Resettlement Action Plan

For

Fushun Wastewater Treatment Project

(DRAFT)

Revision of March 6, 2002

Fushun Drainage Company
January 2002
# Resettlement Action Plan of Fushun Wastewater Treatment Project

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ATTACHMENT: LOCATION OF THE PROPOSED FUSHUN WASTEWATER TREATMENT PROJECT
1 PROJECT DESCRIPTION

1.1 Brief introduction of the project

Fushun Wastewater Treatment subproject is one of components under the Second China Liao River Basin Project (LRBP2), which consists of Shenyang, Fushun and Panjin cities. The subproject will surely improve the local environmental condition of Fushun city and Hun River, a tributary of Liao river. Pollutants discharged into Hun River will also be reduced greatly. Contents of the subproject include the extension of existing 150,000 tons/day capacity of Wanghua Industrial Water Treatment Plant to 200,000 tons/day and the construction of 25.9 km counterpart reuse water pipeline and 1 reused water pumping station, as well as 5 interceptors with 67.96 km length totally and 5 wastewater pumping stations.

1.2 Areas affected/benefited by the project

Fushun wastewater treatment project is a significant event on relieving the pollution, improving the environment and benefiting the humanity. The project has a close relation with economic development of Fushun and Shenyang cities. The main benefits of the project are in the following 2 aspects:

1. The project will mitigate the pollution caused by Fushun urban wastewater, particularly the pollution of the Hun River. Treatment of urban wastewater in Fushun will produce benefits on protection of water sources in Shenyang city and Liguanpu village situated at downstream of Hun river. Also the project will reduce the pollution of ground water sources and irrigation region in Lishi Economic Development Zone with direct beneficiary area up to 10,000 hectare. Thus the threatening caused by the pollution on people's health lived in these areas will be reduced.

2. Deeper treated wastewater can be reused for industrial cooling water and agricultural irrigation, which can relieve the water demand in Fushun city and improve the utilization rate of water resource.

1.3 Application and approval of the project

In October 8, 2001 the State Development Planning Committee approved the ‘Proposal of Fushun Wastewater Treatment Phase 2 Project’ by the No. 1920 [2001] document.

1.4 Design process of the project

- Fushun Construction Committee prepared the Proposal of the project in May 1998 and submit it to The State Planning Committee for approval through Liaoning Provincial Planning Committee.
- Fushun Construction Committee invited Northeast Urban Engineering Design Institute to prepare the feasibility study report of the project in March 2000. And Liaoning Provincial Development Planning Committee evaluated the report in June 2000.
- Fushun Construction Committee invited the Liaoning Environmental Scientific Research Institute and Fushun Environmental Scientific Research Institute to jointly prepare the Environmental Impacts Assessment of the project in September 2001. The report has been presented to Liaoning Provincial EPB for review and approval.
- In October 8, 2001 the State Development Planning Committee approved the ‘Proposal of Fushun Wastewater Treatment Phase 2 Project’ by the No. 1920 [2001] document.

1.5 Project ownership and organization

The project belongs to urban infrastructure characters. The Fushun People’s Government is responsible for the whole investment and construction of the project. The construction capital for the project will come from local counterpart funds and the
World Bank loan. Total investment will be 209.1 million RMB Yuan, including 109.5 million Yuan local funds and 12 million USD of the loan (equal to 99.6 million RMB Y). The Government also will be responsible for the repayment of the interest and loan.

Fushun Wastewater Treatment Project Management Office under Fushun Drainage Company will be in charge of the detailed implementation of the project.
2 PROJECT IMPACTS

2.1 Definition of affected people by the project

Affected people by the project means people affected in the following aspects due to the implementation of the project:
1. Their living level is affected adversely by the project.
2. Ownership, qualification and benefits or interests of their houses and lands including house foundation, farmland and pasture are affected temporarily or permanently by the project.
3. Their business, agricultural and working activities are interrupted or affected, and their residential place and living custom are affected adversely due to the project.

2.2 Project impacts

Wastewater reuse engineering of the project include the extension of one existing Wanghua industrial water treatment plant, the construction of one wastewater reuse pumping station and 25.9 km reuse water delivery pipeline. The following table 2-1 showed the details of this part of engineering.

Table 2-1 Wastewater reuse engineering contents

<table>
<thead>
<tr>
<th>No</th>
<th>Items</th>
<th>Engineering contents</th>
<th>Length (m)</th>
<th>Affected Land (Hectare)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extension of Wanghua industrial water</td>
<td>Extension from original 150,000 tons/d to 200,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>treatment plant</td>
<td>tons/d</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Reused wastewater delivery pipeline</td>
<td>DN1000mm steel pipe (two lines)</td>
<td>14,400</td>
<td>14.4 (state owned land)</td>
</tr>
<tr>
<td>3</td>
<td>Reused wastewater distribution pipeline</td>
<td>DN700mm steel pipe (two lines)</td>
<td>11,500</td>
<td>11.5 (state owned land)</td>
</tr>
<tr>
<td>4</td>
<td>Reused wastewater pumping station</td>
<td>220,000 tons/d</td>
<td>0.3</td>
<td>0.3 (state owned land)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>25,900</td>
<td>26.2</td>
</tr>
</tbody>
</table>

The extension of Wanghua industrial water treatment plant will occupy the land within the existing plant site. So it is not necessary to acquire other lands for this construction.

Reused wastewater delivery and distribution pipeline will be paved under the existing road or the existing planned road. So only the effects of state owned road lands are involved in this construction. The construction will be undertaken at the middle of the road and the soil dug out will be delivered out timely. Pedestrian path will be reserved for rounding units during the implementation of the construction.

Reused wastewater pumping station will be built in the existing site of Sanbaotun wastewater treatment plant. So it is not necessary to acquire other land for this construction.

The following Table 2-2 showed the details of trunk sewers construction in the project. Table 2-3 showed the details of wastewater pumping stations proposed in the project. Table 2-4 showed the total project impacts.
Table 2-2  Trunk sewer construction in the project

<table>
<thead>
<tr>
<th>Items</th>
<th>Length (m)</th>
<th>Diameter (mm)</th>
<th>Construct width (m)</th>
<th>Temporar y land use</th>
<th>Among which Affected collective land (Hectare)</th>
<th>Affected population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhangdang trunk sewer</td>
<td>19,500</td>
<td>DN400-1000</td>
<td>8</td>
<td>15.6</td>
<td>3.109 (dry land)</td>
<td>21</td>
</tr>
<tr>
<td>Kuangdong trunk sewer</td>
<td>21,040</td>
<td>DN400-1500</td>
<td>8</td>
<td>16.832</td>
<td>2.12 (dry land) 0.32 (vegetable land)</td>
<td>14</td>
</tr>
<tr>
<td>Lishi trunk sewer</td>
<td>12,170</td>
<td>DN400-1200</td>
<td>8</td>
<td>9.736</td>
<td>2.18 (paddy land)</td>
<td>40</td>
</tr>
<tr>
<td>Gaowan trunk sewer</td>
<td>10,650</td>
<td>DN300-700</td>
<td>8</td>
<td>8.52</td>
<td>1.23 (dry land)</td>
<td>13</td>
</tr>
<tr>
<td>Wanghua trunk sewer</td>
<td>4,600</td>
<td>DN400-800</td>
<td>8</td>
<td>3.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67,960</td>
<td></td>
<td></td>
<td>54.368</td>
<td>8.959</td>
<td>88</td>
</tr>
</tbody>
</table>

A small part of the trunk sewer construction will temporarily affect collective lands (the affected quantity is showed in the above table). Most of the trunk sewers will be paved under road or within river course, so stated owned road lands and flooding lands on one side of the Hun River will be temporarily affected. In addition Kuangdong trunk sewer will affect 8 power poles and 8 poplar trees and Wanghua trunk sewer will affect 400 m enclosure wall of Fushun Fire-proof Materials Plant.

