

*Bringger Consulting Ltd.*

# **Resettlement Action Plan For Chenming LWC Project**



**Nanchang Chenming LWC Project  
Jiangxi Province PRC  
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## **Executive Summary**

### ***Project Description***

The Jiangxi Chenming LWC Company Ltd (“Chenming LWC”) paper mill plant will cost more than US\$ 500 million and will be the most advanced facility of its type in the Changbei Economic and Technical Development Zone. The Chenming LWC is world-scale with a BTMP plant, a DIP plant and other facilities, covering a total area of some 2000 Mu<sup>1</sup> (133 hectare) of land in the Changbei Economic and Technical Development Zone (“The Zone”), Nanchang city, Jiangxi province, PRC.

The Chenming LWC is a joint venture company between two Chinese domestic companies Shandong Chenming Holding Ltd, one of China's largest paper producers with a 90 percent stake, and Jiangxi Paper Ltd with 10 per cent.

### ***Resettlement Action Plan***

This Resettlement Action Plan (“RAP”) has been prepared as part of a Chenming LWC commitment to ensuring that resettlement is undertaken in a socially responsible manner and in accordance with IFC’s Safeguard Policy on Involuntary Resettlement (OD4.30) so that it can qualify for IFC assistance in the construction and operation of the project. The project is a category “A” project under IFC’s Environmental and Social Review Procedure. The Resettlement Action Plan presents information on project resettlement impacts, compensation entitlements, mitigation measures, resettlement procedures and organization.

### ***Project Land Acquisition and Need for Involuntary Resettlement***

The Chenming LWC required 133 hectares of village land for the project site. As part of commitments contained in land grant contract, the Zone has overall responsibility for resettling all residents living within the project site.

The project required physically displacing 2,300 people (480 households) from the project site. Under the resettlement program, affected people will be assisted to shift their livelihood from rural production to wage employment and enterprise development.

Resettlement is taking place in two phases, with households from the project site having been relocated in September 2003 to a transitional site and households to be relocated further to the replacement village sites by February 2005. Several replacement sites were considered and two was selected and agreed by villagers. Villagers will receive transfer from rural to urban registration as part of their resettlement entitlements once development of the Zone is completed and classified as urban area of the Nanchang city.

### ***Resettlement Implementing Arrangements***

- Under the current Chinese administration structure, local governmental agencies are given responsibility for implementing project resettlement and related livelihood restoration.
- The Zone was established in 1992 with ten functional bureaus. Staff from the relevant municipal government Bureaus were seconded to facilitate development of projects, with the Planning & Construction Bureau administrating any resettlement and relocation, and relevant offices in the Jiao Qiao township as a mechanism to coordinate and implement resettlement, replacement site preparation, and livelihood restoration.
- A mechanism for cooperation among the Zone, the township, and village council currently has been presented to ensure that resettlement is conducted in accordance with IFC standards, including: (i) establishment of a high level coordination office made up of

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<sup>1</sup> 1 hectare=15 Mu

representatives from all implementing parties and the project sponsor; (ii) Chenming to appoint an manager and a community liaison officer to ensure there is sound communication between the Zone and the Chenming LWC on resettlement measures; (iii) Chenming LWC has supported a domestic team of resettlement specialists to document a Resettlement Action Plan (RAP), and (iv) there is a desire for the Chenming to work closely with village council to identify direct and indirect employment opportunities arising from the Chenming LWC construction and operations.

### ***Policy and legislative Framework***

- The Chenming LWC project resettlement is being planned in accordance with IFC's OD4.30 on Involuntary Resettlement, as well as the PRC National Law of Land Administration (effective 1 January 1999);
- Local regulations governing the resettlement on specific compensation rates was finalized after extensive consultation and negotiation between the village council and villagers for the arrangement of compensation disbursement;
- At the time of preparing this Resettlement Action Plan, a number of meetings were held with resettlement officers from the Zone, the Jiao Qiao Township during which the IFC resettlement requirements were presented and discussed.

### ***Project affected community***

- The Chenming LWC project affects a total population of 2300 (480 households) in the two natural villages governed by the administrative village, Gang Kou,
- The livelihood of both natural villages is based predominantly on cultivation of rice paddy, and peanuts, sweet potato as well as watermelon. Ninety percent of villages' workforce is heavily engaged in agricultural activities and providing labor to nearby enterprises during the slack season in farming.
- The average annual per capita incomes of the Gang Kou village was reported as 2,350 Yuan (\$US 287) in 2003. This compares to the rural average annual per capita net income for Nanchang of 2,664 Yuan (\$US 325) and for all China of 2,476 Yuan (\$US 302) in 2002.
- Some "grey" income was discovered, which was derived from unofficial dry land farming developed over the years. This income contributed approximately an additional 1,000 Yuan (\$US 122) per capital to the total net income.

### ***Project Impacts and Mitigation Measures***

- Key resettlement impacts of the project on villagers can be summarized as follows:
  - 1 Loss of village houses, house plots and related attachments;
  - 2 Requirement for 2,300 people to physically resettle;
  - 3 Loss of cultivated land;
  - 4 Loss of other production assets (e.g., livestock pens, vegetable yard and its like);
  - 5 Loss of community assets and utilities;
  - 6 Loss or impairment of livelihood affecting perhaps 1115 workers.
- Mitigation measures for the project as defined and summarized in the **Section 7**.

### ***Program for Implementation***

According to the arrangement for the replacement village, relocation occur in two phases:(i) relocating villagers to a transitional site started in July 2003; (ii) relocating villagers from transitional site to replacement village sites to be started in October 2004.

### ***Next steps***

- The next major step will be the establishment of a mechanism to address and implement immediate corrective actions to minimise hardship during transitional period;
- Define detailed livelihood restoration actions and implementing agencies

# **1 Introduction**

## **1.1 Background**

The Jiangxi Chenming LWC is a joint venture company between the two Chinese domestic companies Shandong Chenming Holding Ltd, one of China's largest paper producers with a 90 percent stake, and Jiangxi Paper Ltd with 10 per cent.

One of the project sponsors, the Chenming Paper (Holding) Company, is a listed company in the Chinese stock market. It operates 9 project companies in China, is presently seeking IFC's investment for the construction of a world-scale of LWC plant covering a total area of 153 hectare in Jiangxi province, Peoples Republic of China. The Jiangxi Chenming LWC plant, with a total cost of over US\$ 500 million, is currently under construction and is scheduled for completion in early 2005.

The project embarked on a greenfield project to construct and operate a 350,000 tones per year paper mill. It is sited in an Economic and Technology Development Zone. The project required relocating 480 households (2300 people) as a result of project development.

To qualify for IFC assistance, the sponsor is required to comply with all applicable IFC Policies and guidelines. The IFC's policy governing resettlement is Operational Directive 4.30 *Involuntary Resettlement*. Therefore the Resettlement Action Plan (RAP) was prepared to ensure that the resettlement to be undertaken is in accordance with the IFC's safeguard policy on resettlement.

## **1.2 Brief Description of the project**

The Chenming LWC project site is situate in the Bai Shui Hu Industry Park, Nanchang Economic and Technical Development Zone, Nanchang City in Jiangxi Province. Nanchang is the capital city of the province and the Zone is located in the northwest of Nanchang city. (See figure attached)

Project construction commenced in September 2003 and is scheduled to be completed in early 2005. A resettlement and compensation agreement at village and household levels is in place, and compensation is in the process of being disbursed. Two replacement sites are under construction and under planning, respectively. All relocators are currently living in temporary houses in the transitional site for 18~20 months before the replacement house is built.

## **1.3 Preparation of the Resettlement Action Plan**

As part of a Chenming LWC commitment to ensuring that resettlement is undertaken in a socially responsible manner and in accordance with IFC's Safeguard Policy on Involuntary Resettlement (OD4.30), this Resettlement Action Plan was prepared to present information on project resettlement impacts, compensation entitlements, mitigation measures, resettlement procedures and organization.

The Resettlement Action Plan was prepared in February and March of 2004. The plan drew on information from pervious work undertaken in December 2003 as part of social impact investigation work. Specific tasks undertaken in preparing the Resettlement Action Plan included: (i) discussions with affected villagers; (ii) gathering of background socio-economic data from local government, village council and villagers (iii) discussions and meetings with project stakeholders including officers responsible for resettlement, valuation and compensation, head of township, village council members and affected villagers; (iv) focused interviews with village heads and affected villagers selected to represent the range of socio-economic conditions; (v) undertaking a social-economic survey; (vi) detailed discussions and review of records of

executing agencies to define activities, programs, responsibilities, costs and budgets for resettlement and income restoration; and (vii) reviewing the need for resettlement program strengthening measures.

#### **1.4 Relationship between the Chenming LWC and the Resettlement Implementing Agency**

The implementing agency for the Chenming LWC resettlement is the Zone. The Zone was established in 1992 with ten functional bureaus. Staff from the relevant municipal government Bureaus were seconded to facilitate development of projects, with the Planning & Construction Bureau administrating any resettlement and relocation, and relevant offices in the Jiao Qiao township as a mechanism to coordinate and implement resettlement, replacement site preparation, and livelihood restoration

The Zone is responsible for resettlement in all project developments in the Zone and has previously undertaken numerous resettlements for large infrastructure projects including for the Greencool project invested by the Hongkong Technology Holding Ltd in 2001 and a Ningbo Samsung Group invested project in 2003.

## **2 Resettlement Objectives**

The overall goal of the Chenming LWC project resettlement is as follows:

***To relocate and provide opportunities for the project affected people of Gang Kou to fully restore or improve their living standards and income earning capacity.***

The resettlement goal will be achieved through adherence to the following principles:

- (i) To prepare a project resettlement plan to address impacts and mitigation measures in accordance with the laws and regulation of the PRC and in compliance with IFC policies and guidelines governing involuntary resettlement;
- (ii) To fairly compensate project affected people in accordance with the compensation norms set out in the Jiangxi Province Implementing Regulation on the National Law of Land Administration 1999;
- (iii) To assist project affected people to minimize hardships throughout resettlement process;
- (iv) To provide assistance to project affected people towards development of opportunities for replacement employment or self employment;
- (v) To pay special attention to disadvantaged groups including the poor, sick, and elderly;
- (vi) To conduct full and thorough community consultations throughout the resettlement process, and,
- (vii) To monitor the effective implementation of the project Resettlement Action Plan.

### 3 Project Affected Area

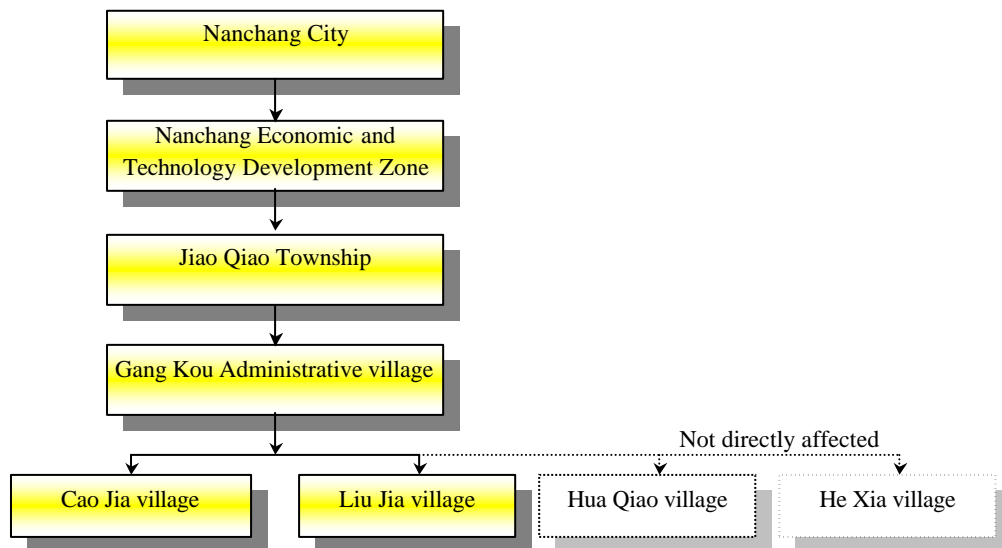
#### 3.1 General

The Chenming LWC project is sited in the Nanchang Changbei Economic and Technology Zone, Nanchang city, Jiangxi Province, PRC. The local government administrative structure governing the project-affected village is illustrated below. The affected village, Gang Kou, is within the Nanchang Economic and Technology Development Zone established in 1992.

The Nanchang Economic and Technology Development Zone was established to foster investment in the area. Also, it had been authorized to take responsibility for governing the designated area through the Jiao Qiao Township, on behalf of the Nanchang city government. Nanchang is a prefecture level<sup>2</sup> city.

The project directly affected an administrative village<sup>3</sup> that governs its natural villages, among which two of them were directly affected by loss of cultivated land and residential plots as a result of the Chenming project development.

#### Local Administrative Structure



#### 3.2 Nanchang Economic and Technology Development Zone

Industrial Parks or Special Zones have become an important vehicle for faster economic development since China implemented its opening policy in 1980s. They were designated for industrial development with general government agency departments to be responsible for attracting investment; planning and developing the zone's own infrastructure, transportation system, and public utilities; and setting its preferential policy on taxes and enterprises start-up. It

<sup>2</sup> There are five different levels of government administration tiers: state, province, prefecture, county and township.

<sup>3</sup> Administrative village consists of groups of hamlets (village production teams, sometimes referred to as "natural villages"), and range in size from around 120 households to more than 1000 households. In practice, an elected village committee administers the village. The ownership of a village collective land belongs to the administrative village, while the right of use will be allotted to individuals through natural village that hold fixed portion of collective land. Once fifteen years, land is re-allotted to take into account changes in village production team population through births, death and in or out immigration. Each registered village resident in the same village production team has an equal land holding.

usually covers a large area of agricultural land owned<sup>4</sup> by village collectives. All land will eventually be transferred to state-owned land through land acquisition and compensation processes<sup>5</sup>. The Zone is also responsible for the land acquisition plan and its implementation.

The Nanchang Economic and Technology Zone was established initially as a provincial level Zone in 1992 and was later granted recognition as national level Industrial Zone in 2000, covering a total area of 118 square kilometres, administrating one township (Jiao Qiao Township) and a forest area, with a total population of 180,000.

The total area of 118 square kilometres of land in the Zone will eventually be developed. It falls into the following categories:

- 1) Industrial development area, covering 40 square kilometres (35%); which contains:
  - Core industrial area covering 18 square kilometres;
  - Bai Shui Hu Industrial Park covering 11 square kilometres, and
  - Huang Jia Hu Ecological Industrial Park covering 11 square kilometres.
- 2) The remaining 78 square kilometres area would be developed into:
  - Residential area;
  - Area to accommodate infrastructures (e.g. roads, railways, public utilities);
  - Universities and institutions (to accommodate approximately 10 or more universities);
  - Entertainment and leisure facilities (hotels, leisure parks)

At the end of 2003, twenty-eight square kilometres (70%) of the designated industrial land was developed or being developed. Development in the Zone had made its biggest leap in 2001 in terms of the speed of development. As reported, 27 square kilometres of industrial land has been developed in the past two years. Between the end of 2001 and 2003, a great deal of collectively owned agricultural land has been required.

The Chenming LWC project is situated in the Bai Shui Hu Industrial Park, which was named after Bai Shui lake next to the Chenming LWC project. This industrial park will cover a total of 11 square kilometres once fully developed. The Chenming LWC project has been regarded as a pillar project for its total investment and for covering an area of 1.3 square kilometres.

### **3.3 Project Affected Village**

Land acquisition and resettlement of the Chenming LWC project site took place in June 2003. The project-affected village, named Gang Kou, is an administrative village with a total population of 2300 comprised of 480 households who were resident in the village prior to relocation. It is formed by four natural villages. Two of them were situated in the Chenming project site and therefore were directly affected by the loss of land and residential houses.

The two affected natural villages are:

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<sup>4</sup> In China, there are two types of ownership for land, one is state owned land (mostly in urban area), and the other is collectively owned known as village collective land (with farmland mostly in Chinese rural area).

<sup>5</sup> No land acquisition occurred until public infrastructural facilities or a specific project required and approval for the project land acquisition requirement obtained from government agency (usually at state or provincial level). Land acquisition and resettlement process therefore would be case by case even in the same Zone, generally speaking improvement will be made along with the overall development of the Zone based on a combination of past experience, general goal of the local implement government agencies and financial situation and its like.

- Cao Jia natural village, and
- Liu Jia natural village

The two natural villages in the Gang Kou administrative village had long histories that could be traced back 600~800 years. The two villages were named after the surname of their ancestral groups, “Cao” and “Liu”. Village populations are both made up of ancestral residents, and each is very proud of having famous historical men of talent. Historically the two ancestral groups were fighting against each other for generations. It gradually became a custom that the two have to be kept separate, but not too far from each other in terms of geomantic omen.

The village head of the Gang Kou indicated there are a total of 900 hectares of land, among which most is registered as hilly land (42%), with some cultivated land (28%) and 30% of other, non-cultivated land. In more recent years, a large area of hilly land had been developed into dry land and irrigated land without changing its original registered type. (See table below for detail breakdown)

#### Breakdown of collective-owned village land

Type of Land		Total Land Area (hectare)			
		Registered		Current use	
<b>Hilly Area</b>	Hilly land	250	<b>42%</b>	233	<b>38%</b>
	Dry land	30	5%		
<b>Cultivated land</b>	Irrigated land	110	18%	200	33%
	Garden yard	30	5%	NA	NA
	<b>Subtotal</b>	<b>170</b>	<b>28%</b>	<b>433</b>	<b>71%</b>
	<b>Other land</b>	Wasteland	60	10%	60
	Pound	50	8%	47	8%
	Residential plots	40	7%	40	7%
	Down fold	30	5%	33	5%
	<b>Subtotal</b>	<b>180</b>	<b>30%</b>	<b>180</b>	<b>29%</b>
<b>SUM</b>		<b>600</b>	<b>100%</b>	<b>613</b>	100%

*Source of data: discussions with the village committee members in February 2004.*

The village head also indicated that the irrigated land was used as paddy land, while dry land was used to grow peanut, rapeseed, or watermelon. Agricultural activity is the predominant activity in generating income. Average cultivated land holding per capita is 2.5 Mu (1650 sq meters), which contributes the largest portion to a total net income of 2,350<sup>6</sup> Yuan (USD284) per capita reported in 2003. This compares to the rural average annual per capita net income for all China of 2,476 Yuan (in 2002). It was later revealed in the socio-economic survey that the reported figure was based on the income from registered land, excluding income from unregistered cultivated land. The actual net income estimated is higher than the reported one. The estimates of respondents in the socio-economic survey indicate 54 percent of income is attributed to agricultural activities. The balance of 46 percent was made up from other resources. Typically each household derives income from cultivation and labour (in the nearby ports). There is apparently relatively little “grey” or undeclared income within the village. There were a few private and collective enterprises (details are as following table). Three of them were required to relocate as the result of the Chenming LWC project development.

#### Private and collective enterprises

Type of Business	Ownership	No. of Employees	No. of villagers employed
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<sup>6</sup> Rural average annual per capita net income in Nanchang city was 2,664 Yuan reported in 2002.

Brick factory <sup>7</sup>	Collective	50~60	5~6 ( management )
Machining	Private	Over 10	8-10
Rice Mill	Family business	4	4
Oil Processing	Family business	4	4

Most common types of registered houses are brick and wood (about 60 percent of the dwellings) and concrete and brick (33 percent of the dwellings). The majority of houses are one to two storeys. The average household floor area is about 130 square meters, including houses built after the cut-off date announced by the Zone in 2001<sup>8</sup>. This compares to a rural average residential area per capita of 119 square meters in Nanchang city in 2002. The village council indicated that the newly built houses are mostly two to three-storey concrete and brick structures for family expansion.

Educational attainment is relatively low, even compared with most Chinese rural areas. According to the village secretary's estimates, everyone but males under 30 attended or just completed primary school. The male workforce below 30 mostly completed junior middle school.

