bank loan proceeds will be paid to contractors from the DA or the DA will reimburse the PMO for the Bank financed portion paid by the PMO. Direct payment to contractors and reimbursements from the Bank to the PMO are subject to the thresholds specified in the Disbursement Letter.

11. **Accounting and financial reporting.** The administration, accounting, and reporting of the project will be set up in accordance with Circular #13 'Accounting Regulations for World Bank Financed Projects', issued in January 2000 by the MOF. The standard set of project financial statements has been agreed between the Bank and MOF. The PMO will be responsible for daily project FM work including counterpart funds management and payments, project accounting, and financial reporting. The PMO will maintain all copies of project accounting records. In addition, the PIAs will be responsible for book keeping for sub-project activities and

for collecting and maintaining project documents for accounting and withdrawal of the Bank loan. Computerized accounting systems, Yongyou (User Friendly) – which is widely used and is working well in many of China's World Bank projects - will be used for this project. The project Interim Financial Report (IFR) should be furnished to the Bank as part of the Project Report by the PMO no later than 60 days after the end of each calendar semester.

12. Staff identified for financial and accounting positions in the PMO and each PIA have experience of financial management of domestic construction projects, but lack experience in Bank operations and therefore need more well-designed training, peer learning, and close guidance throughout the project implementation period.

13. **Internal control.** Accounting policy, procedures, and regulations for Bank projects have been issued by MOF and the FMM aligns the FM and disbursement requirements among the project implementing agencies.

14. **Audit.** The Hubei Provincial Audit Office (HPAO) has been identified as the auditor for the project. An annual audit report will be issued by HPAO within six months after the end of each calendar year and will be made publicly available on its website. Following the Bank's receipt of the audited financial statements, the Bank will also make them available to the public in accordance with the Bank Policy on Access to Information.

Disbursements

15. Four disbursement methods are available for the project: advance, reimbursement, direct payment, and special commitment. Supporting documents required for Bank disbursement under the different disbursement methods are documented in the Disbursement Letter. One segregated DA in U.S. dollars will be opened at a commercial bank acceptable to the Bank and will be managed by the HPFB. The ceiling of the DA is documented in the Disbursement Letter.

16. The Bank loan will be disbursed against eligible expenditures (taxes inclusive) as given in Table 3.1.

Table 3.1. Disbursement against Eligible Expenditures

Category	Amount of the Loan Allocated (expressed in USD)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consultant services, Training and Workshops, and Incremental Operating Costs under the Project, except for the Parts of the Project covered under Category (2) below	58,500,000	100%

(2) Goods, works, non-consulting services, consultant services, Training and Workshops, and Incremental Operating Costs under:		
(a) Parts A.4, A.5, A.6 and C.3(a) of the Project; and	38,300,000	100%
(b) Part C.3(b) of the Project	2,950,000	100%
(3) Front-end Fee	250,000	
(4) Interest Rate Cap or Interest Rate Collar premium	0	
TOTAL AMOUNT	100,000,000	

17. Retroactive financing will be applicable for payments made prior to the date of the Loan Agreement, except that withdrawals up to an aggregate amount not to exceed $20 million may be made for payments made prior to this date but on or after October 6, 2015 for Eligible Expenditures.

Procurement

18. **Capacity assessment.** Procurement under the project will be carried out by the PMO. The procurement capacity and risk assessment identified the possibility of non-compliance and delays in processing procurement as key procurement risks due to the lack of experience of the PMO and its staff in procurement under Bank-financed projects and differences between the Bank procurement policies and procedures and the domestic procurement regulations and procedures. To address these risks, a capacity strengthening and risk mitigation action plan was agreed with the PMO, which includes: (a) procurement training provided by the Bank during project preparation that will be continued during implementation; (b) implementation of a procurement and contract management training plan, agreed with the Bank, to train all procurement staff; (c) issuance of a procurement manual by the PMO to standardize project procurement procedures and provide guidance to project staff; and (d) recruitment of a procurement agent with experience in Bank procurement procedures to assist with procurement planning and implementation. The overall procurement risk is rated Moderate.

19. **Applicable guidelines.** Procurement for the proposed project will be carried out in accordance with the Bank's: 'Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers' dated January 2011, revised July 2014; 'Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers' dated January 2011, revised July 2014; and the provisions stipulated in the legal agreements. National Competitive Bidding (NCB) will be carried out in accordance with the Law on Tendering and Bidding of China

promulgated by Order of the President of the China on August 30, 1999, subject to the modifications stipulated in the legal agreements to ensure broad consistency with the Bank's Procurement and Consultant Guidelines.

20. **Procurement of goods, works, and non-consulting services.** Procurement will be carried out using the Bank's standard bidding documents for all International Competitive Bidding (ICB) contracts, and National Model Bidding Documents (MBD), agreed with or satisfactory to the Bank for all NCB.

21. **Selection of consultants.** The Bank's Standard Request for Proposal will be used for all competitive selection of firms. Universities and research institutes may be included in short lists as a source of consultants, provided they possess the relevant qualifications and they are not in a conflict of interest situation. In such cases, Selection based on the Consultants' Qualifications (for small assignments) will be used if the short list also includes consulting firms.

22. **Training, workshops, and study tours.** Detailed programs for training, including study tours and workshops, will be developed by the PMO during project implementation and will be included in the annual work plan for the Bank' review. Expenditures incurred in accordance with the approved programs will be used as the basis for reimbursement.

23. **Procurement plan.** The procurement plan for the entire project, acceptable to the Bank, has been prepared by the PMO. The plan is available at the PMO and in the Bank's external website. The procurement plan will be updated, in agreement with the Bank, annually or as required to reflect project implementation needs and improvements in institutional capacity.

24. **Prior review thresholds.** The thresholds for procurement methods and Bank prior review are indicated in table 3.2.

