

Summary

During the process of dramatic urbanization in China, the rapid development is frequently realized at the expense of forced displacement and resettlement. Although huge economic growth is undeniably shown and the so-called benefits are often considerable, the cost of growth is to a large extent transferred to the displacees through interruption of lifestyle, sudden impact, psychological trauma, and impoverishment, which has trigged numerous tragedies including violence and suicide. Consequently, the reconstruction and improvement of the displacees' livelihood has drawn increasing national and international attention and become a hot issue recently. The Tianzhong Lake Resettlement Project in Pingxiang city is a typical case of development forced displacement and resettlement, which displaces 198 households in an urban village to construct a reservoir, wet land park and high quality residential district for both the climate improvement, water storage and tourism development. Although compensation policy has been formulated and announced, an agreement is not achieved yet and the displacees are still strongly resisting the resettlement due to various reasons.

The research aims to explore necessary reforms on compensation policy to enable the displacees of the Tianzhong project to reconstruct and improve their livelihood sustainably, through identifying the losses of the resettlers' livelihood assets, the impoverishment risks they are facing as well as the acceptable, realistic and enabling assistance and facilities to reconstruct and improve their livelihood. The researcher's objective is to ensure that the compensation not only comprehensively recovers the displacees' livelihood assets including human, social, physical, natural and financial capital, prevents or to the maximum extent mitigates the impoverishment risks, but also improves the displacees' livelihood incrementally in the long term.

The research findings revealed both the visible and invisible losses of the resettlers 5 types of livelihood assets, and also the complexity of causes of these losses such as inadequacy of or ignorance in traditional compensation policy, the dramatic changes in lifestyle and living condition or certain indirect impacts of the project. Besides, 8 categories of impoverishment risks are examined, some of which are frequently neglected, identifying the contributive elements and most vulnerable groups, as well as evaluating the coverage and threats of the risks to the displacees. The findings not only demonstrated risks such as joblessness and landlessness as highly severe risks, but also revealed a number of influential factors contributing to the often neglected risks, such as anxiousness and potential psychological traumas. Furthermore, the necessary promotional and enabling assistance and facilities are explored considering the specific context of Tianzhong Project, with related acceptability and capacity of the displacees thus the scale and feasibility of these assistance and facilities examined.

In order to maintain the displacees' livelihood above the original level, reforms should be introduced on a series of aspects including the compensation coverage and standards,

exploration of alternatives for recovering activities, effective and comprehensive mechanism to prevent and mitigate risks, rational implementation process, transparency of decision making, increasing involvement and capacity building of the communities, and most importantly, sustainable improvement planning and instruments.

Key words: development forced displacement and resettlement, livelihood assets recovery, impoverishment risk mitigation, livelihood reconstruction and improvement, enabling assistance and facility

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Abbreviations

UN: United Nations

DFDR: Development Forced Displacement and Resettlement

COHRE: Center on Housing Rights and Evictions

ICESCR: International Covenant on Economic, Social and Cultural Rights

IRR: Impoverishment Risks and Reconstruction Model

WB: World Bank

CBO: Community Based Organizations
NGO: Non Government Organizations

SPSS: Statistical Package for Social Sciences

Reforming the compensation strategy to enable displacees'

livelihood reconstruction and improvement

-----An exploratory research of Tianzhong Lake resettlement project, China

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Chapter 1 Introduction

This chapter briefly introduces the background of the research case, based on which the emerged problems and the objectives to be achieved will be stated. Both the main question and the provisional sub research questions will be established according to the objectives, followed by descriptions of the significance, scope and limitations of the study.

1.1 Background

Pingxiang is located in the remote mountainous region of the border between Jiangxi and Hunan Province, the southeast of China. Most of the area around the city is hilly and mountainous, though the city itself is relatively flat. As a small to middle-size city of China, Pingxiang covers a land area of 3827 km²and the population of the city is 1,850,000 (2008 census). The GDP of Pingxiang was 421.49 billion yuan in 2009, and the average income of urban area is almost 2.5 times of the average income in rural area.

The development project of Tianzhong Lake is introduced and guided by the government and implemented with the association of real estate agencies, aiming at constructing a wetland park and a high quality residential district based on the superior natural condition, thus contribute to the water storage, flood control, environmental improvement, livelihood upgrading and beautification of the city, which is announced as a "public interest". Since Tianzhong Lake locates in the north of the city center, running through several villages which are identified as typical "urban villages" (The original villages remained at the urban area because of the entire or partly requisition of land and the retention of the villagers, most of which are farmers and migrants, widely exist in China, especially in the cities with fast-paced development and urbanization, and they are also regarded as slums with Chinese characteristic by some scholars.), nearly 10 million m² of land has to be taken over and more than 200 households have to be resettled to pave the way for the program. Although the government is providing 2 options, either accepting a certain amount of compensation (275 yuan/m² for the house and 6-10 times of the average revenue in the last 3 years for the agricultural land), or exchanging the original house for a unit of the new high-rise buildings within the project at the price equal to construction cost, the disrupted population are still faced with the vulnerability of landlessness, homelessness as well as other deterioration of livelihood, thus haven't reached a consensus with the authority and developers.

