

Resettlement Plan

May 2017

People's Republic of China: Heilongjiang Green Urban and Economic Revitalization Project

Prepared by Jixi Municipal Government for the Asian Development Bank.

Units

Currency unit	=	Yuan (CNY)
1.00 yuan	=	\$0.15
1 hectare	=	15 mu

Abbreviations

ADB	-	Asian Development Bank
AH	-	Affected Household
AP	-	Affected Person
DMS	-	Detailed Measurement Survey
FSR	-	Feasibility Study Report
HD	-	House Demolition
IA	-	Implementing Agency
JMG	-	Jixi Municipal Government
LA	-	Land Acquisition
M&E	-	Monitoring and Evaluation
PRC	-	People's Republic of China
RIB	-	Resettlement Information Booklet
RP	-	Resettlement Plan

WEIGHTS AND MEASURES

mu	–	0.006 ha
square meter	–	m²

NOTE

In this report, "\$" refers to US dollars.

This resettlement plan is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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**ADB-financed Heilongjiang Green Urban
and Economic Revitalization Project**

Heilongjiang Green Urban and Economic Revitalization Project
(Jixi City)

Resettlement Plan

Prepared by the Jixi Municipal Government
15 May 2017

Letter of Commitment (English)

The Jixi Municipal Government (JMG) has applied for a loan from the Asian Development Bank (ADB) to finance the Jixi Sub-project of the Heilongjiang Green Urban and Economic Revitalization Project (hereinafter, the "Sub-project"). Therefore, the implementation of the Sub-project should be in accordance with the Safeguard Policy Statement of ADB. The Resettlement Plan (RP) represents a key requirement of ADB and will be the foundation of land acquisition, and resettlement involved in the Sub-project. The RP complies with laws of the People's Republic of China and local regulations. To ensure the adequate and timely completion of resettlement works, the RP also includes some additional measures and arrangements for implementation and monitoring.

JMG hereby acknowledges the contents of this RP, and warrants that the budgetary funds under this RP will be included in the general budget of the Sub-project and made available on time. JMG has discussed this RP with the agencies concerned through the Jixi PMO, and got their endorsement. Hereby JMG authorizes the Jixi Sub-PMO to implement the resettlement work of the Sub-project.

The RP has been developed based on the latest Feasibility Study Report, reflecting the latest range of impact, the latest socio-economic situation, the latest resettlement policies and the latest progress of the implementation. The RP will be further updated based on the detailed design and investigation and census for affected person. The Updated RP will be submitted to ADB for review and concurrence. Land acquisition and house demolition will not commence until the Updated RP is acceptable to ADB.



鸡西市人民政府 市长 (签字):

2017年5月23日

朱洪祥



鸡西市恒山区政府 区长 (签字):

2017年5月22日

孔令强

承诺函

鸡西市人民政府通过国家财政部，申请亚洲开发银行贷款用于黑龙江省煤炭资源枯竭型城市转型促进项目（鸡西市）。因此，本项目的实施必须满足亚洲开发银行的社会保障政策。本计划代表了亚洲开发银行的一个关键要求并成为本项目涉及征地与移民安置的依据。本计划遵守中华人民共和国的法律和当地的法规，为了更好地完成移民安置工作，本计划还包括一些附加的措施、实施与监测安排。

鸡西市人民政府兹确认本移民计划的内容，承诺移民计划中的预算资金列入项目总预算中，并及时拨付到位。鸡西市人民政府已经通过鸡西市亚行贷款项目办就移民计划与相关的单位进行了讨论并得到其认可。鸡西市人民政府授权鸡西市项目办总体负责本项目的移民安置实施工作。

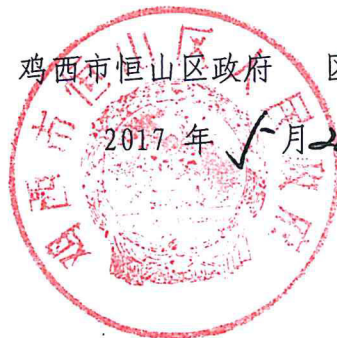
本移民计划是根据最新可研编制的，反映出项目最新的影响范围、最新的社会经济状况、最新的征地安置政策以及最新实施进度。本移民安置计划将根据详细设计，受影响人调查进一步更新，在亚行正式批准该移民计划前，不得开展本项目的移民安置工作。



鸡西市人民政府 市长（签字）：

2017年5月23日

孔令海



鸡西市恒山区政府 区长（签字）：

2017年5月22日

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Definition of Terms

Affected Household: All persons residing under one roof and eating from the same kitchen, who are adversely affected by the project, or any of its components; may consist of a single nuclear family or an extended family group

Affected Persons: In the context of involuntary resettlement, displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

Compensation: Cash or in-kind payment of the replacement cost of an asset lost due to Project-related impacts

Entitlement: Range of measures comprising compensation, income restoration, transfer assistance, income substitution, and relocation, which are due to affected people, depending on the nature of their losses, to restore their economic and social base

Income Restoration: Reestablishment of income sources and livelihoods of APs

Involuntary Resettlement: Full or partial, permanent or temporary physical displacement (relocation, loss of residential land or shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a consequence of development projects, compelling APs to rebuild their lives, incomes and asset bases

Land Acquisition: The process whereby a person is compelled by a government agency to relinquish their land or land use rights to the government (i) for a public purpose and (ii) in return for compensation. This land may be either owned or possessed by the affected person.

Replacement Cost: The value determined to be fair compensation for various types of agricultural and residential land, crops, trees, and other commodities based on current market rates; the cost of rebuilding houses and structures at current market prices of building materials and labor, without depreciation or deductions for salvaged building material

Vulnerable Groups: Distinct group of people (poor, elderly, disabled and female-headed households) who may suffer disproportionately from resettlement effects

Executive Summary

ES1. **Introduction.** The Heilongjiang Green Urban and Economic Revitalization Project will continue ADB's long-term partnership with HPG and take a strategic, holistic, and long-term approach to further develop and implement the Transformation Development Plan of Coal Cities in Heilongjiang (2014–2020), strengthening the non-coal economic base, i.e., green food, pharmaceutical, renewable energy, high-tech industries, tourism, logistics and trade. The Project will also contribute to the Songhua River Basin Water Pollution Control and Management Project by river rehabilitation and wastewater treatment along tributaries to the Songhua River.

ES2. **Subproject Components.** For Jixi Municipal Government (JMG), the Sub-project consists of the following components: (i) Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities; (ii) Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park; (iii) Wasterock Dumpsite Remediation/ Safe Closure and Management of Former Mines; (iv) Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation; (v) Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement; (vi) Road Construction; (vii) Urban Regeneration and Urban Infrastructure; and (viii) Jixi City No.3 Water Treatment Plant Upgrading and Expansion.

ES3. **Preparation of Resettlement Plan.** This Resettlement Plan has been prepared based on the Feasibility Study Report. It will be updated following completion of detailed design. The updated RP will be submitted to ADB for review and concurrence. Resettlement implementation will not commence until the Updated RP is acceptable to ADB.

ES4. **Scope of Land Acquisition and Resettlement Impacts.** The subproject will affect 525 persons in total, including 242 females. A total of 163.96 mu of rural collective land will be acquired permanently, all non-irrigated land, affecting 113 households with 371 persons (including 175 females) in 8 villages, 3 townships (sub-districts) in Jiguan and Hengshan Districts, Jixi City. In addition, 219.6 mu of State-owned land will be acquired permanently, including 175.72 mu of woodland, accounting for 80.01%; and 43.88 mu of construction land, accounting for 19.99%. Moreover, the subproject will result in house demolition (HD) of rural residential houses covering an aggregate area of 2,101.5 m² and affecting 21 households with 102 persons, including 43 females.

The subproject will likewise require the temporary occupation of 417.46 mu of land, including 49.79 mu of rural collective land, accounting for 11.93%; and 367.67 mu of State-owned construction land, accounting for 88.07%, affecting 13 households with 52 persons, including 24 females.

The Subproject will affect 26 vulnerable households with 40 persons, all being MLS households, including 7 disabled persons, 19 chronically ill persons and 33 old persons.

ES5. **Project Policies, Principles and Entitlements.** The policies, objectives of this Resettlement Plan are based on the Government's laws, policies, and regulations, and ADB's Safeguard Policy Statement. The principle of avoiding, if not minimizing impacts has been taken into consideration during planning and will continue during detailed design. Compensation follows the principle of replacement cost. Various mitigation measures, support and assistance have been developed and will be provided to the affected persons based on the impacts, risks, and their vulnerability.

ES6. **Institutional Arrangements.** Jixi PMO will be responsible for the subproject implementation. They facilitate and work closely with the concerned bureaus (e.g. land resource bureau, construction bureau, Labor and Social Security Office), affected villages. The Project Supervision Consultants will provide trainings to the PMO and the concerned bureaus.

ES7. **Consultations and Disclosure.** Consultations have been carried out starting in October 2016 and the comments and suggestions on compensation payment, measures to minimize resettlement impacts, provision of adequate compensation, support to increase income, and assistance to vulnerable households were raised and discussed. Consultations is an iterative process and will continue during RP updating and implementation. Participation is also of equal importance and the strategy to encourage participation is included in this RP. Copies of resettlement information booklets, which contain key information, will be provided to the affected persons.

ES8. **Grievance Redress Mechanism.** The mechanism to respond to or address complaints and requests has been set-up, with clear roles and responsibilities, and time frame. The complaints or requests can be raised first with the township government and can be elevated to the Jixi PMO, the Jixi Municipal Arbitration Commission, and up to the civil court.

ES9. **RP Cost Estimate.** The resettlement cost is estimated at 21.9801 million yuan. The Jixi PMO will disburse directly to the functional departments concerned of the district government through a special account according to the compensation rates, and then distributed to the affected villages/groups.

ES10. **Schedule and Monitoring.** RP Updating and Implementation will commence in 2018 and will be completed in 2019. Jixi PMO will carry out internal monitoring and will submit semi-annual progress reports to ADB. The Jixi PMO will also recruit an external monitor that will carry out its own verification and monitoring on a semi-annual basis. The external monitor will submit its semi-annual monitoring reports simultaneously to ADB and Jixi PMO.

I. Introduction

A. Project Background

1. The Heilongjiang Green Urban and Economic Revitalization Project will continue ADB's long-term partnership with HPG and take a strategic, holistic, and long-term approach to further develop and implement the Transformation Development Plan of Coal Cities in Heilongjiang (2014–2020), strengthening the non-coal economic base, i.e., green food, pharmaceutical, renewable energy, high-tech industries, tourism, logistics and trade. The Project will also contribute to the Songhua River Basin Water Pollution Control and Management Project by river rehabilitation and wastewater treatment along tributaries to the Songhua River.

2. The indicative project impacts are revitalized economy of East Heilongjiang subregion with non-coal industries in the cities of Hegang, Jixi, Qitaihe, and Shuangyashan; improved East Heilongjiang smart city cluster cooperation; and improved living environment, safety, and public health in the cities of Hegang, Jixi, Qitaihe, and Shuangyashan. The indicative project outcome is improved enabling environment for non-coal economic diversification and industrial upgrading.

3. The four expected outputs/components as follows: (i) key infrastructure and systems facilitating non-coal industrial transformation in the project cities improved; (ii) remediation and environmental cleanup of impacts from coal mining in the project cities improved; (iii) integrated basic urban infrastructure and services in the project cities improved; and (iv) capacity in project cities developed in areas of (a) economic diagnostic study and strategy, non-coal industry development planning, and smart city cluster cooperation; (b) prioritized investment program preparation; (c) project planning and management; (d) mining remediation management and environment cleanup; (e) labor force assessment and planning; and (f) infrastructure and services delivered through public-private partnerships.

B. Subproject Description

4. The Subproject consists of the following components:

- a. Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities;
- b. Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park;
- c. Wasterock Dumpsite Remediation/ Safe Closure and Management of Former Mines;
- d. Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation;
- e. Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement;
- f. Road Construction;
- g. Urban Regeneration and Urban Infrastructure; and
- h. Jixi City No.3 Water Treatment Plant Upgrading and Expansion.

II. Scope of LA and Resettlement Impacts

5. This RP has been prepared based on the Feasibility Study Report, and on the principle of avoiding or minimizing resettlement impacts.

6. The information in this RP were derived from the Feasibility Study Report, statistical yearbook, consultations and fieldwork, use of Google Earth, and the boundary map provided by the Jixi Municipal Land and Resources Bureau. Interviews, consultations, and field surveys (preliminary asset inventory and socio-economic survey) were conducted on January 5-22, 2017 and February 27- March 3, 2017).

7. During detailed design, a census and detailed measurement survey and further consultations with various stakeholders (households, organizations, government and other stakeholders) will be carried out. It will also continue to adopt the principles of avoiding, if not minimizing, resettlement impacts. It is only then that the final number of affected persons and extent of resettlement impacts on their land, properties, and livelihood will be determined. The RP will be updated and will be submitted to ADB for review and approval prior to resettlement implementation.

8. A total of 163.96 mu of rural collective land will be acquired for the Subproject, affecting 113 households with 371 persons in 7 villages in Hongxing and Xijiao Xiangs, Jiguan District, and Hongqi Xiang, Hengshan District. In addition, 43.88 mu of state-owned farmland of Jixi Luhai Forestry Co., Ltd. will be acquired permanently, affecting no households. The land loss rates of the 7 affected villages are all below 10%, being 2.22% for Dongtai Village, 2.41% for Hongqi Village, 0.24% for Taiyangsheng Village, 0.03% for Hongxing Village, 0.15% for Xinfu Village, 0.13% for Xijiao Village, 0.10% for Hongsheng Village and 0.06% for Qianjin Village. It can be seen that they are affected slightly by LA. The income loss rates of the affected villages are all below 10%, averaging 7.44%. Hongqi Village has the highest per capita income loss of 947.53 yuan.

9. The AHs are affected marginally by LA in general. Among the 113 households affected by LA, 65 have land loss rates of 5% or below (57.52%), 31 have land loss rates of 6%-10% (27.43%), 12 have land loss rates of 11%-15% (10.62%), and 5 have land loss rates of 16%~20% (4.42%). Hongxing and Xijiao Xiangs are located in the suburb, where per capita cultivated area is declining year by year due to urban development. Many villagers work at nearby plants, or deal with individual businesses, and the proportion of nonagricultural income to household income is rising. In sum, LA will have minor impacts on income. (See Table 1 and Table 2 below).

10. In terms of house demolition, a total of 21 households (102 persons) will be affected and will be required to relocate.

11. The subproject will likewise require the temporary occupation of 417.46 mu of land, including 49.79 mu of rural collective land, accounting for 11.93%; and 367.67 mu of State-owned construction land, accounting for 88.07%, affecting 13 households with 52 persons.