Table 3.2. Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (US$)	Procurement Method	Prior Review Threshold (US$)
Goods and non-consulting services	⩾10,000,000	ICB	All
	<10,000,000	NCB	First contract irrespective of value and all contracts ⩾ 3,000,000
	<500,000	Shopping	N/A
	n.a.	DC	All contracts ⩾200,000
Works/supply and installation of plant and equipment	⩾40,000,000	ICB	All
	<40,000,000	NCB	First contract irrespective of value and all contracts of value ⩾ 15,000,000
	<500,000	Shopping	N/A
	n.a.	DC	All
Consultants	⩾300,000	QCBS/QBS	First contract for each selection method and all contracts ⩾ 1,000,000
	< 300,000	CQS	

	n.a.	SSS	All contracts⩾100,000 for firms and ⩾ 50,000 for ICs
	n.a.	IC	Only in exceptional cases, for example, long-term technical assistance

Note: DC = Direct Contracting; QCBS = Quality- and Cost-Based Selection; QBS = Quality-Based Selection; CQS = Selection Based on the Consultants' Qualifications; SSS = Single-Source Selection; IC = Individual Consultant.

25. **Advance contracting and retroactive financing.** Contracts expected to be procured in advance (before loan signing) are included in the procurement plan and Retroactive financing will be allowed under the project for eligible expenditures. Withdrawals for eligible expenditures up to an aggregate amount not exceeding US$20 million may be made for payments within 12 months before the date of the loan signing, but on or after October 6, 2015. Relevant activities for which retroactive financing is being sought are subject to prior review.

Environmental and Social (including safeguards)

Environment

26. Based on the environmental screening, Bank policy OP 4.01 Environmental Assessment is triggered and the project has been classified as Category A. Bank safeguards policies, OP/BP 4.04 Natural Habitats and OP/BP 4.11 Physical Cultural Resources, are also triggered. The project aims to bring about significant benefits with regard to providing improved water environment, transport services and tourism services in the JHT. Investments under Components A, B, and C will include civil works for building rehabilitation, water, drainage, and transport facilities, which may bring negative environmental and social impacts during construction and operation. Potential negative environmental and social impacts would mainly occur in the construction phase, and they would include soil erosion, noise, dust, traffic interruption, and shipping and disposal of construction waste, which are site-specific and few would be irreversible.

27. An ESIA was carried out for the project. Based on the findings of the ESIA, an ESMP was prepared to determine the mitigation measures, environmental monitoring program, and necessary institutional arrangements and capacity development. These documents have been prepared according to the Chinese regulatory and policy framework, as well as applicable Bank safeguard policies.

28. **Environmental benefit.** One of the project objectives is to comprehensively improve the environment in the existing rivers, lakes and along the embankment through multiple means such as wastewater collection and interception, sediment dredging, and ecological remediation, including the construction of artificial wetlands. After this project is implemented, the water flow will improve and become interconnected About 301,900 m^3 of sediments in the water system of the historic city will be dredged and a total of 193.22 t of TP and TN will be taken away. Dredging will help reduce the endogenous pollution of the water system in the historic city. It is estimated that 470.54 t of COD, 41.34 t of NH4-N, 84.15 t of TN, and 5.88 t of TP will be reduced through wastewater collection and interception and be treated in wastewater treatment plants. After the sewer collection pipes are operational inside the city, the sewage collection rate in the historic city will increased to 90 percent. The west City Wall protection and City Wall

vegetation upgrading will greatly improve the City Wall landscape and ecological environment, and also create conditions for surrounding residents to enjoy the city and its water environment landscape closely.

29. **Environmental impact.** Potential environmental and social impacts include: (a) construction impacts, including disturbance to rivers and lakes by sediment dredging, potential water quality degradation, soil erosion, noise, dust, and shipping and disposal of dredged sediment materials and construction waste; and (b) operational impacts related to wastewater treatment capacity with increased wastewater collection. Alternative analysis was conducted during project feasibility and ESIA preparation from two perspectives: comparing the schemes of river system connection, including schemes for each stage of dredging and different schemes of wetland system; and comparing with and without the project scenarios. Details are provided in Chapter 4 of the ESIA report. The ESIA includes the results of a cumulative impact assessment. The identification of cultural heritage assets, their current condition, preservation and restoration, and other information related to cultural heritage assets included in this project are part of the ESIA.

30. **Due Diligence Review of Linked Projects**. Due diligence was carried out for associated projects and facilities, including operation of existing wastewater treatment plants that will treat sewage collected by the sewer pipes installed under the project; operation of the existing solid waste incineration plant that receives domestic solid waste collected under the project; and water transfer from the Yangtze River to the Han River, which is under trial and will provide 10 m^3 per second Jingzhou Municipality. Results of the due diligence are included in the ESIA, and confirm that these facilities comply with national and local environmental policies and requirements. EIA reports of these projects were prepared in accordance with national and local regulations and the local Environmental Protection Bureau monitors their operation for compliance with EIA requirements.

31. As an important element, cumulative impact assessment was considered as part of ESIA. It shows that the construction period and operation period of this project have both positive and negative impacts on the water environment. Cumulative impact analysis was carried out on every subproject related to the water system of the historic city, and specific indexes of COD, ammonia nitrogen, TN, and TP are superposed in calculation. The sewage interception subproject has the most obvious positive benefit, which can reduce 70.54 t of COD, 52.68 t of ammonia nitrogen, 133.97 t of TN, and 10.04 t of TP.

32. As a cultural heritage conservation project, the investment in the cultural heritage conservation and tourism services represents close to 50 percent of the total investment. The identification of cultural heritage assets, status quo of their damage, preservation and restoration, and other information related to cultural heritage assets included in this project are provided by local cultural heritage and tourism authorities and are included in the ESIA. As part of the ESMP, mitigation measures were developed and included, including chance-find procedures.

33. **ESMP.** The ESMP summarizes the key environmental impacts and details the environmental management and supervision organizations/institutional arrangement and responsibilities, mitigation measures, training plan, monitoring plan, and budget estimates for ESMP implementation. It includes three sets of ECOPs for generic environmental issues,

physical cultural resources, and dredging activities; these will be incorporated in the bidding documents and contracts. The ESMP also includes mitigation measures to reduce and eliminate impacts on natural habitats, e.g., wetlands. In addition, chance-find procedures for cultural artifacts have been included in the ESMP.

34. Contractors are required to send dredged sediments to designated sites, e.g., landfill, for disposal. They are also required to rehabilitate land that is temporarily occupied for construction activities.