The villagers' attitude towards the resettlement varies in different age groups. Although the young generations are optimistic and open to the redevelopment project out of their desire for wider access to job and education opportunity together with "modern", urban life, there is a strong resistance from a large part of the middle aged group as well as the elderly. As for the middle aged, since their income and maintenance of livelihood has been based on agriculture for several decades thus the farm land they possess is considered as one of the most productive assets, the government acquisition may to a large extent generate great loss and hardship to the whole family. Moreover, few alternative employments are available for the group due to their limited skills, which contributes even more to their exposure to impoverishment. Furthermore,

particularly for those who run small business such as grocery shops, snack bars as well as Mahjong rooms in their own houses, a large part of which are women earning resources for the family due to the inability or lack of male labors, the demolition in the project will destroy not only their home but also the indispensible assets to support the family. Considering the huge vulnerabilities and great losses, the middle-aged villagers are either strongly against the redevelopment or requiring a far larger amount of compensation then that were announced by the government. As for the elderly, their reluctance of the demolition and redevelopment mostly comes from the sensible attachment to their house and land as well as the traditional peaceful rural life style, thus the insistency of "we won't move no matter how much compensation are provided" is extremely common among the group.

Besides, the resettlement and compensation policy for the project also triggered other resistance from outside. Citizens who have been resettled for some previous development projects and received far less amount of compensation than announced in the current project are coming to the government, complaining and protesting the inequity due to the different nature of development projects. Since some of the previous relocatees are displaced by non-profitable public projects such as infrastructure or highway construction, the compensation was basically based on the market value of the acquired land and demolished houses without any benefit sharing from the projects, the compensation gap was extremely notable.

Considering the complicated situation, an innovative and effective compensation and rearrangement strategy to ensure the project running smoothly without violating the human rights as well as triggering worth-off and impoverishment of the disrupted population is urgently called for.

1.2 Problem statement

DFDR (Development forced displacement and resettlement) is now one of the most controversial issue both in China and all over the world, although certain different compensations are provided according to the situation, there is frequently a mismatch of the loss of the evictees and the compensation given. Numerous tragedies such as suicide and scuffle have been witnessed because of the fierce conflict between the original residents and the government. Generally speaking, a large number of development forced displacement and resettlements in China are violating human rights (especially the rights in terms of housing and livelihood inadequacy as well as tenure security), causing some long-term and irreversible problems of the displaced population, thus have also met with enormous resistance from grass roots during the last few decades, and the Tianzhong Lake case is not a exception.

Taking a deeper look into the case and considering the specific context in China, the most essential issue raised from the current situation is the displaced villagers' destiny of becoming landless peasants, which is one of the most vulnerable groups in the country specifically generated by the redevelopment and land acquisition activities within the intensive urbanization process. Forced to give up the traditional agricultural activities and sometimes even ancestral houses, struggling to support the family by seeking for available and low-skilled

works, the group have been suffering from various threats such as homelessness, impoverishment, limited access to basic facilities and infrastructure, food insecurity, unemployment, disruption of children's schooling, breaking up of household relation and social networks as well as irreversible psychological trauma. Making the situation even worse, for several decades there were almost no consideration on the sustainable livelihood of landless peasants, thus few strategies were developed to suit the remedy to the case.

Even when considerable amount of one-time compensation are provided to the displaced population, which is expected to be a way out of the threat of impoverishment, the situation is still not improved satisfactorily in most of the displacement cases. According to the previous experience, although some of the resettlers were even made so-called "compensation milliners" overnight, limited meaningful improvement was realized to the livelihood of them in the long run. In majority of the previous cases, the once ex-ant payment model was not adequate to promote the displacee's livelihood from pre-project level, even in those resettlement projects which are regarded sound and just, no more was achieved besides basic restitution, that is to say, it is almost not possible for the displaced population to really benefit from the development projects.

Consequently, the conflict between displacees and the government are becoming increasingly fierce. Worsening the situation, attributed to the villagers' distrust and adverse attitude towards the government as well as the customary top-down and compulsive approach of the local authorities, negotiation and some preliminary work were extremely tough and even triggered altercations and violence. Due to the political and legislative system which endows the government with extremely strong enforcement power on expropriation, the voice of grass roots is often buried by legal coercive measure such as discharging "nail households" or their offspring from public employment. In addition, participatory approaches and relocatees' involvement are also to a large extent absent during the processes of resettlement and compensation, thus not only the rights of relocatees are not respected and the real needs of them are neglected, but also the enormous potential and contribution of them are not activated.

Generally speaking, the violation of human rights in this DFDR project, the impoverishment risk to the villager's after becoming landless peasants, the inadequacy of current compensation strategy, the lack of participatory and democratic approach are the major problems at the moment.

1.3 Research Objectives

The main research objective is to identify the compensation strategy by which the DFDR project does not lead to violation of human rights, degraded livelihood and unsustainable development of the displaced population. To draw the conclusion, 4 specific objectives should be achieved:

- Examine the gap between the losses of the villagers and the compensation in the announced policy
- Examine the impoverishment risks the villagers after becoming landless peasants

- Examine the availability of indigenous residents' resource and ability to restore and improve their livelihood
- Identify practical participatory approaches in both the adjustment and implementation of the compensation policy, including identifying the basic facility to enable the affected population

1.4 Provisional research questions

Based on the problem statement, the main research question of the thesis is defined as:

- How to compensate the displaced population, in order to improve their livelihood?
- •
- Supporting the main question, 4 specific questions are listed below:
- Which livelihood assets of the affected population disrupted by the project?"
- What are the vulnerabilities confronted by the displacees that need to be prevented and are preventable?
- How to involve the grass roots in both the decision making and implementation process of the compensation strategy?

Answering these questions, the research is expected to examine the current resettlement policy of the project and identify the strategy by which the implementation of the resettlement does not lead to the violation of human rights, unsustainable compensation and degraded livelihood of the original residents and alleviate the resistance to the project.