There is a primary school with 200 pupils, all from the two affected villages, and a playground, situated next to the residential area of the two affected village.

It was reported by the village council that the most common mode of travelling is by bicycle or on foot. Very few households own private motorcycles or other types of vehicles. This reflects the reliance on agricultural activities and the close location of offsite work. The public bus is the common vehicle for travelling long distance.

The village is connected to electricity. Water from wells is the only source for domestic use, while water in the rivulet or ponds is used for washing (food, cloth, etc). Wood or straw is used as the main source of fuel.

As elsewhere in Nanchang city, schistosomiasis and hepatitis are the local diseases. Two to three cases are found each time by local health agency during periodic<sup>9</sup> health checkups. In addition, some skin disease is caused by working in the agricultural field (especially by the female workforce), as villagers later explained.

### 3.4 Vulnerable Groups

Categories of potential vulnerable households affected by the Chenming resettlement have been identified and enumerated as part of the resettlement planning process.

As elsewhere in China, very poor households tend to fall into one of the following four categories: (i) families headed by an intellectually or physically impaired person; (2) elderly couples; (iii) households with one or more sick breadwinners; and (iv) single parent (particularly women-headed) households. Amongst the poor households, fifty-five of the poorest households received financial support<sup>10</sup> from the local government in 2003. Depending on the cause of

<sup>7</sup> Not required to relocation.

<sup>8</sup> The prohibition on new building or other development in the village that has applied since 2001 when the Zone was start to pick up the industrial development. Satellite image reflect housing structure, all houses or extension after the 1 October 2001 would be regarded as "illegal" structures.

<sup>9</sup> Once every six months or annually. A local health agency will sent a team to carry out a health check out among local rural area.

<sup>10</sup> Household earning less than 100 RMB per month receive financial support from the government.

financial difficulties, financial support from government falls into the categories of long-term<sup>11</sup> support and temporary<sup>12</sup> support to assist the two types of poor households: In 2003, there were 14 poor households that received long-term financial support from the government, while there were over 50 households receiving periodic financial support.

### **3.5 Attitudes to the Project**

A commonly expressed view among villagers was that because they know they would be subject to relocation as a result of the development of the Zone, they have had to forgo development opportunities. Planning control had been imposed on them since 1 October 2001, when the Zone announced its cut off date for future compensation. Since then, villages had been restricted from new development by the government and therefore felt they had experienced a downside. The village council indicated that the village was willing to support the project and was looking forward to relocating, although replacement site location and especially finding new sources of long-term income are serious concerns among the villagers.

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<sup>11</sup>Villagers who entitled to receive long-term financial support are rural people who with no working ability, no other income source; elderly, disabled or children whom with no one to be supported; to help them to survive.

<sup>12</sup>Villagers who entitled to receive financial support occasional are rural villagers who have ability to work but experience hardships due to illness, impaired or natural disaster.

## 4 Results of Socio-Economic Survey

### 4.1 Household Survey

A socio-economic survey of project-affected households was conducted between 7 February and 12 February 2004. Staff from Jiangxi Chenming Paper Co.Ltd, who had received basic training under the supervision of domestic resettlement consultants, carried out the survey. The survey covered 100 households representing about 21 percent of the total number of households affected by the project. Sampling was designed to cover households in the two affected natural villages. The questionnaire format and summary of results are provided in **Appendix B**.

#### Breakdown of Surveyed Households

Natural village	Total No. of households	No of HH surveyed	%
Cao Jia	340	68	20
Liu Jia	140	32	23
<b>Total</b>	<b>480</b>	<b>100</b>	<b>21</b>

### 4.2 Characteristics of Respondents

Surveys were directed to both women and men to reflect villagers' status in general. Fifty-eight percent of respondents (n=58) were male. Forty-two percent were female (n=42). Sixty-five percent of respondents were aged from 31~55. Jiang Xi dialect and Mandarin are the prevalent spoken languages. They usually choose the local dialect to communicate in their daily life. Respondent's educational attainment is summarized in the following table. Thirty-five respondents (35 percent of the sample) were noted as illiterate.

#### Educational Attainment of Respondents

Respondents highest grade	N	%
Illiterate	35	35
Primary school	40	40
Middle school	22	22
High school, College/technical school	3	3
University graduate	-	-
Total	100	100

N=100

It was revealed during group discussions that education was never regarded as something important to their way of living as life-time farmers. Also, it was indicated that the cost of completing a university education is rather beyond their financial capability. Any lower educational attainment would not change their way of living and was generally regarded as nonessential.

### 4.3 Household Characteristics

The most common household type was "a couple with children" (55 percent, n=55) or "extended family" (33 percent, n=33) where three or more generations live under one roof.

#### Household Type

Household type	N	%
A single person living alone	1	1

A single person living with children	2	2
A couple without children or children moved out	3	3
A couple with children	52	52
Grandparent and grandchild	-	-
Extended family (i.e. One family with three generations)	33	33
Two or more families sharing living quarters	9	9

N=100

In China, children move out when they get married. Parents usually live with one of their sons. Commonly senior aged people live with one of their sons or grandsons.

It was revealed in the consultation that 9 households reportedly shared living quarters with other families before the physical relocation. They were separated afterwards to become entitled to the compensation to which each household was entitled (e.g., material allowance for transitional housing, moving allowance)

#### Household Size

Household size (no. of members)	N	%
1-2	5	5
3-4	49	49
5-6	34	34
7 or more	12	12
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Mean family size</b>	<b>4.7</b>	
<b>Mean workforce in a household</b>	<b>2.7</b>	

N=100

Mean family size was 4.7 comprised of 2.7 workforce members and 2 non-workforce members<sup>13</sup>.

#### 4.4 Existing Housing

“Wood with brick”, and “concrete with brick” are the most commonly reported housing structures. Houses are predominantly one or two storey, ranging in floor area from around 30m<sup>2</sup> to more than 300m<sup>2</sup>. Mean floor areas are 132m<sup>2</sup>. In addition, 12% respondents reported having two or more residential buildings. This compares to the results of the inventory to the effect that 60 percent of the demolished house were wooden and brick structured. It reflects the amount of newly built “illegal” concrete and brick structured residential houses.

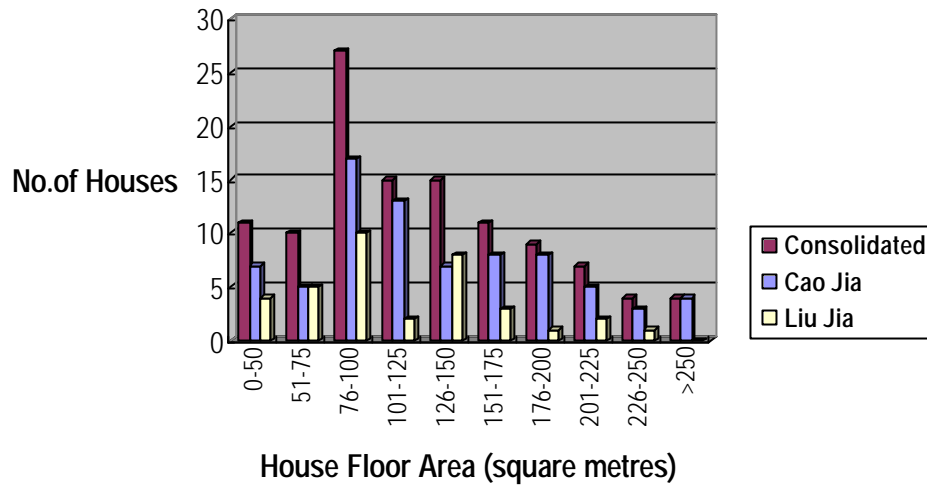
#### House structural type

House Structure	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Concrete and brick	67	67	22	69	45	66
Wood and brick	44	44	13	41	31	46
Wooden house	-	-	-	-	-	-
Temporary structure	2	2	1	3	1	1
<b>Total</b>	<b>113</b>	<b>-</b>	<b>36</b>	<b>-</b>	<b>77</b>	<b>-</b>

N=100 , Multiple responses

<sup>13</sup> Non-workforces mean people not in the age group of workforce, disabled with no ability to work and university students and service in the army.

### Ranges of House Sizes



Floor area in the interviewed households ranged from 30 to 300 square meters, with the average household floor area of 132 square meters. The average family size of 4.7 persons comes to an average floor area of 28 square metres per person. This compares to an average rural residential area per capita of 28.3 square meter in Jiangxi Province in 2002.

#### 4.5 Services and Infrastructure

There is no reticulated water in the village, and therefore the common source of water is from wells. It was revealed in the inventory records that a total of 137 wells existed in the original village site. During the household interviews, 76 percent of households reported having a well of their own, 20 percent report sharing wells with other households, and 4 percent report using the wells of other households.

##### Most commonly use of well

Type of wells	N	%
Sharing wells with neighboring households	20	20
Private well	76	76
Others	4	4
<b>Total</b>	<b>100</b>	<b>100</b>

N=100

The most common fuel for domestic use is firewood or straw, as summarized in the table below. As noted before, there was a large area of hilly land where villagers collected firewood. Ninety percent of respondent households reported using firewood for domestic fuel.

##### Most commonly use of fuel

Type of Fuel	N	%
Firewood or Straw	93	93
Liquefied petroleum gas	6	6
Coal or honeycomb-shaped briquette	1	1
<b>Total</b>	<b>100</b>	<b>100</b>

N=100

The most commonly used modes of transportation are summarized in the table below.

Sixty-three percent of respondent households reported using a bicycle as the most common type of transportation. The use of transportation mode reflected villagers' habit of traveling. In the village of Gang Kou, the downtown center is where villagers commonly travel to.

**Most commonly used mode of transportation**

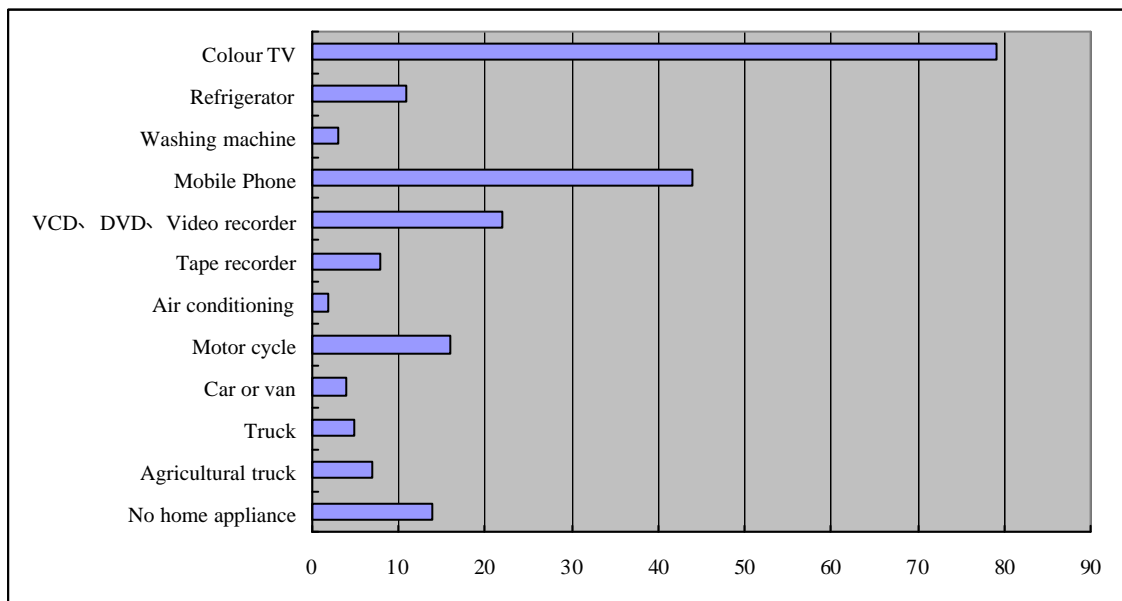
Transportation	N	%
Bicycle	63	63
Motorcycle	2	2
Public bus	7	7
Walking	28	28
<b>Total</b>	<b>100</b>	<b>100</b>

N=100

**4.6 Household Ownership of Consumer Goods**

A cross-section of the consumer goods owned by respondent households is summarized in the table below in comparison with national level.

**Household consumer goods (%)**



Multiple responses from 100 respondents

**4.7 Health**

As noted in the previous section, elsewhere in Nanchang city, schistosomiasis and hepatitis are the primary local diseases. Two to three cases are found by the local health agency during periodic<sup>14</sup> health checkups. In addition, working in the agricultural field (especially for women) causes some skin disease, as villagers explained.

It was revealed in the socio-economic survey that villagers were very reluctant to report illness,

<sup>14</sup> Once every six months or annually, a local health agency will send a team to carry out a health check out among local rural area.

especially those with infectious diseases. Four respondent households reported having family member with hepatitis, which is regarded as high cost and hard to cure. It was also said that mental retardation among villagers had resulted from in breeding. In general, villagers tend not to talk publicly about illnesses, especially infectious diseases. Additional consideration should be given to doing health related activities. The number of respondent households with illness might be higher than was revealed.

The types of illness reported in the interviews are summarized as follows.

Types of illness

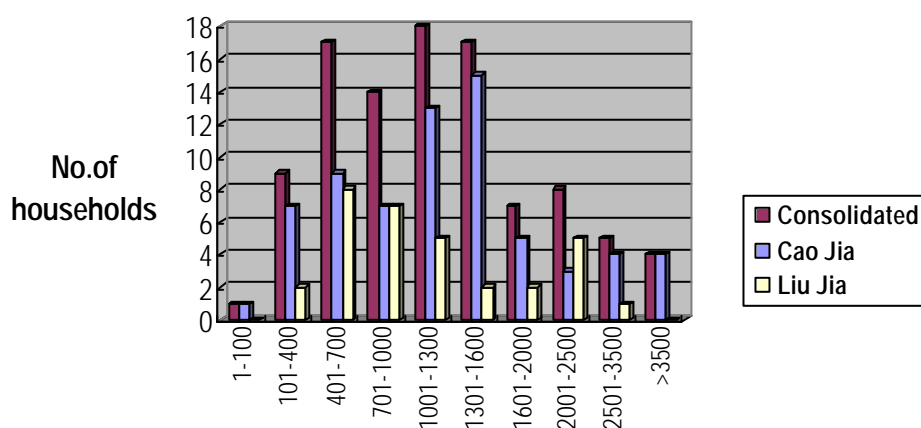
	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Hepatitis	4	8	-	-	4	13
Schistosomiasis	-	-	-	-	-	-
Skill disease	-	-	-	-	-	-
Common diseases (flu, fever, etc)	30	63	14	88	16	50
Other types of infectious diseases	-	-	-	-	-	-
Fatal diseases	13	27	2	13	11	34
Other types	5	10	1	6	4	13
Total	52	-	17	-	35	-

N=48 (Multiple responses from 48 respondent households)

#### 4.8 Household Income Levels

The range of household incomes revealed by the survey is summarized as follows. Household incomes are based on estimate made by the respondents. These indicate that, adjusted to a monthly household income basis, 14 households (14 percent of the survey sample) have incomes below the PRC poverty line of 100Yuan/month per head.

Distribution of Household Income



Monthly household income RMB

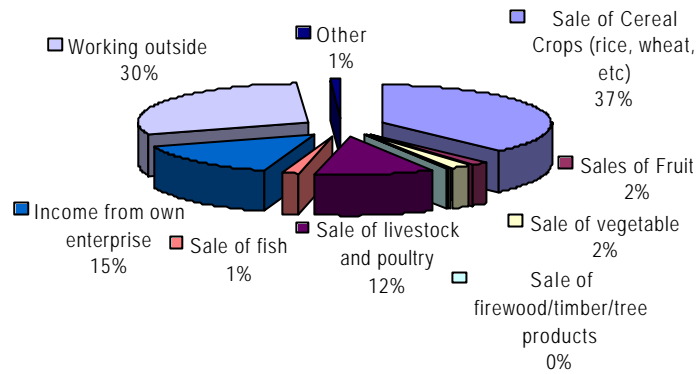
The average annual income per capita is 3370 Yuan (\$US 411). This can be compared with the officially reported income of 2350 Yuan. The higher figure in the socio-economic survey revealed the income from un-registered cultivated land and maybe other sources of income.

#### 4.9 Sources of Income and expenditure level

As part of the socio-economic survey, households were asked to identify primary sources of

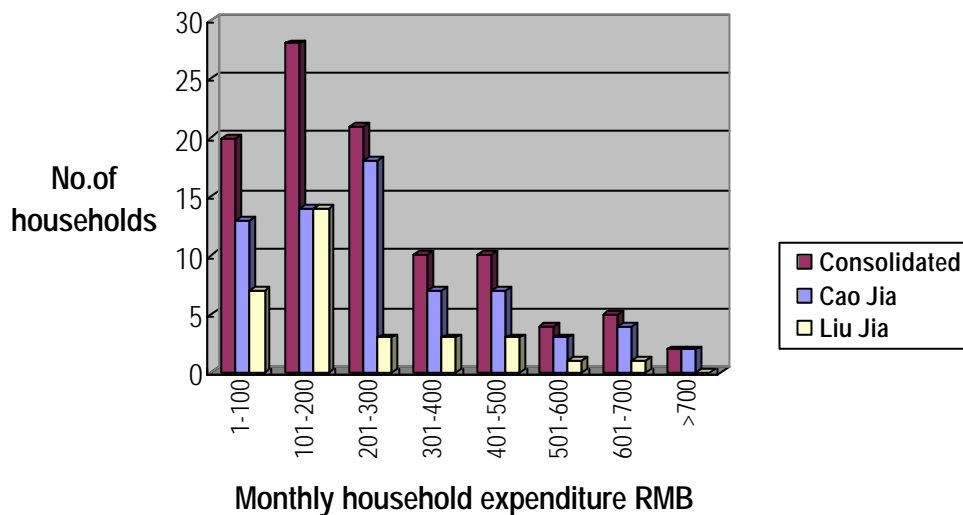
household income (Qu. 19) and, separately, to indicate the quanta of aggregated household income from all sources (Qu. 23).

### Breakdown of Aggregated Household Income from All Sources



Fifty-four percent of households indicated agricultural activity was their primary source of income. Aggregated data of income received from all household sources showed that the greatest proportion of household income was received from agricultural sources. This indicated that households in Gang Kou village are at an earlier stage of transitioning from rural income to urban sources even though they neighbour on the capita city of Nanchang.

### Distribution of household expenditure



Expenditures are net of expenses incurred from production (e.g., fertilizer, fuel for agricultural vehicles). The largest household expenditures are for food and clothing, with monthly average household expenditures of 293 Yuan (744 Yuan per capita per year). Respondents indicated that rice, vegetable and livestock are for self-consumption rather than sale to the market for cash income.

#### 4.10 Attitudes toward the Chenming LWC Project

The survey sought to elicit the degree of local support for the Chenming LWC project. Responses are summarized in the table below. The majority of households presently either have

“no comment” (36% of the respondent household) about the project or “object” (36% of the respondent household) the project, while 28 percent of the respondent household expressed their “support” of the project. The low support rate was explained later as late payment of compensation and worries about long-term livelihood.

Attitude	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
N=100	100		32		68	
Support	28	28%	6	19%	22	32%
Object	36	36%	11	34%	25	37%
No comment	36	36%	15	47%	21	31%

#### 4.11 Transitional site and priorities for Improving

The survey was conducted in the transitional period that is commonly the most difficult time in terms of shifting lifestyle and income resources. The following is a recorded summary of hardship villagers most experienced after relocation.

##### Experienced hardships (Verbatim responses)

Hardships	N	%
Income reduction after land acquisition, no income source	66	66
Inconvenience in traveling to outside	57	57
Pollution from Construction, dusty	18	18
Shortage of water	13	13
Lack of education facilities	1	1
Old house demolished before the replacement built causing hardship	8	8
Other adverse impacts	4	4
No adverse impacts	3	3
<b>Total</b>	<b>170</b>	<b>-</b>

*N=100 , Multiple responses from 100 respondent households*

A summary of priorities for improving quality of life reflected hardships expressed by the respondents during the consultation.