35. **Institutional Arrangements**. The PMO will have the overall responsibility to coordinate and oversee ESMP implementation, including management and supervision, training, and preparation of project progress report based on reports and monitoring information from each PIA. A PMO staff will be assigned for ESMP implementation and coordination. Each PIA will hire qualified environmental expertise for environmental monitoring, supervise contractors in the implementation of mitigation measures, and promote environmental protection measures and technologies.

36. **Public consultations and information disclosure.** Three rounds of public consultations were carried out during the EA process. Techniques used for public consultations include public opinion questionnaires, focus group discussions, public meetings with key stakeholders, and interviews with some project affected persons. Issues raised during these consultations have been incorporated in the ESIA and ESMP. Concerns and issues collected during public consultations have been provided to the concerned groups and are documented in the ESIA. The ESIA and the ESMP documents and other project-related documents were disclosed locally through websites and the Jingzhou Daily, a major local newspaper, on March 26, 2015. The ESIA and the ESMP were disclosed in the Bank's InfoShop on June 14, 2015.

Social

37. The project has significant social benefits as it supports cultural heritage conservation, tourism development, and improvement of water environment quality in Jingzhou Municipality.

38. **OP 4.12 Involuntary Resettlement.** The project will permanently require 1.2 hectares of state-owned land, and will temporarily use 37.8 hectares of land including 21.2 hectares of state-owned land and 16.6 hectares of village-owned land. It will require the demolition of 8,180 m^2 of structures, including 3,600 m^2 of concrete and brick structures of privately residential buildings, and 4,580 m^2 of concrete and brick structures of business enterprises. The project will require the demolition of houses and relocation of 38 families (125 persons) and two company owned shops. Among the structures to be demolished, 13 families (38 persons) have shops. Public consultations and the 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 relocation. The RAP contains details of resettlement policies and procedures to be followed during project implementation, including compensation rates, mitigation measures (including livelihood restoration), monitoring and reporting arrangements, and clearly defined roles and responsibilities. A Resettlement Policy Framework (RPF) has also been prepared to guide unforeseen resettlement and land acquisition needs.

39. **Gender analysis and development.** A disaggregated gender analysis was conducted in the affected communities as part of the Social Assessment, and includes women's expectations, and ideas and recommendations have been incorporated in the design of sub-projects. Gender disaggregated information was also collected and used in the RAP to ensure that women's interests are safeguarded during resettlement implementation.

40. **Information dissemination.** Relevant project information has been provided to the affected people through various media, including posters and public meetings. The RAP was locally disclosed in a major local newspaper on May 15, 2015 and in the Bank's InfoShop on June 14, 2015. A resettlement information booklet providing details of compensation rates, other entitlement policies, and grievance procedures will be distributed to the displaced people before resettlement implementation.

41. **Institutional arrangements.** Resettlement offices will be established under the PMO for resettlement implementation and resettlement budget allocations for the affected families and entities. An experienced national consulting firm will be contracted to serve as the independent monitoring agency for the resettlement program. Living standards of project affected people will be evaluated over the course of project implementation. Monitoring results will be reported twice a year and remedial actions will be implemented, as necessary.

42. **Linked Projects**. The first phase of the Xiongjiazhong Archaeological Park has been identified as linked to the project financed second phase. This national archaeological park was approved by the central government in 2008 and the civil works were completed in 2013. This park was opened to the public in 2014. About 59 hectares of collective land were required and 17 rural families with 3,736 m^2 of housing were relocated to their original village. A due diligence review of this locally funded project confirmed that land acquisition and resettlement carried out was in compliance with Chinese land law, as well as Hubei Provincial and local land management regulations. All affected people received their compensation and have joined the Chinese pension system for social insurance and medical insurance. The village committee will help the displaced families to receive their housing certifications before December 31, 2015.

43. **Citizen Engagement**. Consultations have been held with citizens on preliminary project designs and will be continued throughout the project implementation process to solicit citizen's feedback to inform the final design and implementation of the sub-projects.

Annex 4: Implementation Support Plan

CHINA: Hubei Jingzhou Historic Town Conservation Project

Strategy and Approach for Implementation Support

1. **Implementation support strategy and plan.** The implementation support strategy for the project has been developed based on the risk profile, with a focus on the main risks identified in the SORT and mitigation measures to achieve project objectives. The risks rated substantial include: technical design; institutional capacity for implementation and sustainability; and environmental and social. The approach for implementation support is to fully utilize country-based staff and expertise within the Bank, complemented by external experts in specialized technical fields to meet the client's needs in the most cost-effective way. The implementation support plan will be reviewed and updated regularly on the basis of a periodic assessment of risks and results of the mitigation measures implemented.

2. **Implementing agency capacity building.** Bank implementation support will initially focus on strengthening implementation capacity in technical design quality control, procurement, FM, and safeguards management. Special attention will be given to early recruitment and mobilization of implementation support consultant teams and procurement and implementation of priority contracts. In addition the Bank will also provide guidance and support in work programming, results monitoring, and reporting.

3. **Procurement.** Implementation support will focus on ensuring that: (a) implementation support consultants are mobilized in a timely fashion and perform effectively; (b) the PMO and PIA staff are familiar with, and follow, the procurement management manual; and (c) planned procurement training is provided to procurement staff as needed. The Bank procurement specialist will carry out prior and post reviews of procurement documents and activities, and confirm that periodic updates of the procurement plan are acceptable to the Bank.

4. **Technical guidance.** Specific technical expertise in cultural heritage conservation, environmental engineering, and urban transport have been mobilized in the Bank team. These specialists will provide technical advice to help introduce relevant international good practice and techniques and resolve complex technical issues. Arrangements for sustainable O&M of project facilities will also be monitored by the technical members.

5. **Environmental and social safeguards.** The Bank team will monitor the implementation of the agreed EMP and RAP and provide guidance to the PMO and PIA on implementation issues. The Bank will also provide training on environmental management and resettlement monitoring and reporting.

6. **FM.** The FM supervision strategy is based on its FM risk rating which will be evaluated on a regular basis by the FM Specialist. The FMS will join supervision missions to review FM and disbursement aspects of implementation, with special attention to internal control arrangement and counterpart funding. The FMS will provide technical support to project staff

on financial reporting and timely resolution of FM issues, including follow-up actions requested by auditors. She will provide training on FM and disbursement at project launch and during implementation.