1.5 Significance of the study

Examining the typical approach and policy towards development induced and market-based resettlement, revealing the vulnerability, trauma and the externalized cost imposed on the poor, understanding the resistance from the grassroots, the conflicting interests between the government and the grassroots, exposing the inequity and marginalization in the compensation process, most significantly, seeking for the real and urgent needs and priorities of the affected population thus exploring the political implication for the authority, the researcher focus her effort on understanding the displacees, who are the most vulnerable group and to a large extent victimized by all kinds of major development in the name of "public interests". Concerning the numerous tragedies caused by inappropriate expropriation and forced displacement in China, which has drawn worldwide attention, and the high frequency of failure in resettlement project in spite of various efforts made by the government, the research is setting up an in-depth study on the fundamental problems beyond and the possible solutions through a grass-based approach, trying to achieve a win-win situation--- allowing the implementation of significant development project, respecting basic human rights and benefiting the affected population simultaneously.

Since China is now making great effort on the construction of harmonious society, seeking for every solution to alleviate the tension and distrust between the citizens and the authority, emphasizing the role of the government as a representative of fundamental benefits and interests of the citizens, the start point of the research to ensure the benefit of the displaced population, the world-wide specific solutions and ideas combined with the Chinese context to

alleviate the conflicts and to create synergies can to a certain extent contribute to the theme of harmonious society, besides, the great concentration on the poor and their basic human rights can also obtain the commitment of international organizations. In addition, the research covers a series of analysis related to the vulnerability and needs of landless peasants, which is currently the most controversial and concerned issue in China and has been highlighted by the Chinese People's Political Consultative Conference several times; therefore, once the research comes up with certain creative solutions, there is a great possibility to promote the whole picture. Meanwhile, considering the developing economical context of the country and limited financial resource of the government, the research is suggesting a reformed, promotional and enabling approach to reconstruct the displacee's livelihood rather than the sky-high once ex-ant compensation model, allowing incremental investment, benefit sharing as well as various forms of support, which is both an affordable solution for the government and a sustainable and participatory approach for the community.

1.6 Scope and limitations

The scope of the study mainly covers the social, financial, psychological, political, and physical aspect of the resettlement project, concentrating on identifying the multi-dimensional compensation strategy to enable the displacees to reconstruct their livelihood. The research assesses the potential losses and the vulnerability of the affected population caused by the resettlement project, examines the shortcomings of the current compensation policy, and according to that, explores the possible reform and identifies the necessities for political, social, financial, physical, technical and psychological support and facilities in order to facilitate the displacees to restore and improve their livelihood sustainably. Within the process of pursuing a reformed, inclusive and promotional compensation strategy, the research also identifies the limits of the traditional once ex-ant compensation model and explores the complementarities accordingly.

The research will be targeting 200 households, approximately 800 residents, which are now facing resettlement, however, due to the time constraint, only 10% percent of them can be surveyed and studied. Besides, since the interests of the youngsters, adults and the elderly, female and male varies considerably, a purposive sampling is called for to select the representative respondents of each group according to the population ratio. Another limitation may be generated from the extreme adverse attitude towards the government of some respondents, which may affect the objectivity of the response; similarly, due to certain political reasons, the possibility of non-transparency from the government respondents should also be taken into consideration.

Chapter 2 Statement of the art of the theories

The related existing theories will be introduced in this Chapter, covering both the international guidelines, main stream concepts and the specific context in China, through the integration of which a conceptual framework will be formed.

2.1 Definition of eviction and DFDR

Forced eviction is defined as "The permanent or temporary removal against their will of individuals, families and/or communities from the homes and/ or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection." (The committee on ESCR) Based on this, UN-HABITAT and United Nations ESCAP, 2008, provided the definition of eviction and market-driven eviction, which is "the negotiated removal of individual occupants but when the terms of negotiation are unfair for poor households due to their week tenure status, or the fact that they may not be complying with planning and development laws or construction norms and standards." Though some of them are not "forced" in the strictest legal sense, but most of them are disruptive and unnecessary, and are causing the same impoverishment and destruction of housing investments and social support systems are "forced" eviction cause (UN-HABITAT and United Nations ESCAP, 2008).

DFDR represents for development-forced displacement and resettlement, which is entirely involuntary, despite the inducements devised to attract people to resettle voluntarily (Anthony Oliver-Smith, 2009). According to him, during DFDR process, the large development projects are justified by a cost-benefit analysis that assigns losses and gains on a political basis, which is extremely unfair and circumscribed. Furthermore, since there is no returning home after the stability of the situation, DFDR is viewed as permanent and irreversible.

Another major form of eviction shared all over the world, both in developed and developing countries is market-based eviction, in which the lower-income communities are displaced forcibly to clear the way for luxury, high-quality housing projects for the middle to high income groups or to the major, profitable industrial project(UNHABITAT, 2007).

2.2 Causes of forced eviction

COHRE (2008) categorized the complexity which causes forced eviction as tenure insecurity/absence of formal tenure rights; authoritarian top-down planning; development and infrastructure projects; large international events; urban redevelopment and "beautification" initiatives; property market forces and "gentrification"; absence of state support for the poor; political conflict, ethnic cleansing, and war. Regarding development as the most significant cause, COHRE pointed out that "the poor and the marginalized are forced to pay the price for 'development'", which is extremely unfair.