Tick three priorities	N	%
Improve public utilities	20	20
Improve infrastructure (roads)	59	59
Solve hardship causing by shortage of water	58	58
Improving living condition	10	10
Improve quality of transitional housing	12	12
Speed up the construction of the replacement housing, reduce total cost in purchasing the replacement house	14	14
Employment opportunities	12	12
Other impacts	4	4
No impacts	12	12
<b>Total</b>	<b>201</b>	<b>-</b>

*N=100 , Multiple responses from 100 respondent households*

#### **4.12 Villagers' Suggestions for the project**

Villagers were asked whether they had any suggestions for the project. Responses are summarized as:

- a) Priority could be given to the villagers for employment opportunities from the Chenming LWC;
- b) Contracts or subcontracts could be awarded to the village collectively-owned earth work company wherever possible; any support to the company would be highly appreciated and most welcomed;
- c) Hope that investors attracted by the Chenming LWC would have positive impact on village's industrial land development.

## 5 Policy and Legislative Framework

### 5.1 General

PRC's laws and resettlement procedures accord closely with the IFC's principles and guidelines for involuntary resettlement. Key obligations relating to resettlement and compensation are established by the *Law of Land Administration of the People's Republic Of China* (promulgated 29 August 1998 and effective as of 1 January 1999). The national *Law of Land Administration* is implemented through various regulations introduced at provincial and city government levels. Key legislative instruments governing resettlement and compensation for the Chenming LWC project are summarized in the table below. Requirements for compensation and resettlement are further defined through project specific agreements. In the case of the Chenming LWC project, these consist of: (i) land requisition agreements between the Zone, Township government agency and the affected villages; and, (ii) household agreements between the village council and affected households.

**Summary of Legislative and Regulatory Instruments Governing Project Resettlement**

<b>Law/Regulation &amp; governing documents</b>	<b>Date of Promulgation</b>	<b>Application to the Chenming LWC Project</b>
<b>A. National</b>		
Law of Land Administration of the People's Republic Of China	29 August 1998  (Effective 1 January 1999)	Establishes broad principals for resettlement including the requirement to pay compensation for land and crops, houses, structures and land improvements as well as loss of livelihood. Empowers provincial governments and municipalities to set standard rates for compensation through local regulation.
Implementing Regulation on the National Law of Land Administration	27 December 1998  (Effective 1 January 1999)	Defines requirement on timeframe for disbursement of compensation for land acquisition
Methods of Land Acquisition Notice	22 October 2001  (Effective 1 January 2002)	Establishes requirement for public consultation and requirement for public disclosure of land acquisition plan and relocation & compensation plan, also defines procedure for public hearing
<b>B. Provincial</b>		
Jiangxi Province Implementing Regulation on the Law of Land Administration of the People's Republic of China	22 December 2001	Establishes broad compensation rates for land requisition and defines the procedures to be followed by municipal and county governments in preparing compensation and relocation Plans.
<b>C. Local</b>		
Methods of land acquisition and compensation in Nanchang Economic Development Zone	20 September 2002	Defines method in land acquisition process and sets basis for compensation rates
Methods of relocation in Nanchang Economic Development Zone	18 April 2002	Defines options on relocation and sets compensation rates
<b>D. Project</b>		
Notification of relocation for Chenming LWC	1 June 2003	Announces a requirement on relocation, outlines relocation arrangements, compensation rates and

project		entitlements.
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## 5.2 National Laws

### *Law of Land Administration of the People's Republic Of China 1998*

Principles and obligations with respect to loss of or impairment on land use and related livelihood impacts are defined by the *Law of Land Administration of the People's Republic Of China 1998* (Hereinafter referred to as the *National Law of Land Administration*). Key provisions relevant to social impacts are as follows:

**Article 2** – empowers the State to requisition land owned by collectives for projects in the public interest.

**Article 47** - establishes that compensation must be paid where land is requisitioned and that compensation should be based on the original land use. It specifies that compensation shall cover: (i) payment for the land; (ii) resettlement fees; (iii) compensation for attachments; and, (iv) payment for green crops on the land.

Article 47 defines that compensation for cultivated land should be six to ten times the average annual production value of the land based on the previous three years output. Resettlement fees are to be calculated based on the agricultural population to be resettled.

Article 47 also empowers the governments of provinces, municipalities and autonomous regions to set standards for calculating compensation for land acquisition, resettlement, crops, and attachments. Governments of provinces, municipalities and autonomous regions are also empowered to increase land compensation and resettlement fees where necessary to maintain the original standard of living.

**Article 48** – after a plan for land compensation and relocation, fees has been prepared, Article 48 requires the local government to make an announcement and hear the opinions of rural collective organizations and peasants whose land has been requisitioned under the plan.

**Article 49** – makes it a requirement that rural collective organizations make public to their members the receipts and expenditures relating to the land compensation received.

Various sanctions are specified for embezzling or diverting land compensation fees.

### *Implementing Regulation on the National Law of Land Administration*

**Article 25** - Compensation and resettlement fees will be fully paid to village collectives and individuals within 3 months of the date of approval of the resettlement and compensation plan

### *Methods of Land Acquisition Notice*

The Methods of Land Acquisition came into force on 1 January 2002, it establishes the requirement for public consultation and the requirement on public disclosure of land acquisition plan and relocation & compensation plan, it also defines the procedure for public hearings. Key provisions relevant to social impacts are as follows:

**Article 3** – establishes that the written notices shall be publicized at the production team level and village level for land acquired the land acquisition program, the compensation for land acquisition, and the resettlement proposal whereas written notices shall be publicized at county (town) level for land acquired from rural collective entities of counties (towns).

**Article 6** – defines that when land is acquired, villagers and other stakeholders shall hold land propriety certificates and go to specified location within a time period stated in the land

acquisition notice to proceed with relevant compensation procedures. The compensation standard for those who fail to register within specified duration shall be subject to the results an investigation undertaken by the competent land resource departments of the municipalities and counties concerned.

**Article 9** – defines that a hearing request shall be brought to the competent land resource departments of relevant municipal and county governments within 10 working days after the issuance of the notice of a land acquisition compensation program and resettlement proposal by villagers and other stakeholders who hold different opinions on the compensation programs for land acquisition and resettlement.

**Article 10** – defines that the hearings shall be held to hear appeals. Requests for modifying the compensation programs for both land acquisition and resettlement shall be carried out in accordance with relevant regulations, laws and land acquisition programs.

### 5.3 Provincial Regulations

At a provincial level, the key regulatory instrument governing land acquisition and resettlement is the *Jiangxi Province Implementing Regulation on the National Law of Land Administration 2001*. This regulation was promulgated and come into effect on the 22 December 2001. Some key provisions of the regulation relevant to the project are as follows:

**Article 25** – outlines procedures in land acquisition and transfer procedure of the land use right to comply with the requirements stated in the *Law of Land Administration of the People's Republic Of China 1998* and *Land Administration Law Implementing Regulations*

**Article 27, 28, 29** – sets out compensation and resettlement standards for requisition of collective owned land. These are summarized in the following table.

#### A summary of compensation basis as prescribed in the Jiangxi Province Implementing Regulation on the National Law of Land Administration 2001

Category	Compensation basis
Paddy Fields	6-10 times average output value of the previous three years
Fish ponds	6-9 times average output value of the previous three years
Other farmland	5-6 times average output value of the previous three years
Unused land	2-3 times average output value of the nearby cultivated land of the previous three years
In-ground green crops	Compensation at real value of losses
Attachments	Compensation at real value of losses
Resettlement allowance	Categorized by average land holding per capita, ranged from 4-15 times average output value of preceding three years

**Article 30** – in the case of all village land acquired, villagers could be transferred from rural registration to urban registration.

### 5.4 Local Governing Documents

The notification and method of conducting land acquisition and relocation was outlined and

defined by the Zone and implemented accordingly.

### ***Methods of land acquisition and compensation in Nanchang Economic Development Zone***

**Article 5** – A Lump Sum compensation for all losses (excluding compensation for houses and structures) at 20,000 Yuan per Mu (\$3.66 per square meter) regardless of types of land.

### ***Methods of relocation in Nanchang Economic Development Zone***

**Article 3** – sets compensation rates for loss of houses based on types of structures

**Article 4** – outlines options for relocation: (i) cash compensation; (ii) replacement apartments; and (iii) replacement detached house

**Article 5** – outlines a bonus for timely relocation, house moving and punishment for breach of local governing documents

### ***Notification of physical relocation in Gang Kou village***

The *Relocation Notification* for the Chenming LWC project was issued by Nanchang City Jiaoqiao Township Government on 1 June 2003. The *Relocation Notification* establishes project compensation rates and the compensation cut-off data. Matters addressed included project specific arrangements for (i) compensation rates for land acquisition and crops; (ii) compensation and basis for evaluation of acquired housing; (iii) compensation rates and compensation entitlements, eligibility criteria, and bonus for timely relocation; (iv) agency implementing roles and responsibilities; (v) arrangements for replacement site preparation, housing distribution and related certificates processing; and, (vi) timeframe of transitional period

## **5.5 Other Legal Instruments**

There are two kinds of agreements that further define village and household compensation entitlements.

### **5.5.1 Project Agreements For Land Acquisition**

Agreements for land acquisition will be among the Zone, the Jiaoqiao Township, and the village council. Agreements for land acquisition summarize (i) areas of the various land uses to be acquired for the project; (ii) the agreed value of compensation for land, crops, workforce resettlement allowance and the like; (iii) terms of payment; and, (iv) the agreed program for clearing and vacating the subject land.

### **5.5.2 Household Relocation Agreements**

The village council must establish agreements with all households who will be required to resettle as a result of the project. The agreements set out: (i) agreed areas of the houses and structures on which compensation has been calculated; (ii) agreed amount of compensation; (iii) terms and program for payment; and, (iv) program for clearing and vacating the land.

## **5.6 International Policies and Guidelines**

The policies and guidelines of the IFC are generally accepted as providing the benchmark for projects involving involuntary resettlement. The International Finance Corporation's (IFC) Good Practice Manual "*Doing Better Business through Effective Public Consultation and Disclosure*" is also a useful guide to managing public consultation and information disclosure aspects of resettlement. For the purposes of the Chenming LWC project, the following documents have been referred to:

## International Standards Governing Chenming LWC Project Resettlement

Policy document	Application to the Chenming LWC project
Operational Directive 4.30 Involuntary Resettlement	Defines objectives, principles and recommends procedures to be followed for resettlement.
World Bank Operational Policy Note 11.03 Cultural Property	Defines principals and procedures for managing cultural property including temples, graves and other culturally important sites
International Finance Corporation Good Practice Manual “Doing Better Business through Effective Public Consultation and Disclosure”	Recommends procedures and good practice for public consultation and information disclosure

### ***IFC OD 4:30 Involuntary Resettlement***

This Directive describes the IFC’s policy and procedures on involuntary resettlement and also sets out the conditions that developers are expected to meet in projects involving displacement of communities. *Operational Directive 4.30* has sections outlining the policy objectives, the resettlement planning process and documentation requirements for resettlement projects.

Under the Policy Objective section (para. 3), the directive sets out six heads-of-consideration to be taken into account during project preparation and design. The six considerations can be summarized as follows:

**Avoidance or minimization of involuntary resettlement (clause 3a)** - establishes that wherever feasible, involuntary resettlement should be avoided or minimized. Project design should explore all viable project alternatives to reduce the need for resettlement.

**Compensation at full replacement cost and restoration of living standards and livelihood (clause 3b)** - indicates that where resettlement is unavoidable, a Resettlement Action Plan should be conceived and executed. This should result in displaced persons being (i) compensated for their losses at full replacement cost prior to the actual move; (ii) assisted with the move and supported during the transition period; and, (iii) assisted in their efforts to improve their former living standards, income earning capacity, and production levels, or at least to restore them.

**Community participation in the planning process (clause 3c)** - advocates that community participation should be an integral part of planning and implementing resettlement. Wherever, possible existing social and cultural institutions of the resettlers and their hosts should be used to the greatest possible extent.

**Integration with host communities (clause 3d)** - establishes that resettlers should be integrated socially and economically into their host communities so that impacts on host communities are minimized.

**Absence of legal title to land should not be a bar to compensation (clause 3e)** - states that land, housing infrastructure and other compensation should be provided to adversely affected populations, indigenous groups, ethnic minorities, and pastoralists with customary rights to the land or other resources to be taken by the project. Absence of legal title to land by such groups should not be a bar to compensation.

The needs of vulnerable groups such as the very poor, landless, ethnic minorities and women are singled out as requiring special attention during project consultation and in designing resettlement and livelihood restoration measures (clauses 3b, 8, 16).

The principle expressed in Clause 3(b), that project affected people should be assisted “to

*improve their former living standards, income earning capacity and production levels” or “... at least to restore them”* is a crucial tenet of the IFC’s policy. Further, the directive emphasizes the need to not only compensate for loss of assets, but to re-establish the economic base and livelihood of affected people as part of the resettlement process. For people displaced from agricultural settings or who have lost land under cultivation as a result of a project, the policy recommends that land-based strategies are the preferred basis for compensation, or if suitable land is unavailable, strategies should be developed around opportunities for employment or self-employment.

*Operational Directive 4.30* establishes the requirement to prepare a Resettlement Action Plan for any project with significant resettlement, and the content of that plan is specified.

#### ***Operational Policy Note 11.03 Management of Cultural Property***

*Operational Policy Note 11.03* refers to the United Nations definition of “cultural property” as including sites having archaeological (prehistoric), paleontological, historical, religious, and unique natural values. As described by *Operational Policy Note 11.03* the term encompasses “both remains left by previous human inhabitants (e.g., middens, shrines, and battle grounds)” and “unique natural environmental features such as canyons and waterfalls”. In practice, cultural property has also been deemed to include local temples, graves and cemeteries.

The World Bank’s policy regarding cultural properties is “to assist in their preservation and seek to avoid their elimination”. *Operational Policy Note 11.03* states that the World Bank normally declines to finance projects that will significantly damage non-replicable cultural property and will assist only those projects that are sited or designed so as to prevent such damage.

#### ***IFC Good Practice Manual on Public Consultation and Disclosure***

The IFC has published guidelines for private sector developers on disclosing information and consulting with the public. Key principles established by the guidelines include:

- (i) Information about the project should be disclosed as early as possible;
- (ii) Disclosure of project environmental and social information should be an integral part of the public consultation process, with information being provided about both benefits and disadvantages of the project;
- (iii) Information should be clearly presented in appropriate local languages and dialects and in modes that are sensitive to local communities; and,
- (iv) Information should be disclosed in locations that are open to the public and that are readily accessible to project affected people.

### **5.7 Conclusion**

The legislative and regulatory framework for the project generally accords with the tenets of the IFC’s guidelines for involuntary resettlement. The underlying principle of providing adequate compensation to maintain affected people’s original standard of living is clearly stated in the national *Law on Land Administration*. There are clear principles for determining compensation, requirements for consultation with affected people, mechanisms for transparency, accountability, and dispute resolution, as well as sanctions for improper use of funds. In terms of detail arrangement, the Chenming LWC holds responsibility for the implementation of IFC’s resettlement policies. In the case of gaps between the local regulations and IFC’s, the Chenming LWC would be committed to make efforts to ensure the resettlement procedure to be in compliance with IFC’s policies and guidelines.

## 6 Resettlement Procedures & Implementing Responsibilities

### 6.1 Resettlement Procedure

The Zone, with the Jiao Qiao township, developed methods and notification to govern resettlement and compensation activities in the Zone to accord with the framework established by national, provincial laws and regulations. The Zone has the authorized role to oversee and implement the project resettlement process for every project in the Zone. Those methods and notification entail compensation rates. The compensation entitlement is used as the resettlement and compensation plan for projects acquiring land and/or relocation.

The trigger for the commencement of resettlement was the finalising of the project site selection. There are six key steps in the resettlement process in the Zone.

#### Step 1 Preliminary Planning and Set-up:

The preliminary planning undertaken by the Zone could be summarized as:

- (i) Finalize project site selection for the Chengming LWC;
- (ii) Estimate the extent of land to be acquired, the number of project affected households, and area of residential houses to be demolished;
- (iii) Brief relevant government agencies, affected village units and villages on the project requirements;
- (iv) Identify possible relocation sites; and,
- (v) Based on the governing methods and notification in the Zone, establish project compensation rates;
- (vi) Prepare a land acquisition application.

The Zone has transferred 28 square km of land into industrial use since 2001, when it was granted status as a national level zone. Many of the methods and notification introduced in 2001 were intended to keep pace with rapid project developments. The Zone intended to issue village councils more flexibility in the disbursement of compensation funds with a lump sum rate to cover compensation related to the land losses (excluding house and attachments).

Villagers in the Zone were usually unfamiliar with the compensation rates and often brought their concerns to the village council for negotiating.

#### Step 2 Project Notification

Jiao Qiao Township issued a formal *Notification* for the Chenming LWC project on 1 June 2003. The *Notification* entailed a lump sum compensation rate for land, compensation rates for houses, relocation arrangements, and identification of replacement sites. Other activities undertaken at this time included:

- (i) Preparation of a Final Land Requisition Application to the State Council. Final approval was granted in August 2003.
- (ii) Call for all affected owners and users to bring all land ownership certificates and certificates covering any attachments on the ground in order to register for compensation. This was completed in June 2003.
- (iii) Formal announcement of land requisition requirements and presentation of draft project compensation and resettlement plans to the affected villagers. Hearings for villagers' comments were held prior to finalization of the compensation and resettlement plan (as required under Article 48 of the *National Law of Land Administration 1999*). This was completed in June 2003.

Under the terms of the *Notification*, the Zone has 18~20 months to complete resettlement of the

affected villagers into the replacement sites. A transitional site, with a building material allowance, was handed to the village council to assist the project affected people during the transitional period.

### **Step 3 Survey and Loss Assessment / Replacement Site Selection and Planning**

There are four streams of activity.

#### ***Household level***

Houses and attachments are measured and assessed by a team from the Jiao Qiao Township. The household and village council sign an inventory record, which is later the basis for signing the compensation agreements. Household surveys were completed in the middle of June 2003.

#### ***Village Collective Level***

A land acquisition contract is signed among the Zone, Jiao Qiao township and the affected village Gang Kou, summarising the land area that is to be acquired and the amount of compensation due. A lump sum compensation for land and land attachment (excluding structures) is paid directly to the village council, who will then disburse compensation for green crops, trees, graves and where applicable, fishponds, to affected villagers. The land acquisition contract was signed on 11 June 2003.

#### ***Relocation Site Planning***

Alternatives replacement locations for the affected people have been identified and evaluated by the Zone Planning & Construction Bureau. Two replacement sites were selected: one in the Gang Xia area (site I), while the other one is in Shu Jia Shan (site II). Both are within the boundary of the Zone. Replacement locations were discussed and agreed with the villages in July 2003. For Site I, the Planning & Construction Bureau has developed a detailed layout plan showing the locations of markets, school, recreation areas, housing and the like. Construction for site I commenced in October 2003. Engineering designs and house patterns for the replacement site II have been prepared. Construction contracts for the site II expected to be awarded in March 2003.

#### ***Livelihood Restoration***

In general, the Zone shares responsibility for livelihood restoration both among its functional bureaus - the Personal & Labor Bureau, Planning & Construction Bureau, Commercial Bureau, Social Development Bureau, Public Facility Bureau – and externally with the Jiao Qiao township and the affected villages. The village council will finalize its own livelihood restoration actions in seeking long-term income sources to replace income from agricultural activities. This finalization will take place prior to acquiring land with the compensation fund.