7. **Resources and skills required.** Formal supervision and site visits covering different aspects of project implementation will be carried out semiannually. These will be supplemented by need-based visits by small teams. A midterm review will be carried out no later than September 2018 to evaluate progress and make necessary adjustments. Estimated inputs from different specialists at different stages of project implementation are outlined below.

Implementation Support Plan

Table 4.1. Annual Supervision Input Estimate

Time	Focus	Skills Needed	Resource Estimate Each Year (In Staff Weeks)
First 12 months	Procurement supervision and training	Procurement specialist	5
	FM and supervision	FM specialist	2
	Social safeguards/resettlement supervision	Social development specialist	3
	Environmental management and supervision	Environmental specialist	2
	Technical supervision and support	cultural heritage conservation, tourism development, water environment management, and urban transportation	12
	Project management	TTL	8
12 to 60 months	Procurement review, supervision, and training	Procurement specialist	2
	FM supervision and training	FM specialist	2
	Social safeguards/resettlement supervision	Social development specialist	2
	Environmental management supervision and support	Environmental specialist	2

	Technical supervision and support	cultural heritage conservation, tourism development, water environment management, urban transportation	10
	M&E/economic analysis	M&E Specialist/Economist	1.5
	Team leadership	TTL	8

8. The skills mix required for implementation support is summarized in Table 4.2.

Table 4.2. Skill Mix Required

Skills Needed	No. of Staff Weeks Each Year	Number of Trips Each Year	Comments
TTL/urban specialist	8	2	Washington based
cultural heritage specialists	4	4	One country office based and one Washington based
Tourism development specialist	3	2	International consultant
Environmental engineer	3	2	International consultant
Urban transport specialist	3	2	Country office based
FM specialist	2	2	Country office based
Procurement specialist	3	2	Country office based
Social development specialist	2	2	Country office based
Environmental specialist	2	2	Country office based
M&E specialist	1.5	2	Washington or country office based

Annex 5: Economic and Financial Analysis

CHINA: Hubei Jingzhou Historic Town Conservation Project

ECONOMIC ANALYSIS

1. The proposed project will invest in historical heritage conservation, urban water environment improvement, and urban transport system improvement in Jingzhou. Economic evaluation, together with other evaluation criteria, has been taken into account in project identification and preparation to screen and identify a set of investment options for further consideration. For example, an early project proposal included investments to upgrade neighboring towns and cities outside the historic conservation areas. Initial economic analysis advised Jingzhou to have project investments concentrated in priority historical areas to maximize economic return and eliminate some of the activities in the early stage of project identification.

2. **Economic benefits.** This project is expected to generate a variety of use value and non-use value economic benefits. Use value economic benefits include enhanced values of historical heritage sites to domestic and international visitors due to historic heritage preservation, and better living standards and health of local residents due to environment, infrastructure, and public service improvement. Non-use values to the population outside the project areas (or to future generations) include: appreciation of the existence of the 2,000-year-old historic town as a physical carrier of Chinese history, especially the Three Kingdom Period, and willingness to pay for the better preservation of these sites, even if they never plan to visit them (usually referred to as existence value by economists); and preserving historical heritage assets preserved for future generations (referred to as bequest value).

3. Direct use benefits may be further divided into monetized and non-monetized benefits. The former include those with cash returns to local residents or other service providers in the form of admission fees or increased net revenues from the provision of historical shows, food, accommodation, parking, and souvenir and handcrafts sales, and increased value of land and properties, which are due to improved protection and tourism development provided by the project. Some of these economic benefits are easy to quantify, for example, admission fees (or other extra tourism area fees/taxes) while others, such as improvement of living standards of local residents due to urban infrastructure upgrading, are harder to estimate.

4. The value of enjoying historical heritage for a visitor is usually larger than (monetized) expenditures incurred by the visitor, i.e., there is a "consumer's surplus". Although difficult to measure, some estimates of consumer's surplus can be made using various valuation techniques, including contingent valuation method (CVM) surveys and the travel cost approach.

5. **Project costs.** Costs of the project are mainly capital investment (civil works, population resettlement, and compensation for environmental impacts) and O&M costs.

6. **General assumptions, basic data, and methods used.** The economic analysis assumes that market prices for the main elements of costs and benefits are not at much variance from

their economic values; therefore, shadow prices and conversion factors were not applied. Economic benefits and costs are valued at base year 2014 price levels, and are net of inflation, duties, and taxes. In China, the discount rate accepted by government for most of its projects is normally 8 percent.

7. Economic valuation of historical heritage projects is more difficult than that of a traditional infrastructure investment project, e.g., energy, road, and water supply. This is because such a project is complicated, involving not only direct use values of historical heritage to tourists and local residents, but also indirect and option and existence values to people who may never visit the site. Also, there is normally a greater fluctuation and uncertainty in the number of beneficiaries (i.e., tourists) due to many external and uncertain factors like economic recession and outbreaks of epidemic diseases. Therefore, valuing economic benefits of a historical heritage project is difficult. In this analysis, only some economic benefits that are fairly easy to quantify are included. Economic benefits with regard to non-use values are not quantified or monetized.

8. ***Projection of tourist growth.*** One of the most critical but uncertain parameters used in valuing economic benefits is the projected number of visitors at each project area. It is difficult to estimate the contribution of this project to overall tourist growth. JHT has been experiencing rapid growth in its tourism sector in recent years. The newly developed Xiongjiazhong Archaeological Park has the great potential to become a site of national significance. Based on historic trends and the carrying capacity of tourist destinations in the project area, conservative assumptions were made to forecast the number of tourists visiting the project areas up to 2020 and the contribution of project investments to the growth of tourists. To be conservative, the analysis further assumed the number of tourists in project areas would remain the same from 2020 to the end of the evaluation period.