Similarly, there are also 5 reasons of evictions indentified by UN-HABITAT and United Nations ESCAP, including intensive urbanization, large infrastructure program, market forces, urban "beautification" and ineffective laws (laws to protect communities from eviction or to provide tenure security). (UN-HABITAT and United Nations ESCAP, 2008)

2.3 Impacts of eviction and involuntary resettlement

A great number of scholars have provided classical analysis on the impacts of eviction and involuntary resettlement, for example, Scudder and Colson has identified three forms of stress result from involuntary relocation and resettlement which are physiological, psychological and sociocultural stress (Scudder, 2005a; Scudder and Colson 1982). Generally speaking, the multi-dimensional impacts of eviction and involuntary resettlement discussed in the literatures can be categorized into violation of human rights, impoverishment to the poor, psychological impact to the evictees, the crisis in rural communities, and social impact.

Violation of rights (International laws and guidelines)

A broad range of human rights are violated through the practice of forced eviction, specifically the right to adequate housing (including the right to protection against forced evictions), the right to remain, the right to freedom of movement, the right to privacy, the right to property, the right to an adequate standard of living, the right to security of the home, the right to security of the person, the right to security of tenure and the right to equality of treatment (UN Sub-Commission on the Protection and Promotion of Human Rights, 1998).

As a complementation, COHRE claim that the process of forced eviction results in the violation of numerous other human rights, including but not limited to: the right to non-interference with privacy, family, and the home; the right to be protected against the arbitrary deprivation of property; the right to the peaceful enjoyment of possessions—many forced evictions occur without warning, forcing people to abandon their homes, lands, and worldly possessions; the right to respect for the home; the right to freedom of movement and to choose one's residence; the right to education—often children cannot attend school due to relocation; the right to life—violence during the forced eviction which results in death is a common occurrence; the right to security of the person—implementing authorities rarely provide evicted persons with adequate homes or any form of compensation, thus rendering them vulnerable to homelessness and further acts of violence (COHRE, 2008, pp. 8).

According to COHRE, women are the most vulnerable victims of forced eviction, "due to the extent of statutory and other form of discrimination against women with respect to home ownership and inheritance rights, or rights of access to accommodation, and their particular vulnerability to act of violence and sexual abuse during and after eviction". (COHRE, 2008, pp. 4)

Impoverishment to the poor

As the Asian Coalition for Housing Rights stated (News letter No.15, Special Issue on Evictions, 2003), the eviction makes the poor get poorer through several aspects: pushing the poor into sub-urban areas lacking basic infrastructure and far away from their work place,

increasing time and transport expense and making it difficult for parents to work far away from home, keeping the poor from appropriate health care and education institutions thus expanding the income gap between the rich and poor, creating conflict as well as triggering crime and violence, leading to tremendous loss of investments, infrastructure and small business, and the damage to personal and households property, breaking children's schooling, destroying the social support systems in the community, producing situations of violence and trauma to the most vulnerable groups such as women, the elderly and children, creating new underserviced settlements in sub-urban area that governments will have to upgrade in the future.

Similarly, Leckie (1995, pp. 27-30) has pointed out that evictions bring about impoverishment by causing some traumatic and severe consequences to the poor including damage to property, loss of productive assets, broken social network, compromised livelihood strategies, loss of access to facilities and services as well as violence and irreversible trauma.

Michael Cernea also identified 9 impoverishment risks, which are listed as

- Landlessness: the acquisition of farm land removed the fundamental productive asset of the disrupted peasants.
- Joblessness: the lost of employment is the main risk for the displaced in both urban and rural area after involuntary resettlement
- Homelessness: the displacees are also faced with the lost of shelter
- Marginalization: the displaced often suffer from economic, social and psychological marginalization while slipping through a "downward mobility" path, losing self-confidence, self-image and excluded by the host community
- Food insecurity: undernourishment might be caused by the temporary or chronic food shortage, as a consequence of forced displacement
- Increased Morbidity and Mortality: the health level of the displaced may deteriorate after the involuntary resettlement
- Loss of access to common property and services: the access to common property and service
 of the previous community will be lost, which significantly causes the impoverishment of the
 most vulnerable groups
- Social disarticulation: both the original social relationship and the claim on personal ties may be lost after the displacement
- Differential impact: due to the different sectors, locations, circumstance of resettlement as well as different categories of resettlers, the impacts to the displacees differs greatly. Women and children usually suffer the most adverse effects, such as inequity and interruption of schooling. (Michael Cernea, The Risks and Reconstruction Model for Resettling Displaced Populations, 1997)

Psychological impact to the evictees

Beside impoverishment, various serious psychological impacts are likely to be caused by the practice of eviction. At individual level, forced eviction can lead to an increase in anxiety, depression and suicide (COHRE, 2008). Moreover, as stated in the Newsletter No.15of Asian Coalition for Housing Rights, evictions are especially scary for children, since they produce threats to routines and stability which are indispensible for children's development and can

trigger severe developmental and emotional trauma.

Risks in rural communities

Massive displacement induced by the construction of large development programs, conservation and tourism programs, land alienation together with limited access to essential services and infrastructures, is to a considerable extent contributing to the housing crisis in rural communities. It is pointed out that these kinds of developments are mostly aimed at either exploring resources for urban industrialization or building elite refuges from that urban industrialization. "In both instances, the rural poor are forced to pay an often hidden price to subsidize the lives of the urban elite." (COHRE, 2008, pp. 14)

Social impact

COHRE also referred to "an increase in poverty and a severe increase in social stress, which can lead to large-scale societal conflict" (Success and strategies: responses to forced evictions, 2008) as the social impact of eviction. Numerous tragedies and social conflicts brought about by involuntary resettlement have been witnessed all over the world, and the stability, equity and justice of the society is relatively under threat.