Table 2-3  Wastewater pumping stations engineering contents

<table>
<thead>
<tr>
<th>Items</th>
<th>Type</th>
<th>Flow</th>
<th>Permanent land acquisition (Hectare)</th>
<th>Land character</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhangdang</td>
<td>Sewage</td>
<td>43,000 m³/d</td>
<td>0.1</td>
<td>State owned land</td>
</tr>
<tr>
<td>pumping station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kuangdong</td>
<td>Sewage</td>
<td>415 l/s</td>
<td>0.1</td>
<td>Collective land</td>
</tr>
<tr>
<td>pumping station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 1 Lishi</td>
<td>Sewage</td>
<td>18,000 m³/d</td>
<td>0.1</td>
<td>Upgrading of the existing pumping station</td>
</tr>
<tr>
<td>pumping station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. 2 Lishi</td>
<td>Sewage</td>
<td>12,000 m³/d</td>
<td>0.13</td>
<td>State owned land</td>
</tr>
<tr>
<td>pumping station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gaowan</td>
<td>Sewage</td>
<td>16,000 m³/d</td>
<td>0.1</td>
<td>State owned land</td>
</tr>
<tr>
<td>station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>0.53</td>
</tr>
</tbody>
</table>

Zhangdang pumping station situated at the north embankment of the Hun river will occupy 0.1 hectare state owned flooding land.
Kuangdong pumping station will permanently acquire 0.1 hectare dry land of Longfeng village with one people affected.
No. 1 Lishi pumping station will be upgraded within the existing site.
No. 2 Lishi pumping station will occupy 0.13 hectare stated owned blank land.
Gaowan pumping station that is situated at the north embankment of the Hun River and west 1.0km from Heping Bridge will occupy 0.1 hectare state owned flooding land.
Table 2-4 Land and ground attachment affected by the project

<table>
<thead>
<tr>
<th>Category</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Permanent land acquisition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 wastewater pumping stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry land</td>
<td>Hectare</td>
<td>0.1</td>
</tr>
<tr>
<td>Affected population</td>
<td>Person</td>
<td>1</td>
</tr>
<tr>
<td>State owned land</td>
<td>Hectare</td>
<td>0.43</td>
</tr>
<tr>
<td>2. Temporary land use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry land</td>
<td>Hectare</td>
<td>6.459</td>
</tr>
<tr>
<td>Paddy land</td>
<td>Hectare</td>
<td>2.18</td>
</tr>
<tr>
<td>Vegetable land</td>
<td>Hectare</td>
<td>0.32</td>
</tr>
<tr>
<td>Affected population</td>
<td>Person</td>
<td>88</td>
</tr>
<tr>
<td>State owned land</td>
<td>Hectare</td>
<td>45.409</td>
</tr>
<tr>
<td>3. Ground attachments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power pole</td>
<td>Piece</td>
<td>8</td>
</tr>
<tr>
<td>Poplar tree</td>
<td>Piece</td>
<td>8</td>
</tr>
<tr>
<td>Enclosure wall</td>
<td>m</td>
<td>400</td>
</tr>
</tbody>
</table>

2.3 Impact analysis

2.3.1 Permanent land acquisition

In the proposed project only the construction of one pumping station, Kuangdong pumping station, will permanently acquire 0.1 hectare dry land of Longfeng village. At present the Longfeng village has 190.8 cultivated land and 1313 population totally. The capita land allocation is 0.145 hectare. The pumping station will affect 0.1 hectare land which accounts for 0.05% of total land of Longfeng village and one people will be affected. The impact is very small. After full compensation is paid, the village can reallocate a plot of land to the affected people. The living level of the affected people won't decrease due to the construction of the pumping station.

2.3.2 Temporary land use

The following table 2-5 shows the general information of the villages affected by the trunk sewers construction in the project:
Table 2-5  General information of villages affected by the trunk sewers

<table>
<thead>
<tr>
<th>No.</th>
<th>Engineering</th>
<th>Affected village</th>
<th>Total cultivated land prior to the project (hectare)</th>
<th>Total population (person)</th>
<th>Affected land (hectare)</th>
<th>Affecting degree (%)</th>
<th>Affected population (person)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Zhangdang trunk sewer</td>
<td>Wujiabao 184.5</td>
<td>1056</td>
<td>1.472(dry land)</td>
<td>0.8</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Xingtaihe 117.62</td>
<td>809</td>
<td>0.984(dry land)</td>
<td>0.8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dongzhou 93.12</td>
<td>921</td>
<td>0.653(dry land)</td>
<td>0.7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sub-total</td>
<td></td>
<td>3.109</td>
<td></td>
<td></td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>Kuangdong trunk sewer</td>
<td>Longfeng 190.8</td>
<td>1313</td>
<td>1.272(dry land)</td>
<td>0.7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yuangong 222.4</td>
<td>1379</td>
<td>0.848(dry land)</td>
<td>0.5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.32(vegetable land)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sub-total</td>
<td></td>
<td>2.44</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Lishi trunk sewer</td>
<td>Lihan 213.2</td>
<td>4886</td>
<td>1.16(paddy land)</td>
<td>0.54</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lixian 134</td>
<td>1731</td>
<td>1.02(paddy land)</td>
<td>0.76</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sub-total</td>
<td></td>
<td>2.18</td>
<td></td>
<td></td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>Gaowan trunk sewer</td>
<td>Gaoyang 118.5</td>
<td>1222</td>
<td>1.23(dry land)</td>
<td>1.0</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sub-total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>8.959</td>
<td></td>
<td></td>
<td></td>
<td>88</td>
</tr>
</tbody>
</table>

The construction of trunk sewers proposed in the project will temporarily affect 8.959 hectare collective land and 88 villagers. The land impacts to the respective village are less than 1%. After the compensation is paid, the affected village can organize affected people to conduct re-cultivation on the affected land. The construction period of trunk sewers is only 2-4 month. The social and economic impacts are very small. Measures will be undertaken to relieve the adverse impacts of noise, dust and garbage produced by labor during construction period.
3 OBJECTIVE OF RESETTLEMENT AND REHABILITATION

- Optimizing the project design to reduce the scope affected by land acquisition and demolition of the project as possible and to minimize the involuntary displacement.

- All involuntary displacement and resettlement will be implemented as an integral part of the project. Persons or entities affected by the project should be given sufficient compensation and should be provided the opportunities to benefit from the project.

- Compensation should be paid before the implementation of land acquisition and demolition.

- People lost their land due to the project will be fully compensated. If necessary job opportunity will be provided to the affected people.

- Participation of PAPs will be encouraged during the preparation of the RAP and their comments and suggestions on relocation and resettlement issues will be fully respected and considered.