9. ***Valuation techniques.*** Cost-benefit analysis was conducted for investments in the JHT and Xiongjiazhong Archaeological Park due to their separate location. Two different valuation techniques—CVM and hedonic method—were employed to estimate the economic benefits of the project. CVM was applied to capture tourists' enjoyment of improved heritage values (or the consumer's surplus of tourist services) through their WTP. Hedonic valuation technique was employed to estimate the increased value of land and real estate properties due to the project which is approximated to the economic benefits of the project to local residents and to society.

10. ***WTP survey.*** A survey based on CVM was carried out to value the WTP of both tourists and local residents for investment activities proposed by the project. A total of 330 tourists in JHT were interviewed in June 2014 and 300 questionnaires were valid. The questionnaire asked for the visitors' one-time WTP value for historical heritage and environmental improvement under the proposed project. The survey shows that the majority of visitors were concerned about water environment improvement and historical preservation in JHT. But due to a number of negative factors (hot weather, brief stay at tourist sites, low willingness to participate in the survey, and inexperience of interviewers), WTP results of the surveys were not ideal and only 45 percent of tourists were willing to pay for historical heritage protection and water environment improvement. As a result, the average WTP value per visitor for the project's historical heritage preservation in the JHT is RMB29.95. This value is much lower than the RMB45 in the Shandong Qufu Confucius and Mencius Cultural Heritage Conservation Project.

But it was still used in the analysis and as a result the economic benefit to tourists is underestimated; the EIRR likely represents a low-end value.

Economic Analysis by Component

11. **Historical heritage protection and improvement of water environment and transport in the JHT.** This component helps strengthen preservation of important historical heritage assets (such as city walls and selected historical buildings), improves the water quality of the city moat and adjacent water bodies, and upgrades selected routes of urban public transport systems for tourists. The total projected capital investment of this component is RMB686.7 million. The project duration is 26 years, including about six years of construction during 2015–2020 (full operation of new tourist facilities is expected in late 2020) and 20 years of operation. Asset residual values are reflected in the final year of the benefit stream.

12. ***Economic benefits*.** Economic benefits quantified in the analysis include extra values of historical heritage preservation for visitors (exceeding what they have paid), i.e., consumer's surplus of tourists, and the improved quality of life and amenities (measured by the increase in land/property values) for local residents and society. Other benefits are not taken into account as they are difficult to quantify or to avoid double counting.

13. ***Tourist population growth and project share*.** The number of tourist visits to tourist destinations in JHT grew at about 20 percent annually in 2009–2012. According to the tourist projection, without the proposed project, the total number of tourists in 2020 will be 3.16 million and with the project 4.01 million. The project is estimated to contribute to 30 percent of the increase. The economic analysis assumed that the number of tourists will remain at 4.01 million during 2021–2040 and that the project will not take any credit during the construction period. This projection is considered conservative and estimated economic benefits to tourists are a low-end value.

14. ***Consumer's surplus*.** The WTP survey concludes that tourists are willing to pay an average of RMB29.95 (each time they visit the town) for the historical heritage conservation as a result of the project. Economic benefits to tourists for enjoying the historical sites would amount to RMB36 million in 2021.

15. ***Increases in property value*.** Project investments in historic heritage, water environment, and road accessibility in the historic town would affect the value of land and real property in the surrounding areas. It is estimated that there is 0.54 million m^2 of real property which would benefit from the project and the average increase in property value is conservatively estimated at RMB4,000 per m^2. Average annual economic benefits were estimated at RMB18.95 million.

16. ***Costs*.** The total capital investment is RMB686.7 million in present value. O&M costs include the costs of operating tourist destinations, running tourist service business, and regular maintenance. These are estimated at RMB218.5 million in present value, at about RMB24.5 million per year.

17. ***Results of cost-benefit analysis*.** The results of the analysis are summarized in Table 5.1: EIRR of 14.30 percent, a net present value of RMB515.9 million, and a benefit-cost ratio of

2.38. Sensitivity analysis was carried out for the investments in the historic town at a 10 percent reduction in economic benefits and a 10 percent increase in investment costs. The results show an EIRR of 11.57 percent; hence the project is deemed robust.

Table 5.1. Results of Cost-benefit Analysis of Investments in the Historical Town

Benefit/Cost (in CNY 10,000 yuan)	Present Value (at 8%)	2015	2016	2017	2018	2019	2020	2025	2030	2040
Benefits										
- Benefits to tourists	33,319						601	3,604	3,604	3,604
- Benefits to local residents	165,354						2,992	17,950	17,950	14,958
Total benefits	198,673						3,592	21,554	21,554	18,562
Costs										
- Capital Investment	68,667	1,948	21,272	21,727	38,071	2,797	2,364			
- O&M	21,855						20	2,453	2,453	102
Total Costs	83,541	1,948	21,272	21,727	38,071	2,797	2,385	2,453	2,453	102
Net Present Value	**51,672**	-1,948	-21,272	-21,727	-38,071	-2,797	1,208	19,100	19,100	18,460
EIRR	**14.30%**									
B/C Ratio	**2.38**									

18. **Xiongjiazhong Archaeological Park** .This component will help develop and upgrade the Xiongjiazhong Archaeological Park to provide more historic heritage benefits to tourists. Construction will be carried out mainly during 2016–17 and the operation period is assumed to be 20 years from 2018 to 2037.

19. According to the tourist projection study, 802,000 tourists will visit the site in 2020. To be conservative in valuation, it is assumed that the annual number will remain unchanged throughout the project. The average one-time admission fee of RMB69 was used to approximate the WTP value per visitor. Because project investments represent only 50 percent of the total investment at the site, only 50 percent of the economic benefits estimated from tourists' WTP was attributed to the proposed project. The present value of economic benefits is estimated at RMB260.2 million.

20. Capital investment will amount to RMB89.7 million in present value and the annual O&M costs are estimated at RMB2.3 million. It is also assumed that at the end year of the project half of the capital investment will remain as a residual benefit.