2.4 Alternatives of forced eviction

Considering the impact and characteristics of DFDR, eviction and involuntary resettlement discussed above, a great number of scholars and international organizations have developed diverse strategies, alternatives and solutions that can be applied according to various specific situations. For instance, Guggenheim and Cernea (1993) stated that solutions to meet the needs of DFDR must meet immediate needs until people can return home, due to its permanent impact. In terms of solutions for avoiding forced evictions, COHRE outlines several strategies from multi-dimensional point of view, which are categorized as legislation and policy that governments can implement and enforce to ensure tenure security, providing housing to the poor through a diversity of strategies including "in-situ upgrading, rapid land release programs, provision of credit, supporting savings schemes, subsidizing building costs and rentals as well as building new housing", community organization and NGO participation especially in terms of developing and producing viable alternative plans, land sharing involving the redistribution of the land both for on-site resettlement for the original residents and the development plan of the landowner, and invoking international and regional legal remedies (COHRE, 2008, pp. 15-18).

The alternatives to eviction have been discussed in numerous literatures regarding the situation of various countries, most of which providing similar alternatives with complementary interpretations. Focused on Asian countries and holding the belief of "almost all the eviction is preventable and negotiable", the UN-HABITAT and United Nations ESCAP (2008) have outlined a number of alternatives which has been effectively implemented in the developing countries and achieved satisfactory objectives. According to the UN-HABITAT and United Nations ESCAP, the alternatives have been categorized as: 1) secure tenure and on-site upgrading to preserves the original residents in the same place and provides them with proper

tenure rights, including community upgrading which activate the strong ability of the community to turn their dwelling place into tidy, healthy and charming areas by providing tenure and basic service, pro-poor policy at the top for slum regularization, upgrading at the bottom for community built infrastructure through the corporation of the developer as well as the community, and the provision of collective tenure; 2) land sharing which compromisingly divides the land and allocates a small part to the poor-community for resettlement; 3) resettlement participated by the communities, NGOs and residents, which involve the communities in the whole process including "house design, settlement layout and the right to an economically viable and acceptable relocation site." (UN-HABITAT and United Nations ESCAP, 2008)

2.5 State obligation, international guidelines and minimum standard for unpreventable forced displacement

2.5.1 State obligation

When forced displacements are not preventable and no alternative is available, a series of state obligations should be fulfilled in terms of forced displacement, including general obligations of refraining from domestic and extraterritorial violation of human rights, preventing other parties within control from violating human rights, taking preventive and remedial steps to uphold human rights, providing assistance to those whose rights have been violated (United Nations, Basic Principles and Guidelines on Development-based Evictions and Displacement , 2007) as well as ensuring the evictions under international law and held by the States, and specific obligation of maximum effective protection, prevent homelessness, adopt appropriate measure of law and policy as well as expropriate only as a last resort (United Nations, Comprehensive Human Rights Guidelines on Development-Based Displacement, 1997). According to United Nations, implementing the obligations, the state should:

- Only allow evictions which meet the following conditions---authorized by law, carried out
 in accordance with international human rights law, undertaken solely for the purpose of
 promoting the general welfare, reasonable and proportional, regulated so as to ensure full
 and fair compensation and rehabilitation, as well as carried out in accordance with the
 present guidelines
- 2. Adopt legislative and policy measures to ensure the entities' obligation of respecting international human rights is full filled
- 3. Mobilize the maximum of available resources to ensure the equity of enjoying adequate housing by all
- 4. Prevent discrimination, statutory or otherwise, which affects the human right to adequate housing
- 5. Providing effective legal protection to the evictees including those without formal titles
- 6. Ensure women and children's equal rights to adequate housing
- 7. Integrating binding human rights standards to international relations (United Nations, Comprehensive Human Rights Guidelines on Development-Based Displacement, 1997)

2.5.2 International guidelines

2.5.2.1 The international definition of the rights adequate housing

ICESCR General Comment 4 (1991) defined the right of adequate housing which should be respected in forced displacement and resettlement projects as follows:

- The right to legal security of tenure
- The right to availability of services, materials, facilities and infrastructure
- The right to affordability
- The right to habitability
- The right to accessibility: adequate housing resource must be accessible, especially for the disadvantaged group
- The right to appropriate location
- The right to cultural adequacy, in terms of the maintenance of cultural identity and housing diversity.

2.5.2.2 Minimum standards of unpreventable forced evictions

According to United Nations' basic principles and guidelines on development-evictions and displacement, several minimum standards of the activities prior, during and after the eviction should be met to ensure the international human rights of the displacees are protected.

Prior to the displacement, there should be adequate notice to the potential affected population, effective dissemination, a reasonable time period for public review, opportunity and efforts to provide legal and technical advice and support, holding of public hearing to ensure the resettlers have the chance to challenge the decision and propose alternatives, full exploration of all the alternatives, demonstration that the eviction is not avoidable and obeys the international laws of human rights, effective extension of opportunities for dialogue and consultation, opportunity to claim compensation for document non-monetary losses, alternative housing as close as possible and reasonable resettlement measures (United Nations, 2007, Basic Principles and Guidelines on Development-based Evictions and Displacement).

During the displacement, the government officials must be present, observers should be allowed, women should be prevented against violence and discrimination, children should be protected, the legal force can only be proportional used in situation of extremely necessary, eviction must not take place in inclement weather, at night, during festival or religious holiday, election and exams, and the displacees should not be forced to demolish their own houses (United Nations, 2007, Basic Principles and Guidelines on Development-based Evictions and Displacement).