Table 1: LA Impact Analysis

Village	Total Cultivated Land and Total No. of HHs and Population per Village				Affected Cultivated Land and Total No. of HHs and Population per Village			Per capita cultivated area after LA (mu)	LA impact			Income loss (yuan)			
	HHs	Population	Cultivated area (mu)	Per capita cultivated area (mu)	AHs	APs	Cultivated area (mu)		Percent of HHs (%)	Percent of APs (%)	Land loss rate (%)	Annual loss (yuan) [@]	Average loss per HH (yuan)	Per capita loss (yuan)	Percent to per capita income (%)
Dongtai	951	3167	4081	1.29	40	114	90.45	1.26	4.21	3.60	2.22	10492.2	262.31	92.04	0.51
Hongqi	505	2508	1992	0.79	30	77	48	0.78	5.94	3.07	2.41	72960	2432.00	947.53	7.44
Taiyangsheng	648	1698	1470	0.87	3	14	3.51	0.86	0.46	0.82	0.24	5335.2	1778.40	381.09	2.10
Hongxing	875	3547	4200	1.18	1	3	1.17	1.18	0.11	0.08	0.03	72.54	72.54	24.18	0.15
Xinfa	693	2111	2476	1.17	0	0	3.74	1.17	0	0	0.15	433.84	0	0	0
Xijiao	1190	3067	2909	0.95	7	26	3.74	0.95	0.59	0.85	0.13	231.88	33.13	8.92	0.05
Hongsheng	748	1954	3200	1.64	14	47	3.1	1.64	1.87	2.41	0.10	192.2	13.73	4.09	0.03
Tianjin	358	1480	3577	2.42	18	50	2.27	2.42	5.03	3.38	0.06	263.32	14.63	5.27	0.04
Total	5968	19532	23905	1.22	113	331	155.98	1.22	1.89	1.69	0.65	89981.18	796.29	271.85	1.72

^{@Note}: Annual loss = annual output value × acquired land area, where annual output value is 116 yuan/mu for Hongqi, Taiyangsheng, Dongtai, Xinfa and Qianjin Villages, and 62 yuan/mu for Hongxing, Xijiao and Hongsheng Villages.

Table 2: Land Loss Analysis

Village	Land loss rate								Subtotal of AHs
	≤5%		6-10%		11-15%		16-20%		
	HHs	Percent (%)	HHs	Percent (%)	HHs	Percent (%)	HHs	Percent (%)	
Dongtai	23	57.50	7	17.50	6	15.00	4	10.00	40
Hongqi	13	43.33	11	36.67	6	20.00	0	0.00	30
Taiyangsheng	2	66.67	1	33.33	0	0.00	0	0.00	3
Hongxing	0	0.00	0	0.00	0	0.00	1	100.00	1
Xinfa	0	0.00	0	0.00	0	0.00	0	0.00	0
Xijiao	3	42.86	4	57.14	0	0.00	0	0.00	7
Hongsheng	9	64.29	5	35.71	0	0.00	0	0.00	14
Tianjin	15	83.33	3	16.67	0	0.00	0	0.00	18
Total	65	57.52	31	27.43	12	10.62	5	4.42	113

12. **Permanent Land Acquisition**. The sub-project will permanently occupy both State-owned land and collective land. There will also be house demolition impacts.

- a. The Jixi Luhai Forestry Company Ltd will be affected by the loss of 57.64 mu of (i) State-owned woodland due to the improvement of the Central Ring Road (Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities) and (ii) State-owned construction land for the Hengshan District Beishan Road, Jiaotong Street and Bypass Bridge (Road Improvement) component.
- b. It is estimated that 113 households (371 persons) will be affected by permanent acquisition of collective (non-irrigated) farmland (155.98 mu). An additional 21 households (52 persons) will be affected by house demolition (2,101.5 m²).

Table 3: Permanent LA Impacts by Component

Components	State-Owned	Permanent LA Collective Land	House Demolition
	Affected Entity	Affected HH	Affected HH
Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities	1		
Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park		5	13
Wasterock Dumpsite Remediation/ Safe Closure and Management of Former Mines	-	-	-
Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation	-	-	-
Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement		30	8
Hengshan District Beishan Road, Jiaotong Street and Bypass Bridge (Road Improvement)	1	-	-
Urban Regeneration and Urban Infrastructure		78	
Jixi City No. 3 Water Treatment Plant	-	-	-
Total No. of Affected Entities/HHs	1*	113	21
Impacts on Land	57.64 mu	155.98 mu	2,105.5 m²

* Jixi Luhai Forestry Company Ltd is affected by two components.

13. **Temporary Impacts.** The project will also cause temporary impacts during construction, affecting both (i) State-owned land of the Transport Bureau and (ii) collective (non-irrigated) land, affecting 13 households.

Table 4: Temporary Impacts by Component

Components	State-Owned	Collective Land
	Affected Entity	Affected HHs
Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities	-	-
Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park		13
Wasterock Dumpsite Remediation/ Safe Closure and Management of Former Mines	-	-
Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation	-	-
Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement	-	-
Hengshan District Beishan Road, Jiaotong Street and Bypass Bridge (Road Improvement)	1	-
Urban Regeneration and Urban Infrastructure	-	-
Jixi City No. 3 Water Treatment Plant	-	-
Total No. of Affected Entities/HHs	1	13
Impacts on Land	367.67 mu	49.79 mu

14. The impacts per subcomponents are presented in the ensuing sections of this Chapter.

A. Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park

15. Scope of Work. This component includes the construction of Central Ring Road, the reconstruction of Ring Road (earlier constructed under Phase 1 of Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park), and the construction of infrastructure, including water supply, heating, and industrial wastewater pipelines, lighting, etc.

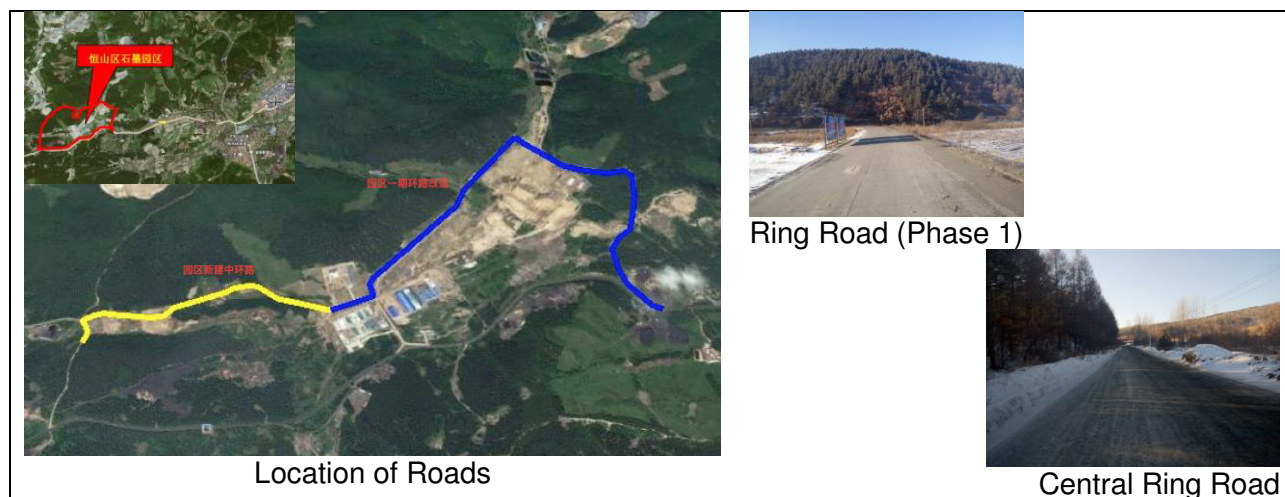


Figure 1: Location Map of Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities

16. Scope of LA and resettlement impacts

- a. Proposed reconstruction of **Ring Road** is already an existing road (8 meter ROW) located in Phase 1 of Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park, 3,136m long, being an urban primary trunk road, starting from K1+299.306-K4+315.516, to be provided with water supply, heating, and industrial wastewater pipelines, lighting, etc. According to the preliminary survey, LA for Phase 1 of the park has been completed, and this road will be reconstructed within the existing boundary line, where pipelines will be laid under it, involving no other impact. The total land area is 324.33 mu. Land acquisition started in 2011 and it was completed in March 2012. Based on the due diligence carried out in January 2017, it is concluded that all payments have been made in accordance with the state legal policies and procedures, and that there are no outstanding or legacy issues. (See Annex 1).
- b. Proposed construction of **Central Ring Road** is also an existing road (8 meter ROW) located in Phase 2 of Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park. It is 1,310m long, being an urban primary trunk road, starting from K0+000-K1+299.306. The road will also include the installation of water supply, heating, and industrial wastewater pipelines, lighting, etc.

According to the preliminary survey, the land affected (13.76 mu) is State-owned woodland of Jixi Luhai Forestry Co., Ltd. The official land use classification has yet to be converted from woodland to construction land. Laying of pipelines will be constructed within the existing road boundary line.

B. Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park

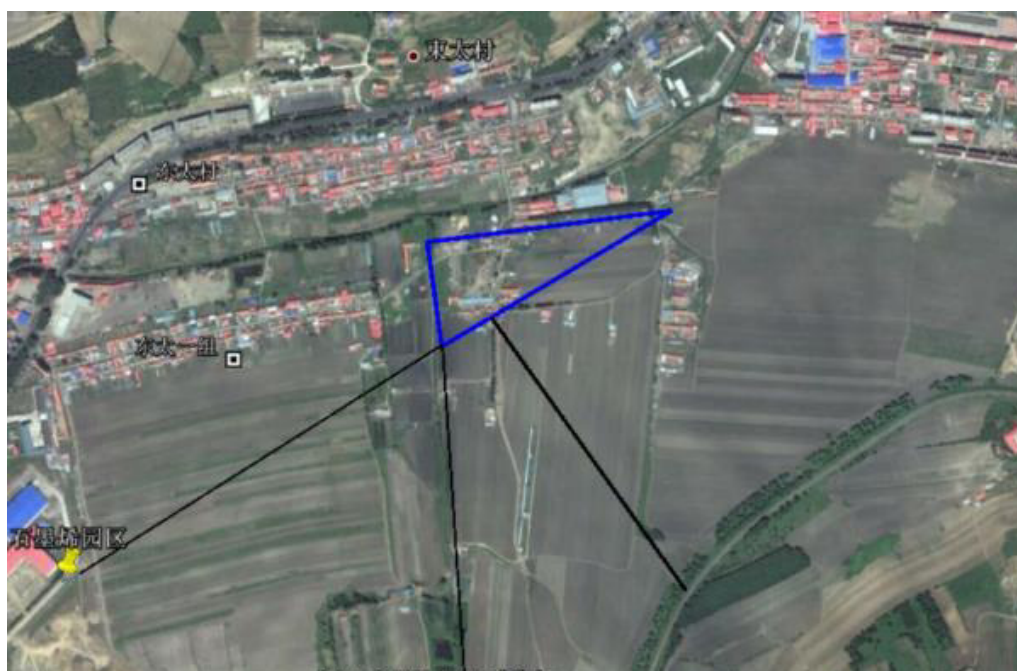


Figure 2: Location Map of Jiguan Industrial Park WWTP

17. A WWTP with a design capacity of 20,000 m³/d and sewer lines totaling 17.14 km long will be constructed.

18. Scope of LA and resettlement impacts

- a. **Permanent Impacts.** The proposed WWTP is located in the central west of the long-term planning area of Jiguan Industrial Park, at the junction of Planned No.2 Road and Planned No.3 Road. Wastewater from the park enters the WWTP from the trunk sewer along Planned No.2 Road. The WWTP has a floor area of 32,351.0259 m², and is located in Group 1 of Dongtai Village, Hongxing Xiang, Jiguan District. According to the preliminary survey, 84.53 mu of collective non-irrigated land that is mainly planted to corn in Dongtai Village will be acquired permanently for the WWTP, affecting 5 households (31 persons), and houses with a total floor area of 1,354.5 m² will be demolished, affecting 13 households with 79 persons.

Table 5: LA and Resettlement Impacts of WWTP and Discharge Infrastructure in Jiguan Ind. Park

Sub-component	District	Xiang	Village	Affected collective land			House Demolition (Rural)		
				Area	Affected		Area	Affected	
				Non-irrigated land (mu)	HHs	Population	Masonry timber (m ²)	HHs	Population
a) WWTP	Jiguan	Hongxing	Dongtai	84.53	5	31	1345.5	13	79
b) Associated pipelines	Jiguan	Hongxing	Dongtai	/	/	/	/	/	/
Subtotal				84.53	5	31	1345.5	13	79

- b. **Temporary Impacts.** All sewer lines will be laid directly, and will temporarily affect during construction 49.79 mu of collective non-irrigated farmland land in Dongtai Village, affecting 13 households with 52 persons. The is no HD. Losses suffered by Dongtai Village and villagers due to temporary land occupation will be compensated for, and the occupied land will be restored by the contractor after the completion of construction.

Table 6: Summary of Land Occupied Temporarily for Sewer Network of Jiguan Industrial Park

Subcomponent	Location	Diameter (mm)	Qty.	Unit	Occupied land area (mu)
Planned No.5 Road	Laid along road west	DN400	720	m	3.23
Planned No.10 Road	Laid along road north	DN600	760m	m	3.41
Planned No.11 Road	Laid along road north	DN600	890	m	4.01
Outer Ring Road	Laid along road north	DN600	1020	m	4.58
Dongshan Street	Laid along road east	DN600	720	m	3.31
Hengchang Street	Laid along road east	DN800	1770	m	13.27
	Laid along road south	DN400	1590	m	
	Laid along road south	DN500	1080	m	
Planned No.3 Road	Laid along road west	DN800	480	m	2.15
Nanqi Road	Laid along road west	DN600	1190	m	5.35
Planned No.1 Road	Laid along road west	DN400	470	m	2.11
Jiheng Road	Laid along road south	DN400	690	m	4.01
	Laid along road south	DN500	890	m	
Planned No.2 Road	Laid along road south	DN400	850	m	4.36
	Laid along road south	DN800	970	m	
Total					49.79

C. Wasterock Dumpsite Remediation/ Safe Closure and Management of Former Mines



Figure 3: Location Map of the Beishan Mine

19. The Beishan Mine is located in Hengshan District, between east longitude 130°54'09.91"—130°55'29.52" and north latitude 45°13'05.55"—45°13'43.96", with an area of 796,973.12m² for remediation. The works will include (i) loose deposit cleanup of 17,500 m³; (ii) grass seed dissemination on 8.97 hm² of land; (iii) cultivation of 100,000 *Parthenocissus quinquefolia* trees; (iv) woodland restoration covering 237,670 m²; (v) woodland replanting for 295,021 m²; (vi) orchard restoration for 8,601 m²; (vii) green space restoration for 18,602 m²; (viii) land leveling for 205,971 m²; (ix) catch drains of 2,023m, drain ditches of 1,041m; and (x) retaining walls of 287m length and enclosing walls of 571m length, as well as infrastructure construction and landscaping. With regard to the landscaping component, it will be located on the south piedmont, and will include footpath, pavilion and seat construction, and landscaping

20. **No LA/HD Impacts.** The Beishan mine is State-owned land. There are no land acquisition and resettlement impacts. The area is free of any structures or encumbrances, and there are no users of this State-owned land.

D. Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation

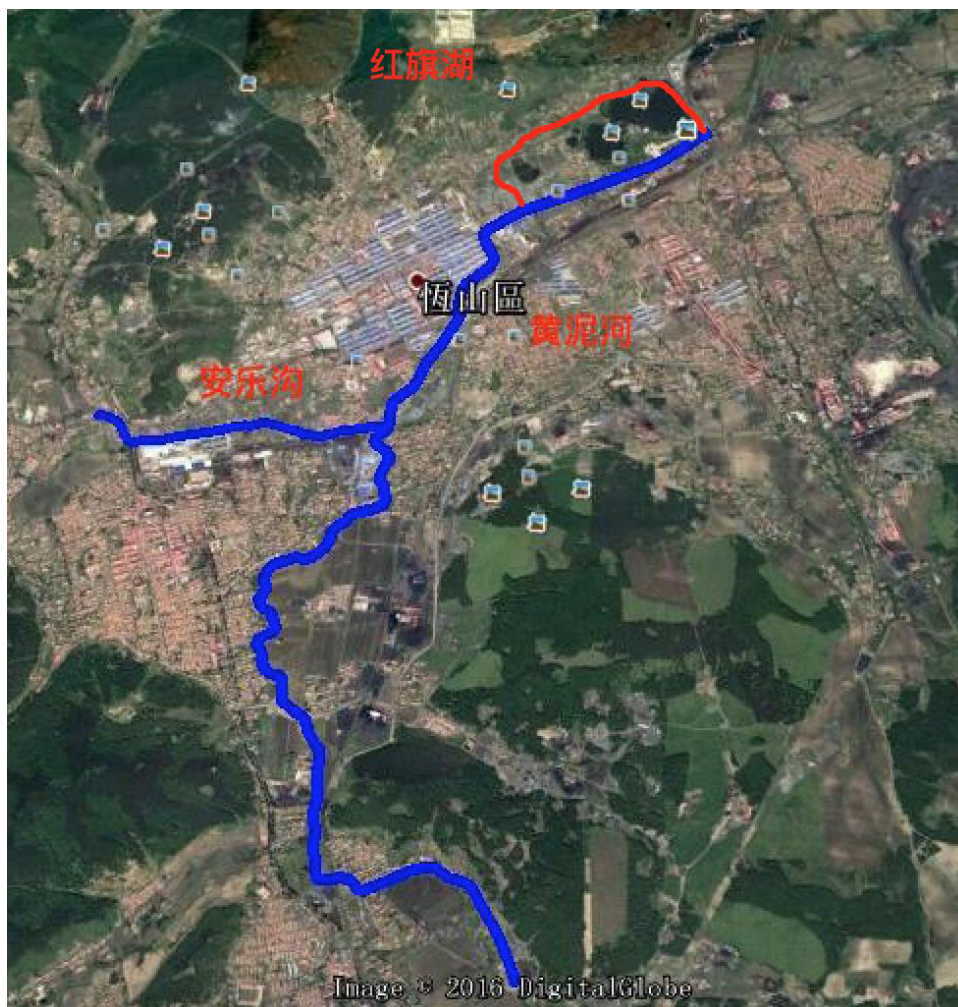


Figure 4: Location Map of Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation

21. Scope of Works. The works will cover three areas:

- a. Huangni River upper segment cleanup (Gaihe Bridge-Gongqu Bridge) has a total length of 7.9km, and includes dredging, landscaping, lighting, etc. Its flood control range is from Gaihe Bridge to the Dahengshan railway bridge, about 4.8km long.
- b. The Anle Gup Creek (Anle Group 2-railway bridge) has a full length of 1,752m, including dredging, landscaping, side slope construction, lighting, etc. Its flood control range is from 750m above the river mouth of the Anle Ditch to the highway culvert.
- c. Hongqi Lake is located in the north piedmont. Works will include square and footpath construction, landscaping, and lighting within the existing south and north embankment.

22. **No LA/HD Impacts**. The works will not involve any temporary impacts and permanent acquisition since rehabilitation activities will be within the existing embankment; the areas are unencumbered or free of any structures.

E. Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement



Figure 5: Location Map of Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement

23. The Cultural and Sports Center will require a total land area of 48 mu. It will consist of the following: 5-storey library (building area of 5,000 m²) the gymnasium (building area of 5,000 m²), and monitoring and training center (building area of 8,000 m²).

24. Scope of LA and resettlement impacts. The construction will require the permanent acquisition of 48 mu of non-irrigated collective land in Hongqi Village, Hongqi Xiang, Hengshan District. It will affect 30 households (77 persons). Crops are corn and soybeans. In addition, 8 households (23 persons) are affected by house demolition with a combined floor area of 756 m².

Table 7: LA and Resettlement Impacts of Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement

Subcomponent	District	Xiang	Village	Affected collective land			House Demolition (Rural)		
				Area	Affected		Area	Affected	
				Non-irrigated land (mu)	HHs	Population	Masonry timber (m ²)	HHs	Population
Cultural and Sports Center	Hengshan	Hongqi Xiang	Hongqi	48	30	77	756	8	23
Subtotal				48	30	77	756	8	23

F. Road Improvement in Jiaotong Street, Huangli River Floodway and Gonggu Flyover



Figure 6: Photos of Roads

25. Scope of Works. The subcomponents will not involve any land acquisition and resettlement impacts.

- a. Proposed Jiaotong Street is located in Hengshan District, 289m long and 35m wide. The works will include installation of drainage, lighting and landscaping within its existing boundary line. It is within the state-owned construction land. The road right-of-way was acquired in 2010 as part of Hengshan District's overall master plan development. Before land acquisition, the Jiaotong Street was a local rural pitch road for more than 25 years and after land acquisition, its ownership right change from rural construction land to state-owned construction land. There are no ownership dispute, no APs on said land.
- b. The proposed riverside landscaped road (Huangni River Floodway) is located in Hengshan District, 6m wide and 1,510m long. It was formerly . Works will be limited to landscaping an area of 4,500m. There are no LA or house demolition impacts in the landscaping works to be done on one side of the Huangli River.
- c. Proposed Gonggu Flyover is located in Hengshan District, 330m long, with a horizontal curve with a radius of 500m and a ramp with a radius of 75m. The flyover will begin at Hongqi Lake and ends south of the existing road-railway junction. The 43.88 mu to be occupied is existing state-owned construction land. It will not involve any LA or house demolition impacts.

G. Urban Regeneration and Urban Infrastructure



Figure 7: Location Map of Urban Regeneration and Urban Infrastructure

26. This component consists of the northwest urban drainage system, the east Lengjia Ditch wastewater and rainwater system, and the wastewater and rainwater system of the southeast area enclosed by Kuangleng River and Wanjiaogou Foundry. The Jixi Urban Sewer Network Reconstruction and Expansion subcomponent includes the construction of sewer lines of 24.3km, rainwater lines of 15.2km, open rainwater canals of 10.1km, one wastewater lifting pump, 3 rainwater lifting pumps and 4 rainwater desilting basins. The Jixi Old Industrial Park Water Supply Network Reconstruction and Expansion subcomponent includes the construction of water supply pipes of 16,772m, and associated pump stations and shafts.

27. Scope of LA and resettlement impacts

a. Jixi Urban Sewer Network Reconstruction and Expansion:

- Sewer lines of 24.3km will be laid on existing roads involving neither LA nor HD. It will temporarily occupy 186.45 mu of State-owned construction land during construction. There are no structures or encumbrances on state-owned construction land. The land is under the management of the Transport Bureau.

Table 8: New Sewer Lines: Temporary Impacts

Subcomponent		Location	Diameter (mm)	Qty.	Unit	Temporary Impacts (mu)
Northwest urban drainage system	Tengfei Road	Laid along road south	DN600	5600	m	42.00
	Limin Road	Laid along road north	DN600	2000	m	15.00
	Xinfa concealed line	Laid along road west	DN1200	1200	m	9.00
	Lengku open canal	Laid along road west	DN1000	1200	m	9.00
	Tiexi open canal	Laid along road west	DN1000	800	m	6.00
	Zhongxing Street	Laid along road west	DN1000	400	m	3.00
	Xiangguang West Road	Laid along road north	DN600	600	m	4.50
Southeast area enclosed by Kuangleng River and Wanjiaogou Foundry	Nanxing Street	Laid along road east	DN800	2500	m	18.75
	Kuangleng River upper extension	Laid along road north	DN1500	5000	m	37.50
	Foundry upstream	Laid along road north	DN1500	3500	m	26.25
	Wanjia River reconstruction	Laid along road south	DN1000	1000	m	7.50
Lengjia Ditch	Lengjia Ditch upper extension	Laid along road west	DN800	500	m	3.75

Subcomponent		Location	Diameter (mm)	Qty.	Unit	Temporary Impacts (mu)
Subtotal				24300	m	182.25
Railway and river crossing culverts	Xinfa railway crossing culvert		180m×4.5m×3m			1.4
	Lengku Ditch railway crossing culvert		180m×4.5m×3m			1.4
	Foundry railway crossing culvert		180m×4.5m×3m			1.4
Subtotal						186.45

- Rainwater lines of 15.2km will be laid on existing roads. It will temporarily occupy 57.75 mu of state-owned construction land during construction. There are no structures or encumbrances on state-owned construction land. The land is under the management of the Transport Bureau.

Table 9: New Rainwater Lines: Temporary Impacts

Subcomponent		Location	Diameter (mm)	Qty.	Unit	Temporary Impacts (mu)
Northwest urban rainwater system	Tengfei Road	Laid along road north	DN600	1200	m	9.00
			DN800	700	m	5.25
			DN1000	3700	m	27.75
	Limin Road	Laid along road north	DN600	650	m	/
			DN800	400	m	/
			DN1000	950	m	/
	Xinfa rainwater pump station	Laid along road west	DN800	400	m	3.00
			DN1200	1800	m	/
	Shui'an Street	Laid along road west	DN1500	1500	m	11.25
	Zhongxing Street	Laid along road west	DN1500	800	m	1.5
Southeast area enclosed by Kuangleng River and Wanjiagou Foundry	Xiangguang West Road	Laid along road north	DN1000	600	m	/
	Nanxing Street	Laid along road east	DN800	700	m	/
Subtotal				15200	m	57.75

- The six locations of the open canals in Jiguan District will result to impacts on collective (non-irrigated) farmland in five villages affecting 75 households (247 persons).
- The Yejin wastewater pump station at the junction of Taiyangsheng and Diangong Roads will involve the acquisition of 3.74 mu of collective land in Taiyangsheng Village, Xijiao Xiang. The affected land is village mobile land, not allocated to any household, therefore, no LA or HD impacts on households.
- The Shui'an Street rainwater pump station and the Zhongxing Street rainwater pump station will affect 7.98 mu of collective land. The affected land is not allocated to any household, therefore, no LA or HD impacts on households.
- For the Xinfa rainwater pump station, it will affect 3 households (14 persons) due to impact on 3.51 collective (non-irrigated) farmland but no HD.

Table 10: LAR Impacts of Open Canals and Pump Stations

Sub-components	Details	Township	Village	Non-irrigated land (mu)	HHs	Population
Open canals	Tiexi	Xijiao Xiang	Xijiao	3.74	7	26
	Kuangleng River Upper Extension	Hongxing Xiang	Hongsheng	3.1	14	47
			Qianjin	2.27	18	59
	Foundry Upstream	Hongxing Xiang	Dongtai	5.92	35	114
	Lengjia Ditch Upper Extension	Hongxing Xiang	Hongtai	0	0	0
	Wanjia River	Hongxing Xiang	Hongxing	1.17	1	3
	Sub-total			16.2	75	247
Waste Water Pump station	WWTP	Xijiao Xiang	Taiyangsheng	3.74	/	/
Rainwater Pump Station	RWPS	Xijiao Xiang	Xijiao Xiang	7.98	0	0
		Xijiao Xiang	Xinfa	3.51	3	14
	Sub-total			15.23	3	14
	TOTAL			31.43	78	263

- b. Jixi Old Industrial Park Water Supply Network Reconstruction and Expansion: This subcomponent will be constructed on existing roads (State-owned construction land); but will temporarily occupy 123.47 mu of land during construction. There are no structures or encumbrances on the State-owned construction land. The land is under the management of the Transport Bureau.

Table 11: Temporary Impacts: Jixi Old Industrial Park Water Supply Network

Subcomponent	Location	Diameter (mm)	Qty.	Unit	Temporary Impacts (mu)
Xingguo West Road (west of No.3 water treatment plant)	Laid along road south	DN300	3408	m	25.56
Xingguo West Road (east of No.3 water treatment plant)	Laid along road south	DN600	1669	m	12.52
Jidi Highway	Laid along road west	DN300-DN400	3257	m	24.43
East of Xingfuli Community	Laid along road west	DN400-DN700	2914	m	21.85
No.3 water treatment plant to Yujingshan River	Laid along road west	DN400	1514	m	11.35
Hongqi Road	Laid along road west	DN500	295	m	2.21
Jiheng Street	Laid along road south	DN400-DN500	3183	m	23.87
Hongxing Road	Laid along road south	DN400	224	m	1.68
Subtotal					123.47

I. Jixi City No.3 Water Treatment Plant Upgrading and Expansion

28. This component includes: i) upgrading of aged equipment of the existing 84,000 m³/d intake pump station for improved safety; ii) reconstruction of the No.3 Water Treatment Plant to restore supply capacity to 50,000 m³/d, and improvement of the existing settling tank and double valve filter tank to restore supply capacity to 5×10⁴ m³/d; iii) construction of an 80,000 m³/d deep treatment system; iv) construction of an 80,000 m³/d sludge treatment and wastewater recovery system; and v) auxiliary facilities associated with the above facilities.

29. There will be no LA and resettlement impacts for this component because works will be carried out within the existing compound of the water treatment plant. An open space has been reserved. The water treatment plant was built in 1995.

Table 12: Summary LA and Resettlement Impacts by Component

Component	District	Township / sub-district	Village	Occupation of state-owned land		LA			Demolition of rural residential houses			Temporary land occupation						Vulnerable groups		Total affected population / female
				Area (mu)		Non- irrigated land (mu)	Affected		Area (m²)	AHs	APs (total / female)	Area			Affected		HHS	Population		
				Wood land	Construction land		AHs	APs (total / female)				Collective non- irrigated land (mu)	State-owned land (mu)	Subtotal (mu)	AHs	APs (total / female)				
Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities	Hengshan	Jixi Luhai Forestry Co., Ltd.		13.76																
	Subtotal			13.76																
Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park	Jiguan	Hongxing Xiang	Dongtai			84.53	5	31/14	1345.5	13	79/33	49.79		49.79	13	52/24	1	1	162/71	
	Subtotal					84.53	5	31/14	1345.5	13	79/33	49.79		49.79	13	52/24	1	1	162/71	
Wasterock Dumpsite Remediation/ Safe Closure and Management of Former Mines																				
Hengshan District Integrated Lake and Rivers Rehabilitation and Ecosystems Based Adaptation																				
Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement	Hengshan	Hongqi Xiang	Hongqi			48	30	77/35	756	8	23/10						9	15	100/45	
	Subtotal					48	30	77/35	756	8	23/10						9	15	100/45	
Road Construction	Hengshan	Jixi Luhai Forestry Co., Ltd.			43.88															
	Subtotal				43.88															
Urban Regeneration and Urban Infrastructure	Transport bureau												367.67	367.67						
	Jiguan	Xijiao Xiang	Xijiao			3.74	7	26/12									1	1	26/12	
			Xinfa			3.51	3	14/6												
			Taiyangsheng			3.74													14/6	

Component	District	Township / sub-district	Village	Occupation of state-owned land		LA			Demolition of rural residential houses			Temporary land occupation					Vulnerable groups		Total affected population / female
				Area (mu)		Non-irrigated land (mu)	Affected		Area (m ²)	AHs	APs (total / female)	Area			Affected		HHs	Population	
				Wood land	Construction land		AHs	APs (total / female)				Collective non-irrigated land (mu)	State-owned land (mu)	Subtotal (mu)	AHs	APs (total / female)			
		Hongxing Xiang	Hongsheng			3.1	14	47/21									3	3	47/21
			Qianjin			2.27	18	59/27									4	7	59/27
			Dongtai			5.92	35	114/59									8	13	114/59
			Hongxing			1.17	1	3/1											3/1
			Xijia Xiang			7.98	0	0											
	Subtotal					23.45	78	263/126					367.67	367.67			16	24	263/126
Jixi City No.3 Water Treatment Plant Upgrading and Expansion																			
Total				13.76	43.88	163.96	113	371/175	2101.5	21	102/43	49.79	367.67	417.46	13	52/24	26	40	525/242

III. Socioeconomic Information and Household Profile

30. During January 5-22, 2017, a socioeconomic survey was conducted on 44 potentially affected households (29.93% of all AHs).