A socio-economic survey, with technical assistance from resettlement specialists, was undertaken in accordance with IFC requirements. The purpose of the survey was to (i) assess existing socio-economic conditions in the affected villages as a baseline for monitoring of livelihood restoration; and, (ii) to assess existing workforce characteristics, aptitudes and preferences as a basis for designing livelihood restoration measures. The results of the socio-economic survey are summarized in **Appendix B**.

### **Step 4 Compensation Payment and Relocation / Replacement Site Preparation**

Compensation and resettlement fees will be fully paid to village collectives and individuals within 3 months of the date of approval of the resettlement and compensation plan (Article 25, *Implementing Regulation on the National Law of Land Administration 1999*).

The official from the Zone indicated that compensation payable to the village council has been withheld by the Zone and could be withdrawn by village council for village development at anytime once approved by a screening procedure for financial feasibility of a proposed investment.

Old houses were demolished before the ultimate replacements could be built. A transitional site and material allowance were provided to assist villagers with temporary house during the transitional period. Arrangements for this rested with the village administration and the Zone. Efforts will be made by village council to take into account a household's preferences and to group family members, friends and old neighbors together, where this is desired.

Once replacement housing is completed, villagers will transfer from their temporary transitional housing to their replacement dwellings. The village council will provide a moving allowance to meet costs for most households. Registrations for the new housing are issued.

### **Step 5 Income and Livelihood Restoration**

Measures for livelihood restoration have been developed. They include the following:

- (i) Basic training to project affected workforce to improve their skills relevant to local employment (through Jiao Qiao Township job centre and the Chenming LWC);
- (ii) Direct employment in local industrial, construction, and downstream industries resulting from the Chenming LWC project;
- (iii) Pension for the villagers aged over sixty for man and fifty-five for women;
- (iv) Village collective enterprise development;
- (v) Industrial development on the affected villages' industrial land<sup>15</sup> to capitalise on commercial opportunities arising from the projects in the Zone and to provide villagers with an income stream; and
- (vi) Private enterprise development.

Project livelihood restoration strategies are further outlined in **Section 9**.

### **Step 6 Monitoring of Asset Replacement and Livelihood Restoration**

The affected village and township administrative framework conducts continuous monitoring of the welfare of villagers and is very effective in identifying and responding to local cases of hardship. Villagers and village council members have commenced daily communication to discuss resettlement and compensation issues for assistance.

The Chenming LWC project will establish a coordinating office for faster access by the villagers to the relevant government agencies in terms of address and proactive for grievance and complaints. This will provide a critical channel especially during the transitional period for airing concerns and grievances, and to get access to assistance.

The Chenming LWC will support third party independent monitoring to ensure compliance with the Resettlement Action Plan and to monitor the effectiveness of the livelihood restoration program.

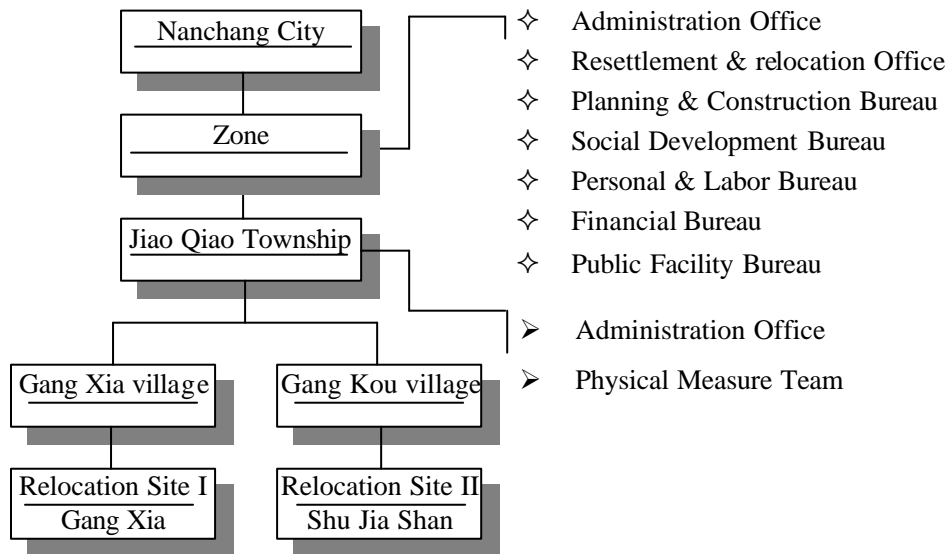
## **6.2 Organizational Framework**

The Zone was established as a dedicated government agency to attract investment projects by (a) providing favourable taxation policies, (b) public infrastructure development and (c) readily formed bureau to oversee resettlement and other preparation work for project development and operation. The Zone reports directly to the Nanchang City Government.

The organizational framework for the project is illustrated below.

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<sup>15</sup> Industrial land, is a piece of land allotted by local government to affected village post to large land acquisition, to enable the affected villages to attract and develop enterprises as a measure to offset employment and livelihood losses resulting from the project. Locations for this land are still being determined, Concepts for the use of this industrial land presently being outlined by the Zone are summarised in Section 9.



### 6.3 Institutional Roles and Responsibilities

The Zone has ultimate responsibility for project land acquisition, compensation and resettlement. The Zone has delegated responsibility for implementing the land acquisition and resettlement process to its Resettlement and Relocation Office. The key staff in the Zone has been officials seconded from their Nanchang city government bureau so that they can focus on the projects in the Zone. The staff is organized into Bureaus to complete various aspects that foster investment in the Zone.

The Planning & Construction Bureau and the resettlement team in the Zone are most directly concerned with resettlement, compensation payment and replacement site preparation. Resettlement activities, responsible authorities and implementing agencies, are summarized in the **Table 6-1**.

**Table 6-1 Resettlement Activities,  
Responsible Authorities and Implementing Organisations**

Activity	Purpose	Period	Responsible Authority	Implementation
Preliminary Resettlement Planning	Define scope of resettlement and PAPs; identify possible relocation sites; set compensation rates; &, brief government departments, village units & affected villages.	Project Preparation	Zone	Admin Office, Resettlement and Relocation Bureau, Planning & Construction Bureau of Zone; Township Administration Office
Application for Land Requisition Approval	For project approval	Project Preparation	Zone	Admin Office in the Zone and Township
Project announcement	To describe scope of the project, land acquisition, compensation arrangements & implementation responsibilities	Project Preparation	Zone	Township Admin Office; Village council, Villagers
Household surveys & loss assessments	To measure & calculate compensation for houses & attachments	Survey/loss assessment	Jiao Qiao Township	Township physical Measurement Team
Household agreements for relocation	To define buildings & attachments to be acquired, compensation amount, terms for payment	Survey/loss assessment	Jiao Qiao Township, Gang Kou Village	Gang Kou Village council
Land acquisition contract	To define land requirement, compensation amount, terms of payment	Survey/loss assessment	The Zone, Jiao Qiao Township, Gang Kou Village	The Zone, Jiao Qiao Township, Gang Kou Village
Payment land acquisition compensation	To disburse compensation fund through careful screening process for financial feasibility	Survey/loss assessment	Zone	Zone Financial Bureau
Selection & master planning of relocation sites	To select relocation sites, prepare layout plans, engineering designs	Survey/loss assessment	Zone	Zone Planning & Construction Bureau, households
Construction of replacement villages - housing & infrastructure	Site preparation, installation of roads, power, & water supply, construction of replacement housing & community buildings	Construction	Zone	Zone Planning & Construction Bureau, Public Facility Bureau; Township Admin Office
Assignment of new house	Allocation of replacement housing	Post-Construction	Zone Gang Kou Village	Zone Planning & Construction Bureau; Gang Kou Village council
Assignment of industrial land	To promote village enterprise development & create jobs	Construction/ Post-Construction	Zone	Zone Admin Office
Preparation of Livelihood Restoration Plan	To set out the strategy, actions, roles & responsibilities for developing replacement income for project affected people.	Construction/ Post-Construction	Zone	Zone Personal and labour Bureau
Re-employ displaced labour	To offset project livelihood impacts	Construction/Post-Construction	Zone	Zone Labour Bureau
Monitoring	Monitoring for effectiveness of income restoration, cases of hardship, complaints or grievances	All phases	Zone; Jiao Qiao Township	Admin Office in the Zone and Jiao Qiao Township; Gang Kou Village council

## 7 Project Impacts and Mitigation Measures

### 7.1 General

The land acquisition for the Chenming LWC project required demolishing 68,690 square meters of structures accommodating 480 families and 2300 people.

In the process of preparing this Resettlement Action Plan, information from a number of sources, including the results of public consultation, have been used. Sources of information used include:

- i) Interim method on relocation in the Nanchang Economic and Technology Development Zone issued on 18 April 2002;
- ii) Compensation rate for land acquisition and its attachments in the Nanchang Economic and Technology Development Zone issued on 22 April 2002;
- iii) Interim method of compensation for land acquisition in the Nanchang Economic and Technology Development Zone issued on 20 September 2002;
- iv) Inventory record of houses and structures, recorded from physical measurements on 21 June 2003;
- v) Budget for land acquisition for the Chenming LWC project, made on 23 June 2003;
- vi) Compensation Agreement for land acquisition for the Chenming project signed between the affected village council and the Industrial Zone committee in 1 June 2003;
- vii) Plan to launch pension scheme for senior villagers after land acquisition, 13 October 2003;
- viii) Findings of the February 2004 Socio-economic Survey (See **Appendix B**)

Each type of impact and planned mitigation measures are briefly described in the following sections.

The affected village experienced land acquisition prior to the Chenming LWC project. All of the land acquisition associated with the village went toward forming the Bai Shui Hu Industrial Park, in which the Chenming LWC is situated. At the time of preparing this RAP, land acquisition in the village could be summarized as the followings:

- First land acquisition, took place in December 2002, a total land area of 130 hectare acquired to develop infrastructure in the Zone;
- Second land acquisition, happened in June 2003, a total land area of 193 hectare acquired mainly for the Chenming LWC project development (153 hectare);
- Third land acquisition, occurred in September 2003, a total land area of 34 hectare acquired to develop Bai Shui Hu industrial park in the Zone;

The total land area acquired for the Chenming project development is 153 hectare. This compares to the total land acquisition of 357 hectare from the village. The Resettlement Action Plan is intended to address the land acquisition for the Chenming LWC project looking at the consequences of the total land acquisition so as to reflect overall impacts and inextirpable close ties in terms of impacts and mitigation measures. In short, the impacts of land acquisition associated with Chenming can only be separated out with great difficulty from the larger land

acquisition associated with the industrial park as a whole<sup>16</sup>. Land acquisition for the project in relationship to the total land acquisition in the village is summarized in the table below.

#### Summary of land acquisitions

Type of Land	Total land area		Total land acquisition		LWC Land acquisition	
	Hectare	Mu	Hectare	Mu	Hectare	Mu
Irrigated land	200	3000	183	2740	33	500
Dry land & Hilly land	233	3500	133	2000	53	800
Wasteland	60	900	17	260	15	220
Ponds	47	700	11	170	11	170
Other land	33	500	13	200	8	110
Residential land area	40	600	—	—	33	500
<b>Total</b>	<b>613</b>	<b>9,200</b>	<b>357</b>	<b>5,370</b>	<b>153</b>	<b>2,300</b>

*Source of data: Land Acquisition Agreements and discussions with village council members in December 2003.*

Land acquired falls broadly into two categories:

- House plots, where rights of use are allocated to individual households;
- Cultivated land that is owned by the village collective but is assigned to individual villagers for cultivation or other productive uses;
- Other land (e.g., wasteland) that is owned and controlled by village collective.

#### Summary of Resettlement Impacts

Key resettlement impacts on villagers could be summarized as followings:

- Loss of village house plots, houses and related attachments
- Requirement to resettle at a new location
- Loss of cultivated land
- Loss of other production assets (e.g., fruit trees, fish ponds, livestock pens)
- Loss of community assets and utilities
- Impacts on cultural property
- Loss of livelihood and requirement for project affected people to adjust from rural to urban sources of employment and income; need for adjustment to urban lifestyle

Project impacts had been carefully studied and mitigation measures have been drawn up to reflect compliance with the Chinese legal framework and international requirements on the resettlement. The following is a summary of project resettlement impacts and planned mitigation measures.

## 7.2 Summary of impacts and planned mitigation measures

Land acquisition has had impacts on the collective land and individual assets. These impacts are analysed in the sections below, with mitigation measures provided to minimise adverse impacts.

<sup>16</sup> Such a larger perspective can be justified under IFC's OP 4.01 *Environmental Assessment*, which requires looking at the cumulative impacts associated with a project and its surroundings.

### 7.2.1 Impacts on Houses and Attachments

All residential plots are in the two project-affected natural villages acquired as a result of the Chenming LWC project development. Three hundred and thirty-four registered structures had been demolished, with some structures built after the cut off date for compensation in the Zone. Around 480 households (2300 people) lost houses and associated attachments to the project. The Jiao Qiao township survey team has completed a detailed survey of houses, house plots and attachments, such as fences, walls, livestock pens, wells and other utilities. Compensation was calculated based on the criteria established in the *interim method on physical relocation in the Nanchang Economic and Technology Development Zone* published in April 2002. Both the inventory surveyor and the affected householder signed a survey summary form, which lists each household's compensation entitlements. The summary is then used as the basis for signing a formal compensation agreement for the house and attachments with each household.

Households with house ownership certificates are all eligible for compensation for houses lost. Villagers who lost certificated houses and house plots are entitled to a replacement house plot and house purchasing at lower than construction cost at village replacement sites (See **Section 8**).

#### Mitigation Measures

Mitigation measures provided to people affected by the loss of house could be described as follows: The compensation for houses and house plots reflect combinations of houses and house plots on the following basis:

- Cash compensation for houses and attachments at published rates.
- Options for cash compensation or replacement of house plots.

This offers any registered village household two alternatives in selecting the type of mitigation measures: 1) cash compensation for house and house plot; 2) cash compensation for house and a replacement house plot. The detailed arrangements for the two options could be summarized as follows:

- i) Option One: Cash compensation for houses and house plot lost to the project in accordance with the following schedule of rates (from the notification of physical relocation in Gang Kou village issued by the Jiao Qiao Township on 1 June 2003).

Households who received this cash compensation payment waived their entitlement for detached houses, but are entitled to purchase an apartment in the replacement village (See **Section 8**). The socio-economic survey with 100 households conducted in February 2004 indicated that there was no respondent who took this option. The village council indicated that this option is really for new married couples and just-independent youth with no registered house prior to the land acquisition.

#### Cash compensation rate for house and house plot

House Type	Cash compensation for house and house plot
Frame structured house	600 RMB/m <sup>2</sup>
Concrete and brick structure	400 RMB/m <sup>2</sup>
Brick and wood	300 RMB/m <sup>2</sup>
Wooden structure	—
Simple temporary house	150 RMB/m <sup>2</sup>

The purchase price for an apartment is scheduled at 400 Yuan per square mete, which is even less than the construction cost of 450~500 Yuan per square meter as indicated by the Zone and village council members. The apartment area ranged from 80~120 square meters.

- ii) Option Two: Cash compensation for house and a replacement house plot in one of the two replacement sites (See **Section 8**). Those replacement house plots as a whole would be developed into residential detached houses by qualified construction crew, based on the master plans for replacement village sites. The cash compensation rate is scheduled in line with the house structure. A bonus is given to encourage relocators to move, also to raise the compensation rate to a certain extent.

#### Cash compensation for house

Type of structure	Compensation rate	Bonus for timely relocation	Received rate
Framed structure	350 Yuan/m <sup>2</sup>	20 Yuan/m <sup>2</sup>	<b>370 Yuan/m<sup>2</sup></b>
Concrete and brick (>=2 storey)	300 Yuan/m <sup>2</sup>	50 Yuan/m <sup>2</sup>	<b>350 Yuan/m<sup>2</sup></b>
Concrete and brick (1 storey)	220 Yuan/m <sup>2</sup>	50 Yuan/m <sup>2</sup>	<b>270 Yuan/m<sup>2</sup></b>
Brick and wood (>=2 storey)	200 Yuan/m <sup>2</sup>	70 Yuan/m <sup>2</sup>	<b>270 Yuan/m<sup>2</sup></b>
Brick and wood (1 storey)	120 Yuan/m <sup>2</sup>	100 Yuan/m <sup>2</sup>	<b>220 Yuan/m<sup>2</sup></b>
Wood structure	30~60 Yuan/m <sup>2</sup>	6~12 Yuan/m <sup>2</sup>	<b>36~72 Yuan/m<sup>2</sup></b>

A village household who is entitled to select this option will be eligible to purchase a detached house in one of the two replacement sites, once developed. The purchase price for a detached house is 350 Yuan per square meter. This price was set lower than the construction cost of 400~450 Yuan per square meter as indicated by the Zone and village council members. The detached house floor area ranged from 180~380 square meters. Residential houses in one of the two replacement sites to be developed with floor area ranged from 280~380 square meters and 180~260 square meter in the other. Any shortfall or exceedance in the area between original and replacement will be subjected to a 100-Yuan per square meter payment from the Zone to the households or vice vice.

- 2) Cash compensation for additional physical structures is in accordance with the following schedule:

#### Schedule of Rates for Compensation for Other Physical Structures

Attachment Type	Compensation Standard
Livestock pens and toilet open pit	30 Yuan/meter <sup>2</sup>
Wall or fence	15 Yuan/meter <sup>2</sup>
Mud or earth walls	20 Yuan/meter <sup>2</sup>
House foundation ( built with no structure )	30 Yuan/meter <sup>2</sup>
Wells	200 Yuan per well
Wells with pumping equipment	500 Yuan per well

- 3) The cash allowance and bonus to assist with physical relocation is set out below. All households are eligible.

#### Relocation Allowance and House Demolishment

Compensation Type	Compensation Standard
Compensation for demolishing own house	2~6 Yuan per square meter
Relocation bonus	500 Yuan per household
Relocation allowance	200 Yuan per household
Compensation for labor cost to move	100Yuan per household member

- Compensation for “illegal” houses. It was noted during the physical measurement for houses and structures that there were 76 residential buildings falling into the category of “illegal” structure that were not entitled for any compensation. Since those building were all established after the cut off date for compensation issued in October 2001 by the Zone. A

series of public consultation were held by the Zone to discuss issues related to possible measures. The final outcome was to compensate for the construction material at 230 Yuan per square meter. All houses built after the cut off date were eligible for this compensation.

### **Current status**

The household compensation for the loss of houses and structure has been signed, disbursement for the compensation payable to individual has been received at published rate.

During the public consultation and socio-economic survey conducted in February 2004, the affordability of replacement house was brought up as an issue by the villagers. The replacement cost of former houses was therefore discussed and calculated to determine whether the compensation fund for the original house was sufficient to cover replacement cost. The existing definition of replacement cost is *“for houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, plus the cost of any labor and contractors’ fees, plus the cost of any registration and transfer taxes.”* Rural residential houses in China cannot be sold, so fair market value cannot be a basis for the replacement cost on rural house and house plot. A cross-section from the public consultation with villagers indicated that villagers are generally satisfied with the compensation rate for their demolished house and the unit cost of replacement houses. This satisfaction actually indicates a fair compensation rate relative to the replacement cost.

It was also recognized that the larger and better serviced replacement houses will, once completed, have the potential to generate long-term income from rent, but will also have short-term impacts on household cash flow at the time of purchasing. Mitigation measures were drawn up to include but not be limited to:

- Options provided in terms of range of housing size at the relocation sites (See **Section 8**)
- Possible options providing smaller houses, part of an ongoing dialog between Chenming and Zone;
- Interest-free loan will be offered to vulnerable groups in purchasing replacement houses
- Free accommodation in the replacement site will be provided to the very poor households identified by the village council;
- Assistance provided by the Zone for bank loans;
- Livelihood restoration to generate income to be used to supplement compensation in purchasing replacement housing (See **Section 9**).