Table 5.2. Results of Cost-Benefit Analysis of Xiongjiazhong Archaeological Park Investment

Benefit/Cost (in CNY 10,000 yuan)	Present Value (at 8%)	2015	2016	2017	2018	2019	2020	2025	2030	2037
Benefits										
Benefits to tourists	26,021				1,922	2,344	2,767	2,767	2,767	2,767
Total benefits	26,021				1,922	2,344	2,767	2,767	2,767	2,767
Costs										
- Capital Investment	8,973	313	10,343	5,068	351	362	247			-8,342
- O&M	2,263				230	230	230	230	230	230
Total Costs	14,216	313	10,343	5,068	581	593	478	230	230	-8,112
Net Present Value	**6,440**	-313	-10,343	-5,068	1,341	1,752	2,289	2,536	2,536	10,879
EIRR	**12.65%**									
B/C Ratio	**1.83**									

21. The results of the cost-benefit analysis of Xiongjiazhong Archaeological Park are summarized in Table 5.2: an EIRR of 11.65 percent, a net present value of RMB64.4 million, and a cost-benefit ratio of 1.83. Sensitivity analysis shows that Xiongjiazhong will still provide an EIRR of 10.01 percent under the assumption of a 10 percent reduction in economic benefits and a 10 percent increase in investment costs. Hence the project is deemed robust.

22. The EIRR of project investments as a whole is 14.05 percent, which is acceptable to the government and the Bank. Investment cost will be monitored carefully during implementation and attention paid to quality of services to maximize economic and financial returns.

23. **Impact on the poor.** Most of the project investment will be shouldered by local governments and will not result in tariff or tax increases for local residents. The project will improve the living conditions of the local population in the project areas, including the poor.

FISCAL ANALYSIS

24. A fiscal analysis was carried out by focusing on the financial capability and sustainability of the borrower, including: (a) general socioeconomic development status and plans; (b) government fiscal revenue and expenditure; (c) government debt status; (d) counterpart fund requirements and availability; and (e) measures to ensure counterpart funding availability and financial sustainability.

25. **Socio-economic Development Status and Plan.** Jingzhou is a prefecture-level municipality with a total population of 6.58 million in 2014. Jingzhou Municipality includes three districts, three county-level cities, and three counties. Fiscal revenue of the municipality is shared among the different levels of governments (municipal government and district/city/county governments). Loan repayment and counterpart funding for the project will come from fiscal budgets at the municipal level. Therefore, while the analysis of the socio-economic development of Jingzhou refers to the entire Jingzhou Municipality, the fiscal analysis only uses revenue and expenditure data at the municipal level.

Indicator	Unit	Actual					12-5 Plan		13-5 Target	
		2010	2011	2012	2013	2014	%	2015	%	2020
Population	million	6.47	6.64	6.63	6.63	6.58	<6‰	6.82		
Gross Domestic Product	RMB billion	83.7	104.3	119.6	133.5	148.0	13%	160.0	>10%	
Annual growth rate	% per year		24.6%	14.7%	11.6%	10.9%				
GDP per capita	RMB per person	14,707	18,288	20,912	23,340	25,774				
Local fiscal revenue	RMB billion	5.9	7.4	9.2	11.3	13.4			>15%	
Local fiscal expenditure	RMB billion	16.3	19.7	22.7	25.6	27.6				
Fixed asset investment	RMB billion	60.1	77.4	104.3	135.6	165.2	20%	198.2	>15%	
Total Tourist	person-times million	9.20	12.09	15.76	18.51	22.67		27.12		
Total Tourism Revenue	RMB billion	5.2	7.1	9.2	11.1	13.8	>30%	20.0		
Urban disposable income	RMB per person	14,708	16,509	18,211	18,706	23,128	13%	27,100		34,000
Rural net income	RMB per person	6,453	7,664	8,710	9,909	12,625	13%	11,900		22,000

Table 5.3. Socioeconomic Development Profile and Five-Year Socio-economic Plans of Jingzhou

Source: JMG and the feasibility study consultants.
Note: The 'local fiscal expenditure' also includes the fiscal subsidies from upper-level governments.

26. Jingzhou Municipality has experienced rapid socio-economic development in the past 30 years. During 2010–2014 GDP grew at 15 percent per year. In 2014, the total GDP reached RMB148 billion (US$24 billion), and GDP per capita was RMB25,774 (US$4,191). Fixed asset investment was one of the powerful engines for economic development; it increased at an average of 30 percent per year in the same period. Living standards of the people have also improved substantially. In 2014, the disposable income for urban residents was RMB23,128 (US$3761) per person. In 2014, tourist visits were 22.67 million person-times and the total tourism revenue reached RMB13.8 billion (US$2.2 billion).

27. Jingzhou's socio-economic performance exceeded government's targets in the 12th Five-Year Socio-economic Development Plan (2011–2015). JMG's preliminarily targets for the 13th Five-Year Socioeconomic Development Plan (2016–2020) are: (a) GDP growth at a minimum 10 percent per year; (b) public fiscal budgetary revenue increase of 15 percent or more per year; (c) total fixed asset investment increase of 15 percent or more per year; (d) the urbanization of 60 percent by 2020; and (e) lives of both the urban and rural populations will improve substantially.

28. **Government Fiscal Revenue and Expenditure.** Along with fast economic development, government fiscal revenues also exhibited an upward trend. Local fiscal revenue of JMG grew at an average of 22.4 percent per year during 2010–2014 and reached RMB13.4 billion in 2014. The fund revenue in 2014 was RMB8.1 billion, of which about 90 percent was from land sales. Fiscal subsidies from upper-level governments increased at an average of 8.2 percent per year. About 12.9 percent of fiscal expenditure was allocated to culture and sports, environment protection, urban and rural development, and public transport.

Table 5.4. Fiscal Revenue and Expenditure of the Municipal Level Government of Jingzhou

(RMB millions)

Indicators	2010	2011	2012	2013	2014
Fiscal Revenue					
1. Local Ordinary Budgetary Revenue	1,863	2,553	3,198	4,024	4,750
2. Fund Revenue	872	2,106	1,602	2,917	3,848
among which, Land sale revenue	748	1,914	1,358	2,307	3,283
Fiscal Expenditures					
1. Local Budgetary Expenditure	5,622	6,412	7,449	8,298	8,444
among which,					
Culture, sports and media	108	155	246	157	106
Environment protection	199	170	193	204	49
Urban and rural development	175	283	372	427	357
Transportation	106	173	75	56	43
2. Fund Expenditure	976	2,185	2,044	3,350	3,637
among which, Land development	742	1,882	1,675	2,330	3,098

Source: JMFB.
Note: The 'local budgetary expenditure' also includes the fiscal subsidies from upper-level governments.