After the eviction, there should be immediate compensation and sufficient alternative accommodation and restitution, ensuring the displacees have safe and secure access to essential food, basic shelter and housing, appropriate clothing, essential medical services, livelihood sources, fodder for livestock and access to common property resources previously depended

upon, as well as education and facilities for the children. Meanwhile, women should be allowed to participate equally, special attention should be paid to the health needs of women and children, the continuous of medical treatment, and the protection against diseases. In addition, the resettlement site must meet the criteria of adequate housing, which has been mentioned before (United Nations, 2007, Basic Principles and Guidelines on Development-based Evictions and Displacement).

2.6 Causes of the failures of resettlements

Chris de Wet sees two broad approaches to the question "why resettlement frequently go wrong?", which are identified as the Inadequate Inputs approach and the Inherent Complexity approach. The former holds that lack of proper inputs including "national policies and legal frameworks, political will, funding, pre-displacement research, careful implementation and monitoring" lead to the failures of resettlements, and the approach optimistically assume that proper policies and implementations can manage and alleviate the crisis and trauma of resettlement. On the other hand, the Inherent Complexity approach claims that in resettlement a complexity which is inherent in "the interrelatedness of a range of factors of different orders: cultural, social, environmental, economic, institutional and political-all of which are taking place in the context of imposed space change and of local level responses and initiatives". (de Wet, 2006) The approach pointed out that these changes are occurring at the same time in "an interlinked and mutually influencing" process of transformation, affected by and react to imposition from external power together with initiatives of local actors. It draws the conclusion that the relocation procedure emerges out of the complicated interaction of all the factors through ways which are "unpredictable and unnamable to a linear-based and rational planning approach". (Anthony Oliver-Smith, 2009, pp. 13)

While defining successful resettlement as achieving not just a minimal restoration of pre-displacement levels, but also a significant improvement in displacee's livelihood, above their pre-project level, Michael Cernea concluded that only a extremely small percentage of the displacees are resettled successfully, for example, merely 33% percent of the displaced are identified as resettled well. Quoting an anguished question---"Why we so often fail to resettle displaced people decently and equitably despite everything we do?", considering the resistance from NGOs and grass roots communities against the development paradigm that causes dispossession, impoverishment, de-capitalization and social injustice, Cernea (2008, Can compensation Prevent Impoverishment, pp. 1-6) pointed out that the current compensation and resettlement policy needs to be reformed as a way out. Accusing the nature of wealth-extraction and transfer, cost externalization to the poorest, and the rationale of development-project towards project benefit rather than poverty production, Cernea calls for 2 facts that should be taken together—scrutinize the design and organizational framework of projects involving IR, the economic evaluation of resettlement and the adequacy of financial remedy applied to the economic injustice of displacement: compensation.

Cernea also pointed out that since resettlement was considered a project within project or a component in many cases due to its different nature, limits, "extraordinary burden" and its

service function rather than development function, which leads to the insufficient activities and resources, various constraint and few synergy. "These components are not afforded an independent operational project status, the full managerial capacity and the full set of due diligence preparatory activities and economic and financial analyses, plus budget, which they could receive if the same process was carried out as a development project standing on its own" (Michael Cernea, 2008, pp. 29). Consequently, he suggests the internalization of resettlement and changing the inadequate component status with introducing 1990 World Bank policy of processing and implementing resettlement in parallel with the investment project that caused the displacement. Besides, a series of absent analysis which leads to the defective economic evaluation and budgeting are identified as follows: inadequate or absent analysis of income loss and of resettler's income curve over time; inadequate valuation of expropriated assets and of compensation calculation; absence of distribution analysis and benefit sharing mechanisms; cost externalization; risk analysis (sui generis) as well as inadequate budget.

Cernea (2008, Can compensation Prevent Impoverishment, pp. 38-43) indicated another factor which contributes to the frequent failure of resettlement, which is the limit of CBA (Cost Benefit Analysis). Since CBA is a general analysis for the entirety and assess the overall effect of the project, differential weights are not applied and the issue of distribution was not considered within the analysis and the decision made according to it. In a word, CBA doesn't cover where the gains and losses exactly go to, which allows the affected population becoming total losers in some fully CBA-validated projects, and leads to the common situation that developments are implemented at the expense of the poor.

Distorted compensation is also leading to the failure of resettlement all over the world, Cernea identified several distortion clusters of compensation (Michael Cernea, 2008, pp. 49-56):

- Distortion in inventorying losses
- Distortion in the valuation of condemned assets
- Calculating replacement costs
- Conveying and timing of payments
 - 1. Under-compensation because of incomplete inventory of condemned assets (Reddy 2006; Parasuraman 1999; Mahapatra 1999)
 - 2. Arbitrary, market-defying valuation of assets, with consequent partial-or non-replacement of lost assets (Scudder 2005)
 - 3. Eligibility problems including exclusion and discrimination (Cernea and Schmidt-Soltau 2006)
 - 4. Non-counting of intangible losses, such as informal income (Perera 2003)
 - 5. Significant population segments lacking land are exclude from compensation as means for productive re-establishment (Dhagamwar, De, and Verma 2003)
 - 6. Inadequate compensation means (Scudder 2005)
 - 7. Time-lag in disbursement of compensation to people left assetless aggravating pauperization, food insecurity, morbidity (Guha 2007)
 - 8. Pre-compensation siphoning-off illegitimate "taxing" and subtraction by corruption
 - 9. Prices increase after compensation payments which reduces purchasing power
 - 10. Inexperience in cash handling causes misuse of compensation leaving the displaced

• Weak grievance system and difficult legal resources

2.7 The analytical tools for assessing the disrupted assets and mobilizing the vulnerability-reduction assets

To identify and examine the assets and ability of the displaced low-income population in terms of responding to the impact, managing the assets and mitigating the vulnerability, the asset vulnerability framework developed by Moser and the livelihood framework developed by Rakodi will be introduced below, as analytical tools to identify what assets and management ability do the displacees have, what assets of them are threatened or taken way by the displacement, to what degree can they be motivated and contribute to their livelihood reconstruction and how to improve their opportunity and facilitate them to improve their life quality sustainably after the redevelopment.

