Resettlement Planning Document

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March 2010

PRC: Risk Mitigation and Strengthening of Endangered Reservoirs in Shandong Province Project
Due Diligence Report for Shizuizi Reservoir Subproject in Zaozhuang City (English)

Prepared by the Shandong Provincial Government.

The 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.
Zaozhuang City Shizuizi Reservoir Risk Mitigation Project

Under

Risk Mitigation of Endangered Reservoir Project
in Shandong Province

Of

The People’s Republic of China

Due Diligence Report
Letter of Endorsement

Zaozhuang City Water Resources Bureau (ZCWRb) received the approval of constructing the Risk Mitigation of Shizuizi Reservoir Project in Zaozhuang City from the related departments. This Project is proposed to be started in November 2009, and completed by November 2010. Zaozhuang City Government, through Ministry of Finance, has requested a loan from the Asian Development Bank (ADB) to finance part of the Project. Accordingly, the Project will be implemented in compliance with ADB social safeguard policies. This Due Diligence Report represents a key requirement of ADB and will constitute the basis for land acquisition and resettlement. The due diligence report fully complies with requirements of the relevant laws, regulations and policies of the People’s Republic of China (PRC), Shandong Province and Zaozhuang City Government as well as complies with ADB’s policy on involuntary resettlement.

Zaozhuang City Government and ZCWRb hereby affirm the contents of this Due Diligence Report prepared dated in November 2009 and ensures that the resettlement will be made available as stipulated in the budget. ZCWRb has discussed the draft resettlement Plan with relevant local officials and has obtained their concurrence. ZCWRb under Zaozhuang City Government was authorized as the responsible agency to manage the implementation of the Project and related resettlement activities.

District Mayor, Shanting County People’s Government
1. Project Description

1.1 Project Background

1. Shizuizi Reservoir is located about 500m away from the south of Shizuizi Village in Shanting District, Zaozhuang City and at the upstream north tributary of Shizi River, and covers a control basin area of 49.5km². With the total storage of 24.278 m³, available storage of 16.04 m³ and dead storage of 1.55 m³, Shizuizi Reservoir is a medium reservoir which is primarily for agricultural irrigation and flood control and comprehensively utilized for electricity generation and aquaculture, etc. The key engineering structures of the project of the reservoir consists of earth dam, stone masonry dam, spillway and diversion tunnel, etc. Currently, the downstream protection area of the reservoir includes the government of Shanting District, the 100 thousand populations in towns such as Shancheng, xuzhuang, etc, large-sized coal mines in Chaoyang, Binhu, etc, important infrastructures such as the Jingfu Highway, the Jinghu Railway, the 104 National Highway, etc, and large areas of farmland. The reservoir, built in the 70s of the last century, under no geological investigation, was constructed as it was designed. Therefore, the design standard was low and the construction quality is poor. The engineering works suffers serious aging nowadays, and each kind of supporting equipments has been expired. So many potential dangers have made the construction regulation inflexible and management inconvenient. Once danger happened in the engineering, it will bring about extremely significant losses and damages to the downstream areas. Figure 1-1 show the sketch map of the Shizuizi Reservoir.

![Figure 1-1 Sketch Map of Shizuizi Reservoir](image)

1.2 Project Description and LAR Impacts

2. Shizuizi reservoir is a key medium-sized reservoir of comprehensive utilization, mainly used for flood control and irrigation, secondarily used for aquaculture and power generation. According to Reviews of the Safe Assessment for the Grade III dam and the Shizuizi Reservoir, the main tasks of danger mitigation for this time are as follow: the reinforcement of earth-filled dam body, the reinforcement of the masonry dam, spillway excavation and
consolidation, the reinforcement of the spillway gate, and reconstruction of office building in management area and warehouse. The earth dam reinforcement includes dam top path upgrading, curtain grouting of dam base, concretes impervious wall in dam body, repairs of the upstream riprap protection and inverted filter, riprapping protection for upstream dam foot, downstream renovation of crushed stone protection, downstream newly built the dam slope gutter, and aliform rehabilitation); The masonry dam engineering includes building a concrete board and dam base curtain grouting in front of the dam; The spillway engineering includes the reconstruction of the spillway gate, newly built flood diversion tunnel, flip trajectory bucket and water drainage conduit engineering; Dam top illumination facility and lightning protection facility; dam safe monitor engineering (includes two items as seepage and mobility detector); and the reconstruction of management office building.

3. The risk mitigation project was divided into 2 phases. The 1st phase includes the reinforcement of earth dam and spillway excavation and consolidation, which was started in August 2009 with the total investment of CNY20.3 million. Figure 1-2 and Figure 1-3 show the construction site in Phase I. The 2nd phase includes the reinforcement of masonry dam and spillway gate and construction of the management office building, which was referred as the Loan project with the total investment of CNY23.63 million. Figure 1-4 and Figure 1-5 show the land to be used for construction works in Phase II.

4. Based on the field survey for Construction Map Design, the project has no impacts caused by permanent land acquisition and temporary land use. All engineering works and construction activities will be implemented on unused land within the reservoir management scope. In 1995, the management scope was demarcated and the right verification was issued by Shanting District Land Administrative Bureau (certificate No. Shan Guo Yong (93) No. 36). In addition, the normal storage level and benefit operation level will not change after the implementation of the Project, therefore no impacts on drawdown area were identified. Figure
1-6 shows the land to be used temporarily in Phase II and Figure 1-7 show the temporary land used as concrete mixing station.