- Efforts should be taken to improve PAPs' livelihoods and living to a relative higher level before the project, or at least to restore them, in real terms, to pre-displacement levels.
4 SOCIO-ECONOMIC SURVEY

4.1 Socio-economic survey process

The socioeconomic survey is conducted with a aim of learning the objectives, quantity and quality affected by the project, providing the basic information to identify the loss compensation, socioeconomic assessment, justification of the project scale, social and economic impact study in the project area, preparing the resettlement and relocation plan, estimating resettlement cost, managing the resettlement implementation, monitoring and evaluating.

The Fushun Wastewater Treatment Project Management office and some concerned agencies made a initial survey on impacts within project area in March 2000 in order to prepare the Project Feasibility Study of the project.

Land acquisition scope demarcation, detailed impacts survey and on-site measuring under the participation of affected people were conducted in October 2001. At the same time, a public opinion survey for total sampled 20 households within affected area was carried out.

The Fushun PMO made a detailed survey on houses, lands and ground attachment affected by the construction of trunk sewers of the project January 2002. On this base, an initial resettlement action plan was presented.

Based on the socioeconomic survey, there are no minority people and historical relics to be affected by the proposed project.

4.2 Socioeconomic background of project area

Fushun city is located in east of Liaoning, and up-stream of Liao river. Fushun is a component of Liaoning Middle Part Cities Group with concentrated population, high industrialization and urbanization and developed economy and culture. Fushun as energy and raw materials base has fully supported the development of Liaoning middle part cities group, and also by cooperation and communication on economy and technology with other cities accelerate their own development.

Fushun is one of important energy bases of our country with developed coal, power generation and petroleum industries. The rich energy resources provide a good basis for the development of other industries in the city and also ensure the improvement of people’s living level.

Fushun as a developed heavy industrial city plays a important role in national economic development. Gross industrial production value of Fushun list the fourth position in Liaoning province. Fushun has established a complete industrial system including 35 categories of industries. The strong comprehensive development ability will accelerate the urbanization of Fushun.

The good geographic location, developed communication and transportation, perfect infrastructure and advantageous policies formed a very good investment environment in Fushun which will boost the communication and cooperation of Fushun with foreign nations, other provinces and other cities.

4.3 Villages affected by land acquisition and temporary land use

The proposed Kuangdong pumping station will acquire 0.1 hectare dry land of Longfeng village with one people to be affected. The construction of trunk sewers will temporarily affect 8.959 collective lands of Wujiabao, Xingtaihe, Dongzhou, Longfeng, Yuanong, Lihan, Lixian and Gaoyang village with 88 villagers to be affected. The
category of affected land covers dry land, paddy land and vegetable land. Staffs of Fushun PMO has made survey on social and economic status of affected villages such as lands, population, capita income, collective enterprises etc.

4.4 Enterprise affected by the project

The construction of Wanghua trunk sewer will involve the demolition of 400 m enclosure wall of Fushun Fire-proof Materials Plant. But no employees are affected and production won't be interrupted. According to survey, there is space around the enterprise for the reconstruction of the enclosure wall.
5 LEGAL FRAMEWORK

5.1 Rights and compensation

5.1.1 Land acquisition right and Compensation characters

Relevant provisions issued by "Land Administration Law of the PRC" indicate that: When any individual or entities implement construction with the land use involved, they should apply to use the State-owned land according to concerned Laws and Regulations.

Article 44: When farm-land is used for construction, the following approval procedure should be followed. As for road, pipeline and large scale of infrastructure construction project approved by province, autonomous region or municipality directly controlled under central government or construction projects approved by the State Council, in case farm land is used for construction, land acquisition should be approved by the State Council.

Article 57: Construction project or geological survey involving state-owned or collective land use should be approved by Land Administration Departments above county level. In addition, application of temporary land use within urban planning area should be approved by urban planning departments firstly, then submitted to land administration departments. Land user should sign land use contract with concerned land administration departments or collective organizations or village administration committees, and pay land compensation according the signed contract. temporary land user should use the land according to the purpose stipulated in the signed contract, permanent structures is not permitted. Temporary land use tenure normally don't beyond 2 years.

Article 58: If the following event occurs, the use right of the state-owned land can be drawn back (the concerned land administration department submit application to original Government which approved the land use right or to the Government which has the right of approving land use right). a) for the purpose of public utility facilities; b) for old urban area upgrading to implement the City Plan and to adjust land use plan.

5.2 Law and administrative procedure

Relevant provisions of "Land Administration Law of the PRC" state that:

Article 46: For land acquisition by the State, after approval according to legal procedure, the Government above county-level will issue the public announcement of the land acquisition / demolition, and organize the implementation; The owner or the user of the affected land should bring the land ownership certificate to the concerned administration department of local Government for registration within the date limited in public announcement.

5.3 Compensation regulation

Relevant provisions of "Land Administration Law of the PRC" indicate that:

Article 47: Land acquisition shall be compensated for on the basis of the original purpose of use.

The compensation for cultivated land acquisition shall include compensation for the land, labor resettlement, ground attachments and young crops on the requisitioned land. Compensation for cultivated land acquisition shall be 6 to 10 times of the average annual output value of the requisitioned land in 3 years. Labor resettlement subsidies for cultivated land shall be calculated according to the agricultural population resettled. The agricultural population resettled by the project shall be calculated by requisitioned
cultivated land amount divided by per capital land allocation before the acquisition. The resettlement subsidies for each agricultural people resettled shall be 4 to 6 times of the average annual output of the acquired land in 3 years before such acquisition. However, the highest resettlement subsidies for each hectare of the acquired cultivated land shall not exceed 15 times of its average annual output value for the 3 years prior to such acquisition.

If land compensation and labor resettlement subsidies identified in accordance with the provisions of the second paragraph of this article are still insufficient to help the resettler to maintain their original living level, the labor resettlement subsidies may be increased but it should be approved by People’s Governments of provinces, autonomous regions or municipalities managed directly under the central government. However, the total land compensation and labor resettlement subsidies shall not exceed 30 times of the average annual output value of the acquired land for the 3 years preceding such acquisition.

5.4 Duty of organization

Relevant provisions of “Land Administration Law of the PRC” state that:

Article 66: The People’s Government land administrative department above county level has a duty of supervise and check the activities violating land administration law and regulation. The supervisor of land administration will know well concerned land administration law and regulations and should enforce the law on his duty.

Article 70: Land administrative department of the People’s Government above county level shall make disciplinary sanction on the state working staffs who violate the law, and punish them according to concerned laws and regulations; If the department don’t have such right, they can submit the proposal of disciplinary sanction to the same class or higher class disciplinary supervision department which can handle them according to concerned laws and regulations.

Article 79: If somebody embezzle and un-properly earmark the land compensation and other concerned charge and commit a crime, he should be given criminal sanction; if don’t commit a crime, he should be given a disciplinary sanction.

5.5 Concerned policy of the World Bank on resettlement

The policy objectives of World Bank’s OP 4.12:

Objective of the Bank for resettlement is to make sure that the resttlers caused by the project can gain the interest from the project.

a) Avoiding or minimizing resettlement where possible.

b) Preparation of resettlement plans where displacement is unavoidable.