29. Fiscal revenue at the municipal level represented about 54 percent of ordinary budgetary revenue and 45 percent of fund revenue of Jingzhou Municipality in 2014. In the past few years, ordinary budgeted revenue at the municipal level grew at 26.4 percent per year, faster than that of the entire municipality (22.4 percent). Land sales revenue increased by an average of 44.7 percent per year. Fiscal revenue supported investments in urban infrastructure and public facilities in Jingzhou and in certain priority sectors. About 17.1 percent of budgetary expenditures was allocated to the development of culture and sports, environment protection, urban and rural development, and public transport, which was much higher than that of the municipality as a whole (12.9 percent). Table 5.4 provides a summary of the fiscal status of Jingzhou municipal level government.

30. **Government Debt Status.** As with other cities in China, JMG has also taken commercial bank loans to finance its urban infrastructure and public facilities, and in 2014 had an accumulated debt balance of RMB5.1 billion. This was about 60.3 percent of the fiscal expenditure in 2014[11]. Considering the rapid economic development and compared to other similar cities, JMG's debt level is likely in a manageable range. The government has established a debt repayment fund to ensure timely debt repayment; debt service requirements are estimated at RMB800–1,300 million per year. The municipal government is committed to enhancing debt management, including closely monitoring debt status, optimizing the debt structure, and establishing adequate debt repayment funds.

Table 5.5. Debt Status of the Municipal Level Government of Jingzhou
(RMB millions)

[11] The fiscal expenditure also includes the fiscal subsidies from upper-level governments, which is a more comprehensive indicator to show the fiscal capacity of the government.

	2010	2011	2012	2013	2014
New Debt	921	1,014	1,746	1,587	2,125
Debt Repayment	221	482	1,006	894	1,339
Balance	2,345	2,877	3,617	4,310	5,096

Source: JMFB.

Table 5.6. Counterpart Funding Requirements and Availability
(RMB millions)

Indicator	2015	2016	2017	2018	2019	2020	2015—20
1. Total fiscal revenue (main city)	9,630	10,785	12,080	13,529	15,153	16,971	**78,147**
2. Total fiscal expenditure (main city)	13,530	15,154	16,972	19,009	21,290	23,845	**109,801**
2.1. Total related fiscal allocations	995	1,145	1,316	1,514	1,741	2,002	**8,714**
3. Total related investments	3,799	4,369	5,024	5,777	6,644	7,641	**33,253**
4. Total Project Cost	23	316	268	384	32	26	**1,049**
% of total related investments (4/3)	0.60%	7.24%	5.33%	6.65%	0.48%	0.34%	**3.15%**
5. Total counterpart fund requirements	22	134	101	124	28	23	**434**
5.1. % of total fiscal revenue (5/1)	0.23%	1.25%	0.84%	0.92%	0.19%	0.14%	**0.55%**
5.2. % of total fiscal expenditure (5/2)	0.17%	0.89%	0.60%	0.65%	0.13%	0.10%	**0.39%**
5.3. % of related fiscal allocations (5/2.1)	2.26%	11.75%	7.68%	8.20%	1.64%	1.14%	**4.98%**

Source: World Bank task team.
Note: The 'related sectors' include culture, tourism, environment protection, urban and rural development, and public transport.

31. **Project Counterpart Requirements and Availability.** Projections of the fiscal status and project counterpart funding requirements were made for the project implementation period (2016–2020) under the following assumptions:

(a) Fiscal revenue would increase at a conservative annual rate of 12 percent per year (lower than the government's target) and fiscal expenditure would increase at the same pace.

(b) Total fiscal allocations to related sectors (culture, tourism, environment protection, urban and rural development, and public transport) would increase by 15 percent per year (i.e., a little faster than average fiscal expenditures), which include budgetary allocations in addition to 10 percent of land development expenditure.

(c) Total fixed asset investment to related sectors (culture, tourism, urban infrastructure, environment protection, and public transport) in Jingzhou would increase by 15 percent per year.

(d) The total project cost would be RMB1,048.65 million, including RMB433.65 million counterpart funding requirements.

32. Results of the analysis, shown in Table 5.6, reveal the following:

(e) Counterpart fund requirements for the project would only be 0.55 percent and 0.39 percent of total fiscal revenue and expenditure, respectively.

(f) Total counterpart fund requirements would be about 4.98 percent of total fiscal allocation to the relevant sectors (including some allocations from fund revenues) during the project implementation period. However, it would be about 11.75 percent in 2016.

(g) Project investment would be about 3.15 percent of the total fixed asset investments in the relevant sectors. However, it is still a significant investment project for Jingzhou.

(h) Proposed Measures for Ensuring Counterpart Funding Availability. JMG has sufficient financial capability to finance project implementation and to service the debt. Counterpart funding requirements are relatively small when compared with the overall JMG fiscal revenue. The following measures will be in place:

(i) Counterpart fund requirements of the project will be included in the government's annual fiscal budgetary plans.

(j) A dedicated financial account will be established for the project to consolidate and manages all project funds, including the Bank loan and government fiscal allocations.

(k) Debt service management will be enhanced by regularly monitoring annual debt service requirements for all debt and by reserving adequate funds for the debt repayment, especially for the Bank loan.

(l) JMG will be responsible for mobilizing the fiscal allocations of the entire municipality and/or seeking financial support from upper-level governments, in case of shortage of counterpart funds.

(m) If the central government's policy of allowing local governments to issue local government bonds to finance infrastructure development is implemented, JMG will raise more funds for project implementation by issuing bonds.

(n) JMG will study and optimize its development strategies and allocate more funds to the O&M of urban infrastructure and public facilities, including those created under the project.

Financial Evaluations of Revenue-Earning Sub-projects

33. Xiongjiazhong Archaeological Park and the public transport sub-projects will generate substantial revenues during operation. Financial evaluation was carried out to assess the financial viability of these two sub-projects.

34. **Xiongjiazhong Archaeological Park.** For the financial evaluation it was assumed that:

(a) Construction of the sub-project would start in 2015, and would be completed in 2018 at a total investment cost of RMB166.85 million (without financial charges for the loan).