Table 13: Sample Distribution of Socioeconomic Survey

Component	Village	AHs	Sample HHs	Rate
Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park	Dongtai	31	10	32.26%
Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement	Hongqi	38	13	34.21%
Urban Regeneration and Urban Infrastructure	Xijiao	7	4	57.14%
	Taiyangsheng	3	2	66.67%
	Hongsheng	14	3	21.43%
	Qianjin	18	4	22.22%
	Dongtai	35	7	20.00%
	Hongxing	1	1	100.00%
Total	/	147	44	29.93%

A. Heilongjiang Province and Jixi City

31. Heilongjiang is located between north latitude 43°26'~53°33' and east longitude 121°11'~135°05', mostly being plains, with a land area of 473,000 km², governing 12 prefecture-level cities and 128 counties (cities, districts). Heilongjiang is a heavy industry base of China, and is focused on machinery, petroleum, coal, timber and food processing.

32. At the end of 2015, Heilongjiang had a population of 38.33 million, including 19.251 million males (50.22%) and 19.079 million females (49.78%), a cultivated area of 239 million mu, and a gross grain output of 60.586 million tons. In 2015, Heilongjiang's GDP was 1.50837 trillion yuan, 3,935.2 yuan per capita, in which the added value of primary industries was 261.14 billion yuan, that of secondary industries 554.45 billion yuan and that of tertiary industries 692.78 billion yuan. In 2015, urban residents' per capita disposable income was 22,609 yuan, and rural residents' per capita net income 10,453 yuan.

33. Jixi City is one of the main industrial cities and the largest coal city in northeastern China, located in southeastern Heilongjiang, bordered by Muleng and Qitaihe Cities, and Baoqing and Linkou Counties, with a registered population of 1.812 million at the end of 2015, including a nonagricultural population of 1.164 million. In 2015, the city's GDP was 51.47 billion yuan, up 4.1% year on year, in which the added value of primary industries was 18.75 billion yuan, up 6%; that of secondary industries 13.36 billion yuan, up 3.3%; and that of tertiary industries 19.36 billion yuan, up 3.6%; per capita GDP was 28,222 yuan, up 5.7%; urban residents' per capita disposable income 20,132 yuan, up 3.9%; and rural residents' per capita net income 14,409 yuan, up 7.1%.

B. Affected Counties and Districts

34. Jiguan District: This district is the political, economic, cultural and traffic center of Jixi City, and the largest trading center in southeastern Heilongjiang, and governs 7 sub-districts and two Xiangs, with a land area of 153.2 km² and a resident population of 365,376. In 2015, the district's GDP was 8.7 billion yuan, up 25%; fiscal revenue 770 million yuan, up 28.5%; fixed asset investment 1.82 billion yuan, up 116%; trading volume 118 million yuan, up 38%; urban residents' per capita disposable income 18,020 yuan, up 24.2%; and rural residents' per capita net income 15,100 yuan, up 20%.

35. Hengshan District: This district has a population of 164,200, including an urban population of 122,900 and an agricultural population of 41,300, and governs 7 sub-districts and 3 Xiangs. In 2015, the district's GDP was 1.73163 billion yuan, up 6%; fiscal revenue 180.77 million yuan, up 6.3%; fixed asset investment 1.37959 billion yuan, up 7.4%; social retail sales of consumer goods 1.42475 billion yuan, up 7.7%; urban residents' per capita disposable income 16,563 yuan, up 5%; and rural residents' per capita net income 16,381 yuan, up 10%.

C. Townships and Villages Affected by the Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park

36. Hongxing Xiang: This Xiang is located in Jiguan District, with a land area of 70 km², a population of 19,882, including an agricultural population of 13,378, and a cultivated area of 37,432 mu, governing 8 administrative villages and 43 natural villages. This Xiang has developed stockbreeding. In 2016, farmers' per capita annual income was 21,100 yuan, up 5%.

37. Dongtai Village: This village has 951 households with 3,167 persons, including 1,660 males, accounting for 52.5%, an agricultural population of 2,860, accounting for 90.5%, and a labor force of 1,200. This village has a cultivated area of 4,081 mu, and the main crops are corn and soybean. Farmers' per capita annual income is 17,890 yuan.

38. Affected population: the task force conducted a sampling survey on 10 AHs with 53 persons in Dongtai Village, with a sampling rate of 32.26%, including two households with 15 persons affected by LA, 4 households with 21 persons by HD and 4 households with 17 persons by temporary land occupation.

- Ethnic and gender composition: The 10 sample households have 53 persons in total, all being Han people, averaging 5.3 persons per household, with a labor force of 27, and including 25 females, accounting for 49.06%.
- Age structure: Among the samples, 10 persons are below 18 years, accounting for 18.87%; 27 aged 19~60 years, accounting for 50.94%; and 16 aged 61 years or above, accounting for 30.19%.
- Educational level: Among the samples, 16 have received primary school or below education, accounting for 30.19%; 27 have received junior high school education, accounting for 50.94%; and 10 have received senior high school or above education, accounting for 18.87%.
- Residential conditions: The sample households live in masonry timber houses, with an average size of 154.23 m² per household or 29.10 m² per capita. These houses are well equipped. All households interviewed have indoor cable TV, power supply, separate toilet, tap water.
- Means of production: The sample households have an average cultivated area of 7.8 mu per household or 1.57 mu per capita. The main crops are corn and soybean.
- Household assets: Among the sample households, an average household has 1.7 TV sets, 0.9 refrigerator / air-conditioner, 3.4 fixed telephones / cell phones, 0.7 motorcycle, and 0.6 tractor or other farm machine
- Annual household income and expenditure. Household expenditure: The average annual expenditure of the sample households is 65,030 yuan, including operating expenses of 8,730 yuan, accounting for 13.42%, and nonproductive expenses of 56,300 yuan, accounting for 86.58%. Household income: The average annual income of the sample households is 116,970 yuan, including agricultural income of 11,430 yuan, accounting for 9.77%, sideline income of 1,370 yuan, accounting for 1.17%, wage income of 35,870 yuan, accounting for 30.67%, outside employment income of 67,960 yuan, accounting for 58.10%, and other nonagricultural income of 340 yuan, accounting for 0.29%.

D. Townships and Villages Affected by the Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement

39. Hongqi Xiang: Hongqi Xiang is located in central Hengshan District, and governs 16 administrative villages with 76 groups, with a population of 22,945, including an agricultural population of 16,532 and a cultivated area of 34,252 mu. This Xiang has developed vegetable cultivation. In 2016, farmers' per capita annual income was 13,281 yuan.

40. Hongqi Village: This village has 505 households with 2508 persons, including 1,183 males, accounting for 47.2%, an agricultural population of 2,245, accounting for 89.5%, and a labor force of 1,563. This village has a cultivated area of 1,992 mu, and the main crops are vegetables. Farmers' per capita annual income is 12,740 yuan.

41. Affected population: the task force conducted a sampling survey on 13 AHs with 33 persons in Hongqi Village, with a sampling rate of 34.21%, including 8 households with 20 persons affected by LA, 5 households with 12 persons by HD and 4 households with 17 persons by temporary land occupation.

- Ethnic and gender composition: The 13 sample households have 33 persons in total, all being Han people, averaging 2.54 persons per household, with a labor force of 13, and including 18 females, accounting for 54.55%.
- Age structure: Among the samples, 6 persons are aged 0~18 years, accounting for 18.18%; 13 aged 19~60 years, accounting for 39.40%; and 14 aged 61 years or above, accounting for 42.42%.
- Educational level: Among the samples, 19 have received primary school or below education, accounting for 57.58%; 11 have received junior high school education, accounting for 33.33%; and 3 have received senior high school or above education, accounting for 9.09%.
- Residential conditions: The sample households live in masonry timber houses, with an average size of 79 m² per household. These houses are well equipped with power supply (100%) and tap water (100%). 80% of the households have separate toilets and cable TV
- Cultivated Landholdings: The sample households have an average cultivated area of 3.65 mu per household or 1.46 mu per capita. The main crops are corn and soybean.
- Household assets: Among the sample households, an average household has 1 TV set, 0.75 refrigerator / air-conditioner, 0.7 fixed telephones / cell phones, 0.125 motorcycle, and 0.25 tractor or other farm machine
- Annual household income and expenditure. Household expenditure: The average annual expenditure of the sample households is 18,300 yuan, including operating expenses of 2,400 yuan, accounting for 13.11%, and nonproductive expenses of 15,900 yuan, accounting for 86.89%. Household income: The average annual income of the sample households is 25,200 yuan, including agricultural income of 4,300 yuan, accounting for 17.57%, sideline income of 890 yuan, accounting for 3.53%, wage income of 113,00 yuan, accounting for 44.81%, outside employment income of 8,500 yuan, accounting for 33.70%, and other nonagricultural income of 100 yuan, accounting for 0.40%. See Table 16.

E. Townships and Villages Affected by the Urban Regeneration and Urban Infrastructure

42. Xijiao Xiang: This Xiang is located in northeastern Jiguan District, with a land area of 59 km², a population of 14,605, and a cultivated area of 1.64 million mu, governing 6 administrative villages. This Xiang has developed soybean, bean and vegetable cultivation. In 2016, farmers' per capita annual income was 27,540 yuan.

43. Hongxing Xiang: This Xiang is located in Jiguan District, with a land area of 70 km², a population of 19,882, including an agricultural population of 13,378, and a cultivated area of 37,432 mu, governing 8 administrative villages and 43 natural villages. This Xiang has developed stockbreeding. In 2016, farmers' per capita annual income was 21,100 yuan, up 5%.

44. Xijiao Village: This village has 1,190 households with 3,067 persons, including 1,623 males, accounting for 52.92%, an agricultural population of 2,891, accounting for 94.26%, and a labor force of 1,756. This village has a cultivated area of 2,909 mu, and the main crops is corn. Farmers' per capita annual income is 17,855 yuan.

45. Xinfa Village: This village has 693 households with 2,111 persons, including 1,165 males, accounting for 55.2%, an agricultural population of 1,983, accounting for 93.94%, and a labor force of 1,445. This village has a cultivated area of 2,476 mu, and the main crops are corn and soybean. Farmers' per capita annual income is 16,980 yuan.

46. Taiyangsheng Village: This village has 648 households with 1,698 persons, including 936 males, accounting for 55.1%, an agricultural population of 1,526, accounting for 89.87%, and a labor force of 960. This village has a cultivated area of 1,470 mu, and the main crops are vegetables. Farmers' per capita annual income is 18,170 yuan.

47. Hongsheng Village: This village has 748 households with 1,954 persons, including 983 males, accounting for 50.3%, an agricultural population of 1,374, accounting for 70.3%, and a labor force of 1,365. This village has a cultivated area of 3,200 mu, and the main crops is corn. Farmers' per capita annual income is 12,500 yuan.

48. Qianjin Village: This village has 358 households with 1,480 persons, including 780 males, accounting for 52.7%, an agricultural population of 1,290, accounting for 87.2%, and a labor force of 890. This village has a cultivated area of 3,577 mu, and the main crops are corn and soybean. Farmers' per capita annual income is 14,150 yuan.

49. Dongtai Village: This village has 951 households with 3,167 persons, including 1,660 males, accounting for 52.5%, an agricultural population of 2,860, accounting for 90.5%, and a labor force of 1,200. This village has a cultivated area of 4,081 mu, and the main crops are corn and soybean. Farmers' per capita annual income is 17,890 yuan.

50. Hongxing Village: This village has 875 households with 3,547 persons, including 1,780 males, accounting for 50.2%, an agricultural population of 1,998, accounting for 56.3%, and a labor force of 1,279. This village has a cultivated area of 3,577 mu, and the main crops are corn and soybean. Farmers' per capita annual income is 16,390 yuan.

51. Affected population: the task force conducted a sampling survey on 21 AHs with 60 persons in Dongtai Village (all affected by LA), with a sampling rate of 26.92%.

- Ethnic and gender composition: The 21 sample households have 60 persons in total, including 3 Manchu people, averaging 2.86 persons per household, with a labor force of 32, and including 33 females, accounting for 55%. The Manchu or Man have assimilated into Han population as early as the 17th century by adopting Han's language, culture and clothes.

- Age structure: Among the samples, 3 persons are below 18 years, accounting for 5.00%; 42 aged 19~60 years, accounting for 70.00%; and 15 aged 61 years or above, accounting for 25.00%.
- Educational level: Among the samples, 10 have received primary school or below education, accounting for 16.67%; 33 have received junior high school education, accounting for 55.00%; and 12 have received senior high school or above education, accounting for 20.00%.
- Residential conditions: The sample households live in masonry timber houses, with an average size of 73.76 m² per household. These houses are well equipped. All have indoor cable TV, power supply, separate toilet and tap water.
- Means of production: The sample households have an average cultivated area of 4.31 mu per household or 1.51 mu per capita. The main crops are corn and soybean.
- Household assets: Among the sample households, an average household has 1.19 TV sets, 0.9 refrigerator / air-conditioner, 2.43 fixed telephones / cell phones, 0.29 motorcycle, and 0.38 tractor or other farm machine.
- Annual household income and expenditure. Household expenditure: The average annual expenditure of the sample households is 65,030 yuan, including operating expenses of 8730 yuan, accounting for 13.42%, and nonproductive expenses of 56,300 yuan, accounting for 86.58%.
- Household income: The average annual income of the sample households is 11,697 yuan, including agricultural income of 11,430 yuan, accounting for 9.77%, sideline income of 1,370 yuan, accounting for 1.17%, wage income of 35,870 yuan, accounting for 30.67%, outside employment income of 67,960 yuan, accounting for 58.10%, and other nonagricultural income of 340 yuan, accounting for 0.29%.