Realizing the limitation, impracticality and ineffectiveness of the traditional income/consumption poverty-measurement approach in terms of examining less visible and familiar elements as well as requirement for effective and participatory interventions to facilitate the poor to improve their opportunity, eliminate the obstacles and respond to crisis and environmental deterioration, Moser developed the asset vulnerability framework to cover the whole complexity and reality of poverty, to examine the poor's possible response to deterioration as well as to provide an analytical tool for poverty reduction intervention to the vulnerable displacees.

According to Moser (1998, The Asset Vulnerability Framework: Reassessing Urban Poverty Reduction Strategies), shifting the concentration to "what the poor have" and their response to crisis and sudden stress, an asset vulnerability framework with 5 assets including labor, human capital, productive assets, household relations and social capital, has been developed to illustrate their management of the asset profile, which was applied in urban studies within several developing countries. As the most effective approach for the poor households to cope with deteriorating economic context, increasing labor force through engaging women and children in working and income generation as well as relying on remittances is frequently used, which leads to the unbalanced responsibility and heavy burden of women, reduction of future earning capacity due to lack of children's education and weakening family relationships as long term side effects. To a large extent depends on infrastructure and services such as education, water supply and health care, human capital enables the poor to apply their knowledge and skills productively, thus the loss of access to public infrastructure and service increase vulnerability. Identifying the productive assets of the poor, housing has been considered as the most significant income-generating assets besides its basic function of shelter. With available spaces for renting and home-based enterprise, housing contributes considerably to the reduction of vulnerability. One of the invisible assets in the framework, household relations, has been demonstrated to influence the vulnerability of individuals through the household structure and family cohesions, which affect the ability to expand labor, diversify or join income and resources, share strategies and services. There are a variety of restructurings which are likely to increase or reduce the vulnerability, including increasing women headed

households and extended households as well as restructuring to reduce "gender and age related vulnerability". Nonetheless, there is also inequality produced by this kind of assets such as increasing and disproportionate working hour of women, and the social costs such as absence of supervision and guidance to children as well as conflicts and violence. The stock of social capital also plays a significant role in reducing vulnerability, since the reciprocal relationships, community cohesion, social network and cooperation have great potential to improve the ability to respond to crisis. Besides, CBOs, collaborative and horizontal consolidation are able to increase social capital.

Complementary to the assets vulnerability framework, the livelihood framework introduced by Rakodi seek to address some limitations of the money-metric understanding of poverty and the indications, meanwhile, it also focus on the process of impoverishment, increased welfare, exclusion or inclusion (Rakodi, 2002). Rakodi introduced the framework based on the concept and explanation of household strategies, poverty, deprivation and well being, composition of the framework, vulnerability, policies, institutions and processes, livelihood opportunities and outcomes, as well as sustainability.

Chambers and Conway had indicated that the strategy of households is dependent on both the assets held and the household's ability to seize and use the livelihood assets. Rakodi (2002, Urban Livelihoods: A People-centred Approach to Reducing Poverty, pp. 6) identified the main aims of households' strategies as: "to cope with and recover from stress and shocks, to maintain or enhance capability and assets, and to provide sustainable livelihood opportunities for the next generation". The most notable and innovative advantage of the "strategy" concept is that it restored agency to poor people, instead of regarding them "merely as passive victims".

The livelihood framework was illustrated as a pentagon consists of five elements, human capital, social capital, physical capital, financial capital and natural capital, influence by the context including the sources of assets insecurity, policies, organizations and their relationship with the individuals. Human capital refers to the available labor resource of households, including its quantity which depends on the household members and their available working time, and its quality which is decided by the education, skills and health condition of the members. Social and political capital is defined as "the rules, norms, obligations, reciprocity and trust embedded in social relations, social structures, and society's institutional arrangements, which enable its members to achieve their individual and community objectives" (Narayan, 1997). Including the social network and political environment, social capital varies over time and spaces and can be damaged by repeated shocks. Physical capital mainly refers to households' productive assets, such as equipment, tools, goods and stocks, which is extremely significant for household to maintain the livelihood and to generate incomes. Financial capital is an indispensible asset for survival, thus the ability of households to "accumulate and access the stocks of financial capital" and to mobilize it for consumption, business and investment in productive assets is extremely essential. As for the residents dependent on natural resources such as farmland, including both the residents in rural area and in urban villages, natural capital is not only the asset for income generation, but also the basis for food, water and energy supply. Generally speaking, the five capitals are to a large extent interrelated and influencing each other. Moreover, the availability of the assets influences the improvement of its well-being. Rakodi (1999, A Capital Assets Framework for Analysing Household Livelihood Strategies: Implications for Policy) identified the variety of households' options to manage their assets as below: "investment in securing more of an assets, as a way of ensuring long-term security, a hedge against uncertainty and a means of generating more, or more diversified, flows of income or production; substitution of one asset for another; disposal to compensate for a consumption shortfall or to release funds for investment; or sacrifice of the ability to access and utilize an assets in future, because of short-term shocks of stresses".