(b) Visitors would be about 557,000 person-times in 2018 and 802,000 person-times in 2018.

(c) Operation cost would be RMB1.91 million for 2018, and would cover the costs for staff, water and electricity, and management. It would increase by 5 percent a year along with the increase in tourists and improvement in services.

(d) Routine maintenance cost would cost RMB0.39 million in 2018, and would cover small repairs to park facilities and heritage protection. It would increase at 3 percent per year along with the deterioration of park facilities. Periodic maintenance for equipment would be scheduled every 5 years at 10 percent of investment cost and every 10 years for structures at 30 percent of investment cost.

(e) The main revenue would come from the sale of entry tickets. Based on the average ticket price of RMB69 per person12, ticket revenue is estimated at RMB11.53 million in 2018 and RMB16.60 million in 2020. It would increase by 10 percent per year along with the increase in the number of visitors. Non-ticket revenue is estimated at 15 percent of ticket revenue during 2018–2027 and 25 percent from 2028.13

(f) Existing tax rates would be applied, including 5.4 percent business tax on non-ticket revenues and 25 percent income tax on the net profit.14

(g) The calculation would cover 23 years, including six years for construction and 20 years for operation. 50 percent of the residual value was added to the last year.

35. Based on above assumptions and parameters, the FIRR for project investments in Xiongjiazhong Archeological Park is 13.5 percent before tax and 10.8 percent after tax. These FIRRs are much higher than the average financial discount rate (8 percent) for the tourism sector in China and hence the sub-project is considered financially viable. Sensitivity tests show that the sub-project continues to be financially viable. Even in the worst case of combining a 20 percent increase in costs and a 20 percent decrease in revenue, the FIRR is 8.6 percent before tax and 6.3 percent after tax. However, the FIRR is very sensitive to changes in revenues. Government and the operator should therefore attract more tourists and explore other revenues besides ticket sales. The summary of the analysis is presented in Table 5.7.

36. **Public Transport.** Financial analysis of this sub-project was carried out based on the following assumptions:

(a) Implementation of this sub-project would start in 2015 and would be substantially completed in 2016 at an investment cost of RMB45.75 million (without financial charges for the loan).

[12] Among the total tourists, 58 percent pay the full price of CNY 100 per person, 22 percent (student and group) pay a discounted price of CNY 50 per person, and 20 percent (elder and children) don't have to pay.
[13] The non-ticket revenue is mainly from stores, restaurants, tour guides, and other services.
[14] According to current policy, no tax is levied on the ticket revenue.

(b) Tourist bus and public bus services upgraded under this sub-project would be fully in operation in 2017. Each tourist bus would make two round trips a day (about 40 km each direction) with an average of 40 passengers per bus. Passengers would gradually build up and reach 292,000 person-rides in 2020. Each public bus would operate six round trips per day (at an average of 30 km per round trip) with an average of 30 passengers per bus, each passenger traveling an average distance of 5 km per ride. Total passengers would be about 32,400 person-rides per day in 2020.

(c) Operational cost would be RMB11.67 million in 2017, and would cover the costs for staff, fuel consumption, insurance, management, and other incidental costs. Operational costs would increase by 3 percent a year, in line with the increase in bus services and improvements in operational performance.

(d) Routine maintenance costs would be RMB0.38 million per year, at a unit cost of RMB15 per 100 vehicle-kilometers, mainly for parts and small repairs. Routine maintenance costs would increase by 3 percent per year due to the deterioration of buses and stations. Periodic maintenance (replacing buses) would be scheduled every five years at 80 percent of investment cost.

(e) Fare revenue would be RMB8.68 million in 2017 and RMB14.47 million in 2020 at a fixed fare of RMB10 per ride for the Xiongjiazhong line and RMB1 per ride for public bus. Fare revenue would increase by 10 percent per year during 2020–2025 and five percent per year from 2026, along with the increase in passengers. Non-fare revenue would be five percent of fare revenue, mainly from advertisements on bus bodies and stations.

(f) Fiscal subsidies would be RMB62,500 per bus-year for fuel consumption and RMB187,500 per year for ticket-free elder citizens. Such government subsidies would increase by five percent per year.

(g) Existing tax rates would be applied, including 3.4 percent business tax on revenue and 25 percent income tax on net profit.

(h) The calculation would cover 22 years, including two years for investment and 20 years for operation. Ten percent of the residual value would be added to the final year.

37. Based on the above assumptions and parameters, the FIRR for the public transport subproject was at 6.2 percent before tax and 2.6 percent after tax. The FIRRs are above the weighted average cost of capital (1.6 percent). Therefore, this sub-project is considered financially viable. The sensitivity test showed that the sub-project would still be financially viable for most of the tested scenarios. However, the FIRR is extremely sensitive to changes in revenue. The government and the operators should therefore improve the public bus service and ensure sufficient bus passengers. Operators should also explore other revenue sources. The results of the financial analysis are provided in Table 5.7.

Table 5.7. Summary of Financial Evaluations
(FIRR)

		Xiongjiazhong		Public Transport	
		before tax	after tax	before tax	after tax
Base Scenario		**13.5%**	**10.8%**	**6.2%**	**2.6%**
Capital cost	+10%	12.4%	9.8%	4.7%	0.9%
	+20%	11.5%	8.9%	3.2%	-0.8%
	-10%	14.8%	12.0%	7.9%	4.4%
	-20%	16.7%	13.3%	9.8%	6.3%
O&M Cost	+10%	13.4%	10.9%	3.7%	0.0%
	+20%	13.3%	10.6%	1.1%	-2.7%
	-10%	13.7%	10.9%	8.7%	5.0%
	-20%	13.8%	11.0%	11.2%	7.3%
Revenue	+10%	14.8%	12.0%	9.6%	6.0%
	+20%	16.0%	13.1%	12.8%	9.0%
	-10%	12.2%	9.6%	2.4%	-1.5%
	-20%	10.7%	8.2%	-2.5%	-7.1%
Cost & Revenue	+10%,-10%	11.0%	8.5%	-2.2%	-6.7%
	+20%,-20%	8.6%	6.3%		

Source: World Bank task team.