### **7.2.2 Resettlement**

The project resettlement involved the relocation of 480 households from the Chenming LWC project site to two new locations in the Gang Xia and Shu Jia Shan areas. The complete physical relocations will occur in three phases as follows:

- 1) Phase I: move from the Chenming site to the transitional site; (completed)
- 2) Phase II: relocators to move to replacement site I (in Gang Xia) scheduled for October 2004; and move to replacement site II (Shu Jia Shan) scheduled for February 2005;

Site selection, planning and construction for the replacement sites are described in **Section 8**.

### **Mitigation measures**

- A transitional site was prepared to accommodate villagers before the replacement villages could be built and serviced.
- A transitional site and building allowance of 3000 Yuan per household to assist with building temporary houses together with other assistance were offered to assist households (completed);
- Mitigation measures and actions plan to overcome hardships in terms of village access road, drainage system, water supply system (in progress);
- Replacement housing with larger size and better service will be provided in the village replacement sites to take advantage of faster economic growth in the Zone (being/to be constructed);
- Provide a replacement dwelling at construction cost or less to replace original house (See **Section 7.2.1**)
- Land to develop non-agricultural activities to replace land lost for cultivated land (See **Section 7.2.3**)
- Replace village community facilities and services (See **Section 7.2.5**)
- Disbursement of resettlement allowance (balance to be paid )
- Assistance with livelihood restoration (See **Section 7.2.7 and Section 9**)

### **Current Status**

Phase I relocation completed (moved from the original village site). Villagers are in the transitional period to phase II (resettled in the replacement village).

Support in the form of a building allowance and a transitional site was given to project affected people to build temporary houses together with an option of a cash allowance for renting elsewhere. Ninety percent of relocators built temporary houses with their building allowance and currently reside at the transitional site. Several hardships in the transitional period were recognized and corrective actions are in the process of being implemented, which include but are not limited to the following:

- To construct a village access road in the transitional site;
- To build a village drainage system before the rainy season;
- Water supply system and safety training for use of water;
- A comprehensive grievance system formed by representatives from the Zone, the Jiao Qiao Township, village council to address proactively the hardships and concerns of relocators throughout the relocation process.

### **7.2.3 Loss of Cultivated Land and Other Productive Assets**

The Chenming project acquired mainly residential land, hilly land, and some irrigated land. Villagers and the village council indicated that a great amount of hilly land was developed into dry land farming. Cultivated land losses for the project are summarized in the following table.

In China, cultivated land is owned by the administrative village collective, but is allotted by the natural village on a per capita basis to households to enable them to grow crops. In the case of

Cao Jia and Liu Jia natural villages, villagers have been allotted agricultural land of 2.55 Mu (about 1700 square meters) per person. Typically this includes some rice paddy as well as developed dry land in the hilly area. Village households would physically work their land; there is no case of a villager employing others to work on the land.

### Summary of cultivated land and productive Assets Acquired for the project

	Irrigated land	Dry land & Hilly land	Ponds	Total
Land acquisition	33 hectares	53 hectares	11 hectares	<b>97 hectares</b>

*Source of data: village council of Kang Kou in February 2004.*

Loss of cultivated land affects households through: (i) loss of subsistence (predominantly rice, vegetables, and domestic livestock to meet household needs); (ii) loss of income from crops that would be sold in markets for cash.

In addition to the loss of cultivated land, villagers will lose other productive assets such as in-ground crops, fruit trees and vegetable yards.

### Mitigation measures

Mitigation measures for cultivated land acquisition included the following:

- For cultivated land and other land, cash compensation payable as a lump sum to the village collective to cover all losses except houses and house attachments;
- Compensation for in-group crops (payable to the individuals on a fixed rate);
- Allowance for resettlement (for finding new income sources);
- Land for non-agricultural development at replacement sites as a basis to develop alternative income to offset losses from land (See **Section 8.4**);

Compensation for land acquisition was stated as a lump sum in the compensation agreement for land acquisition signed between the Zone and the administrative village Gang Kou. The lump sum was based on the total land acquired (a combination of cultivated land and non-cultivated<sup>18</sup> land) and covered compensation for land, green crops, and resettlement allowance. The distribution of the compensation followed the following steps:

**Step One:** A lump sum of 20,000 Yuan per Mu (exclusive for house and house attachments) payable to village council of Gang Kou;

**Step Two:** Village council disburses compensation for green crops and resettlement allowance to individuals based on a fixed rate of 1000 Yuan per Mu for green crops and 3000 Yuan per Mu for resettlement allowance on the basis of average cultivated land holding per capital of 2.55 Mu. This approach is widely adopted in the Zone and among village governments;

**Step Three:** Village council keeps the remaining compensation and spends it later on the village collective interests. (See **Section 8.4**)

### Current Status

Nineteen percent of the total land compensation was received by the village council, who then disbursed it as compensation for green crops to individuals. The Zone has withheld the remainder as a development fund to be drawn upon at any time by the village for any need that

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<sup>18</sup> Non-cultivated land not entitled to be compensated for resettlement allowance which stated in the national land law of 4 to 6 times of its average output of previous three years.

fulfils the criteria of village development. The criteria set for evaluating proposed development include proposed investment into replacement infrastructure development, industrial land development, and a pension scheme. (See **Section 9**)

#### **7.2.4 Impacts on Enterprises**

As noted previously, there are three enterprises in the village affected by the project. From discussion with the village council members, enterprise arrangements are as follows:

The three affected enterprises are private or family businesses that mostly provided self-employment for family members. Typically, they operate their business in their residential buildings, with the first floor of the residential building used as workshop.

##### **Mitigation measures**

- Cash payment to owners for buildings and attachments;
- Moving allowance to assist transporting equipments
- Assistance to villages from the Zone and other parties to seek income replacement.

#### **7.2.5 Loss of Community Assets and Utilities**

Community assets have been identified by the township land bureau surveying and inventorying assets. Such assets include a primary school (200 pupils), village council buildings, village infrastructures and public utilities (electricity, roads). Replacement facilities will be constructed in the village replacement site. The relocation site will also be fully serviced with reticulated electricity, water, fuel and telephone. The village council will be responsible for paying for new connections at the replacement site.

##### **Mitigation Measures**

- Replacement community facilities will be built at each replacement village site and will include:
  - a) Primary school in the one of the replacement sites in the Gang Xia area; a school bus will be provided to assist pupils to travel between home and school;
  - b) Establishment of an open space and recreation facilities.
- The replacement village will be fully serviced (reticulated water, power, and telephone)
- Replacement villages will be connected to the existing Nanchang City sewage system.

##### **Current Status**

The primary school is relocated in the transition site nearby the residential area. The replacement school is scheduled to be built at the replacement site in October 2004. One of the two replacement villages is under construction, and the other is scheduled to commence in March for the completion in February 2005.

#### **7.2.6 Impacts on Cultural Property**

Cultural property affected by the project includes:

- A large number of graves – approximately 5,000 have been located in a hilly area in accordance with their traditional customs;
- A shrine – upgraded two years ago, belonging to Cao Jia natural village, located in the transitional site. It will be relocated in the replacement village once it is constructed and

serviced;

- Four stone lions<sup>19</sup> - given by the emperor Qian Long in the Qing Dynasty (DC 1750) to Cao Jia have been located in the transitional site for the time being and will eventually be located in the replacement village.

Both natural villages have a large number of graves, though the village council is unclear as to exactly how many. About 5000 recorded graves revealed their ancestral connection to the villages, although some graves were hard to identify. Compensation at a published rate of 100 Yuan per grave was paid to individual households to move these graves to a hilly site that still belongs to the village of Gang Kou. Respect well paid.

Cao Jia has a shrine situated in the original village nearby their residential area for villagers to pay their respects to Buddha. This is a village private shrine and does not have any monks. The shrine has been located in the transition site near the residential area, and villagers continue to access during the transitional period.

### Mitigation Measures

- Cash compensation on a per grave basis, at published rate of 100 Yuan per grave, actual removed done by villagers, respect well paid;
- A hilly site, appropriate for burials, was provided in the village for relocating graves;
- Land plot to be provided to the shrine at the replacement site.

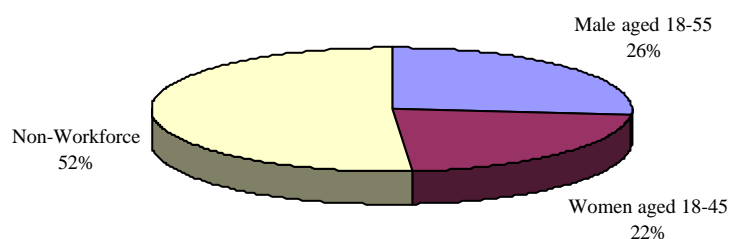
### Current Status

The relocation of graves has been completed. The shrine and the four stone lion located in the transitional site will be moved into the replacement site.

### 7.2.7 Loss of Livelihood

Based on the figures from a census of the workforce conducted by Jiao Qiao Township Personal and Labor Bureau in July 2003, the total workforce in the Gang Kou village is about 1,115, among which 605 are male and 510 are female. The breakdown is as follows:

Population Structure of the Village



The socio-economic survey indicated that Gang Kou villagers remain reliant on agriculture for most of their income. Incomes are derived from cultivated crops, fruits or other land-based income earning activities. These income sources were lost as a result of the land acquisition for the project. The village council also indicated about 90 percent of their workforce is working extensively on the land. Furthermore, households lost subsistence crops (mainly rice, vegetable,

<sup>19</sup> Those stone lions were all damaged over years.

peanuts) and domestic livestock (mainly chicken, eggs, pig) that form part of their staple diet.

As there is no available replacement land for agricultural, alternative livelihood and income sources will be developed for project-affected households. As part of their compensation package, villagers received a resettlement allowance (4~6 times of average annual outputs of the land prior to land acquisition) to financially assist their seeking other income resources and to cover the transitional period until replacement employment is found. Alternative employment will need to be found for over 1,000 rural workers.

The village council and the Zone indicated that women over 40 and men over 45 whom previously engaged in agricultural and cultivation is the age group most difficult in finding possible employment.

For a more detailed discussion of the project livelihood restoration strategy, refer to **Section 9**.

### **Mitigation measures**

- Cash compensation paid for the acquisition of collective land to be used to create alternative measures of income generation for affected villagers;
- Cash resettlement allowance provided to help the project affected people with their own efforts in finding new income resources;
- A proposed pension scheme for women over 55 and men over 60;
- Training opportunities provided to youth along with job recruitment;
- Other measures described in **Section 9**.

### **7.3 Vulnerable Groups**

Village council discussions held during the study revealed that there are over 50 very poor people in the Gang Kou administrative village. Very poor people are categorized as those earning less than 100 RMB (\$12) per month.

All poor people receive financial assistance, either long-term or periodically, varying from 200~400 Yuan (\$24 - 48) per person per year. Many of them are elderly or disabled people. The village council indicated that a household formed by these very poor people would not be able to afford replacement houses. The Zone has committed to a loan package for the very poorest that will provide interest free loans without a specified repayment period. The package will allow these vulnerable households to purchase apartments.

#### **Mitigation measure**

- They are entitled for all types of compensation including resettlement allowance;
- A detailed plan to ensure a replacement housing will be finalized to ensure for them a replacement housing with better living condition and better access to health care.

## **8 Relocation Site Selection and Preparation**

### **8.1 Locations**

The agreed locations for the construction of replacement villages in Gang Xia (site I) and Shu Jia Shan (site II) are shown in **Figure 2**.

Affected villages were involved in the site selection process. The Zone and township government led discussions with the affected village council, representative villager groups and the Planning Bureau to facilitate the site selection process. Several principal alternative sites were proposed by the Planning Bureau and evaluated by the village. The villagers rejected the majority of these alternatives to be closer to their original locations.

To satisfy the villages' preference, also to take account of future development for the villagers, two replacement sites were selected either closer to the original location or located in the projected centre of the fully-developed Zone. Gang Xi area (site I, locate in the centre of the Zone) and Shu Jia Shan (Site II, closer to its original site) was finally selected as the two replacement sites for villagers to choose from.

Site I (Gang Xia), with a total allotted replacement area of 10 hectares, is located in Gang Xia village, about three kilometres from the village original location. Site II (Shu Jia Shan) with a total area of 23.3 hectares; is located in Gang Kou village, about three kilometres from the original village location. Public consultation revealed that the site II is the replacement site villagers favoured by the villagers and will be available to them.

#### **8.1.1 Gang Xia Replacement Site (Site I)**

A site of 27.5 hectares has been identified to the South of the Chenming LWC project land. This site will accommodate relocators from three other villages, while 10 hectares of the area is designated to the relocators from the Chenming LWC project affected villages.

Key characteristics of the site are as follows:

- Located in the centre of the Zone
- Presently under construction and scheduled to be completed in October 2004
- Residential houses designed to be 3~4 story detached buildings with residential floor area ranged from 280 square meters to 380 square meters
- Residential apartment with floor area ranged from 80~120;
- Big community to be next to the replacement villages
- Accessible by existing main roads
- 3~4 kilometres from town centre of Jiao Qiao
- To be equipped with a advance primary school (Centre School)

This site presents potential opportunity in house rentals and an advantage in capturing employment opportunities from nearby developments. It was finalized as an option for villagers to choose from. The site's proximity to industrial development is seen as an advantageous factor.

#### **8.1.2 Shu Jia Shan Replacement Site (Site II)**

A site of 23.3 hectares has been identified to the north of the Chenming LWC project land. The

site belongs to Gang Kou administrative village. Key features of the site are as follows:

- Hilly land, meets with villager customs for topography
- Free-draining, and presently undeveloped land
- Closer to the Chenming LWC project site
- Not connected to existing roads and utilities.
- Residential detached houses designed to be 2~3 story detached buildings with residential floor area ranged from 180 square meters to 260 square meters
- Residential apartment with floor area ranged from 80~120;
- No resettlement or acquisition of agricultural land required

Villagers are generally satisfied with this site and are waiting for its preparation and construction. The socio-economic survey revealed that 98 percent of the villagers choose site II as their preferred replacement site.

## **8.2 Planning for the Replacement Villages**

### **8.2.1 Layout Principles**

Master plans for site I (Gang Xia) replacement village were prepared and presented to Gang Kou villages for their comments and approval prior to construction. The village has agreed to the plan. Master plans for Shu Jia Shan replacement village are not yet finished.

The Zone Planning & Construction Bureau was responsible for developing the layout plan for each replacement site. (**Figure 8**)

### **8.2.2 Community Facilities**

Community buildings that are being constructed in Gang Xia replacement villages include:

- Primary schools
- Markets
- Shops (along the street)
- Kindergarten
- Old people's centre
- Recreation facilities

Master plans for Shu Jia Shan replacement village not yet finished, although the engineering design for the replacement residential structures was completed.

## **8.3 Housing**

Housing will consist of:

- Apartments - five storeys in height
- Detached houses

Designs for the apartments and detached houses both in Gang Xia and Shu Jia Shan have been completed. Construction for site I commenced in October 2003.

Detached house with of ground area and floor area could be summarized as follows:

### Detached houses

Relocation Site	No. of Storey	Ground area (M <sup>2</sup> )	Floor area (M <sup>2</sup> )
Gang Xia	3.5	80	280
		100	330
		120	388.5
Shu Jia Shan	2.5	80	180
		100	220
		120	260

*Note: 3.5 storey stands for residential house with 3 storey and the fourth one with half of the area keep opened as a balcony.*

The typical house design consists of 3~4 storeys. It contains 2~3 bedrooms, one to two living rooms, kitchen, toilet and a balcony.

An apartment building will be available to villagers in the replacement site. Apartments will be in five-storey high blocks. Three types of apartment are offered as the follows:

### Apartments

	Type	Construction area (M <sup>2</sup> )
Gang Xia & Shu Jia Shan	Two bedrooms with two living rooms	80
	Two bedrooms with two living rooms	100
	Three bedrooms with two living rooms	120

*Apartment contains kitchen and toilet.*

## 8.4 Industrial Land

Industrial land will be assigned to enable the affected villages to attract and develop enterprises as a measure to offset employment and livelihood losses resulting from the project. Locations for this land are still being determined, but current planning is that 10 hectares of the land will be situated close to the Chenming LWC project site.

Concepts for the use of this industrial land are presently being discussed by villagers and are summarised in **Section 9**.

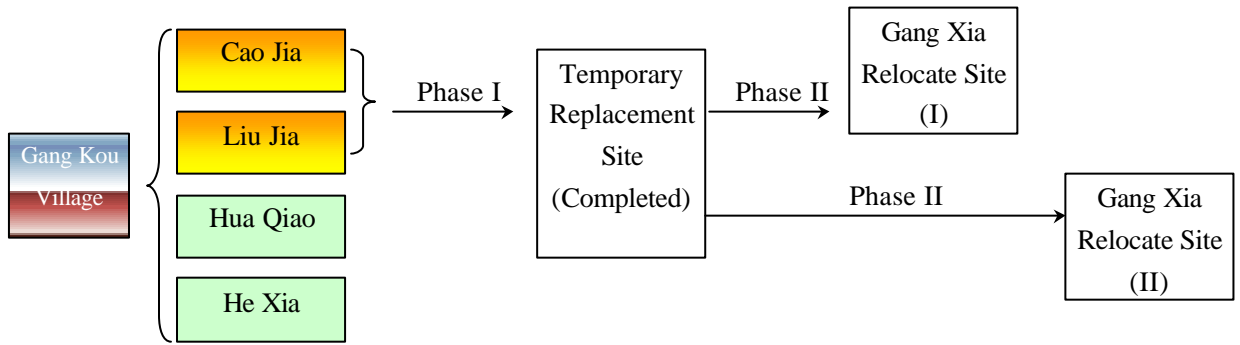
## 8.5 Construction Arrangements

Key arrangements are as follows:

- Construction for Gang Xia (Site I) commenced on 1 October 2003 and will run till 1 October 2004.
- Village representatives have monitored the quality of construction in Gang Xia.
- Construction for Shu Jia Shan (Site II) is scheduled for 1 May 2004 and will run till 1 January 2005.

## 8.6 Resettlement Phase

Resettlement Phasing for Gang Kou Villages are below:



## 9 Livelihood Restoration Strategy

### 9.1 General Principles

Construction of the Chenming LWC plant itself will require a direct construction workforce expected to peak at 1,000-2,000 (preliminary estimate), with many additional jobs created through third party suppliers and subcontractors. During its operations phase, Chenming LWC plant will employ a more modest 640 people (preliminary estimate).

Livelihood planning is clearly needed for the 1,115 workers who will lose their agricultural livelihood as a result of the Chenming LWC project. That the transitional phase for villagers and construction phases for the Chenming LWC are running parallel demonstrates the need for simultaneous actions to assist rural population in transferring to an urban lifestyle and in seeking job opportunities for replacement income.

A key thrust of the livelihood restoration strategy is to equip and position the project-affected workers to take advantage of employment and self-employment opportunities arising from the Chenming LWC project and other projects in the Zone. This strategy will be achieved through provision of training, village compensation funds, and industrial land.

Major drivers for affected workers' employment and income will be local enterprise development. For this reason it is important that there is flexibility in the livelihood restoration program for responsiveness to real market demands and conditions.

### 9.2 Goal

The goal of the livelihood restoration program is:

***To assist project affected people to restore or enhance their livelihoods to at least pre-project levels.***

### 9.3 Strategies

The over-all strategy is to replace project-affected villager's agricultural income lost as a result of the project with wage employment, self-employment and revenue streams from collectively held industrial land.

Strategies that have been adopted to achieve this are as follows:

- ◆ Transfer in worker registration from rural to urban status to enable workers to seek full time, legitimate urban employment.
- ◆ Requiring affected villages to invest cash compensation received for village land acquisition to create employment and income-earning opportunities for project affected people.
- ◆ Providing industrial land to the affected villages and assisting them in attracting downstream industries both to provide jobs and a revenue stream (through leases) for village purposes.
- ◆ Constructing 'shops' (e.g., along the street in the replacement village) and constructing markets in replacement villages to encourage villagers to set up small businesses.
- ◆ Planning and developing industrial land to ensure employment opportunities and economic benefits accrue to local people.
- ◆ Creating a register of project-affected workers to receive priority in placement for employment, particularly for opportunities that arise directly or indirectly from the Chenming LWC project.