The affected people should be insured that:

- Compensation for losses at full replacement cost to all displaced persons should be paid.
- Assisting all displaced persons with moving and support during the transition period at the resettlement site.
- Improvement of former living standards, income earning capacity and productive levels, or at least restores them and the need of poorest people affected by the project should be paid more attention particularly.

c) Encouraging community participation in planning and implementing resettlement. A proper community organization should be set up and social and cultural organization in resettlement area should be supported and made use of as possible.
d) Integrating resettlers into host communities and minimizing adverse impacts on host communities. The best way is to resettle PAPs in the area benefited from the project and consult with original residents beforehand.

e) Provision of land, housing and infrastructure to be provided to adversely affected populations including indigenous groups and minorities who may have customary rights to the land or other resources affected by the project, even if they don’t have the legal land use right.

5.6 Resettlement policy of the project

The compensation and resettlement policy of the project is made based on the concerned resettlement policy made by Fushun Municipal Government, Liaoning Provincial Government, the People’s Republic of China and the World Bank. In order to keep the compensation and resettlement policy of the project in accordance with the resettlement target of the project, in case there are any big revision or variation on the resettlement policy such as variation of compensation qualification and condition, reduction of compensation standard, limitation and reduction of helps and assistance provided to affected people, it should be agreed by project’s owner and the World Bank before implementation.
6 ORGANIZATIONS

6.1 Concerned organizations for resettlement action

Relevant organizations responsible for planning, management, implementation and monitoring of the resettlement action include:

- Liaoning Urban Construction and Renewal Project Office (LUCRPO)
- Fushun Urban Wastewater Treatment Project Leading Group
- Fushun Drainage Company
- Fushun Wastewater Treatment Project Management Office
- Fushun Municipal Urban Planning Bureau
- Fushun Municipal Land Administrative Bureau
- Land Administrative Bureau of Fushun Economic development Zone, Wanghua District and Dongzhou District
- Administration Committee of Wujiapu, Xingtaihe, Dongzhou, Longfeng, Yuangong, Lihan, Lixian and Gaoyang Village
- Northeast Urban Engineering Design Institute
- Resettler Research and Monitoring Center of Hehai University (RRMCHU)

Vice-mayor of Fushun city in charge of the urban construction is appointed as the director of Fushun Urban Wastewater Treatment Project Leading Group. Vice-secretary of Fushun Government and director of Fushun Urban Construction Committee is standing vice-director of the group. The members include Construction and Planning Committees, Finance Bureau, Land Administrative Bureau, Public Utility Bureau, EPB, Power Supply Bureau. The leading group has a subordinate unit - Fushun Wastewater Treatment Project Management Office. The head of it is the director of Construction Committee.

The Fushun PMO is in charge of the organization, coordination, supervision and checking of the land acquisition, housing demolition and resettlement works, and also response for the preparation and implementation of resettlement action plan. Fushun Municipal Land Administrative Bureau is responsible for supervision of land acquisition. Northeast Urban Engineering Design Institute is responsible for the design of the project. Resettler Research and Monitoring Center of Hehai University is responsible for external monitoring of resettlement action independently.

6.2 Responsibility

6.2.1 Liaoning Urban Construction and Renewal Project Office

- To help and guide the preparation of resettlement action plan report, manage the implementation of land acquisition, demolition and resettlement
- To supervise and check the progress of land acquisition and resettlement
- To keep the liaison between the project city and the World Bank
- To review the internal supervision report on resettlement and submit it to the World Bank

6.2.2 Fushun Wastewater Treatment Project Management Office

- To make and carry out the resettlement plan
- To organize and coordinate the preparation of resettlement action plan report
- To carry out internal supervision and identify the external supervision organization and coordinate and support the external monitoring
- To review and check the monitoring report
- To prepare the progress report and submit it to Liaoning Urban Construction and Renewal Project Office
- To coordinate and handle the issues and contradiction occurred in the implementation of resettlement action
6.2.3 **Fushun Drainage Company**
- To invite and entrust the design institute to identify the affected scope by the project
- To organize and implement the socioeconomic survey
- To submit the application of land using and planning permission certificate and land construction permission certificate to Fushun Urban Planning Bureau and Fushun Land Administrative Bureau
- To implement the resettlement action plan according to the project construction schedule
- To disburse the compensation and resettlement funds according to agreement
- To arrange and implement internal supervision

6.2.4 **Fushun Municipal Land Administration Bureau**
- To carry out the concerned policy and regulations on land management of our country
- To participate the preparation of resettlement action plan and review it
- To issue the land use permission certificate
- To guide, coordinate and supervise the resettlement action
- To coordinate and handle the issues and contradiction occurred in the land acquisition and transferring
- To go through the formality on land acquisition

6.2.5 **Land Administration Bureau in district level**
- To participate the socioeconomic survey
- To participate the preparation of resettlement action plan and resettlement method
- To supervise and check the PAPs’ resettlement and income recovery action
- To reflect the comments and suggestions of PAPs to the higher department

6.2.6 **Fushun Municipal Urban Planning Bureau**
- To examine the land scope used by the project
- To issue land use planning permission certificate

6.2.7 **Administration Committee of concerned villages**
- To participate the socioeconomic survey and the preparation of resettlement plan and method
- To participate the preparation of the resettlement action plan
- To organize the public consultation and propagate the land acquisition and demolition policy
- To organize the re-cultivation after temporary land use
- To organize production development and income recovery activities after the land acquisition
- To reflect the comments and suggestions of PAPs to the higher department

6.2.8 **Northeast Urban Engineering Design Institute (design organization)**
- To reduce the project impacts by optimizing the engineering design
- To identify the land acquisition scope and demolition scope
- To assist the preparation of resettlement action plan
- To provide technological consultation to project office on data survey and handle

6.2.9 **Resettler Research and Monitoring Center of Hehai University (independent external monitoring organization)**

It will, as an independent external monitoring and evaluation organization, monitor and supervise all aspects of the implementation of resettlement action plan and submit the external monitoring report to the project office and the World Bank for review.
6.3 Staffing

The resettlement organizations will appoint the high quality staffs on various concerned specialties, among which 41 full-time staffs who have good technology and experiences. The maximum working staff will be up to 77 in peak time. A smooth information flowing channel is set up which will play an important role in implementation of resettlement action. And resettlement implementation organizations are equipped with good transportation and communication tools. Survey, design and supervision organizations have strong capacity and technology on computer operation. The resettlement implementation and monitoring organizations of the project both have rich experiences on land acquisition and house demolition and resettlement.

The staffing of concerned resettlement organizations are showed in table 6-1.