IV. Legal Framework, ADB SPS, and Gap Analysis

A. Laws, Regulations and Policies of the PRC

52. The following are the State laws, regulations and policies:

- Land Administration Law of the PRC (effective from January 1, 1999, amended on August 28, 2004)
- Measures on Public Announcement of Land Acquisition (Decree No.10 of the Ministry of Land and Resources)
- Regulations on House Acquisition on State-owned Land and Compensation (Decree No.590 of the State Council)
- Decision of the State Council on Deepening the Reform and Rigidly Enforcing Land Administration (SC [2004] No.28) (October 21, 2004)
- Measures for the Administration of Preliminary Examination of the Land Used for Construction (Decree No.27 of the Ministry of Land and Resources)
- Opinions of the Ministry of Land and Resources, and the Ministry of Agriculture on Strengthening Land Use and Administration of State Farms (MLR [2008] No.202)
- Notice of the General Office of the State Council on Doing a Good Job in the Employment Training and Social Security of land-loss farmers (LLF) (SCO [2006] No.29)
- Notice of the State Council on Intensifying Land Control (SC [2006] No.31)
- Notice of the Ministry of Land and Resources on Doing a Better Job in Land Acquisition Management (June 26, 2010)

B. Local Regulations and Policies

53. In addition, local regulations and policies are also adopted for the Project:

- Administrative Measures for the Collection of Compensation for Mineral Resources (Decree No.14 of the Heilongjiang Provincial Government)
- Administrative Measures of Heilongjiang Province for the Collection of Land Reclamation Fees (HPLRD [2001] No.111)
- Interim Measures of Heilongjiang Province for Endowment Insurance for Land-Loss Farmers (HPLSSD [2008] No.64)
- Regulations of Heilongjiang Province on Basic Farmland Protection (2011 Amendment)
- Land Registration Fee Items, Rates and Basis (September 3, 2012)
- Implementation Measures of Heilongjiang Province for Location-based Composite Land Prices for Land Acquisition (HPG [2014] No.34)
- Land Administration Regulations of Heilongjiang Province (2015 Amendment)
- Regulations on the Administration of Mineral Resources of Heilongjiang Province (2015 Amendment)
- List of Charging Items in Land Administration (January 29, 2015)
- List of Charging Items in Mineral Administration (July 2, 2015)
- Notice of the Heilongjiang Provincial Land and Resources Department on Properly Adjusting Location-based Composite Land Prices for Land Acquisition (HPLRD [2015] No.26)
- Notice of the Heilongjiang Provincial Labor and Social Security Department on Land-Loss Farmers to Cover Basic Endowment for Urban Employees (HPLSSD [2012] No.61)
- Acquisition and Compensation Measures for Houses on State-owned Land of Jixi City (JMG [2012] No.11)
- Announcement on Adjusting Location-based Composite Land Prices for Land Acquisition of Jixi City (JMG [2015] No.47)
- House Acquisition and Compensation Measures for the Jixi Coal Mining Subsidence Area Reconstruction Project (JMGO [2015] No.74)
- Resettlement House Purchase Measures for the Jixi Coal Mining Subsidence Area

- Reconstruction Project (JMGO [2015] No.75)
- Compensation and Resettlement Implementation Plan for the Jixi Coal Mining Subsidence Area Reconstruction Project (JMGO [2015] No.76)
- Interim Measures for Social Assistance (JMG [2015] No.23)
- Measures of Jixi City for Living Subsidies for Distressed Disabled Persons and Nursing Subsidies for Severely Disabled Persons (July 27, 2016)
- Notice on Improving Urban and Rural MLS, and Rural Five-guarantee Support Standards of Jixi City (November 30, 2016)

C. ADB Policies

54. The policies and principles adopted for the subproject are as follows:

- Safeguard Policy Statement, June 2009
- Accountability Mechanism, February 2012
- Public Communications Policy, 2011

55. The objectives of the IR safeguards are: To avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable. The principles are presented in the table below:

Table 14: Resettlement Principles

Principles	
(i)	Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.
(ii)	Carry out meaningful consultations with affected persons, host communities, and concerned nongovernmental organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.
(iii)	Improve or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.
(iv)	Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.
(v)	Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.
(vi)	Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
(vii)	Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.

Principles	
(viii)	Prepare a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
(ix)	Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.
(x)	Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.
(xi)	Pay compensation and provide other resettlement entitlements before physical or economic relocation. Implement the resettlement plan under close supervision throughout project implementation.
(xii)	Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.

D. Differences between PRC Laws and ADB Policies

56. There are some differences between relevant PRC laws and ADB policies, such as the following:

- ADB emphasize the importance of resettlement planning during project preparation stage, and it requires that a satisfactory RP be prepared during PPTA stage/feasibility study;
- The ADB's resettlement policies ensure that the affected persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets at replacement costs. However, the LAR policies of the PRC provide a different compensation policy to unlicensed structures;
- ADB has specific and clear requirements on carrying out consultations and public participation as early as project planning and that key information in the RP be disclosed in a language and manner that is understandable to the APs;
- ADB gives special attention to the vulnerable people who may be at risk or requires support during resettlement and that the necessary assistance be provided to them ; and
- ADB addresses more importance of monitoring and evaluation during and after resettlement implementation.

57. Based on the above analysis, the sub-project has taken full consideration of the relevant policies of ADB and adopted the following policies and procedures:

- The preparation of the Project and RP will be based on effective risk analysis to determine the impacts and risks on affected households
- Special attention and assistance will be given to vulnerable people including poor, women, during preparation, updating, and implementation;
- Provision of compensation at full replacement cost for structures/buildings regardless of tenure status as long as the owners of structures/buildings meet the Sub-project's cut-off date;
- Income and Livelihood Restoration through technical training, access to job opportunities, job support, endowment insurance, will be provided to the APs to restore their sustainable livelihoods;
- Disclose the key information in the RP, e.g. distribute copies of resettlement information booklet (RIB) to the affected people; and
- Establish internal and external monitoring systems for the LAR and conduct monitoring and evaluation during and after implementation of the RP.

V. Measures to Minimize Resettlement Impacts During Detailed Design

58. Following the general objective in avoiding, if not, minimizing land acquisition and resettlement impacts, the table below describes the project context strategies that will be adopted during detailed design for the entire project.

Table 15: Project Strategies during Detailed Design to Avoid/Minimize LAR Impacts

Components	Measures to Avoid/Minimize LAR Impacts During Detailed Design
Industrial Parks: Facilities (SME and park management buildings) For roads, wastewater treatment plants, pipes: see below	Review and if needed and possible adjust site locations and site layouts, building site locations and design of ancillary facilities
Mining remediation: Open Pit Mine and Wasterock Dumpsites For rivers and roads: see below	Review remediation areas, areas affected by subsidence, and areas planned for reuse as public green space while maintaining key objectives of improving public safety, human and environmental health, and reclamation and reuse of the land affected by mining impact
Integrated ecological river rehabilitation and flood risk management	Review and if needed and possible adjust river embankment design and right-of-way in those locations where not sufficient space is available for the integrated green infrastructure sponge city approach with wider lower-lying green embankments and ecological riparian landscape and wetlands are possible
Road rehabilitation and construction, including bus lanes and bus bays, pedestrian sidewalks and greening; and construction of bus terminals,	Review and if needed and possible adjust road alignments, bus lanes, bus bays, pedestrian sidewalks, and greening, and also review public right-of-way widths and if possible and needed reduce, if vehicular circulation functions, public transport, pedestrian and bicycle, and greening functions allow Bus terminal buildings site location and layout and design of buildings and ancillary facilities to be carefully developed minimizing LAR impacts both during construction and permanently
Water supply plants, reservoir tanks, pump stations, wastewater treatment plants	Review and if needed and possible adjust site locations and site layouts, site locations and design of ancillary facilities. Optimize locations of specific treatment facilities with possible negative impact (such as odor from sludge treatment facilities) on the site away from nearby residents to minimize adverse impacts
Water supply, sewers, drainage, and district heating pipes	Review and if needed and possible adjust alignments of pipes. Provide continuous access and ensure safety to residents during installation of pipes

VI. Project Entitlements

A. Cut-off Date of Eligibility

59. The cut-off date for eligibility for compensation is the time when the Project is officially announced to the affected villages. Announcement can be through distribution of resettlement information booklet or posting notices in the village community boards. Any newly claimed land, newly built house or settlement in the project area by the APs after this date will not be entitled to the compensation or subsidization.

B. Compensation Rates for Collective Rural Land and Young Crops

60. According to the Land Administration Law of the PRC, the Guidelines on Improving Compensation and Resettlement Systems for Land Acquisition, the Land Administration Regulations of Heilongjiang Province (2015 Amendment), and the Notice of the Jixi Municipal Government on Adjusting Location-based Composite Land Prices for Land Acquisition (JMG [2015] No.47), the rural collective land acquired for the Subproject will be compensated for at location-based composite land prices for LA. Within this policy, the location-based price consider the following factors: (i) land type; (ii) the annual output value; (iii) land location; (iv) agricultural land rating; (v) land area per capita; (vi) land supply and demand; (vii) local economic development level, and (viii) the minimum living security level of urban residents.

61. The affected rural collective land produce are soybeans and corn. Harvesting is only done once a year due to Heilongjiang's cold climate. The application of "location-based composite land prices" is considered quite high since the price of compensation rate for land is 316 -591 times more than the net income from farm land per year as presented in the following tables.

Table 16: Annual Income from Farm Land

Item			Dongtai / Qianjin / Xinfu / Hongqi / Taiyangsheng	Hongxing / Xijiao / Hongsheng
			Corn, soybean, etc.	Corn
Input	/	yuan/mu	700	550
Output	Output	kg/mu	680	510
/	Price	yuan/kg	1.2	1.2
/	Net income	yuan/mu	116	62

Table 17: Compensation Rates for LA

No.	District	Village	Area No.	Land compensation rate (yuan/mu)	Range	Co-efficient (No. of Years of Harvest)
1	Jiguan	Hongxing	Jixi 1	36,666.85	Jiguan District (Hongxing and Xijiao Xiangs)	591
2	Jiguan	Xijiao	Jixi 1	36,666.85	Jiguan District (Hongxing and Xijiao Xiangs)	591
3	Hengshan	Hongqi	Jixi 10	28,666.81	Hengshan District (Hongqi and Minzhu Xiangs)	316

62. Of the compensation payment for rural collective land, the village will receive 30% while the affected households will receive 70%. The use of compensation payment received by the village will be discussed among the villagers.

Table 18: Compensation Arrangements for Rural Collective Land

No.	District	Village	Area No.	Land compensation rate (yuan/mu)	Range	Compensation rate (yuan/mu) 70% of LA compensation will be paid to the APs	Compensation rate (yuan/mu) 30% for the affected collective
1	Jiguan	Hongxing	Jixi 1	36,666.85	Jiguan District (Hongxing and Xijiao Xiangs)	25,666.80	11,000.06
2	Jiguan	Xijiao	Jixi 1	36,666.85	Jiguan District (Hongxing and Xijiao Xiangs)	25,666.80	11,000.06
3	Hengshan	Hongqi	Jixi 10	28,666.81	Hengshan District (Hongqi and Minzhu Xiangs)	20,066.77	8,600.04

63. For the compensation standards for young crops, it is based on the appraisal or negotiation. In practice, it is about the 6% of the compensation rate for LA, which is still higher compared to the net income derived from crops. It can also be considered that the affected households will receive payment for young crops equivalent to 15-35 years of harvest.

Table 19: Compensation Rates for Young Crops

No.	District	Xiang	Net Income From Farm Land/Year (Yuan/mu)	Area No.	Range	Compensation Rate for Young Crops (6%) (yuan/mu) 100% to the APs	Co-efficient (or number of years of harvest)
1	Jiguan	Hongxing Xiang	62	Jixi 1	Jiguan District (Hongxing and Xijiao Xiangs)	2200	35
2	Jiguan	Xijiao	62	Jixi 1	Jiguan District (Hongxing and Xijiao Xiangs)	2200	35
3	Hengshan	Hongqi Xiang	112	Jixi 10	Hengshan District (Hongqi and Minzhu Xiangs)	1720	15

C. Compensation Rates for State-Owned Land

64. The Subproject will occupy state-owned woodland and construction land. According to the Reply of the Heilongjiang Provincial Price Administration and Finance Department on Woodland Compensation Rates, etc. (HJL [2009] No.27), for acquired or occupied woodland, or woodland diverted to any other purpose, woodland and forest compensation, and resettlement subsidy shall be paid, where the compensation rate for immature woodland is 2 yuan/m², that for forests 2,000-3,000 yuan/mu, and resettlement subsidy 1,500 yuan/mu.

65. However, the woodland affected by the Subproject will be compensated for at the location-based composite land price of 28,666.81 per mu. Because there are no affected households on affected woodland owned by Jixi Luhai Forestry Co. Ltd, the resettlement subsidy will not apply.

66. On the affected state-owned construction land, since it is construction land, there will be no compensation. However, the necessary transfer or administration fees will be paid by the Project.

D. Compensation for Temporary Impacts

67. According to Article 10 of the Implementation Measures of Heilongjiang Province for Location-based Composite Land Prices for Land Acquisition (HPG [2014] No.34), the land occupied temporarily for the Sub-project will be compensated for at 10% of the location-based composite land price for LA if the occupation period is not more than one year, or 20% if not more than two years. Using the compensation for compensation for young crops at 6% as an example, the payment for temporary impacts between 10% - 20% of the composite-land prices can sufficiently cover the loss of net income from farming during temporary occupation.

E. Compensation for House Demolition on Rural Residential Land

68. Rural residential houses demolished for the Subproject will be compensated for pursuant to the House Acquisition and Compensation Measures for the Jixi Coal Mining Subsidence Area Reconstruction Project (JMGO [2015] No.74), the replacement house Purchase Measures for the Jixi Coal Mining Subsidence Area Reconstruction Project (JMGO [2015] No.75), and the Compensation and Resettlement Implementation Plan for the Jixi Coal Mining Subsidence Area Reconstruction Project (JMGO [2015] No.76), and the AHs may choose either cash compensation or property swap.

69. In case of cash compensation, the compensation rate will be fixed through appraisal by an appraisal agency. If the appraisal rate is lower than the corresponding replacement cost fixed by the government, the latter will apply.

70. In case of property swap, each AH will settle the price difference and floor fee between the acquired house and the replacement house, where the floor fee will not exceed 20% of the value of the replacement house. Both houses will be appraised by the same appraisal agency. If the price difference between them is great, a preferential price will be granted. For example, if the house area of the APs is below 50 m², the compensation house area will be calculated as 50 m². At the same time the APs can enjoy another 10 m² preferential price exceeding 50 m². If the AH house area is bigger than the replacement house, the exceeding part will be compensated at the appraisal price.

71. For equal size subject to swap, the price is 240 yuan/m² for masonry concrete structure, 260 yuan/m² for masonry timber structure, and 280 yuan/m² for simple (other) structure in case of resettlement in newly built housing, or 200 yuan/m² on average in case of resettlement in completed housing purchased by the government in downtown area. Any excess size will be compensated for as in the case of cash compensation.

72. Households affected by HD will also receive the following subsidies:

- a. Moving subsidy: 1,000 yuan in case of cash compensation or 2,000 yuan in case of property swap based on the certificate of title;
- b. Rental subsidy: 800 yuan for Grade 1 land, 600 yuan for Grade 2 land, 400 yuan for Grade 3 land and 300 yuan for Grade 4 or below land per month based on the certificate of title; and
- c. Decoration compensation based on appraisal.

F. Compensation for Affected Attachment and Infrastructure

73. The compensation rates for affected attachments and infrastructure are fixed based on the Acquisition and Compensation Measures for Houses on State-owned Land of Jixi City (JMG [2012] No.11). During RP updating, the compensation rates will be compensated based on the principle of

replacement cost. There will be appraisal by a qualified appraiser and subject to negotiation with the affected persons.

Table 20: Compensation Rates for Attachments and Infrastructure

Type	Unit	Compensation rate (yuan)	Remarks
Buildings, structures	m ²	100-200	Based on building area
Masonry gates	m ²	200-300	Based on building area
Enclosing walls, height ≥1.5m	m	60	60 yuan/m
Enclosing walls, height ≥1.8m	m	80	60 yuan/m
Enclosing walls, height ≥2m	m	100	100 yuan/m
Iron fence	m ²	50-70	No foundation, excluding wrought iron
Iron fence	m ²	75-95	With foundation, excluding wrought iron
Iron gate	m ²	80-100	
Iron sheet gate	m ²	60	
Masonry cellar	/	400-500	Depth ≥2m
Pumped well	/	500	
Masonry seepage well	/	400	Depth ≥1.5m
Fruit tree	/	40-80	
Power facilities			Based on actual losses

G. Additional Support and Assistance

74. The affected households will be compensated for land based on location-based price or will be reallocated with new land. For vulnerable households affected by the project, additional cash assistance will be provided and a special support fund has been established.