Figure 1-6 Temporary Land to be Used in Phase II
Figure 1-7 Concrete Mixing Station in Phase I

2. Post-resettlement Support

2.1 Resettlement Impacts During Original Construction Period

5. Shizuizi reservoir was constructed in November 1970 and the design was modified for several times in 1973 and 1974. In September 1979, the reservoir was generally completed. The construction of the reservoir inundated 6 villages of with total relocated population of 1,212 and houses demolition of 1,240 units in Xuzhuang Township. In addition, 15 villages of Xuzhuang and Shuiquan Townships were affected by farmland inundation. The total area of inundated land is 3,347 mu. Based on the “Shandong Rural Resettlers Registration and Ratification Method of Large and Medium-sized Reservoirs”, in 2006 the total resettlers are 2,558 persons\(^1\) involved in overall resettlement in 4 villages in Xuzhuang townships. Table 2-1 presents the details of resettlement status.

<table>
<thead>
<tr>
<th>Township</th>
<th>Village</th>
<th>Resettlers (No.) in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xuzhuang</td>
<td>Dongliangzikou</td>
<td>688</td>
</tr>
<tr>
<td></td>
<td>Xiliangzikou</td>
<td>656</td>
</tr>
<tr>
<td></td>
<td>Gaozhuang</td>
<td>768</td>
</tr>
<tr>
<td></td>
<td>Shizuizi</td>
<td>446</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2,558</td>
</tr>
</tbody>
</table>

6. Based on field survey in 2006, one outstanding remaining issue in resettlement villages is the shortage of farmland. The per capita farmland is only 0.4 mu in overall resettlement villages. Other remaining issues after resettlement include out-dated infrastructure and limited income sources. Most of the infrastructure, including water resources and transportation facilities, were constructed 20 years ago and in a poor condition caused by shortage of investments and backward technology at that time. Some villages still have some troubles in aspect of drinking water, transportation, medical service and education. Table 2-2 provides the infrastructure status in resettlement villages of Shizuizi Reservoir. Although the infrastructure condition is poor or unsatisfactory in resettlement villages of Shizuizi Reservoir, it is not as poor as that in resettlement villages in other Reservoir Area. Based on the “Suggestions of State Council on Perfecting the Post-resettlement Support Policies of Large and Medium-sized Reservoir Resettlement” and the corresponding Implementation Method

\(^{1}\) The Ministry of Water Resources maintains a record of all families affected by reservoir inundation. Today, the numbers have grown due to population increase and division of households.
issued by Shandong provincial government, Shanting District government of Zaozhuang City led the preparation of the post-resettlement program (2006-2010) for Reservoirs in its administrative area. But the resettlement villages of Shizuizi Reservoir was not given the priority in the programs(2006-2010) for development.

2.2 Post-resettlement Support Subsidy for Resettlers in Reservoir Area

7. To help the resettlers in reservoir shaking off the poverty and promote the economic and social development in the new period, the central government of PRC issued the “Suggestions on Perfecting Post-resettlement Support Policies for Large and Medium-sized Reservoirs Resettlers” in 2006 (Guofa [2006]No.17). The country has established the post-resettlement support fund to solve the remaining resettlement issues in reservoir area.

8. Based on the “Management Method of Post-resettlement Support Fund of Large and Medium-sized Reservoirs in Shandong Province”, the support fund can be paid directly to resettlers or be used in actual development programs. In Shanting District, after full consultation with affected people, all support fund has been paid to resettlers directly at the annual rate of CNY 600/person. The support will last for 20 years in the duration of 2006-2025, with check of every 5 years. 2,558 resettlers are the targeted group for the subsidy in Shizuizi Reservoir Area during 2006-2010. The total cash payment for post-resettlement subsidy will be CNY69.06 million from 2006 to 2010. The payment of future subsidy and implementation of the development programs, if any, will be monitored during the project period from 2010 to 2012.

3. Implementation Arrangement

9. The Project will be commenced in Nov. 2009 and completed in Nov. 2010. Shanting District Water Resources Bureau will take responsibility of supervision and coordination of all related construction activities to ensure the successful implementation of the Project. Meanwhile, internal and external monitoring and evaluation will be carried out through out the project implementation period. The external monitor can receive grievances from APs and the APs can even submit directly to ADB.

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2 ADB has an Accountability Mechanism to ensure policy compliance. APs are required to seek grievance resolution using the above procedures, but if they still believe that their concerns have not been resolved in accordance with this RP or ADB's Involuntary Resettlement Policy (1995), they may submit a complaint to ADB. The procedures are provided on ADB's website: http://www.adb.org/Accountability-Mechanism/default.asp
<table>
<thead>
<tr>
<th>Township</th>
<th>Village</th>
<th>Road Access</th>
<th>Drinking Water</th>
<th>Power Supply</th>
<th>Health Care</th>
<th>Compulsory Education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Road</td>
<td>Tap water</td>
<td>Power supply</td>
<td>Clinic</td>
<td>Participants in NCMS' (No.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Asphalt or concrete)</td>
<td>with poor quality</td>
<td>with required transformer</td>
<td>Total</td>
<td>Resettlers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tractor Road</td>
<td>Tap water with good quality</td>
<td>Power supply without required transformer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xuzhuang Township</td>
<td>Dongliangzikou</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Xiliangikou</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Gaozhuang</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Shizuizi</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

NCMS: New Rural Cooperative Medical System