Table 6-1 Staffing of concerned resettlement implementation organizations

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Staffs (person)</th>
<th>Working staffs in peak time (person)</th>
<th>Qualification of the working staff</th>
<th>Operational starting point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fushun Project Leading Group</td>
<td>3</td>
<td>12</td>
<td>Officials who graduated from university</td>
<td>2001.8</td>
</tr>
<tr>
<td>Fushun PMO</td>
<td>4</td>
<td>9</td>
<td>Engineering, technological, and management staffs</td>
<td>2001.7</td>
</tr>
<tr>
<td>Fushun Drainage Company</td>
<td>5</td>
<td>6</td>
<td>Engineering, technological, and management staffs</td>
<td>2001.6</td>
</tr>
<tr>
<td>Fushun Land Administration Bureau</td>
<td>2</td>
<td>3</td>
<td>Public servant who graduated in university</td>
<td>2001.6</td>
</tr>
<tr>
<td>Fushun Urban Planning Bureau</td>
<td>2</td>
<td>2</td>
<td>Public servant</td>
<td>2001.3</td>
</tr>
<tr>
<td>Land Administration Bureau in district level</td>
<td>4</td>
<td>4</td>
<td>Public servant</td>
<td>2001.6</td>
</tr>
<tr>
<td>Administration Committee of affected village</td>
<td>10</td>
<td>15</td>
<td>Cadre</td>
<td>2001.6</td>
</tr>
<tr>
<td>Northeast Urban Engineering Design Institute</td>
<td>5</td>
<td>14</td>
<td>Engineering technological staffs who graduated in university</td>
<td>2000.8</td>
</tr>
<tr>
<td>Resettler research and monitoring center of Hehai University</td>
<td>6</td>
<td>12</td>
<td>Professor, doctor and master</td>
<td>2002.10</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td>77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6.4 Organization structure

Figure 6-2: Organization structure of resettlement for Fushun project

6.5 Measures for institutional strengthening

- Funds and equipment will be guaranteed for the working of Fushun PMO.
- Enhancing reporting and internal monitoring in order to find and solve any problems timely.
- To strengthen independent monitoring and evaluation organization who will present any issues occurred to concerned authorities and suggest necessary solutions.
7 QUALIFICATION AND POLICY OF COMPENSATION

7.1 Compensation qualification
As for land acquisition of the project, affected people and inventory, which are confirmed before June 2001 when public notice of land use is planned to be issued, is qualified for compensation. All the people affected by the project may will be given the rational compensation and help.

- Villages and villagers affected by the land acquisition and temporary land use of the project.
- Owner of the ground attachment affected by the project construction.

7.2 Compensation policy

Compensation for permanent collective land acquisition:
1. Land compensation is determined as 6 times of average output in previous 3 years; labor resettlement subsidy is determined as 6 times of average output in previous 3 years.
2. Young crop compensation is determined as 1 time of average output in previous 3 years.

Compensation for temporary collective land use
1. Young crop compensation is determined as 1 time of average output in previous 3 years.
2. Land re-cultivation cost is determined as 2 times of average output in previous years.

7.2.1 Principle

The detailed resettlement policy is made based upon the concerned resettlement policy prescribed by the Central Government of the China, Liaoning Government, Fushun Municipal Government and the World Bank as following:

- Compensation standard for all assets affected by the project is identified based upon replacement cost.
- Compensation will be paid before the properties and lands are occupied.
- Fushun Drainage Company will identify the compensation and resettlement policy by negotiation with the owners of the assets affected by the project.
- The affected ground attachment will be compensated entirely according to market price.
- All people affected by the project will be paid rational compensation and resettlement.
- People affected by land acquisition of the project won't be unemployed due to losing their land.
- Infrastructures affected by the project will be rehabilitated and reconstructed.

7.2.2 Compensation policy for all kinds of PAPs

A. Affected villages
- To get the land compensation
- To restore affected people's income and living by use of land compensation and labor resettlement subsidy.

B. Land contractor
- To regain a plot of land for production
- To be given the young crop compensation

C. Owner of the ground attachment:
- Compensation will be paid to the owner of the ground attachments according to the market price.

D. Infrastructures affected by the project
- Infrastructures affected by the project will be rehabilitated and reconstructed.
8 COMPENSATION STANDARD

8.1 Land Acquisition of Wastewater Treatment Plant

The land compensation standard is determined based on the land yields estimated according to the Land Administration Law. Table 8-1 presents three years average output value of the affected lands.

Table 8-1 Three Years Average Output Value of Affected Lands

<table>
<thead>
<tr>
<th>Year</th>
<th>Dry land</th>
<th>Paddy land</th>
<th>Vegetable land</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>13,200</td>
<td>19,500</td>
<td>42,000</td>
</tr>
<tr>
<td>2000</td>
<td>13,500</td>
<td>21,000</td>
<td>45,000</td>
</tr>
<tr>
<td>2001</td>
<td>13,800</td>
<td>22,500</td>
<td>48,000</td>
</tr>
<tr>
<td>三年平均</td>
<td>13,500</td>
<td>21,000</td>
<td>45,000</td>
</tr>
</tbody>
</table>

According to the Land Administration Law of PRC and the Regulation for collective land use and resettlement issued by Fushun Municipality, the land compensation is determined as 6 times as three years average output value. The labor resettlement subsidy is determined as 6 times as three years average output value. Altogether it is as 12 times. The young crop compensation is determined as 1 time as three years average output value.

According to Implementation Directives of Farmland Occupation Tax of Liaoning Province, the average farmland occupation tax will be determined according to the local capita farmland allocation level and economic development level. The farmland occupation tax is 6 Yuan/m² for the project. According to above requirement, the land reclamation cost is 10 Yuan/m². Agricultural development fund is 5% of the land acquisition cost; Management fee is 4% of the land acquisition cost; The land use fee is 32 Yuan/m². Table 8-2 presents the compensation standards for the land acquisition.

Table 8-2 Compensation standard for land acquisition (unit:10^4 Yuan/ha.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Land compensation</th>
<th>Labor resettlement subsidy</th>
<th>Land reclamation</th>
<th>Land occupation tax</th>
<th>Young crop</th>
<th>Land use fee</th>
<th>Agricultural development fund</th>
<th>Management fee</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry land</td>
<td>8.1</td>
<td>8.1</td>
<td>10</td>
<td>6</td>
<td>1.35</td>
<td>32</td>
<td>0.81</td>
<td>0.648</td>
<td>67.008</td>
</tr>
<tr>
<td>Receiver</td>
<td>Longfeng village</td>
<td>Land contractor</td>
<td>Land administration department</td>
<td>Land administration department</td>
<td>Land contractor</td>
<td>Land administration department</td>
<td>Land administration department</td>
<td>Land administration department</td>
<td></td>
</tr>
</tbody>
</table>

8.2 The Compensation for Ground Attachment

According to the relevant regulations, table 8-3 presents the compensation standards for ground attachment determined based on market price:
Table 8-3 The Compensation Standard for Ground Attachment

<table>
<thead>
<tr>
<th>Items</th>
<th>Unit</th>
<th>Compensation price</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power pole</td>
<td>Yuan/piece</td>
<td>200</td>
<td>9m high concrete</td>
</tr>
<tr>
<td>Poplar tree</td>
<td>Yuan/piece</td>
<td>20</td>
<td>10-15cm diameter</td>
</tr>
<tr>
<td>Enclosure wall</td>
<td>Yuan/m</td>
<td>130</td>
<td></td>
</tr>
</tbody>
</table>

8.3 Temporary land use

Based on the survey the project will temporarily affect 3 category of land which are dry land, paddy land and vegetable land. According to the stipulation in the Regulation for collective land use and resettlement issued by Fushun Municipality, the young crop compensation is determined as 1 time as three years average output value, the land re-cultivation cost is determined as 2 times as three years average output value, management fee is 4% of the basic cost. The following table 8-4 shows the compensation standard for temporary land use.