- ◆ Facilitating the flow of information to the affected village councils of any contract opportunities being let for the project.
- ◆ Providing basic training and skills development programs to assist project-affected villagers in taking advantages of employment opportunities arising from Chenming LWC project construction and third party suppliers.
- ◆ Providing preferential opportunities for project affected workers to fill positions in the Chenming LWC project construction workforce to give them skills and experience that will enable them to work in future downstream construction.
- ◆ Providing preferential employment opportunities for resettlers in Chenming LWC project operations phase.
- ◆ Providing technical assistance to assist interested project-affected workers to establish small and medium enterprises and to assist them positioning themselves to bid for service opportunities arising from the project.
- ◆ Establish a pension fund for villagers, post-land acquisition.
- ◆ Monitoring performance of employment and livelihood creation opportunities for project affected people and feeding back this information to high and mid level officials so strategies can be adjusted to changing circumstances.

#### **9.4 Characteristics of Affected Workforce**

The number of project affected registered workers is 1,115. About 569 (51 percent) will require replacement employment following physical relocation. It should be noted that all older workers, whom the Labour Bureau has identified as more difficult to place in alternative employment, have been impacted by the project.

Most of the workers are agricultural workers, 20 percent of household heads have had some non-agricultural work experience. They will need to be provided with replacement employment opportunities.

##### **Vulnerable Workers**

About 546 workers affected by acquisition of the land, are over 40 years old in the case of women and over 45 in the case of men. The Zone Administration Office has indicated that this group may experience much greater difficulty in obtaining replacement employment in the market place.

This group will join the pension of Zone and get pension 100 RMB/person/month after reaching the age of 60 for men and 55 for woman.

#### **9.5 Livelihood Restoration Plan**

##### **9.5.1 Zone and Township**

The Zone and township have overall responsibility for livelihood restoration. Responsibilities include:

- ◆ Planning and physical development of the industrial park to enable Zone (and the affected villages) to capture downstream industries arising from the Chenming LWC project.
- ◆ Allocation of industrial land to Gang Kou village
- ◆ Coordinating through a livelihood restoration working group, inputs of Zone and Township agencies, and village councils, initiatives to provide training, employment and create income for the project affected villagers.

- ◆ Coordinate with Chenming and other potential investors to identify resettler employment candidates and identify training needs.
- ◆ High level coordination with Chenming and other major prospective investors.
- ◆ Registration of projected affected work force and promotion of re-employment through the Zone Labour Bureau.
- ◆ To coordinate with Chenming on overall training program requirements and to ascertain those training needs that can best be met with Zone resources, and those that should be met by Zone investors.
- ◆ To assist villages in negotiating with potential investors to establish enterprises on village land
- ◆ To promote investment in the Zone, and where appropriate, to facilitate introduction of prospective investors to affected village councils.
- ◆ To provide technical support to affected villages to facilitate small and medium enterprise set up and incubation.
- ◆ To establish pension scheme, and attribute to the fund;
- ◆ Monitoring of effectiveness of livelihood restoration measures

### **9.5.2 Village and Village Team Initiatives**

The Village Council plays a key role in attracting and developing enterprise opportunities for their villages. By attracting industrial investors to establish operations on village land, villages receive a steady income stream through leases, and also a source of employment for villagers. From their compensation money, villages can also extend finance or purposely build premises for long-term lease by industrial operators. This model has been used extensively to enable villages to benefit from industrial expansion.

Given the scale of the industry development in the Zone, the strong potential for local economic development, and the fact that the villagers will be given strategically located industrial zoned land, this model is appraised as having a high potential to succeed for Gang Kou village. Based on the expectations of the village that lease revenues and employment opportunities will potentially replacement most of the villagers income from agricultural activities.

The village will receive support from Zone in terms of: (i) introduction to potential investors to set up on their village land; and, (ii) assistance to negotiate agreements and financial terms with incoming developers.

The following is a summary of village council initiatives for livelihood restoration:

- ◆ Investing a portion of land compensation to create employment and income earning opportunities for their villagers
- ◆ Promoting villager use of the shops and market place in the replacement villages once completed for establishment of small family enterprises.
- ◆ Maintaining a register of unemployed resettlers, to identify employment opportunities and facilitate any associated training.
- ◆ Developing the 10 hectares of industrial land that the village will receive as part of their livelihood restoration strategy to facilitate income generating and employment activities. The locations are yet to be finalized, but current planning is that the land will be in the Zone.

- ◆ The village council, with Zone Administration office support, identifying potential developers and seeking to reach agreement with them to establish on the village industrial land.
- ◆ Village teams and village councils monitoring for any cases of hardship and where necessary, extending village services, labour or funds to support vulnerable families or others less well positioned to take advantage of employment opportunities.

### 9.5.3 Chenming LWC Initiatives

The Chenming LWC is responsible for the implementation of IFC's resettlement policies into its project both in period of construction and operation. It was being recognized that long-term income source of these affected population becomes crucial with respect to urbanization and entirely altered lifestyle. It was estimated that there would be a total of 10,000 job opportunities created by the Chenming LWC.

Chenming LWC has committed to providing local employment opportunities, with priority to project affected people; to improving the competence, through training, of the local workforce to take advantage of the development of the Zone; and to offering technical assistant to the development of the village industrial land.

A summary of action plan can be described as follows:

- ◆ Work with the government to provide training appropriate to their human resource needs. Ensure that project affected people have preference for entering that training and any entry-level employee training that they may provide. Guarantee preferential hiring for all project-affected people who successfully complete the training program
- ◆ Find tenants from among their suppliers for the facilities to be constructed on Gang Kou village industrial land
- ◆ Set up an executive program that would send managers and other workers to assist Gang Kou village in developing their business
- ◆ Track employment of project affected people in their company in their subcontractors and supplier companies
- ◆ Explore interest for specialist agency in providing assistance for developing a small and medium enterprises support program for project affected people.

### 9.6 Livelihood Restoration Program

A preliminary program with time frame could be summarized in the following table, which will be subject to changes under the circumstance.

Issues	Tasks	Responsible Party	Implementation Party	Date for completion
Urbanization	Transfer villager from rural to urban registration	Zone, Jiao Qiao Township	Zone Personal & Labor Bureau	31/May/2004
Pension scheme	Establishment and operation of pension scheme	Zone, Township	Zone, Township, Village Council	1/March/2004
Resettlement allowance disbursement	Application for using of collection fund	Village Council	Village Council	10/April/2004
	Payment to be made	Zone	Zone Financial Bureau, Village Council	30/April/2004

Issues	Tasks	Responsible Party	Implementation Party	Date for completion
Industrial land	Site selection, finalization and issue land user ship and ownership certification	Zone Planning & Construction Bureau	Zone Planning & Construction Bureau, Village Council, Village Representatives	31/May/2004
	Land preparation	Zone Planning & Construction Bureau	Construction Contractor, Village Council	31/September/2004
	Land development for income generation	Zone, Chenming LWC, Village Council	Zone, Chenming LWC, Village Council	31/December/2004
Selection of replacement house	Census of Finalization of replacement house selection	Village Council	Village Council	15/April/2004
Replacement village	Construction of replacement site I	Zone, Village Council	Zone Planning & Construction Bureau, Village Council	1/October/2004
	Design and construction of replacement site II			28/February/2005
Workforce registration	Registration of surplus workforce after land acquisition	Zone	Zone Personal & Labor Bureau, Village Council	31/May/2004
	Establish job center for assisting rural workforce in job market			1/May/2004
Training program	Delivery of Basic training	Zone	Zone Personal & Labor Bureau	1/May/2004~
	Delivery skills	Zone, Chenming LWC	Zone Personal & Labor Bureau, Chenming LWC	1/May/2004~
	SME	Chenming LWC	Chenming LWC, Other Sources	1/May/2004~
Employment	Document and implement preferential hiring PAPs	Chenming LWC	Chenming LWC	31/March/2004
	Establishment of a tracking system for employment of PAPs		Sub Contract	1/April/2004~
	Estimation of direct hire low skill and unskilled labor		Chenming LWC	15/April/2004
	Estimation of contractors' hire low skill and unskilled labor		Chenming LWC	15/January/2005
Vulnerable group	Measures to assist women over 40 and men over 50 in finding replacement sources	Zone, Chenming LWC	Zone, Chenming LWC	31/May/2004
Facilitating grievance channel	Establishment of a coordinating office	Chenming LWC	Zone, Chenming LWC, Village Council	15/April/2004
	Define needs in assisting PAPs to develop industrial land			31/May/2004
	List of hardships and putting up corrective actions			15/April/2004
	Explore opportunities for SME development			1/April/2004~
Free-loan	Setting eligible criteria	Zone	Zone, Village Council	15/June/2004

Issues	Tasks	Responsible Party	Implementation Party	Date for completion
	Village meeting to discuss and list of household for the free-loan	Village Council	Village Council	30/June/2004

### **9.7 Monitoring**

Employment creation and livelihood restoration will be subject to regular monitoring (see **Section 11**).

## **10 Community Consultation and Participation**

### **10.1 Consultation Activities**

The PRC has well-developed mechanisms for ensuring adequate community consultation and participation. The formal requirements for notification of project affected people and the hearing of public comments are prescribed in the national *law of Land Administration 1998*. At the village and township levels, regular village meetings are held at which the villagers concerns or grievances would be collected and addressed for attention or action.

The project is sited in a special economic Zone, villagers are well informed about the arrangement for compensation and resettlement. Intensive community preparation of detailed arrangements have been undertaken since the announcement of the Chenming LWC project. Specific consultation measures undertaken to date include:

- Intensive meetings and discussions with project affected people have been held since the announcement of the Chenming LWC project
- Presentation of draft relocation and compensation plans to the affected villagers (completed)
- Hearing of villager opinions prior to finalization of the plan (completed during June and July 2003)
- Village meetings to reach agreement on village relocation sites (agreement reached in October)
- Loss assessments and negotiations of household agreements were held with each household, compensation agreement for relocation signed prior to physical relocation
- Village meetings to discuss and seek replacement income resources; overcome hardship during transitional period, replacement residential housing

Stakeholder consultation will be ongoing during project development and operations.

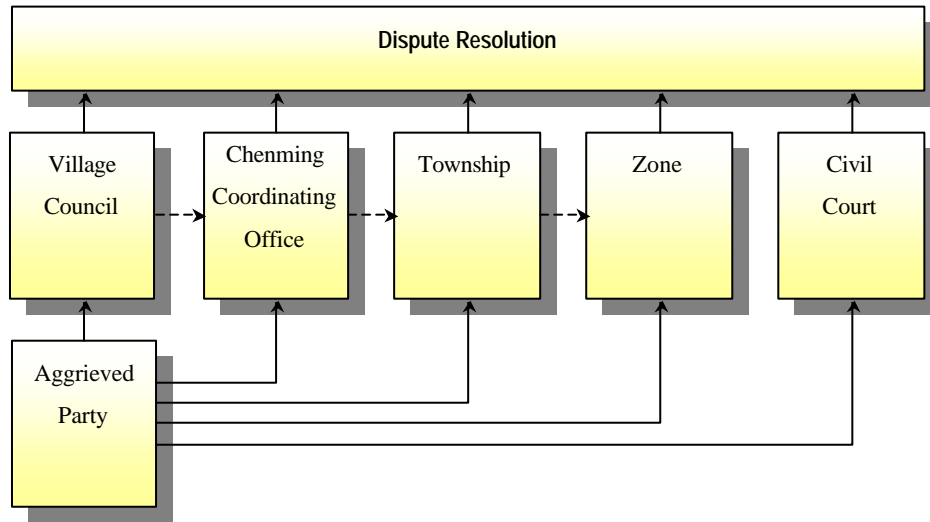
### **10.2 Grievances and Dispute Resolution**

As with community consultation, problems or grievances are first brought to the village council in all village meetings, although these were usually not documented or recorded. Where the village council is unable, or not empowered, to resolve a grievance, the grievance can be taken to progressively higher levels of government until a resolution is achieved. If a resolution cannot be achieved through these channels, there is recourse under PRC law for an aggrieved party to initiate a civil court action.

For some more general issues or minor issues requiring immediate corrective actions, a desire was recognized through public consultation for a comprehensive grievance system to solve issues that might be minor but critical for villagers daily livelihood, it was proposed that a coordination office be set up at Chenming LWC with members including representatives from the Zone, the Jiao Qiao Township, village council, and Chenming to address proactively the hardships and concerns of relocators throughout the resettlement process.

The avenues open to a project affected person to resolve a grievance are summarized in the figure in next page.

## Avenues for Grievance Resolution



## **11 Monitoring and evaluation**

### **11.1 General**

The aim of resettlement monitoring is to ensure:

- (i) timely and effective completion of physical resettlement;
- (ii) disbursement of compensation in accordance with agreements;
- (iii) successful training and re-employment of project affected workers;
- (iv) successful enterprise development;
- (v) pre-project living standards and income levels are sustainably restored;
- (vi) grievances expressed by project affected people are followed up and, where necessary, corrective action is implemented; and,
- (vii) cases of hardship are identified and, where necessary, additional support is provided.

For the Chenming LWC project, primary responsibility for monitoring will rest with the implementing agency. The Zone, Township and village council will undertake continuous monitoring of project-affected people from preparation stages through physical resettlement and livelihood restoration. Any required corrective actions will be undertaken by the village council, Township, Zone or Chenming itself.

### **11.2 Monitoring Framework**

The monitoring framework for the Chenming LWC project involves three tiers:

- ◆ Monitoring by the implementing agency – Zone and Township.
- ◆ Monitoring through Chenming coordinating office.
- ◆ Third party external monitoring supported by Chenming.

### **11.3 Monitoring by Zone and Township**

Zone monitoring activities are below:

- ◆ Performance against Resettlement Action Plan (RAP)
- ◆ Restoration of Living Standards
- ◆ Restoration of Income and Livelihood
- ◆ Levels of PAP satisfaction
- ◆ Consultation and Grievances

### **11.4 Monitoring by Chenming Coordinating Office**

The role of Chenming Coordinating Office is to facilitate the flow of information between the resettlement implementing agency (Zone) and Chenming LWC. Part of this role will include monitoring progress of resettlement and compliance with IFC standards. Monitoring responsibilities of the Chenming coordinating office will include:

- (i) liaison with Zone and Township to review and report progress against the Resettlement Action Plan;
- (ii) verification that resettlement is occurring in compliance with the Resettlement Action Plan;

- (iii) verification that agreed measures to restore or enhance living standards are being implemented;
- (iv) identification of any problems, issues, or cases of hardship resulting from the resettlement process;
- (v) through informal village head and household interviews, assess project affected peoples' satisfaction with resettlement outcomes;
- (vi) collate records of grievances, follow-up with appropriate corrective actions have been undertaken and ensure that outcomes are satisfactory; and,
- (vii) prepare brief quarterly progress and compliance reports for the responsible Director and IFC.

### **11.5 Third Party External Monitoring**

The Chenming LWC will engage a third party consultant to undertake six-month reviews of the project until the resettlement is considered complete (see 11.8) in order to achieve the following:

- ◆ To provide third party independent verification for international lenders that the Resettlement Action Plan is being complied with and carried out in accordance with IFC standards.
- ◆ To verify that measures to restore or enhance project affected peoples' quality of life and livelihood are proving effective; and,
- ◆ To assess the extent to which the quality of life and livelihoods of affected communities have been restored.

Activities that will be undertaken by the third party consultant include:

- (i) review of internal monitoring procedures and reporting to ascertain these are being undertaken in compliance with the Resettlement Action Plan;
- (ii) review of internal monitoring records as a basis for identifying any areas of non-compliance, any recurrent problems, or potentially disadvantaged villages or households;
- (iii) review of grievance records for evidence of significant non-compliance or recurrent poor performance in resettlement implementation;
- (iv) discussions with officers from Zone and Township to review progress and identify critical issues;
- (v) conduct consultations with village heads and villagers to gauge the extent to which project affected people assess their livelihood or income has been restored or enhanced as a result of the project;
- (vi) assess overall compliance with the Resettlement Action Plan and IFC policies; and,
- (vii) prepare a summary compliance report for Chenming and IFC on resettlement progress, any issues arising and any necessary corrective action required.

### **11.6 Monitoring Program**

Timing for monitoring activities is summarised in Figure 11.

### **11.7 Reporting**

Monitoring reports that will result from monitoring activities are summarised in the following table:

### Summary of Chenming LWC Project Resettlement Monitoring Reports

Report Type	Frequency	Prepared By	For	Comment
Internal Monitoring Report	Quarterly	Chenming coordinate office	IFC, External Monitoring Consultant	5-10 page report summarising progress against the RAP, outline of any issues and agreed related actions, schedule of grievances, summary of village head and villager consultations
External Monitoring Report	Semi-annually	Third party international consultant	Chenming, IFC	20-25 page report (plus supporting documentation) summarising assessment of progress towards living standard restoration, livelihood restoration; IFC standards compliance; discussion of any related issues; identification of areas of non-compliance and agreed corrective actions; and summary of resettlement status.

Abbreviations: RAP: Resettlement Action Plan;

## 11.8 Resettlement Completion

A key objective of the Resettlement Action Plan is that resettlement actions and mitigatory measures should lead to a sustainable restoration or enhancement of the affected communities' pre-project living standards and income levels. At such time as affected peoples' quality of life and livelihood can be demonstrated to have been restored, the resettlement process can be deemed "complete".

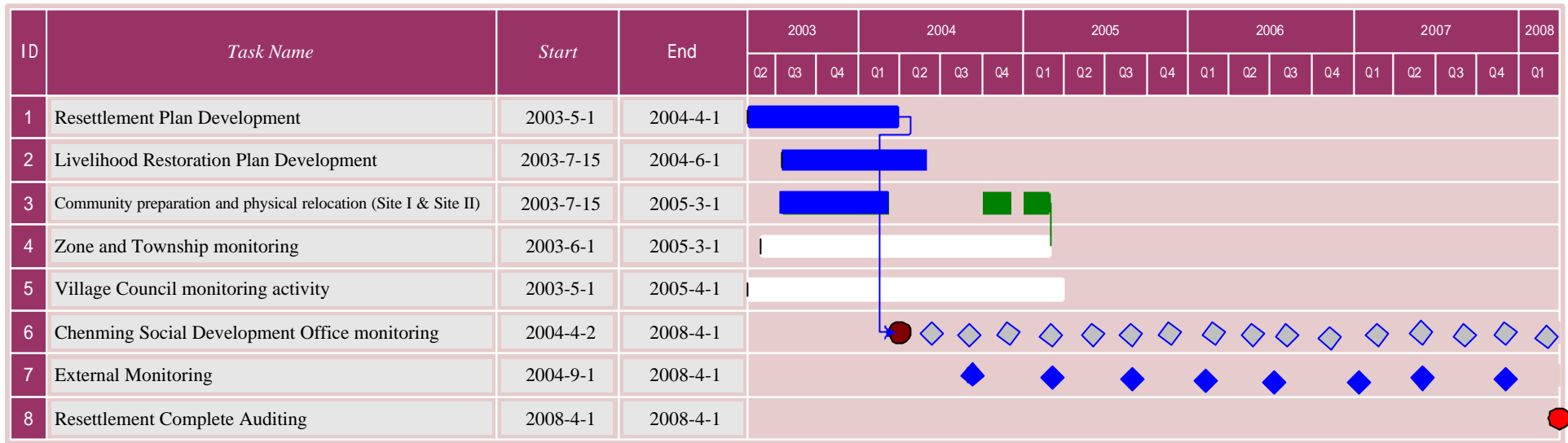
It is recommended that a process for reaching agreement on "final completion" of resettlement should be agreed with the IFC's Environment and Social Development Department as a basis for formally acknowledging that Chenming has met all its obligations to IFC with respect to resettlement.