75. Moreover, the affected households will also be guided and supported on how to make use of their compensation payment. The income and livelihood strategy is linked with the Government ongoing programs, for example: (i) endowment insurance; and (ii) provision of trainings and access to information and job opportunities targeting both men and women. The income and livelihood support strategy is presented in Section VI.

76. The project entitlements are presented below.

Table 21: Project Entitlement Matrix

Type of Impacts	Eligible APs	Entitlements	Notes
Permanent Acquisition of Collective Rural Land (163.96 mu)	7 villages (excluding Xinfa Village) in 3 townships 113 AHs (371 persons/175 females), of which 26 AHs (with 40 persons) are vulnerable	Compensation at replacement per Location-based Composite Land Prices for Land Acquisition. Please see Table 18 on the rates. For vulnerable households: (i) those with MLS certificate will receive 3,000 yuan per household; (ii) Those with a disability certificate will receive 1,000-3,500 yuan per person depending on disability, (iii) a special support fund for affected vulnerable households will be established by the Project. All households losing collective rural land: Additional support and assistance such as endowment insurance wherein 70% is subsidized by Government and collective, provision of training and better access to job opportunities, priority employment for women and vulnerable groups.	30% of the total compensation will go to the affected village 70% of the total compensation will go to the affected household.

Type of Impacts	Eligible APs	Entitlements	Notes
Permanent acquisition of State- owned woodland (57.64 mu)	Jixi Luhai Forestry Company Ltd.	The occupied state-owned woodland will be compensated based on location-based composite land price	
Impacts on Young Crops	Affected farmers of affected collective farmland	Compensation based on 10% of the compensation rate for LA which is based on Location-based Composite Land Prices for Land Acquisition. Please see Table 19 on the rates.	The compensation is still higher compared to the net income derived from crops which is equivalent to 15-35 years of harvest.
Temporary Impacts on Land (49.79 mu of collective un-irrigated farmland) (367.67 mu of State-owned land of construction land)	Affected collective un-irrigated farmland (13 households with 52 persons/24 females)	Compensated for at 10% of the location-based composite land price for LA if the occupation period is not more than one year, or 20% if not more than two years.	Using the compensation for compensation for young crops at 10% as an example, the payment for temporary impacts between 10% - 20% of the composite-land prices can sufficiently cover the loss of net income from farming during temporary occupation.
House Demolition Impacts on rural, urban and non-residential land	21 AHs (102 persons/43 females) in rural residential (2,101.5 m ²) and	Compensation to the APs will be based on the principle of replacement cost. Rates will be appraised.	The needs (e.g. provision of labor and transport) of the vulnerable households affected by HD will be determined during RP updating through consultations with them and in cooperation with local officials.
Ground Attachments and Infrastructure (roads, pipes, etc)	Construction Bureau/Water Bureau	Compensation will be based on the principle of replacement cost. Rates will be appraised. Restoration of public infrastructure. Please see Table 20 on the rates.	

VII. Income and Livelihood Support and Relocation Strategy

A. Income and Livelihood Support Strategy

77. Households affected by land acquisition were asked with regard to their preferred mode of compensation (cash or land reallocation). Majority (90%) opted for cash compensation. It should be noted that the final preference of the households will be determined during RP updating. The impacts on land is found to be not significant as per initial assessment. Part compensation fee will be used to join endowment insurance. The rest will be used for production investment. Besides the acquired land, the APs still rich land resource. If the APs take these trainings, will they have remaining land and funds to invest greenhouse, breeding, catering etc. And as this area is closed to the city, they can easily to get the non-agricultural jobs. During the resettlement phase, Jixi PMO will freely provide such information to the APs.

Table 22: Expected Resettlement Modes of AHs

Township	Village	AHs	Affected Persons	Cash Compensation	Agricultural Resettlement
Xijiao Xiang	Xijiao	7	26	6	1
	Xinfa	0	0	0	0
	Taiyangsheng	3	14	3	0
Hongxing Xiang	Hongsheng	14	47	13	1
	Tianjin	18	59	14	4
	Dongtai	40	145	37	3
	Hongxing	1	3	1	0
Hongqi Xiang	Hongqi	30	77	28	2
Total		113	371	102	11
Percent (%)				90.27	9.73

78. The following income and livelihood strategy are presented below. The PMO will facilitate and assist in tapping various agencies to provide the necessary awareness and training, and also providing access to job opportunities, including jobs created during construction.

a) Endowment Insurance for Land-Loss Farmers

79. According to local practices, endowment insurance for LLFs will be one of the main resettlement modes for LA. According to the Interim Measures of Heilongjiang Province for Endowment Insurance for Land-loss Farmers (HPLSSD [2008] No.64), and the Notice of the Heilongjiang Provincial Labor and Social Security Department on Land-loss Farmers to Cover Basic Endowment for Urban Employees (HPLSSD [2012] No.61), eligible LLFs under the Subproject will be included in the endowment insurance system for LLFs of Jixi City.

80. In terms of eligibility, it is determined based on the following factors:

- LFFs having not turned to urban status upon LA shall cover endowment insurance for LFFs; if a LFF has covered rural endowment insurance, the principal shall be refunded to it with interest at a time.
- LFFs having turned to urban status shall cover endowment insurance for urban residents, and those having established labor relationships with urban enterprises shall cover endowment insurance for urban employees.

81. The person is not eligible if : (i) LFFs are provided with replacement land of equivalent quantity and quality after LA; or (ii) LFFs have covered endowment insurance as urban employees

and receiving basic pensions; or (iii) LFFs relocated out of the city or county after receiving land compensation and resettlement subsidy.

82. The land-loss farmers will be treated as urban residents. It is estimated that 288 LFFs are eligible. Details of LFFs endowment insurance are as follows:

- a. The insured shall contribute premiums for 15 years at 130% of the local monthly MLS standard for urban residents. The labor and social security department will adjust the contribution rate from time to time.
- b. LFFs below 60 years for men or 55 years for women shall receive monthly pensions from the month following attaining the specified age (60 years for men or 55 years for women).
- c. The monthly pension for LFFs shall be 130% of the local monthly MLS standard for urban residents, which shall be adjusted by the labor and social security department from time to time.

Table 23: Social Security for LFFs

Township	Village	AHs	Affected population	LFFs subject to social security
Xijiao Xiang	Xijiao	7	26	18
	Xinfa	0	0	0
	Taiyangsheng	3	14	9
Hongxing Xiang	Hongsheng	14	47	36
	Tianjin	18	59	47
	Dongtai	40	145	126
	Hongxing	1	3	1
Hongqi Xiang	Hongqi	30	77	51
Total		113	371	288

Table 24: Sample of Endowment Insurance Scheme

Individual Pension Plan Yuan/Month	Individual contribution (yuan/year) (30%)	Government subsidy (yuan/year) (20%)	Collective Subsidy (50%)	Payment for 15 years	Total Contribution	Final amount of pension the farmer will get (yuan/month)	Final amount of pension the farmer will get (yuan/year)
Plan 110% MLS	19,519.50	13,013.00	32,532.50	15	65,065.00	583	6,996.00
Plan 130% MLS	23,068.50	15,379.00	38,447.50	15	76,895.00	689	8,268.00

b) Provision of Occupational Trainings and Access to Information on Job Opportunities in the Locality and Project-Related Jobs

83. Affected households who are at labor age will be provided with occupational training, and employment information and guidance in order to increase their job opportunities.

84. During project construction, it is expected that the Subproject will generate 300 temporary jobs during construction (18 months), including 20 skilled jobs and 280 unskilled jobs, with an average monthly pay of 1,600 yuan; 15 permanent jobs will be generated at the operation stage, including 13 skilled jobs and two unskilled jobs, with an average monthly pay of 2,200 yuan. Jobs generated at the construction and operation stages will be first made available to LFFs to promote their employment, such as road maintenance and cleaning.

85. Training needs depend on which resettlement mode is chosen. In order to help the APs can get more production technical skills and more livelihood concept, build up a proper sense of occupation and master necessary labor skills, the PMO will facilitate the design and implementation of various trainings. The PMO will request the support of Jixi Municipal Labor and Social Security Bureau. It was learned that most of the affected laborers are willing to attend skills training on construction, cooking, trading, housekeeping, industrial skills, greenhouse cultivation, vegetable breeding, large-scale breeding. Detailed needs assessment will be carried out for the affected

households who wish to participate in the various programs. All training courses are free. At least two members (one male and one female if possible) per affected households will be trained. For planning and budget purposes, a tentative training program for the APs has been prepared and will be finalized during RP updating based on consultations and detailed needs assessment

Table 25: Agricultural Training in the Subproject Area

District	Township	Time	Trainees	Men-times trained per annum	Scope	Agency responsible	Budget (0,000 yuan)
Hengshan	Hongqi Xiang	2017.10 2018.3	APs	100	Greenhouse vegetable cultivation	Hengshan District Labor and Social Security Office	1
Jiguan	Xijiao Xiang	2017.10 2018.3	APs	150	Large-scale breeding	Jiguan District Labor and Social Security Office	0.5
Jiguan	Hongxing Xiang	2017.10 2018.3	APs	150	Catering		1
		2017.10 2018.3	APs	850	Industrial skills		1.5
		2017.10 2018.3	APs	150	Housekeeping		0.5
		Other irregular training					3.5
Total				850			8

86. Restoration programs have been developed based on the degree of impact, availability of remaining land resources and expectations of the APs through consultation. Cash compensation is the resettlement mode acceptable and available to each AH. After receiving cash compensation, the AHs may choose agricultural and nonagricultural (including outside employment and doing business) resettlement modes, and eligible LLFs may cover endowment insurance.

Table 26: Expected Resettlement Modes of AHs

Township	Village	AHs	Affected Persons	Cash Compensation	Agricultural Resettlement
Xijiao Xiang	Xijiao	7	26	6	1
	Xinfa	0	0	0	0
	Taiyangsheng	3	14	3	0
Hongxing Xiang	Hongsheng	14	47	13	1
	Tianjin	18	59	14	4
	Dongtai	40	145	37	3
	Hongxing	1	3	1	0
Hongqi Xiang	Hongqi	30	77	28	2
Total		113	371	102	11
Percent (%)				90.27	9.73

B. Relocation Strategy

87. Rural residential houses of 2,101.5 m² will be demolished for the subproject, affecting 21 households with 102 persons, including 43 females. There are no vulnerable households affected by house demolition. The demolished houses are characterized by unsound supporting facilities, aged structure, and poor day-lighting and ventilation conditions. HD and resettlement activities in the Subproject will provide an opportunity for the AHs to improve residential conditions. Rural households affected by HD may choose either cash compensation or property swap. Acquired houses will be appraised by a qualified appraisal agency in accordance with the applicable measures. If an AH has an objection to the appraisal result, it may apply for reappraisal; if it still has an objection to the reappraisal result, it may apply for identification with the expert identification committee. The appraisal agency will be selected by the AHs through consultation, or if this fails, through voting or random selection. Modes of compensation are provided below.

- a. Cash compensation. Among the AHs, 13 have chosen cash compensation. In case of cash compensation, the compensation rate will be determined by a third party appraisal agency. If such rate is lower than the corresponding replacement cost fixed by the government, the later will apply (the replacement cost for masonry timber structure in Jixi City is 750-830 yuan/m²).
- b. Property swap. Among the AHs, 8 have chosen property swap. The acquired house and the resettlement house will be appraised by the same agency. If the price difference is high, a preferential rate will be granted.

88. The average housing area of the AHs is about 90 m² per household. If the acquired house is less than 50 m² (based on the certificate of title), the resettlement house will be at least 50 m², and any excess size will be paid for at 60% of the price of affordable housing published by the price control bureau; for any size beyond 50 m², the AH will be entitled to a preferential size of 10 m², that will be paid for at 80% of the above price; any size beyond the preferential size will be paid for at the appraised price. However, if the acquired house is larger than the resettlement house, the excess size will be compensated for as in the case of cash compensation. In addition, the AH is entitled to get a moving subsidy of 1,000 yuan in case of cash compensation or 2,000 yuan in case of property swap based on the certificate of title. Also, the AH is entitled to a rental allowance of 800 yuan for Grade 1 land, 600 yuan for Grade 2 land, 400 yuan for Grade 3 land and 300 yuan for Grade 4 or below land per month based on the certificate of title.

89. With regard resettlement housing, the AHs in Hengshan District will be resettled in Taihe Garden, which was ready for handover in 2016. The AHs can choose the housing area according to their own willing. This resettlement community is close to the area affected by HD, and is socially and culturally similar to the affected area, so that the APs can adapt to the new community quickly. Taihe Garden is located north of Zhongxin Street and Beisan Road, and can accommodate 2,026 households, with 27 buildings, a floor area of 70,000 m² and a landscaping area of 4,500 m². The houses mostly have two bedrooms and one living room, and a size of 66 m² each. There are a full range of public service facilities around it, including schools, a gymnasium, a hospital, a postal office, a bank, a department store and a food market.



Figure 8: Taihe Garden Resettlement Community

C. Support Strategy for the Affected Vulnerable Households

90. There are 26 households identified as vulnerable. All belong to MSL households and with other various types of vulnerability: 7 disabled persons, 19 chronically ill persons, and 33 old persons. As indicated in the earlier sections, loss of farmland is found to be marginal. There are also no vulnerable households affected by house demolition. Apart from the livelihood strategy mentioned above, the necessary support and assistance need to be further assessed during the consultation process to ensure that there will be difficulty or hardship during the transition period and their special needs and requests identified during RP updating are addressed in a timely manner.

D. Gender Strategy

91. The Subproject will affect 175 women caused by LA and 43 women due to house demolition of residential houses. There are also 24 women affected by temporary land occupation. Women can be vulnerable or can be at-risk in the resettlement process. During the consultation process, women were invited and participated in the public meetings and discussions were on income restoration measures and better job opportunities.

92. Resettlement impacts differ among gender. Concerns and perceptions of women will continue to be considered and properly addressed in every stage of the planning, updating and implementation process. Apart from livelihood restoration concerns, relocation is also a challenge that women will face prior to and during the transition period. For example, resettlement site may be a good location and area for some households, but for some women, social network, proximity of schools for their children, and health facilities for their sick parents or other household members are priority for them. During relocation, women also need to consider a convenient time for them to relocate to avoid impacts on their household and outside work and for their children. With these concerns, further consultations with women will be carried out during RP updating and implementation to ensure that their specific needs and requests will be taken into consideration.

VIII. Institutional Arrangements

A. Organizational Setup

93. To ensure successful resettlement as desired, a systematic organizational structure must be established during project implementation in order to plan, coordinate and monitor resettlement activities. Since resettlement is a very comprehensive task that requires the assistance and cooperation of different departments, JMG has established the Jixi Sub-project Leading Group, which will implement the subproject together other agencies concerned, including:

- Jixi Sub-project Leading Group
- Jixi PMO (Shuangyashan Municipal Development and Reform Commission)
- Affected township governments
- Affected village committees
- Design agency
- External M&E agency
- Other agencies: Administrative Committee of Jixi Industrial Park, land and resources bureau, labor and social security bureau, etc.