Table 8-4 compensation standard for temporary land use

<table>
<thead>
<tr>
<th>Land</th>
<th>Young crop</th>
<th>Re-cultivation</th>
<th>Management fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry land</td>
<td>1.35</td>
<td>2.7</td>
<td>0.162</td>
<td>4.212</td>
</tr>
<tr>
<td>Paddy land</td>
<td>2.1</td>
<td>4.2</td>
<td>0.252</td>
<td>6.522</td>
</tr>
<tr>
<td>Vegetable land</td>
<td>4.5</td>
<td>9.0</td>
<td>0.54</td>
<td>14.04</td>
</tr>
<tr>
<td>Receiver</td>
<td>Land</td>
<td>Village</td>
<td>Land</td>
<td>administration department</td>
</tr>
</tbody>
</table>
9 ENVIRONMENTAL PROTECTION

More attention will be paid to environmental protection during the implementation of land acquisition, ground attachments demolition and interception construction.

9.1 Clean up of garbage

All kinds of garbage produced by interception construction and demolition of ground attachments structures demolition will be cleaned up and dumped to the place appointed by Fushun Urban Appearance Administration Department.

9.2 Policy eliminating environment impacts caused by sewers construction

- The construction of sewers along road will stagger the rush hour as possible.
- Measures relieving dust: Air borne dust in dry weather condition due to excavated soil stockpiled on the side of road will affect the surrounding entities and people. In order to relieve the impacts during construction period, water will be sprayed on excavated soil in fine or windy day to avoid dust raising. The waste soil will be disposed appropriately in time and over-loading during delivery to outside will be avoided. The construction site and hauling route will be cleaned up timely.
- Noise controlling: Construction noise produced by excavation, vehicle bugle, engine, concrete mixing and road roller will affect the surrounding residence. To relieve these noise impacts construction is forbidden within 200 m distance from residential areas during 11 o’clock at night to 6 o’clock in the morning. In addition equipment with low noise will be adopted as possible. In case of urgent construction at night affecting the surrounding residence noise-relieving measures should be taken and the noise intensity should be controlled within 40-60 dB, at the same time noise isolator around construction site will be installed to ensure the acoustic environment in residential areas.
- Solid waste disposal in construction site: The owner and construction unit of the project should contact with the local sanitary department to clean up solid waste timely to ensure the cleaning at construction site.
10 PUBLIC PARTICIPATION AND CONSULTATION

10.1 Strategy of public participation

Public participation and consultation will be paid much more attention in this project. And comments and suggestions of PAPs were collected extensively and considered during the process of resettlement planning and implementation so that appropriate arrangements for resettlement are in place which meet PAP needs and desires wherever possible, and which protects the legal rights of affected entities and individuals. Complaints and grievance of PAP are to be avoided and reduced as possible through implementation of consultation processes.

In the feasibility study stage of the project the staffs of Fushun PMO made many surveys on opinions and comments of municipal and each district government, people's congress, political consultation congress, public communities, PAPs for sewers route, land acquisition and resettlement. The survey results are analyzed and put into the report. Table 10-1 shows the general information on public participation and consultation of the project.

Opinions and comments of affected villagers were inquired and collected during the preparation of the report. In October 2001 a general conversation and discussion meeting with affected villagers and cadre was hold in which project information was introduced and their opinions were collected. Many interviews and discussions with PAPs will be hold during the implementation of land acquisition so that their opinions for the project are acquired and learned. Notification on inquiring social opinions and comments to Fushun Wastewater Treatment Project has been advertised in local newspaper in February 2002. It is planned that In June 2002 public land acquisition notice will be published. At the same time concerned policies, regulations, compensation standard, resettlement plan were introduced and explained to affected people.

Public participation and consultation will be encouraged and strengthened by using the following ways in the future:

(1) PAPs will participate in the process of land acquisition and resettlement.

Representatives of affected people will participate in the process of land acquisition, survey of ground attachments to be dismantled, identification of compensation standard, negotiation and implementation of resettlement and compensation agreements to ensure the full consideration of PAP's interests and opinions and to guarantee the fair, reasonable and transparence of demolition and resettlement.

(2) The policies concerning land acquisition and demolition will be disclosed and propagated by public media.

(3) Issuing public notice of land acquisition

The contents of public announcement will include at least: brief introduction of the project, land acquisition scope, resettlement policy (including compensation standard), organizations, demolition and resettlement schedule, rights and obligation of PAPs, complaints and grievance, monitoring and evaluation of the implementation etc.

(4) After being reviewed and approved by the World Bank the resettlement action report will be kept in Fushun Drainage Company to ensure the report is available to be read by anyone who is interested in the project.

(5) After the resettlement action plan report being approved by the World Bank, Fushun PMO will summarize a resettlement manual which will be distributed to each PAP.
# 10.2 Public opinion survey

On November 2001 Fushun PMO carried out a survey of socioeconomic condition and public opinions. 20 households affected by or benefit from the project were solicited on their opinions to the project and resettlement. Table 11-2 shows the survey results.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answers</th>
<th>Households</th>
<th>Results (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you know that the project will begin to construct?</td>
<td>(1)Yes (2)Know a little about it (3)No</td>
<td>20</td>
<td>85 10 5 / /</td>
</tr>
<tr>
<td>Do you agree and support the project?</td>
<td>(1)Yes (2)No (3)Indifference</td>
<td>20</td>
<td>95 1 4 / /</td>
</tr>
<tr>
<td>Who will benefit from the project? (multiple choices)</td>
<td>a) State (1)Yes (2)No</td>
<td>20</td>
<td>85 15 / /</td>
</tr>
<tr>
<td></td>
<td>b) Collective (1)Yes (2)No</td>
<td>20</td>
<td>85 15 / /</td>
</tr>
<tr>
<td></td>
<td>c) Individuals (1)Yes (2)No</td>
<td>20</td>
<td>85 15 / /</td>
</tr>
<tr>
<td>Do you know which potential hazard will be made by urban wastewater?</td>
<td>(1)Economic loss (2)Deterioration of living environment (3) Do harm to resident health (4) Affect investment environment (5) Smear the images of Fushun city</td>
<td>20</td>
<td>60 70 90 50 60</td>
</tr>
<tr>
<td>To what degree does the urban wastewater affect your work and life?</td>
<td>(1)No impacts (2) Not seriously (3) Rather seriously (4) Seriously</td>
<td>20</td>
<td>1 40 50 9 /</td>
</tr>
<tr>
<td>Which benefit do you think that you can get from the project?</td>
<td>(1)Improve living environment (2) Improve working environment (3) Provide employment opportunity (4) Benefit health of body and mind</td>
<td>20</td>
<td>80 60 60 70 /</td>
</tr>
<tr>
<td>Which adverse impacts do you think that the project make on you?</td>
<td>(1)No adverse impacts (2) Affect traffic conditions (3) Economic loss caused by house demolition (4) Possible income decreasing caused by land acquisition (5) Other adverse impacts</td>
<td>20</td>
<td>60 20 5 15 /</td>
</tr>
<tr>
<td>Do you know the policies on land acquisition, demolition, resettlement and compensation?</td>
<td>(1)Yes (2)Know a little about (3)No</td>
<td>20</td>
<td>30 50 20 / /</td>
</tr>
<tr>
<td>Do you know that you can appeal when your rights are infringed?</td>
<td>(1)Yes (2)No</td>
<td>20</td>
<td>90 10 / /</td>
</tr>
</tbody>
</table>
11 GRIEVANCES AND APPEALS

Special attention will be paid to the participation of individuals and entities affected by
the project throughout the process of compilation and implementation of the RAP. Transparent and efficient grievance redressing procedure is established for the project as follows:

- **Stage I**
  If people or entities affected by the project are dissatisfied with the RAP and
  implementation of RAP, they can appeal to concerned departments orally or in writing.
  And concerned department should settle the grievance within 2 weeks.