A recommended approach, based on recent practice of the International Finance Corporation, is as follows:

**Practical completion** of resettlement shall be achieved at such time as the External Monitor indicates that full livelihood restoration has been completed or at 48 months following the completion of physical resettlement – whichever occurs sooner. At this time the IFC's Environment and Social Development Department shall appoint an auditor to independently confirm whether or not sustainable livelihood restoration has been achieved, or to identify any corrective actions that need to be undertaken. Zone and Chenming LWC shall then have three months to complete agreed corrective actions.

**Final completion** of resettlement shall occur when the Auditor is satisfied that all necessary corrective actions to achieve livelihood restoration have been undertaken. At this point, Chenming shall be deemed to have met all obligations with respect to the resettlement process.

**Figure 11 Monitoring Program**



## 12 Costs and Budgets

The resettlement budget and the source of fund could be presented as table below. These figures are subject to changes to reflect real expenses and costs once occurred.

### Budget for land acquisition and resettlement in Gang Kou village

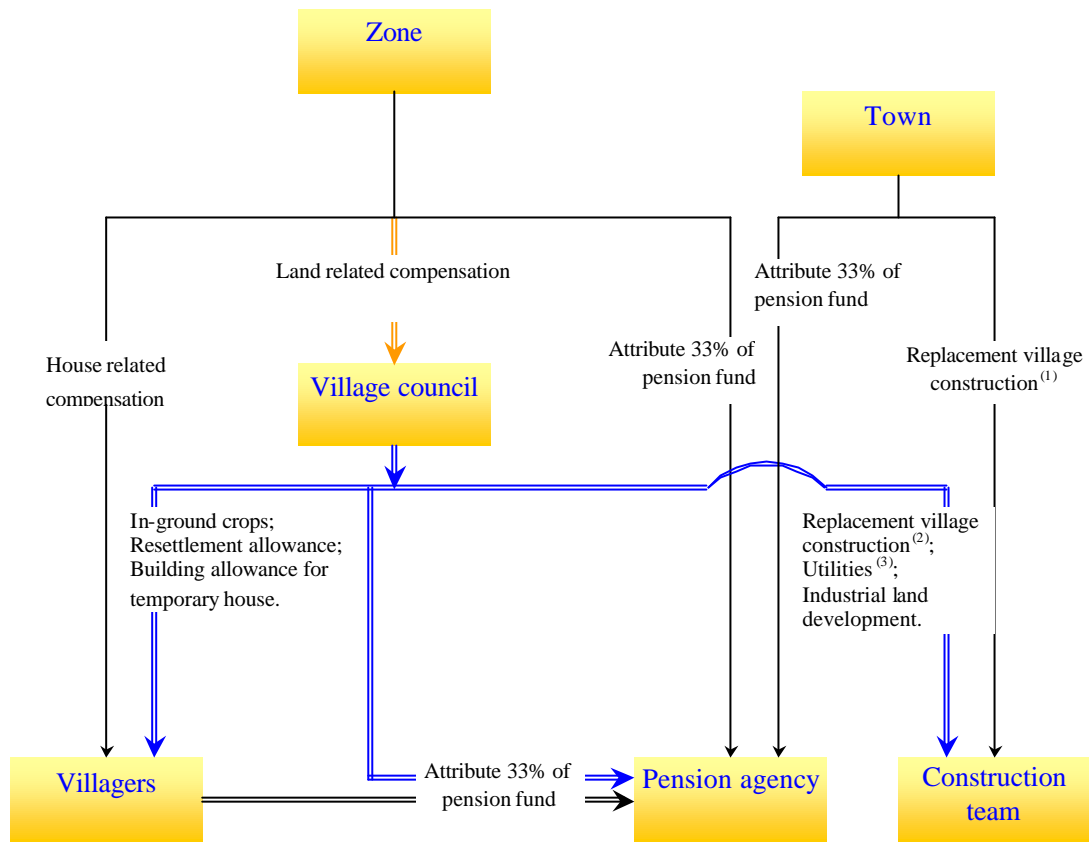
	Budget item	Amount (million RMB)	Status of Payment
Land related compensation	Compensation for loss of collective land	105.6	30.1 million RMB paid and 75.5 million RMB due
	Compensation for in-ground crops		
	Resettlement allowance		
	Compensation for land attachments (not house related)		
Replacement village construction	Land level for site I	1.5	Paid
	Land level for site II	3.5	Estimated
	(40%) Roads, and other public infrastructures for site I & II funded by GV	12	Estimated
House related compensation	Compensation for houses and house attachments	14.1	Paid
Pension	Pension scheme funded by GV	15.7	Estimated
Land taxes	Land administration fee		
	Land tax		
<b>Total</b>		<b>152.4</b>	

Source of fund: the Zone

### Budget for payment to the individuals and cost for resettlement

	Budget item	Amount (million RMB)	Status of Payment
Land related compensation	Compensation for in-ground crops and resettlement allowance (Paddy land and vegetable land)	11.4	Paid
	Compensation for in-ground crops for dry land	1.9	
	Compensation for land attachments (excluding house and structures)	1.6	
	Compensation for resettlement allowance for dry land	5.6	Due
Temporary replacement site	Building allowance for temporary houses	2.1	Paid
	Utilities (water, power, cable, etc)	0.2	Estimated
Replacement village construction	Survey, site investigation, design and supervision	0.5	Estimated
	Land preparation for site I	8	Due
	Land preparation for site II	16	Estimated
	Roads, and other public infrastructures for site I & II funded by village council	10	
	Utilities (water, power, cable, etc)	3	
	Apartment Guarantee for vulnerable group	0.5	
	Others		
Livelihood restoration	Establishment of pension scheme funded by village council	23.7	Estimated
	Collectively industrial land development	2	
	Training		
Other costs	Administration		
	Inflation		
<b>Total</b>		<b>86.5</b>	

Source of fund: village council (from compensation for land acquisition of 105.6 million RMB)



- (1) Attribute to the construction of roads, and other public infrastructures for site I & II from township government
- (2) Attribute to the construction of roads, and other public infrastructures for site I & II from village council;
- (3) To the construction of public utilities in the replacement village and in the transitional site.

### **13 Schedule for implementation**

The schedule for project resettlement is summarized in the **Figure** below.

ID	Task Name	Start	End	2003												2004												2005			
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr			
1	Project announcement to the villagers	2003-5-1	2003-6-1	█																											
2	Issues project notification	2003-6-1	2003-6-1	◇																											
3	Land grant contract signed	2003-6-11	2003-6-11	◇																											
4	lodgement/ approval of land acquisition application	2003-8-1	2003-9-1													█															
5	Disburse in-ground crops compensation	2003-5-1	2003-12-31	█																											
6	Disburse resettlement allowance	2003-5-1	2006-12-31	█												█												█			
7	Household survey and loss assessment	2003-6-1	2003-6-15	█																											
8	Negotiation of household agreement	2003-6-16	2003-7-30	█																											
9	Disburse household compensation	2003-6-16	2003-7-30	█																											
10	Disburse building allowance for temporary house	2003-6-16	2003-7-30	█																											
11	House demolished	2003-6-16	2003-9-15	█																											
12	Building temporary house	2003-7-1	2003-10-1	█																											
13	Confirm replacement site	2003-7-1	2003-8-1	█																											
14	Physical relocation to temporary replacement site	2003-7-15	2003-10-1	█																											
15	Engineering design for replacement site I	2003-9-1	2003-10-1	█																											
16	Construction of replacement site I	2003-10-2	2004-10-2													█															
17	Physical relocation to replacement site I	2004-10-3	2004-12-3																									█			
18	Engineering design for replacement site II	2003-12-1	2004-1-1													█															
19	Construction of replacement site II	2004-5-1	2005-1-1																									█			
20	Physical relocation to replacement site II	2005-1-2	2005-3-1																									█			
21	Rural to Urban registration transfer	2004-6-1	2004-7-1													█															
22	Collectively industrial land development	2004-5-1	2004-12-31													█															
23	Physical resettlement monitoring	2003-10-2	2005-3-1																									█			
24	Livelihood restoration monitoring	2003-10-2	2007-3-1																									█			

## **14 Summary**

### **14.1 Scope of the Resettlement Action Plan**

This Resettlement Action Plan was planned to be in accordance with the OD 4.30. The Resettlement Action Plan defines compensatory and mitigative actions, implementing responsibilities, budgets and time frames to adequately address potential impacts. A monitoring program is in place to ensure that livelihood and income restoration targets are successfully achieved.

It should be noted that the resettlement process for the project had commenced in May 2003. The process of documenting the Resettlement Action Plan was therefore undertaken at a point when resettlement was already at an advance stage. This had the advantage that it was possible to inspect resettlement activities and interview project affected people who were relocated from their original site and to address their concerns into the preparation of the Resettlement Action Plan.

Interviews were held with people experiencing both displacement and livelihood impacts. Accurate summaries of resettlement numbers, compensation principles, budgets and actual costs were available through the Zone and village council.

### **14.2 Compliance with IFC Guidelines (OD 4.30)**

To qualify for IFC assistance, the Sponsor is required to comply with all applicable IFC policies and guidelines. The IFC's policy governing resettlement is Operational Directive 4.30 *Involuntary Resettlement*. An external review of the project's compliance with Operational Directive 4.30 was completed as part of the Resettlement Action plan preparation. Project institutional arrangements, planning, implementation and public consultation procedures are addressed following IFC requirement on Involuntary Resettlement.

There are sound relations between the implementing agency, the Zone and the project developer, the Chenming LWC, a formal mechanisms will be in place to ensure clear communications and coordination on resettlement issues. The Zone, Jiao Qiao Township and the affected village will work cooperatively to develop specified measures to assist the project-affected population to restore their livelihood and share in benefits of the project.

## Appendix A Questionnaire

### Social Economic Baseline Survey Questionnaire For Chenming LWC Project

Date : \_\_\_\_\_ Interviewed by : \_\_\_\_\_

Natural village : Liu Jia Cao Jia

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Name of respondent : \_\_\_\_\_ Sex: M F

#### *I. Households Characteristics*

- 1) Can you please tell me your age :
- ( Tick one )  18-30 years  
 31-40 years  
 41-55 years  
 56-60 years  
 61+ years
- 2) How would you describe the household in which you live?
- ( Tick one )  A single person living alone (not married or divorced without children)  
 A single person living with children  
 A couple without children or children moved out  
 A couple with children  
 Grandparent and grandchild  
 Extended family (i.e. One family with three generations)  
 Two or more families sharing living quarters  
 Other, please specify: \_\_\_\_\_
- 3) Relationship to the household head : ( You are the household's )
- ( Tick one )  Himself/herself  
 Spouse  
 Parents  
 Child  
 Brother/sister  
 Other, please specify: \_\_\_\_\_
- 4) What is your household's registration status :
- ( Tick one )  Agricultural  
 Non-agricultural

Other, please specify: \_\_\_\_\_

5) What languages do you speak :

- ( Tick one )
- Dialect
  - Mandarin
  - Dialect and Mandarin
  - Other, please specify: \_\_\_\_\_

6) How many peoples in your household?

	Members of your household are of working age		None workforce	Total
	Male (18~60)	Female (18~55)		
Live in your household				

7) What is the highest grade you or your family members have ever completed? Your highest grade is

- ( Tick one )
- Illiteracy
  - Primary school
  - Middle school
  - High school graduate, Some college or technical school
  - College or technical school graduate
  - University Graduate or higher

8) Where is your household registered?

- ( Tick one )
- In the village
  - Somewhere else, please specify : \_\_\_\_\_Province\_\_\_\_\_City\_\_\_\_\_
  - \_\_Township

9) How long have you or your household lived in this village?

- ( Tick one )
- Less than one year
  - 1-4 years
  - 5-10 years
  - 11-20 years
  - 21 years or more
- } If less than 10 years, where did your family live previously? \_\_\_\_\_
- What was your families' reason for moving? \_\_\_\_\_

## II. Socio-Economic Status

10) What is your housing status?

- ( Tick one )
- Self – owned
  - Other, please specify: \_\_\_\_\_

11) What materials is your house constructed from? How many storeys does your house have?

Estimated size of your house (floor area)? How old is in your house?

- (Tick as appropriate)
- Concrete and brick \_\_\_\_\_ Storey \_\_\_\_\_ m<sup>2</sup> , \_\_\_\_\_ year
  - Wood and brick \_\_\_\_\_ Storey \_\_\_\_\_ m<sup>2</sup> , \_\_\_\_\_ year
  - Wooden house \_\_\_\_\_ Storey \_\_\_\_\_ m<sup>2</sup> , \_\_\_\_\_ year
  - Temporary structure \_\_\_\_\_ Storey \_\_\_\_\_ m<sup>2</sup> , \_\_\_\_\_ year

12) What area of collective land has your household been allotted?

Type of land	
Irrigated land	Mu
Dry land	Mu
Vegetable land	Mu
Hilly land	Mu
Fish pond	Mu
Other land	Mu
Without land	
Total	Mu

13) Does your household take water from ?

- ( Tick one )
- Public well
  - Private well
  - Well piped to household
  - Other, please specify : \_\_\_\_\_

14) What fuel does your household use :

- ( Tick one )
- Firewood or Straw
  - Liquefied petroleum gas
  - Coal honeycomb-shaped briquette
  - Other, please specify : \_\_\_\_\_

15) What type of toilets do you use at home?

- ( Tick one )
- Water closet
  - Pit latrine
  - Open defecation
  - Pail system
  - A public/shared toilet
  - Other, please specify : \_\_\_\_\_

16) Which of the following does your household have? (Tick as appropriate)

<input type="checkbox"/> Colour TV	<input type="checkbox"/> Mobile phone	<input type="checkbox"/> Air conditioning
<input type="checkbox"/> Refrigerator	<input type="checkbox"/> Compter	<input type="checkbox"/> Motor cycle
<input type="checkbox"/> Washing machine	<input type="checkbox"/> VCD,DVD,video recorder	<input type="checkbox"/> Car and van

<input type="checkbox"/> Telephone	<input type="checkbox"/> Tape recorder	<input type="checkbox"/> Truck
<input type="checkbox"/> Other, please specify :		

17) Which kinds of transportation to you use most often?

- ( Tick one )
- Bike
  - Motor cycle
  - Public bus
  - Walking
  - Other, please specify : \_\_\_\_\_

### III. Health Status

18) In the past year , did any of your family member got ill?

- ( Tick one )
- No ( jump to question 19 )
  - Yes

Please list the kind of illness

- Hepatitis
- Schistosomiasis
- Dermatitis
- Common disease
- Other contagion , please specify : \_\_\_\_\_
- Fatal , please specify : \_\_\_\_\_
- Other, please specify : \_\_\_\_\_

### IV. Employment & Income

19) What is your primary work and income source?

	Main work	Main income source
Sale of Cereal Crops	<input type="checkbox"/>	<input type="checkbox"/>
Sales of Fruit	<input type="checkbox"/>	<input type="checkbox"/>
Sale of fish	<input type="checkbox"/>	<input type="checkbox"/>
Sale of livestock and poultry	<input type="checkbox"/>	<input type="checkbox"/>
Income from own enterprise	<input type="checkbox"/>	<input type="checkbox"/>
Salary or wages from permanent employment	<input type="checkbox"/>	<input type="checkbox"/>
Wages from seasonal or part-time employment	<input type="checkbox"/>	<input type="checkbox"/>
Stay at home / no income	<input type="checkbox"/>	<input type="checkbox"/>
Pension		<input type="checkbox"/>
Financial support from relatives living elsewhere		<input type="checkbox"/>
Other, please specify	<input type="checkbox"/>	<input type="checkbox"/>

- 20) Which best describes you about place of work if you are own enterprise or working outside?
- (Tick as appropriate)
- Own village
  - In another village but same township
  - Other, please specify : \_\_\_\_\_

How many months do you work in another place each month? \_\_\_\_\_ Day/month

21) Your personal estimated annual income ¥ \_\_\_\_\_ Yuan/year.

22) What is your household's main income source?

- ( Tick one )
- Sale of Cereal Crops
  - Sales of Fruit
  - Sale of fish
  - Sale of livestock and poultry
  - Income from own enterprise
  - Salary or wages from permanent employment, please specify : \_\_\_\_\_
  - Wages from seasonal or part-time employment, please specify : \_\_\_\_\_
  - Pension
  - Financial support from relatives living elsewhere
  - No works / no income
  - Other, please specify : \_\_\_\_\_

23) Do you mind specifying the proportions of the following items in your average Yearly household total cash income?

	Subsistence	Average Yearly Household Income (Yuan/ Year)
Sale of Cereal Crops (rice, wheat, etc)	<input type="checkbox"/>	
Sales of Fruit	<input type="checkbox"/>	
Sale of vegetable	<input type="checkbox"/>	
Sale of firewood/timber/tree products	<input type="checkbox"/>	
Sale of livestock and poultry	<input type="checkbox"/>	
Sale of fish	<input type="checkbox"/>	
Income from own enterprise		
Working outside		
Income from rental of land or other property		
Financial support from relatives living elsewhere		

Money from government pensions and allowances		
Other, please specify :		
Total		

24) Your household monthly expenses is about : \_\_\_\_\_ Yuan/month

## V. Attitude to Compensation and Project

25) Your total house and attachment compensation is about \_\_\_\_\_ Yuan,

And your household gets other compensation about \_\_\_\_\_ Yuan.

26) Do you see any benefits arising from the project?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

27) Do you experience hardships about the project?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_

28) What is your overall attitude towards the Project?

- Support
- (Tick One)**  Object
- No strong opinion

29) About physical relocation, you would prefer

- Replacement Site I ( Gang Xia )
- Replacement Site II ( Shu Jia Shan )
- (Tick One)**  Cash compensation ( Jump to question 31 )
- All acceptable
- Other, please specify : \_\_\_\_\_

30) What kind of replacement house you would prefer ?

- Apartment
- (Tick One)**  Detached house
- All acceptable

31) What are the main problems about the temporary replacement site?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

What are the three most important priorities for improving the quality of life in temporary replacement site :

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_

## Appendix B Result of Social Economic Survey

### Background

A socio-economic survey of project affected households was conducted between 7 February and 12 February 2004.

The sampling breakdown is summarized in the following table.