B. Organizational Responsibilities

94. The Jixi Sub-project Leading Group is responsible for making overall arrangements and decisions, and leading the implementation of the subproject.

95. Specific to resettlement, the following agencies have the following roles and responsibilities

- a. Jixi PMO (Jixi Municipal Development and Reform Commission)
 - Engage a resettlement consulting agency to assist in RP updating and implementation
 - Act as coordinate between the consulting agency and agencies during preparation, updating, and implementation
 - Ensuring that resettlement funds are available and disbursement of resettlement funds are on time
 - Monitor resettlement implementation and submit semi-annual progress reports to ADB
 - Monitor and participate in handling grievances and appeals of AHs arising from resettlement
 - Engage an external monitor and ensure that the reports are of good quality and semi-annual reports are submitted on time
- b. Jixi Municipal Land and Resources Bureau Commission
 - Developing resettlement policies in coordination with authorities concerned
 - Conducting LA
 - Participating in the DMS
 - Supervising the implementation of resettlement activities
- c. Jixi Housing Demolition Management Office
 - Conducting HD
 - Participating in the DMS
 - Supervising the implementation of resettlement activities
- d. Affected Townships Governments
 - Participating in the DMS
 - Participating in the calculation of compensation fees
 - Participating in the disbursement of compensation fees to APs
 - Handling grievances and appeals arising from resettlement
 - Participating in housing land allocation

- Facilitate the skills training for APs
 - Facilitate provision of better access to employment for APs
- e. Design Agency
- Work closely with Jixi PMO and various agencies and propose the most optimum design in terms of avoiding or minimizing resettlement impacts but at the same time not compromising the technical and safety requirements of the various components.

C. Staffing and Training

96. The staff of the Jixi PMO has strong organizing and coordinating capabilities, and rich experience in resettlement, and is competent for the resettlement work. However, in order to ensure the successful implementation of the resettlement work and to update and implement the RP following ADB safeguards policies, the resettlement staff will be trained by the Project Supervision Consultants

IX. Information Disclosure, Consultation and Participation

97. In order to lay a solid foundation for the resettlement work of the subproject, protect the lawful rights and interests of APs and entities, and reduce grievances and disputes, great importance is attached to the participation of and consultation with the APs at the preparation and implementation stages.

A. Preparation stage

98. Information disclosure, consultation and participation activities at the preparation stage aim to help the APs understand the following:

- Basic information of the subproject;
- Differences between the ADB policy and PRC laws;
- Resettlement policies and principles;
- Potential resettlement impacts;
- Cut-off date;
- Special measures for vulnerable groups;
- Basis for replacement cost appraisal;
- Importance of consultation, participation and disclosure;
- Interim resettlement implementation schedule;
- Fund use plan;
- Clarification of questions raised by APs

99. Since October 2016, the Jixi PMO, design agency and task force have conducted a series of socioeconomic survey and public consultation activities under the direction of technical assistance experts, with about 35% of participants being women. At the preparation stage, the IA and the design agency conducted extensive consultation on LA, HD and resettlement. See Table 27. The RIB will be distributed in the end of April 2017.

Table 27: Key Information Disclosure and Public Consultation Activities

No.	Time	Activity	Participants	# of persons	Suggestion	Organizer
1	Dec. 2016	Optimization of project design	Jixi PMO, Hengshan District Government, agencies concerned, villages, APs	29, including 14 APs (6 women)	Avoiding HD	Jixi PMO
2	Jan. 2017	Preliminary impact survey	Jixi PMO, task force, JMLRB, villages, APs	15, including 8 APs (3 women and 2 venerable groups)	Suggest to adopt flexible compensation modes, the APs can choose the compensation manners	Jixi PMO
3	Jan. 2017	Discuss compensation manner and resettlement manner	Jixi PMO, task force, JMLRB, villages, APs	18, including 10 APs (5 women)	Developing sound compensation and restoration measures for women, old people and the poor	Jixi PMO
4	Jan. 2017	Discussion about resettlement modes	Jixi PMO, task force, JMLRB, villages, APs	14, including 7 APs (3 women)	Increasing income level and offering more job opportunities	Jixi PMO
5	Feb 2017	Impact survey	Jixi PMO, task force, JMLRB, villages, APs	41, including 35 APs (17 women)	Discussion training plan, agricultural and non-agricultural livelihood restoration measures	Jixi PMO

No.	Time	Activity	Participants	# of persons	Suggestion	Organizer
6	Mar 2017	Impact survey and discussion about resettlement manner	Jixi PMO, task force, JMLRB, villages, APs	36, including 29 APs(12 women, 5 vulnerable groups)	Discussion special assistance for the vulnerable groups, using 1% of the resettlement cost as the special assistance fund for the vulnerable groups, discussing about the resettlement site etc	Jixi PMO
7	End of April 2017	Disclosure of resettlement policies and rates	Villages, APs	All APs	Disclosing the RP to all APs	Jixi PMO

B. RP Updating and Implementation

100. During updating and implementation phase of the RP, the Jixi PMO will take the following measures to encourage public participation:

- a. Participation of AP representatives in LA and resettlement
 - AP representatives are elected to collect comments and suggestions from the APs extensively, and give replies to their questions in cooperation with the agencies concerned.
 - AP representatives will participate in the DMS, compensation rate fixation, compensation agreement negotiation, compensation use and distribution, etc. to reflect the APs' interests and opinions, and ensure the fairness, openness, rationality and transparency of resettlement.
- b. Public Meetings and Consultation meetings
 - Meetings involving representatives of AHs and women will be held to collect and record their comments and suggestions for future follow-up.
 - Separate consultation to prepare for contract negotiations and respond to individual concerns
- c. Public Disclosure
 - Extensive publicity on the key information of the RP by means of TV, newspaper and broadcast.
 - Brochures/booklets will be prepared and distributed to the APs.
 - Project Information Boards will be used to provide more access to the APs
- d. Detailed Measurement Survey
 - Consultation with the APs during and after the DMS to ensure that they understand the relevant indicators and their own rights, and have an opportunity to express opinions
 - Public consultation meeting with all APs to disclose the eligibility, entitlements,
 - Public consultation meeting to disclose the replacement cost principle and appraisal results

Table 28: Public Participation Plan

Purpose	Mode	Time	Agencies	Participants	Topic
LA announcement	Village bulletin board, village meeting	Mar. 2018	Jixi PMO, JMLRB, township and village officials	All APs	Disclosure of LA and HD area, compensation rates and resettlement modes, etc.
Announcement of compensation and resettlement programs	Village bulletin board, village meeting	Mar. 2018	Jixi PMO, JMLRB, township and village officials	All APs	Compensation fees and mode of payment
DMS results verification	Field survey	Mar. 2018	Jixi PMO, JMLRB, township and village officials	All APs	1) Finding out anything omitted to determine the final impacts; 2) preparing a

Purpose	Mode	Time	Agencies	Participants	Topic
					list of lost land and assets; 3) preparing a basic compensation agreement
Determination of relocation options and livelihood support	Village meeting (many times)	Before implementation	Jixi PMO, JMLRB, township and village officials	All APs	Discussing the final income restoration program and the program for use of compensation fees
Training program	Village meeting	Jun. 2017 – Dec. 2020	IA, labor and social security bureau, township and village officials	All APs	Discussing training needs
M&E	Villager participation	Mar. 2018 – Dec. 2022	External M&E agency, township and village officials	All APs	1) Resettlement progress and impacts; 2) payment of compensation; 3) information disclosure; 4) livelihood restoration

X. Grievance Redress Mechanism

101. Since public participation is encouraged during the preparation and implementation of this RP, no substantial dispute will arise. However, unforeseeable circumstances may arise during this process. In order to address issues effectively, and ensure the successful implementation of project construction, LA and HD, a transparent and effective grievance redress mechanism has been established. The basic grievance redress mechanism is as follows:

- a. If any right of an AP is infringed on in any aspect of LA and resettlement, he/she may report this to the township government, which shall record such appeal and solve it together with the village committee or the AP within two weeks.
- b. If the appellant is dissatisfied with the disposition of Stage 1, he/she may file an appeal to the Jixi PMO within one month after receiving such disposition, which shall make a disposition within two weeks.
- c. If the appellant is still dissatisfied with the disposition of Stage 2, he/she may file an appeal to the Jixi Municipal Arbitration Commission within one month after receiving such disposition, which shall make a disposition within two weeks.
- d. If the appellant is still dissatisfied with the arbitration award, he/she may bring a suit in a civil court directly in accordance with the Administrative Procedure Law of the PRC.

102. At any stage, an AP may bring a suit in a civil court directly if he/she is dissatisfied with the grievance redress procedure or disposition. An aggrieved AP may also file its complaint with the Office of the Special Facilitator or Compliance Review Panel of ADB in accordance with ADB's Accountability Mechanism. All grievances, oral or written, will be reported to ADB in internal and external resettlement monitoring reports.

103. All agencies will accept grievances and appeals from the APs for free, and costs so reasonably incurred will be disbursed from the contingencies. At the whole construction stage, the above procedure will remain effective so that the APs can use it to solve relevant issues. The above appeal channel will be disclosed to the APs via the RIB and mass media.

104. During the implementation of the RP, the resettlement agencies will register and manage appeal and handling information, and submit such information to the Jixi PMO in writing on a monthly basis. The Jixi PMO will inspect the registration of appeal and handling information regularly, and will prepare a registration form for this purpose.

Table 29: Registration Form of Grievances and Appeals

Accepting agency:		Time:		Location:	
Appellant	Appeal	Expected solution	Proposed solution	Actual handling	
Appellant (signature)			Recorder (signature)		
Notes: 1. The recorder should record the appeal and request of the appellant factually. 2. The appeal process should not be interfered with or hindered whatsoever. 3. The proposed solution should be notified to the appellant within the specified time.					

105. The resettlement agencies will appoint persons chiefly responsible to accept and handle grievances and appeals.

Table 30: Accepting Agencies and Staff of Grievances and Appeals

Agency	Contact	Address	Telephone
Jixi PMO (Jixi Municipal Development and Reform Commission)	Section Chief Wang	Jixi Municipal Development and Reform Commission	13846073536
Hengshan District PMO (Hengshan District Development and Reform Bureau)	Deputy Director-general Dong	Hengshan District Development and Reform Bureau	13136961113
Administrative Committee of Jiguan Industrial Park	Lin Ping	Jiguan Industrial Park	18945834447
Hengshan Graphite Park	Director Zhou	Hengshan District Construction Bureau	13895948983
Hengshan District Construction Bureau	Director-general Zheng	Hengshan District Construction Bureau	13836587684
Jixi Drainage Company	Mr. Xu	Jixi Drainage Company	13555469157
Dongtai Village	Head Shen	Dongtai Village	15946697292
Hongsheng Village	Head Zhong	Hongsheng Village	13836579237
Tianjin Village	Head Zang	Tianjin Village	13846023789
Hongtai Village	Secretary Wu	Hongtai Village	18724668889
Hongxing Village	Head Wang	Hongxing Village	13836533611

XI. Budget, Financing and Disbursement

106. All costs incurred in LA and resettlement will be included in the general budget of the Sub-project. Based on prices in the first half of 2017, the resettlement budget of the Sub-project is estimated at 21.9801 million yuan. The cost estimates will be finalized during RP updating. A qualified appraisal agency will be engaged. A tentative annual investment plan has been prepared for planning purposes.

107. All resettlement funds of the Subproject will be from local counterpart funds and domestic loans. Before construction or during implementation, the investment plan will be implemented in stages in order not to affect the production and livelihoods of the AHs.

Table 31: Resettlement Investment Plan

Year	2018	2019	2020	Total
Investment (0,000 yuan)	475.87	1354.19	367.95	2198.01
Percent (%)	21.65	61.61	16.74	100

108. The Sub-project's resettlement funds will be disbursed by the PMO directly to the functional departments concerned of the district government through a special account according to the compensation rates, and then distributed to the affected villages/groups.

Table 32: Resettlement Cost Estimates (Unit: 0,000 yuan)

No.	Item	Component				Total	Percent
		Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park – Infrastructure and Business Support Facilities	Wastewater Treatment and Discharge Infrastructure in Jiguan Industrial Park	Hengshan District Urban Regeneration, Community Facilities and Public Space Improvement	Urban Regeneration and Urban Infrastructure		
		Amount (0,000 yuan)	Amount (0,000 yuan)	Amount (0,000 yuan)	Amount (0,000 yuan)		
1	Basic resettlement costs	70.18	798.60	396.26	604.54	1869.57	85.06%
1.1	LA compensation		309.94	137.60	85.98	533.53	24.27%
1.2	Compensation for permanent occupation of state-owned land	39.45				39.45	1.79%
1.3	HD compensation		269.10	151.20		420.30	19.12%
1.4	Moving subsidy		2.60	1.60		4.20	0.19%
1.5	Compensation for temporary land occupation		36.51			36.51	1.66%
1.6	Young crop / forest compensation	2.75	8.56	8.26	5.16	24.73	1.13%
1.7	Road restoration costs				465.72	465.72	21.19%
1.8	Land reclamation costs	2.29	14.09	8.00	3.91	28.29	1.29%
1.9	Compensation for use of additional construction land	25.69	157.79	89.60	43.77	316.85	14.42%
2	Supporting fund for vulnerable groups	0.70	7.99	3.96	6.05	18.70	0.85%
3	Land management costs	2.81	31.94	15.85	24.18	74.78	3.40%
4	Resettlement planning and monitoring costs					40.00	1.82%
5	Training costs					8.00	0.36%
6	Contingencies	7.02	79.86	39.63	60.45	186.96	8.51%
Total						2198.01	100.00%

XII. Implementation Schedule

109. According to the implementation schedule of the Sub-project, the Sub-project will be constructed from June 2018 to December 2022. In order that the resettlement schedule is coordinated with the construction schedule, the RP will be updated and implemented in 2018 and 2019, and the post-resettlement evaluation will be conducted in 2020.

110. The basic principles for resettlement implementation are as follows:

- LA and HD should be completed at least 3 months prior to the commencement of construction
- During resettlement, the APs shall have opportunities to participate in the subproject. Before the commencement of construction, the range of LA will be disclosed, the RIB distributed and public participation activities conducted properly.
- All compensation fees will be paid to the affected persons/entities directly and fully within 3 months of approval of the compensation and resettlement program for LA and HD.
- The contractor will commence construction in certain areas where land has been acquired, the AHs have received full compensation, cleared the land, and restoration measures are in place.