- **Stage II**
  If people or entities affected by the project are dissatisfied with the solution of stage I,
  they can then appeal to Fushun Wastewater Treatment Project Management Office. And
  the Project Management Office should make a decision on complaint within 2 weeks.

- **Stage III**
  If people, shops or entities affected by the project are still dissatisfied with the solution
  of stage II, they can appeal to Fushun Land Administration Bureau (the organization in
  charge of monitoring and arbitration of land acquisition) and submit the dispute for
  arbitration. The arbitration organization will make arbitration on the complaint within
  10 days.

- **Stage IV**
  If people, shops or entities affected by the project are still dissatisfied with the
  arbitration, they can appeal to the people's court in accordance with the administration
  procedure law of PRC after receiving the decision of the arbitration organization. The
  people, shops or entities affected by the project can make an appeal on any issues of
  resettlement.

The PAPs will be informed of the procedures above mentioned grievance redressing
through meetings and other ways to ensure that they are clear about their rights of
grievance and appeals and can protect their own rights.
12 IMPLEMENTATION SCHEDULE OF RESETTLEMENT ACTIVITIES

12.1 Coordination of resettlement implementation and project construction

According to the project construction schedule, the construction of Fushun Wastewater Treatment Plant will begin to construct in June 2002 and will be completed in October 2004. The schedule of land acquisition, demolition and resettlement should be determined according to the project construction schedule.

The basic principles to ensure the progress of land acquisition, demolition and resettlement fit to the project construction progress is showed as follows:

- The schedule of land use of the project will be determined according to the schedule of sewers and pumping station construction respectively.
- Sufficient time should be left for land acquisition and resettlement before project construction beginning.
- Land acquisition shall be completed one month before land use of project. The Joint schedules of project construction and land acquisition are showed in table 12-1.

Table 12-1 Joint Schedule of project construction, land acquisition and demolition

<table>
<thead>
<tr>
<th>Item</th>
<th>Date of construction</th>
<th>Date of land acquisition and demolition</th>
<th>Date of resettlement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Begin</td>
<td>Finish</td>
<td>Begin</td>
</tr>
</tbody>
</table>

12.2 The schedule of resettlement activities

Table 12-2 Schedule of resettlement activities

<table>
<thead>
<tr>
<th>Activities</th>
<th>Sewer and pumping station construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>To identify the scope of land acquisition</td>
<td>2002.4</td>
</tr>
<tr>
<td>To check the inventory survey results</td>
<td>2002.11</td>
</tr>
<tr>
<td>Holding mobilization meeting and announcing relevant policies</td>
<td>2002.11</td>
</tr>
<tr>
<td>Issuing land acquisition announcement</td>
<td>2002.12</td>
</tr>
<tr>
<td>To negotiate and sign the agreement of compensation and resettlement</td>
<td>2003.1</td>
</tr>
<tr>
<td>Payment of compensation</td>
<td>2003.3-2003.4</td>
</tr>
<tr>
<td>Re-cultivation of temporary affected land</td>
<td>2004.1-2004.10</td>
</tr>
</tbody>
</table>
13 COST AND BUDGET FOR COMPENSATION

13.1 Cost
All cost incurred in land acquisition, demolition and resettlement will be included in the overall budget of the project. Calculated at the price in October 2001, the total cost of land acquisition, demolition and resettlement of the project is RMB 678,518 Yuan.

13.1.1 Basic cost
Basic cost includes the compensation for permanent and temporary land acquisition, demolition and resettlement.

13.1.2 Management fee
3 percent of basic cost should be used as project management fee which will be used for activities relating to land acquisition, demolition and resettlement such as equipment procurement, transportation, meeting, communication, trip and handling official business.

13.1.3 Contingencies fee
10% of basic cost will be used as contingency cost which comprise of material contingency and price contingency. The material contingency fee is prepared to pay the additional costs resulted from the changes in project design and affected tangible materials during the implementation of RAP. The price contingency is prepared with mainly considering the inflation and changes in price during the implementation of RAP. The estimation of contingence cost mentioned above is based on the price in October 2001.

13.1.4 Survey and design cost
2% of basic cost is used as cost of survey and design.

13.1.5 Monitoring and evaluation costs
2% of basic cost is spent as monitoring and evaluation costs.

Table 13-1 shows the total budget and cost for land acquisition, demolition and resettlement of Fushun wastewater treatment project.
Table 13-1 Cost for land acquisition and demolition activities

<table>
<thead>
<tr>
<th>Category</th>
<th>Unit</th>
<th>Quantity</th>
<th>Unit price (10^4 Yuan)</th>
<th>Cost (10^4 Yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Permanent land acquisition</td>
<td>Dry land</td>
<td>0.1</td>
<td>67.008</td>
<td>6.7008</td>
</tr>
<tr>
<td>2. Temporary land use</td>
<td>Dry land</td>
<td>6.459</td>
<td>4.212</td>
<td>27.2053</td>
</tr>
<tr>
<td></td>
<td>Paddy land</td>
<td>2.18</td>
<td>6.522</td>
<td>14.2180</td>
</tr>
<tr>
<td></td>
<td>Vegetable land</td>
<td>0.32</td>
<td>14.04</td>
<td>4.4928</td>
</tr>
<tr>
<td>3. Ground attachment</td>
<td></td>
<td></td>
<td></td>
<td>5.376</td>
</tr>
<tr>
<td></td>
<td>Power pole</td>
<td>Piece 8</td>
<td>200</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Poplar tree</td>
<td>Piece 8</td>
<td>20</td>
<td>0.016</td>
</tr>
<tr>
<td></td>
<td>Enclosure wall</td>
<td>400</td>
<td>130</td>
<td>5.2</td>
</tr>
<tr>
<td>Sub-total for basic cost</td>
<td></td>
<td></td>
<td></td>
<td>57.9929</td>
</tr>
<tr>
<td>4. Management fee</td>
<td></td>
<td>3% of basic cost</td>
<td></td>
<td>1.7398</td>
</tr>
<tr>
<td>5. Design and survey fee</td>
<td></td>
<td>2% of basic cost</td>
<td></td>
<td>1.1599</td>
</tr>
<tr>
<td>6. Monitoring and evaluation fee</td>
<td></td>
<td>2% of basic cost</td>
<td></td>
<td>1.1599</td>
</tr>
<tr>
<td>7. Contingency</td>
<td></td>
<td>10% of basic cost</td>
<td></td>
<td>5.7993</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>67.8518</td>
</tr>
</tbody>
</table>

13.2 Yearly expenditure plan

Table 13-2 shows the yearly expenditure plan made according to the implementation schedule of land acquisition and house demolition.

Table 14-2 Expenditure plan for land acquisition and house demolition  
Unit: RMB Yuan

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount</td>
<td>13.5</td>
<td>47.5</td>
<td>6.8518</td>
<td>67.8518</td>
</tr>
<tr>
<td>Percentage (%)</td>
<td>20</td>
<td>70</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

13.3 Fund source

The fund for project land acquisition and demolition will all come from Fushun municipal finance.
13.4 Compensation funds flowing

Figure 13-1 shows the compensation funds flowing.