(i) Number of project affected people Interviewed

Village	Natural village	N	%
Gang Kou	Liu Jia	32	32
	Cao Jia	68	68
<i>Total</i>		<i>100</i>	<i>100</i>

N=100

(ii) Sex of respondent

Sex of respondent	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Male	58	58	15	47	43	63
Female	42	42	17	53	25	37
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

1. Age of respondent

Age of respondent	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
18-30	16	16	11	34	5	7
31-40	31	31	9	28	22	32
41-55	34	34	8	25	26	38
56-60	10	10	2	6	8	12
>60	9	9	2	6	7	10
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

2. Household type

Household type	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
A single person living alone	1	1	-	-	1	1
A single person living with children	2	2	-	-	2	3
A couple without children or children moved out	3	3	2	6	1	1
A couple with children	52	52	17	53	35	52
Grandparent and grandchild	-	-	-	-	-	-
Extended family (i.e. One family with three generations)	33	33	13	41	20	30
Two or more families sharing living quarters	9	9	-	-	9	13

<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
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N=100

3. Relationship to the household head

Relationship to the household head	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Himself/ Herself	44	44	10	31	34	50
Spouse	38	38	15	47	23	34
Parents	4	4	2	6	2	3
Child	14	14	5	16	9	13
Brother/ Sister	-	-	-	-	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

4. Registration status

Registration status	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Agricultural	99	99	32	100	67	99
Non-agricultural	1	1	-	-	1	1
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

5. Languages spoken

Languages spoken	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Dialect	99	99	32	100	67	99
Mandarin	1	1	-	-	1	1
Dialect and Mandarin	-	-	-	-	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

6.1. Household size

Household size (no. of members)	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-2	5	5	-	-	5	7
3-4	49	49	17	54	32	47
5-6	34	34	10	31	24	36
7 or more	12	12	5	15	7	9
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
Total Population	472		160		312	
Mean family size	4.7		5.0		4.6	

N=100

6.2. Household size

Household size	Total		Male workforce		Female workforce		None workforce	
	N	%	N	%	N	%	N	%
Total Population	472	100	140	30	125	26	207	44
Mean family size	4.7		1.4		1.3		2	

N=100

7.1. Highest education attainment by any household member

Highest education attainment by any household member	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Illiterate	6	6	2	6	4	6
Primary school	26	26	8	25	18	26
Middle school	49	49	14	44	35	51
High school, College/technical school	15	15	7	22	8	12
College or technical school graduate	3	3	-	-	3	4
University Graduate or higher	1	1	1	3	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

7.2. Educational attainment of respondents

Educational attainment of respondents	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Illiterate	35	35	8	25	27	40
Primary school	40	40	16	50	24	35
Middle school	22	22	8	25	14	21
High school, College/technical school	3	3	-	-	3	4
College or technical school graduate	-	-	-	-	-	-
University Graduate or higher	-	-	-	-	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

8. Registration location

Registration location	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
In the village	94	94	30	94	64	94
Somewhere else	6	6	2	6	4	6
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

9. Duration of residence in the village

Years living in the village	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Less than 1 year	-	-	-	-	-	-
1-4 years	-	-	-	-	-	-
5-10 years	-	-	-	-	-	-
11-20 years	-	-	-	-	-	-
More than 21 years	100	100	32	100	68	100
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

10. Housing status

Housing status	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Self – owned	100	100	32	100	68	100
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

11.1. No. of house

No. of house	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1	88	88	29	91	59	87
2	11	11	2	6	9	13
3	1	1	1	3	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

11.2. House structural type

House Structure	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Concrete and brick	67	67	22	69	45	66
Wood and brick	44	44	13	41	31	46
Wooden house	-	-	-	-	-	-
Temporary structure	2	2	1	3	1	1
<i>Total</i>	<i>113</i>		<i>36</i>		<i>77</i>	

N=100 , Multiple responses

### 11.3. House Storey

House Storey	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1	53	53	17	53	36	53
2	57	57	19	59	38	56
3	3	3	-	-	3	4
<i>Total</i>	<i>113</i>		<i>36</i>		<i>77</i>	

N=100 , Multiple responses

### 11.4. Area of house to be lost to the project

Estimated house floor area (m2)	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
0-50	11	10	4	11	7	9
51-75	10	9	5	14	5	7
76-100	27	23	10	27	17	22
101-125	15	13	2	6	13	17
126-150	15	13	8	22	7	9
151-175	11	10	3	8	8	10
176-200	9	8	1	3	8	10
201-225	7	6	2	6	5	7
226-250	4	4	1	3	3	4
>250	4	4	-	-	4	5
<i>Total</i>	<i>113</i>		<i>36</i>		<i>77</i>	
Mean floor area	132		116		140	

N=100 , Multiple responses

### 11.5. No. of storey of house and house type

No. of storey of house and house type	Total		Concrete and brick		Wood and brick		Wooden house		Temporary structure	
	N	%	N	%	N	%	N	%	N	%
1	53	47	8	12	43	98	-	-	2	100
2	57	50	56	84	1	2	-	-	-	-
>3	3	3	3	4	-	-	-	-	-	-
<i>Total</i>	<i>113</i>	<i>100</i>	<i>67</i>	<i>100</i>	<i>44</i>	<i>100</i>	<i>-</i>	<i>-</i>	<i>2</i>	<i>100</i>

N=100 , Multiple responses

### 11.6. Years of been built

Years of been built	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
<2	7	6	2	6	5	6
3-5	7	6	-	-	7	9
6-10	22	19	5	14	17	22
11-15	22	19	9	25	13	17
16-20	18	16	7	19	11	14
21-25	8	7	3	8	5	6

26-30	17	15	7	19	10	13
>30	12	11	3	9	9	12
<i>Total</i>	<i>113</i>		<i>36</i>		<i>77</i>	
Mean	18		19		17	

N=100 , Multiple responses

#### 12.1. Household allotted land

Household allotted land allocated	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Irrigated land	99	99	32	100	67	99
Dry land	99	99	32	100	67	99
Vegetable land	97	97	31	97	66	97
Hilly land	5	5	1	3	4	6
Fish pond	2	2	-	-	2	3
Other land	-	-	-	-	-	-
Without land	1	1	-	-	1	1
<i>Total</i>	<i>303</i>		<i>96</i>		<i>207</i>	

N=100 , Multiple responses

#### 12.2. Household allotted land, Mean by reviewed household (Mu)

Household allotted land allocated	Total	Liu Jia	Cao Jia
Irrigated land	5.1	4.4	5.4
Dry land	5.1	5.8	4.8
Vegetable land	0.4	0.4	0.4
Hilly land	0.4	0.2	0.5
Fish pond	0.3	-	0.3
Other land	-	-	-
Without land	-	-	-
<i>Total</i>	<i>11.3</i>	<i>10.8</i>	<i>11.4</i>

N=100

#### 13. Domestic water source

Domestic water source	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Public well	20	20	3	9	17	25
Private well	76	76	28	88	48	71
Well piped to household	-	-	-	-	-	-
Other	4	4	1	3	3	4
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

#### 14. Source of the fuel

Source of the fuel	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Firewood or Straw	93	93	29	91	64	94
Liquefied petroleum gas	6	6	3	9	3	4
Coal honeycomb-shaped briquette	1	1	-	-	1	1

<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
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N=100

15. Type of toilets

Type of toilets	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Water closet	2	2	-	-	2	3
Pit latrine	-	-	-	-	-	-
Open defecation	97	97	32	100	65	96
Pail system	-	-	-	-	-	-
A public/shared toilet	1	1	-	-	1	1
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

16. House consumer goods

Consumer goods owned by household	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Colour TV	79	79	23	72	56	82
Refrigerator	11	11	3	9	8	12
Washing machine	3	3	1	3	2	3
Mobile phone	44	44	12	38	32	47
VCD、 DVD、 Video recorder	22	22	10	31	12	18
Tape recorder	8	8	4	13	4	6
Air conditioning	2	2	1	3	1	1
Motor cycle	16	16	6	19	10	15
Car or van	4	4	1	3	3	4
Truck	5	5	-	-	5	7
Agricultural truck	7	7	4	13	3	4
B&W TV	2	2	1	3	1	1
No home appliance	14	14	5	16	9	13
<i>Total</i>	<i>217</i>		<i>71</i>		<i>146</i>	

N=100 , Multiple responses

17. Which kinds of transportation to you use most often

Travel on the road	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Bike	63	63	25	78	38	56
Motor cycle	2	2	1	3	1	1
Public bus	7	7	1	3	6	9
Walking	28	28	5	16	23	34
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

18.1. Family member got ill in the past year

Family member got ill	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
No	52	52	16	50	36	53
Yes	48	48	16	50	32	47

<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
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N=100

## 18.2. The kind of illness

List the kind of illness	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Hepatitis	4	8	-	-	4	13
Schistosomiasis	-	-	-	-	-	-
Dermatosis	-	-	-	-	-	-
Common disease	30	63	14	88	16	50
Other contagion	-	-	-	-	-	-
Fatal	13	27	2	13	11	34
Disable	5	10	1	6	4	13
<i>Total</i>	<i>52</i>		<i>17</i>		<i>35</i>	

N=48 , Multiple responses

## 19.1. Primary work of responder

Primary work of responder	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Agricultural planting	73	73	24	75	49	73
Fruit trees	1	1	-	-	1	1
Sale of fishing	2	2	-	-	2	3
Sale of livestock and poultry	2	2	-	-	2	3
Income from own enterprise	5	5	-	-	5	7
Salary or wages from permanent employment	5	5	2	6	3	5
Wages from seasonal or part-time employment	8	8	4	13	4	6
Stay at home/ no income	3	3	2	6	1	1
Pension	1	1	-	-	1	1
Financial support from relatives living elsewhere	-	-	-	-	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

## 19.2. Primary income source of responder

Primary income source of responder	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Agricultural planting	71	71	24	75	47	69
Fruit trees	1	1	-	-	1	1
Sale of fishing	2	2	-	-	2	3
Sale of livestock and poultry	3	3	-	-	3	4
Income from own enterprise	5	5	-	-	5	7
Salary or wages from permanent employment	5	5	2	6	3	4
Wages from seasonal or part-time employment	9	9	4	13	5	7
Stay at home/ no income	3	3	2	6	1	1
Pension	1	1	-	-	1	1
Financial support from relatives	-	-	-	-	-	-

living elsewhere						
<i>Total</i>	<i>100</i>		<i>32</i>		<i>68</i>	

N=100

20.1. Working place of work if you are own enterprise or working outside

Location	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Own village	3	8	-	-	3	11
In another village but same township	23	62	7	70	16	59
In Nanchang city	8	21	3	30	5	20
Other province	2	6	-	-	2	8
Where ever	1	3	-	-	1	4
<i>Total</i>	<i>37</i>	<i>100</i>	<i>10</i>	<i>100</i>	<i>27</i>	<i>100</i>

N=37

20.2. How many months do you work in another place each month

( days/ month )	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-5	2	7	-	-	2	11
6-10	2	7	-	-	2	11
11-15	11	38	4	40	7	37
16-20	5	17	1	10	4	21
21-25	3	10	2	20	1	5
26-31	6	21	3	30	3	16
<i>Total</i>	<i>29</i>	<i>100</i>	<i>10</i>	<i>100</i>	<i>19</i>	<i>100</i>

N=29

21. Annual income of respondent ( Yuan/ year )

Prior to relocating ( Yuan/ year )	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-100	6	6	5	16	1	1
101-200	12	12	3	9	9	14
201-300	14	14	4	13	10	15
301-400	16	16	7	23	9	14
401-500	15	15	2	6	13	20
501-600	5	5	2	6	3	4
601-700	5	5	1	3	4	6
701-800	5	5	2	6	3	4
801-900	4	4	1	3	3	4
901-1000	4	4	1	3	3	4
>1000	8	8	1	3	7	10
No income	6	6	3	9	3	4
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
Mean of monthly income	483		354		544	
Annual income	5796		4247		6524	

N=100

22. Primary income source of household

Primary income source of household	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Sale of Cereal Crops	59	59	18	56	41	61
Sales of Fruit	1	1	-	-	1	1
Sale of fish	2	2	-	-	2	3
Sale of livestock and poultry	2	2	-	-	2	3
Income from own enterprise	9	9	-	-	9	14
Salary or wages from permanent employment	8	8	5	16	3	4
Wages from seasonal or part-time employment	18	18	9	28	9	13
Pension	1	1	-	-	1	1
Financial support from relatives living elsewhere	-	-	-	-	-	-
No works / no income	-	-	-	-	-	-
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

23.1. Income resource of households

Income resource of households	Total		Liu Jia		Cao Jia	
	N	%	N	N	%	N
Sale of Cereal Crops (rice, wheat, etc)	85	85	27	84	58	85
Sales of Fruit	6	6	4	13	2	3
Sale of vegetable	24	24	9	28	15	22
Sale of firewood/timber/tree products	2	2	1	3	1	1
Sale of livestock and poultry	57	57	14	44	43	63
Sale of fish	2	2	-	-	2	3
Income from own enterprise	16	16	3	9	13	19
Working outside	63	63	23	72	40	59
Income from rental of land or other property	-	-	-	-	-	-
Financial support from relatives living elsewhere	-	-	-	-	-	-
Money from government pensions and allowances	1	1	-	-	1	1
Other	2	2	-	-	2	3
<i>Total</i>	<i>258</i>		<i>81</i>		<i>177</i>	

N=100 , Multiple responses

23.2. Breakdown of aggregated average per household income from all source

Breakdown of aggregated average per household income from all source	Total		Liu Jia		Cao Jia	
	Yuan/month	%	Yuan/month	%	Yuan/month	%
Sale of Cereal Crops (rice, wheat, etc)	502	37	484	41	511	37

Sales of Fruit	20	2	7	1	26	2
Sale of vegetable	27	2	43	4	19	1
Sale of firewood/timber/tree products	3	*	4	*	2	*
Sale of livestock and poultry	153	12	107	9	174	13
Sale of fish	17	1	-	-	25	2
Income from own enterprise	195	15	56	5	260	19
Working outside	390	30	485	41	345	25
Income from rental of land or other property	-	-	-	-	-	-
Financial support from relatives living elsewhere	-	-	-	-	-	-
Other	13	1	-	-	19	1
<i>Total</i>	<i>1320</i>	<i>100</i>	<i>1188</i>	<i>100</i>	<i>1382</i>	<i>100</i>

N=100

### 23.3. Subsistence

	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Sale of Cereal Crops (rice, wheat, etc)	98	98	32	100	66	97
Sales of Fruit	17	17	5	16	12	18
Sale of vegetable	84	84	24	75	60	88
Sale of firewood/timber/tree products	63	63	14	44	49	72
Sale of livestock and poultry	2	2	-	-	2	3
No subsistence	2	2	-	-	2	3
<i>Total</i>	<i>266</i>		<i>75</i>		<i>191</i>	

N=100 , Multiple responses

### 23.4. Monthly household income ( Yuan/month )

Monthly household income	Consolidated		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-100	1	1	-	-	1	1
101-400	9	9	2	6	7	10
401-700	17	17	8	25	9	13
701-1000	14	14	7	22	7	10
1001-1300	18	18	5	15	13	19
1301-1600	17	17	2	6	15	22
1601-2000	7	7	2	6	5	7
2001-2500	8	8	5	16	3	4
2501-3500	5	5	1	3	4	6
>3500	4	4	-	-	4	6
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

Mean of per household monthly income	1320	1188	1382
Annual household income	15840	14256	16584

N=100

23.5. Average per capita monthly income ( Yuan/month/capita )

Average per capita monthly income ( Yuan/month/capita )	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-100	14	14	5	16	9	13
101-200	23	23	10	32	13	19
201-300	28	28	9	28	19	28
301-400	14	14	3	9	11	16
401-500	11	11	3	9	8	11
501-600	4	4	-	-	4	5
601-700	1	1	1	3	-	-
701-1000	3	3	1	3	2	2
>1000	2	2	-	-	2	3
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
Mean of per capita monthly income	279		237		301	
Average per capita annual income	3348		2844		3612	

N=100

23.6. Average per workforce monthly income ( Yuan/month/capita )

Average per workforce monthly income ( Yuan/month/capita )	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-100	4	4	1	3	3	5
101-200	7	7	4	12	3	5
201-300	15	16	6	19	9	14
301-400	14	15	4	13	10	16
401-500	17	18	7	22	10	16
501-600	11	12	4	13	7	11
601-700	8	8	1	3	7	11
701-1000	10	10	4	12	6	10
>1000	7	8	-	-	7	11
<i>Total</i>	<i>93</i>	<i>100</i>	<i>31</i>	<i>100</i>	<i>62</i>	<i>100</i>
Mean of per workforce monthly income	505		431		542	
Average per workforce annual income	6060		5172		6504	

N=93

24. Households monthly expenses

( Yuan / month )	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
1-100	20	20	7	22	13	19
101-200	28	28	14	44	14	21

201-300	21	21	3	9	18	26
301-400	10	10	3	9	7	10
401-500	10	10	3	9	7	10
501-600	4	4	1	3	3	4
601-700	5	5	1	3	4	6
701-800	-	-	-	-	-	-
>800	2	2	-	-	2	3
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>
Household monthly expense	293		248		314	
Household annually expense	3516		2976		3768	

N=100

#### 25.1. Total compensation about house and attachment

Total compensation about house and attachment	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
<1000	9	9	2	6	7	10
1,000-2,000	13	13	6	19	7	10
2,001-3,000	20	20	4	13	16	24
3,001-4,000	10	10	5	16	5	7
4,001-5,000	8	8	4	13	4	6
5,001-6,000	16	16	7	22	9	13
6,001-7,000	5	5	1	3	4	6
7,001-8,000	11	11	2	6	9	13
8,001-9,000	4	4	-	-	4	6
9,001-10,000	1	1	-	-	1	1
>10,000	3	3	1	3	2	3
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

#### 25.2. Other compensation

Other compensation	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
<1000	2	2	-	-	2	3
1,000-2,000	29	29	9	28	20	29
2,001-3,000	35	35	15	47	20	29
3,001-4,000	19	19	4	13	15	22
4,001-5,000	8	8	2	6	6	9
5,001-6,000	4	4	1	3	3	4
6,001-7,000	2	2	1	3	1	1
>7,000	1	1	-	-	1	1
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

#### 26. Positive impacts that the project might cause

Positive impacts that the project might cause	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
More job opportunities	55	55	15	47	40	59
Stimulate local economy	22	22	5	16	17	25
More income and improve living	8	8	2	6	6	9

standard						
Improve living condition	3	3	-	-	3	4
No positive impacts	39	39	15	47	24	35
<i>Total</i>	<i>127</i>		<i>37</i>		<i>90</i>	

N=100 , Multiple responses

27. Experienced hardships

Experienced hardships	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Income reduction after land acquisition, no income source	66	66	30	94	36	53
Inconvenience in traveling to outside	57	57	14	44	43	63
Pollution from Construction, dusty	18	18	6	19	12	18
Shortage of water	13	13	1	3	12	18
Lack of education facilities	1	1	-	-	1	1
Old house demolished before the replacement built causing hardship	8	8	2	6	6	9
Other adverse impacts	4	4			4	6
No adverse impacts	3	3	-	-	3	4
<i>Total</i>	<i>170</i>		<i>53</i>		<i>117</i>	

N=100 , Multiple responses

28. Attitude towards the Project

Attitude towards the Project	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Support	28	28	6	19	22	32
Object	36	36	11	34	25	37
No comment	36	36	15	47	21	31
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

29. About physical relocation, you would prefer

About physical relocation,	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Replacement Site I ( Gang Xia )	-	-	-	-	-	-
Replacement Site II ( Shu Jia Shan )	27	27	4	13	23	34
Cash compensation	1	1	-	-	1	1
All acceptable	1	1	-	-	1	1
Build house themselves	71	71	28	88	43	63
<i>Total</i>	<i>100</i>	<i>100</i>	<i>32</i>	<i>100</i>	<i>68</i>	<i>100</i>

N=100

30. What kind of replacement house you would prefer

Replacement house	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Apartment	-	-	-	-	-	-
Detached house	97	98	31	97	66	99
All acceptable	2	2	1	3	1	1

<i>Total</i>	99	100	32	100	67	100
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N=99

### 31.1. Main problems about the temporary replacement site

Main problems about the temporary replacement site	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Solve hardship causing by shortage of water	70	70	25	78	45	66
Improve living condition	25	25	10	31	15	22
Solve traffic and road problem	77	77	23	72	54	79
Improve temporary house quality	42	42	18	56	24	35
Improve public utilities	5	5	-	-	5	7
Others	5	5	-	-	5	7
No impacts	3	3	-	-	3	4
<i>Total</i>	227		76		151	

N=100 , Multiple responses

### 31.2. Three most important priorities for improving the quality of life in temporary replacement site

Three most important priorities	Total		Liu Jia		Cao Jia	
	N	%	N	%	N	%
Improve public utilities	20	20	2	6	18	26
Improve infrastructure (roads)	59	59	16	50	43	63
Solve hardship causing by shortage of water	58	58	23	72	35	51
Improving living condition	10	10	2	6	8	12
Improve quality of transitional housing	12	12	8	25	4	6
Speed up the construction of the replacement housing, reduce total cost in purchasing the replacement house	14	14	6	19	8	12
Employment opportunities	12	12	4	13	8	12
Other impacts	4	4	3	9	1	1
No impacts	12	12	5	16	7	10
<i>Total</i>	201		69		132	

N=100 , Multiple responses

**Figure 1**



**Figure 2**