Table 33: Interim Implementation Schedule

Activity	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Determining the range of LA and resettlement																								
Approving the project design																								
Notifying the APs																								
Consultation and disclosure																								
Census and DMS																								
Identifying vulnerable households																								
Determining replacement costs																								
Preparing the Updated RP																								
Disclosing key Updated RP information to APs																								
Submitting the updated RP to ADB																								
ADB review and concurrence																								
Uploading to ADB's website																								
Entering into agreements																								
Disbursing compensation																								
Livelihood support																								
Starting civil works																								
Internal monitoring (Semi-Annual)																								
External M&E (Semi-annual)																								
Determining the range of LA and resettlement																								
Approving the project design																								

XIII. Monitoring and Evaluation

A. Internal Monitoring

111. Internal monitoring aims to monitor and report if resettlement policies and objectives are being met, and identify issues or potential issues that require actions. Internal monitor also aims to report on any good practices and lessons learned. The Jixi PMO will submit semi-annual progress reports to ADB. Internal monitoring will cover the following:

- a. Organizational structure: setup, division of labor, staffing and capacity building of resettlement implementation and related agencies;
- b. Resettlement policies and compensation rates: development and implementation of resettlement policies; actual implementation of compensation rates for different types of impacts with particular focus on compliance with the rates in the RP and reasons for deviations;
- c. Resettlement budget and implementation thereof: level-by-level disbursement of resettlement funds, fund use and management, disbursement of compensation fees to proprietors, holders of land use rights and land users, village-level use and management of compensation fees, supervision and auditing of fund use.
- d. Provision of skills training, access to employment; re-allocation of land to the APs;
- e. Mitigation measures and assistance provided to women and other vulnerable groups;
- f. Grievance redress, public participation and consultation, information disclosure,

112. Upon completion of resettlement activities, the Jixi PMO will submit a resettlement completion report to ADB.

B. External Monitoring

113. The objectives of external monitoring are:

- a. Verifying resettlement implementation
- b. Evaluating the effectiveness, impacts and sustainability of LA and HD, compensation and resettlement activities;
- c. Determining if such activities meet the safeguard policies and requirements in the RP; and
- d. Draw on experience and lessons for future safeguard policy-making and project planning.
- e. Identify issues or potential issues and recommend time-bound recommendations to allow the Jixi PMO and relevant agencies to take action or improve resettlement implementation

114. Jixi PMO will engage a qualified external monitor (an individual or organization) experienced in ADB-financed projects. Monitoring will be carried out on a semi-annual basis. The external monitor will submit semi-annual monitoring reports simultaneously to ADB and Jixi PMO.

115. The external monitor will review the baseline information from the survey carried out during the PPTA, and conduct, if necessary supplementary baseline survey of the affected villages and village groups affected by LA and HD to obtain a reliable pre-project baseline data for monitoring and evaluation. In addition, random interviews, field observations, small group meetings will be conducted. The following will be covered in the monitoring and evaluation.

Table 34: Indicators for External Monitoring

Items/elements	Contents	Key indicators
Permanent land acquisition and temporary impacts	Progress of construction land approvals and delivery	Construction land approval documents; Land acquisition amount, type and Impact; Civil works progress and linkage with land acquisition activities
	Temporary land use	Amount and type of temporary land use; Temporary land use compensation and disbursement

Items/elements	Contents	Key indicators
	Permanent Land compensation standards and implementation	Amount and type Permanent land acquisition; Permanent land acquisition compensation standard and disbursement
	Compensation standards and implementation	Compensation standard (structures) and change; Compensation payment; Transition fees delivered
	Living conditions of before and after resettlement	Comparison of infrastructure; Per capita housing area; Community facilities; Distance from the center, the county and township; Satisfactory of sampling survey
Provision of Assistance and Support	Cash compensation funds	Disbursement of cash assistance to APs or vulnerable HHs
	Land adjustment	Variation of per capita lands before and after LA; Land for land program, if any; Quality and distance of adjusted land;
	Production resettlement mode	Impact to the production mode of farmers; Employees number of non-farm payrolls; Variation of crop species; Impact to the livestock;
	Variation of income	Per capita net income of rural residents; Disposable income of urban residents;
	Employment	Proportion of three main industries employee; Proportion of women in small business; Number of migrant workers;
	Training	Times, type and time of training; Benefits, number and effective of training;
	Satisfaction of resettlement	Satisfactory as per sampling survey;
	Compensation	Compensation standard (structures) and variation; Compensation payment method; Compensation for the shutdown period
	Housing reconstruction and demolition	Enterprise reconstruction way; Household number of resettlement; Number of enterprise expansion; Number of close down
	Restoration	Number and income of employees; income of enterprises; Satisfaction of sampling employees and operators
Funds availability and application	Availability of funds	Funds sources and payment
	Allocation	Allocation flows
Vulnerable households	Vulnerable households	Type of the vulnerable and Impacts
	special assistance measures	Measures implementation (timely, subsidy etc.)
Gender matters	participation	No. of women participating in meetings, DMS, accepting payments, Women hired during construction and other employment opportunities
Resettlement complaint and grievance	Resettlement complaint and grievance cases	No. of issues/problems/complaints received, responded to, addressed and resolved in a timely manner Available staff and resources to address grievances Timely reporting of grievances
Public consultation and information disclosure	Public consultation and information disclosure activities	Times, population, time, site, topic and efficiency; Way, content and response of information disclosures
Organizational Set-up	Clear roles and responsibilities, coordination and reporting	No. of qualified staff Coordination meetings and follow-ups Training to improve capacity of staff Monitoring, preparation of reports and submission
Grievance Redress	GRM being followed	No. of issues/problems/complaints received, responded to, addressed and resolved in a timely manner Available staff and resources to address grievances Timely reporting of grievances

Table 35: Resettlement M&E Schedule

No.	Resettlement report	Time of survey	Submission date
1	Semiannual monitoring (including baseline survey report)	March 2018	April 2018
2	Semiannual monitoring	December 2018	January 2019
3	Semiannual monitoring	June 2019	July 2019
4	Semiannual monitoring	December 2019	January 2020
5	Annual monitoring	December 2020	January 2021
6	Annual monitoring	December 2021	January 2022
7	Completion report		December 2022

116. After completion of resettlement implementation, within 12 months, the external monitor will carry out post-evaluation to evaluate the subproject's resettlement activities on the basis of resettlement objectives, and lessons learned. A Post-Resettlement Evaluation Report will be submitted simultaneously to the PMO and ADB.

Annex 1: Due Diligence Report

Resettlement Due Diligence Report for Hengshan Graphite Park (Phase 1)

1. Background

According to the Feasibility Study Report, the reconstruction of Ring Road (Phase 1) is located in Hengshan Graphite Park (Phase 1). Therefore, a due diligence investigation was conducted on the resettlement work of Hengshan Graphite Park (Phase 1) in January 2017 to learn its LA process, resettlement impacts and any outstanding issue.

The purpose of the due diligence review is to review the process, policy and resettlement of land acquisition for the Ring Road (phase 1), evaluate if the resettlement activities involved comply with the applicable state, provincial and municipal laws and regulations, ADB's safeguard policies, check the resettlement process, progress and effectiveness, fund management, income restoration and satisfaction of APs, identify outstanding issues arising from resettlement, and propose feasible suggestions

The information used in this report is from two sources:

A. Literature review: collecting and compiling subproject information and survey data from local authorities and subproject agencies

Collected literatures: subproject approval document, land acquisition agreement, payment supporting material, detailed budget for land acquisition, temporary land occupation, agreements related to resettlement, etc.

Public participation information related to resettlement: announcement of the LA, subproject announcement, etc.

B. Information and data have been further verified through fieldwork and direct communication with stakeholders.

In January 2017, head of the park, some AHHs and the head of village were interviewed to learn subproject and resettlement impacts, and a field visit was conducted.

The scope of the due diligence review includes: subproject progress; Land acquisition process and policy, payment for the APs, Temporary land occupation; Livelihood restoration of APs, operating efficiency of resettlement agencies, Public participation and consultation, and Grievance redress.



Figure 1 Hengshan Graphite Park (Phase 1)

2. Survey results

Hengshan District High-Tech Graphite Based Materials and E-Mobility Industrial Park (Hengshan Graphite Park for short) is located in western Hengshan District, with a planned area of 5.0778 million m², divided into Functional Zones A, B and C, where Zone A has a planned area of 820,400 m², designed to produce high-purity graphite, spherical graphite, diamond powder, graphite paper, graphite sealing elements and lithium battery cathode materials; Zone B has a planned area of 1.215 million m², designed for deep graphite processing; Zone C has a planned area of 2.8094 million m², designed to develop and produce graphite sheets, carbon blocks and nuclear graphite products. A 233,000 m² office and living area will be constructed along.

Currently, the park's infrastructure is being improved. A 66kV power transmission line has been completed; Ring Road (Phase 1) has been put into operation; the water supply work has been completed to a daily capacity of 5,000 tons; the WWTP with a planned investment of 40 million yuan and a daily treatment capacity of 5,000 tons is under construction.

In the 2011 farmland conversion and LA program for urban construction of Jixi City, Plots 21-28 for Hengshan Graphite Park (Phase 1) have a land area of 21.6222 ha, and administrative fees totaling 190,277.60 yuan, including a registration fee of 17,300 yuan, and LA management costs of 172,977.6 yuan. Plots 21-28 have an additional construction land area of 21.4025 ha, for which compensation is 4.2805 million yuan. Plots 21-28 occupy 14.8292 ha of cultivated land, for which land reclamation costs of 444,876 yuan are paid. Plots 21-28 occupy 14.8292 ha of cultivated land and 6.5733 ha of other farmland, for which farmland occupation tax of 6,026,352 yuan is paid. All LA formalities had been completed by January 2012, and all fees paid in February and March 2012.

3. Conclusions

1) LA for Hengshan Graphite Park (Phase 1) began in 2011 and was completed in 2012, over 5 years from today.

2) The compensation for additional construction land, land reclamation costs, farmland occupation tax, etc. for Hengshan Graphite Park (Phase 1) were fully paid in February and March 2012.

3) In sum, LA for Hengshan Graphite Park (Phase 1) has been completed in compliance with the applicable state provisions, with no outstanding issue.

TERMS OF REFERENCE : EXTERNAL MONITORING FOR RESETTLEMENT

I. Introduction

One of the provisions in the Resettlement Plans (RP) is the engagement of an external resettlement monitor to carry out monitoring and evaluation of resettlement planning and implementation activities of the Project.

II. Objectives and Requirements of Monitoring and Evaluation

A. Resettlement (Safeguards)

The external monitor will (i) assess the effectiveness, impacts and sustainability of land acquisition, compensation, and resettlement measures, (ii) determine whether such activities have met the safeguard policy requirements of the Project, and (iii) extract and highlight lessons for future social safeguard policy formulation and project planning. All data and analysis will be disaggregated by gender and ethnicity, if applicable.

The external monitoring process will include the following activities:

- (i) review and verification of the internal monitoring reports and resettlement completion reports of the PMO;
- (ii) impact assessment (e.g. restoration of incomes and living conditions) through quantitative and qualitative studies;
- (iii) gender-sensitive consultations with APs;
- (iv) assessment of compliance with Government's laws and regulations, the ADB Safeguard Policy Statement's (SPS) Involuntary Resettlement (IR) policy requirements outlined in the RP;
- (v) recommendations on the land acquisition process modification and adaptation measures;
- (vi) effectiveness of the GRM;
- (vii) good practice and lessons learned.

External monitoring key indicators:

- Impacts of land acquisition and house demolition on the affected households, especially on the poor and other vulnerable households
- Economic status of the affected households, their employment status, income levels, and household assets. This assessment will be done against the pre-project baseline information.
- Changes in the status of affected vulnerable persons, in terms of food security, household demographics, livelihoods in relation to project impacts.
- Degree of support the APs received through consultations, assistance in restoring income activities and livelihood restoration, and house demolition
- Outstanding LAR or compensation issues – their current status and the time frame to complete/resolve them.
- Perceptions of the affected persons regarding the implementation of the land acquisition and compensation payment processes, house demolition, relocation options and resettlement site development planning and implementation.
- Impacts on affected businesses (permanent and temporary)
- Participation and involvement of affected persons in the planning, updating, and implementation of the RP.
- The level of consultations with APs by the PMO and relevant agencies.
- Effectiveness and fairness of valuation, compensation and compensation disbursement measures.
- Implementation and effectiveness of income restoration measures.
- Effectiveness and fairness of the GRM process.
- Level of satisfaction among the affected persons in the post-RP phase.
- Adequacy of resettlement funds, their timely availability, and results of financial audits.
- Performance of LAR implementing agencies (PMO, LRB, HD, etc).

Monitoring methodologies will be but not limited to the following: desk review and field visits; use of structured questionnaires; meetings with various departments and organizations, local officials, and affected households;

focus group discussions; and key informant interviews. Separate meetings will be held with women and vulnerable households. Monitoring indicators and findings will be disaggregated by gender and ethnicity, if applicable.

C. Consulting Services

The _____ PMO will recruit a team of qualified and experienced external monitoring experts (e.g. individual, consulting firm, institute) through competitive selection. The external monitoring experts should have the following qualifications and experience:

- University degree in a relevant field (social science, engineering, land management).
- Experiences in working in urban development projects
- Demonstrated knowledge and experience in applying safeguard best practices of involuntary resettlement. 5 years or more of experience in the formulation and implementation of RP.
- Good writing skills in English and experience in report writing.

D. Frequency of Monitoring and Reporting Requirements

The external monitor will carry out semi-annual monitoring for year 1 to 3, annual monitoring on year 4 to 5. Post evaluation will be carried out on year 6 (within twelve months after completion of resettlement activities).

A monitoring report will include:

- A summary of field and document review findings
- Field observations and a summary of AP and stakeholders' views and suggestions and recommendations
- Major issues and problems identified during field visits (existing and potential)
- Recommendations on mitigation or prevention measures
- Comments on internal monitoring – their relevance, adequacy, and timeliness
- An assessment of previous external monitoring follow-up actions.
- Conclusion, which summarizes the above.

All monitoring reports will be written in English and Chinese languages. The PMO will ensure that information on the progress and status on all aspects of land acquisition and resettlement activities will be provided to the external monitor for review and verification.

The External Monitor will submit all the monitoring reports simultaneously to the PMO and ADB.

The external monitor will present its key findings and recommendations to the PMO at least 2 days prior to the end of each monitoring period. The external monitor will submit monitoring reports (in English and Chinese languages) simultaneously to the PMO and ADB within 15 working days after completion of each monitoring activity. The external monitor is also required to revise the external resettlement and social monitoring reports based on comments received from the PMO and ADB and submit the revised reports simultaneously to the PMO and ADB within 7 working days.

Photos, minutes of meetings, attendance sheets, held with various stakeholders will be attached in the reports. Documents obtained during monitoring will also be attached as necessary.

E. Monitoring Schedule

Table 1 Resettlement M&E Schedule

No.	Resettlement report	Time of survey	Submission date
1	Semiannual monitoring (including baseline survey report)	March 2018	April 2018
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3	Semiannual monitoring	June 2019	July 2019
4	Semiannual monitoring	December 2019	January 2020
5	Annual monitoring	December 2020	January 2021
6	Annual monitoring	December 2021	January 2022
7	Post-Evaluation Report		December 2022

F. Cost Estimates

Table : Sample Indicators for External Monitoring

Items/elements	Contents	Key indicators
Permanent land acquisition and temporary impacts	Progress of construction land approvals and delivery	Construction land approval documents; Land acquisition amount, type and Impact; Civil works progress and linkage with land acquisition activities
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	Land adjustment	Variation of per capita lands before and after LA; Land for land program, if any; Quality and distance of adjusted land;
	Production resettlement mode	Impact to the production mode of farmers; Employees number of non-farm payrolls; Variation of crop species; Impact to the livestock;
	Variation of income	Per capita net income of rural residents; Disposable income of urban residents;
	Employment	Proportion of three main industries employee; Proportion of women in small business; Number of migrant workers;
	Training	Times, type and time of training; Benefits, number and effective of training;
	Satisfaction of resettlement	Satisfactory of sampling survey;
	Compensation	Compensation standard (structures) and variation; Compensation payment method; Compensation for the shutdown period
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