Financial funds

↓

Fushun Drainage company

↓

Land Administration Bureau of district level

↓

Affected villages

↓

Land contractor

Figure 13-1 Compensation funds flowing
14 MONITORING AND EVALUATION

According to OP4.12 of the World Bank, the implementation of land acquisition, house demolition and resettlement activities should be monitored regularly to ensure those actions proceed in accordance with the provision in RAP and realize the resettlement objective. There are 2 kinds of monitoring mechanism for resettlement action which are internal monitoring and the external monitoring carried out by an independent institution.

The internal monitoring is carried out by LUCRPO, Fushun Project Construction Quarter, Fushun LAB, LAB of Panshan county to ensure that the schedule and principles in the RAP will be followed. The purpose of internal monitoring is to make the resettlement organizations fulfill their duties efficiently during the implementation of the RAP.

Independent monitoring organization is responsible for conducting independent monitoring and evaluation on activities of land acquisition, demolition and resettlement regularly. Resettler Research Center of Hehai University is invited to undertake the independent monitoring the following contents of the project:

- Operational efficiency of resettlement network;
- Progress and compensation of land acquisition, demolition and rehabilitation and resettlement;
- Investigation and analysis of living level of PAPs;

An independent organization is entrusted to monitor and evaluate externally the implementation of RAP from an overall and long-term point of view. Independent monitoring organization will follow the resettlement activities of the project closely to evaluate whether the goals of resettlement are achieved. The evaluation criteria include:

- To follow national laws and regulations relevant to land acquisition, demolition and resettlement;
- To comply with the principles of OP4.12 on involuntary resettlement of the World Bank;
- To help PAPs to improve their living standard or at least to restore it to the level before the project.

The independent monitoring organization should provide suggestions about the RAP implementation to concerned institute so as the problems incurred during the implementation of RAP can be resolved without delay.

14.1 Internal monitoring and evaluation

Fushun Wastewater Treatment Project Management Office will develop an internal monitoring system to check the resettlement activities and establish a basic database on resettlement activities, which will be used to prepare the RAP and to monitor and evaluate the resettlement of resettler. And also the whole course of preparation and implementation of the resettlement will be monitored and evaluated internally.

14.1.1 Implementation procedure

During the implementation of RAP, Fushun PMO, Fushun Municipal Land Administration Bureau, Land Administration Bureau at district level will collect and record the information of people affected by the project according to the samples provided by monitoring organizations. At the same time, they will report the current activities record timely to Project Construction Headquarter so as to ensure a continuous monitoring on implementation. Fushun PMO will check regularly the implementation of RAP and report the progress to the higher authorities concerned.

In the internal monitoring system mentioned above, unified form will be made in order to realize continuous information flowing. Fushun Project Leading Group, Fushun PMO, Land Administration Bureau at district level as the important components of internal
monitoring system should carry out regular inspection and verification on the implementation of RAP.

14.1.2 Tasks of monitoring

- Payment of compensation to affected people and entities;
- Resettlement of people affected by the project;
- The schedule of the above monitored activities;
- Conformity with the policy and regulation of RAP;
- Community participation and consultation during the implementation of RAP;
- Staffing, training, working schedule and working efficiency of resettlement institutions;

14.1.3 Internal monitoring and evaluation report

Land Administration Bureau at district level and Fushun PMO should prepare and submit the progress report of resettlement implementation to LUCRPO by which the report will be sent to the World Bank for review.

14.2 Independent monitoring system

Independent monitoring will be carried out based on the census date provided in the RAP and by resettlement implementation organization.

14.2.1 Independent monitoring organization (IMO)

Fushun PMO plans to invite Resettler Research Center of Hehai University (RRCOHU) to carry out the external monitoring and evaluation of the project. The independent monitoring team comprises of resettlement specialists who has rich experiences on resettlement policy and social evaluation and management etc.

14.2.2 Duties

RRCOHU should follow, monitor and evaluate the implementation of RAP. And it should provide advice and suggestions on progress, quality and funds of resettlement and provide external monitoring and evaluation report to project office and the World Bank.

14.2.3 Monitoring and evaluation procedure

(1) To compile the outline of independent monitoring and evaluation;
(2) To develop monitoring and evaluation information system software;
(3) To prepare and compile survey outline and questionnaire and recording card of affected entities;
(4) To work out sampling survey plan
(5) To carry out baseline survey to get the basic information of people and entities affected by the project;
(6) To establish monitoring and evaluation information system;
(7) To conduct monitoring and survey with
  • Socioeconomic survey;
  • Working capacity and efficiency of resettlement implementation organization;
  • To monitor sampling PAP households on the compensation and resettlement quality;
  • Public consultation: To take part in the consultation activities during RAP compilation and implementation and to monitor the quality of public consultation;
  • Appeal and grievance
  • Re-cultivation of temporarily used land
(8) Collection of monitoring information and establishment of database;
(9) Comparison and analysis;
(10) To prepare monitoring and evaluation report once a year;

In October 2002 to complete the baseline survey and the first monitoring and evaluation report;
In October 2003 to complete the second monitoring and evaluation report;
In October 2004 to complete the post assessment of resettlement;
14.3 Post assessment

After the project finished post assessment of the project will be conducted based on the monitoring and evaluation to assess the successful experiences and lessons from the project. Fushun PMO will invite external independent monitoring institute to conduct the post assessment of the project. They will firstly compile an outline of post assessment work and establish an assessment index system, then make a socioeconomic survey and analysis. Secondly they will prepare a post assessment report on resettlement of the Project and present it to LUCRPO and the World Bank.
## 15 ENTITLEMENT MATRIX

<table>
<thead>
<tr>
<th>Impact type</th>
<th>Affected people or entity</th>
<th>Compensation and resettlement policy</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent land acquisition</td>
<td>Longfeng village</td>
<td>To get land compensation; Restore PAPs' income by use of compensation for land and labor resettlement;</td>
<td>$16.2 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td>Land contractor</td>
<td>To get young crop compensation</td>
<td>$1.35 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td>Land administration department</td>
<td>Land reclamation cost</td>
<td>$10 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land occupy tax</td>
<td>$6 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land use fee</td>
<td>$32 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agricultural development fund</td>
<td>$0.81 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Management fee</td>
<td>$0.648 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td>Temporary land use</td>
<td>Affected villages</td>
<td>To get the land re-cultivation fee</td>
<td>$2.7 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$4.2 \times 10^4$ Yuan/hectare (paddy land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$9.0 \times 10^4$ Yuan/hectare (vegetable land)</td>
</tr>
<tr>
<td></td>
<td>Land contractor</td>
<td>To get the young crop compensation</td>
<td>$1.35 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$2.1 \times 10^4$ Yuan/hectare (paddy land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$4.5 \times 10^4$ Yuan/hectare (vegetable land)</td>
</tr>
<tr>
<td></td>
<td>Land administration department</td>
<td>Management fee</td>
<td>$0.162 \times 10^4$ Yuan/hectare (dry land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$0.252 \times 10^4$ Yuan/hectare (paddy land)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$0.54 \times 10^4$ Yuan/hectare (vegetable land)</td>
</tr>
<tr>
<td>Ground attachment</td>
<td>Owner</td>
<td>Power pole</td>
<td>200 Yuan/piece</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poplar tree</td>
<td>20 Yuan/piece</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enclosure wall</td>
<td>130 Yuan/m</td>
</tr>
</tbody>
</table>