Through explaining and addressing the issue of vulnerability, CARE distinguished three approaches, namely provision, protection and promotion. Drinkwater and Rusinow pointed out that while provision of assistance in emergency, which is a short-term solution, mainly deals with symptoms, and protection by preventing insecurity, assets erosion or assisting the reconstruction, mainly tackles the immediate impoverishment, only promotion is a sustainable and long-term solution which focuses on the fundamental causes of insecurity and vulnerability, with the purpose of construct and consolidate the household's asset base to enlarge the range of their options and improve their sustainable resilience.

Sustainability, which refers to not only continuous poverty reduction, but also environmental, social and institutional sustainability, is regarded by DFID to be the "core concept" within the livelihoods framework applied in the rural area. Although the concept itself was considered to be programmatic, sustainability development in urban context may be interpreted as meeting citizens' economic needs, social, cultural, environmental and health needs as well as political needs while minimizing environmental and ecological costs. Most important, Scoones defined sustainability in terms of livelihood as a livelihood which can "cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base" (Scoones, 1998).

According to Rakodi, operating a livelihoods approach includes both direct support to assets and support to the organizations, policies and processes that "influence access to assets and the livelihood strategies open to poor people". There are also three types of activities identified by Rakodi, which are enabling actions to improve the context, inclusive actions to promote equal opportunities and services as well as focused actions concerning the direct needs of the poor.

2.8 Limitations and complementarities of compensation

Involuntary resettlement policies tend to assume that the once ex-ant payment is a "just" compensation and expect it to improve the income and livelihoods of the displaced population; and planners tend to favor them as those policies are "efficient". However, Cernea argued that the so-called "just compensation" is inadequate and unable to improve displacee's lives compared to pre-project level, which has been demonstrated by numerous resettlement projects all over the world, even those "good" resettlements with improvement-oriented generous compensation.

Cernea believes that compensation, which is the only financial resource allocated to the displaced for their reconstruction in most of the cases, could not provide financial platform for full economic recovery and leaves a financial gap. The concise explanation of the inadequacy of compensation is that it is a mere restitution rather than an improvement tool. Since the concept of compensation is understood as a simple restoration of what has been taken, in order to recover the displacee's livelihood to the pre-project level, it contains no effective component, mechanism and extra budget for the improvement. In addition, overlooking the time taken by resettlement, the possible self-improvement during the period without the project is also ignored, while the non-affected population keeps on progressing. Cernea indicated the illogicality of the situation, while the non-affected population and the developers are benefiting from the major development projects, the displaced, de-capitalized, imposed with opportunity cost and sacrificing group, can only receive the basic restitution or even be worse-off; besides, the mere "taking" rather than investing and improving resettlement model does not match the general development objective of poverty reduction as well.

To prevent the displacees from impoverishment, Kanbur proposed a generalized safety net, by injecting massive incremental financing in the re-establishment of the displaced population as a safeguarding approach.

Besides, in order to ensure the displacees not disadvantaged by the limitations of compensation alone and of incomplete restitution, Cernea proposed a decisive shift to development investments in resettler's livelihood, and reform of the norms, levels, and mechanisms of compensation. Comparing to the voluntary resettlement projects in which the resettlers receives considerable investment to reconstruct and improve their livelihood level and ended up better-off, Cernea suggest that the same concept of investment, as ear-marked financial resource additional to compensation, should be applied in involuntary resettlement equitably, thus the displacees who are sacrificing for development can be enabled to improve their life and catch up with the unaffected group.

In addition, Cernea also suggested the benefit-sharing approach to allow the displaced to be a part of the beneficiaries; he believes that the perverse socio-economic pathology can be mitigated by "deliberately channeling and targeting with priority parts of the development's benefits to adversely affected population" (Cernea, 2008, pp. 18). Several forms of benefit sharing were introduced, including:

- Revenue sharing through royalties
- Development funds
- Equity sharing
- Tax redistribution
- Preferential rates and fees

2.9 Reconstruction livelihood and reversing the risks

Cernea believes that the adverse effects cannot be eliminated merely through cash compensation for lost assets, only the cooperation between all stakeholders can achieve the

development of the displaced population. Besides, although the state is obligated to reestablish the livelihood of the displacees with its available resources, it is not realistic to implement the reconstruction through a "top-down paternalistic" approach, thus the initiatives and involvement of the resettlers is an indispensible component. In a word, the displaced population should be adequately facilitated and enabled by the government to reestablish their livelihood sustainably.

Based on the 9 impoverishment risks, Cernea (The Risks and Reconstruction Model for Resettling Displaced Populations, 1997) suggested the reconstruction model as below:

- From landlessness to land-based reestablishment and from joblessness to reemployment Through providing equivalent land, land recovery, crop intensification or improvement, diversifying agricultural activities, and making full use of sources generated by the project, such as reservoirs in this specific case, to recover or regenerate the agricultural activities and create new employment are extremely essential to mitigate the risk of landlessness and pursue development of the displaced in the long run.
- From homelessness to house reconstruction

The most feasible, simple and frequently used method is to improve the condition of the shelter, through various activities such as increasing the shelter size, connecting to public services and infrastructures, improving the materials and creating public spaces. Incremental construction can also be adopted as an enabling and affordable solution for the displacees.

- From social disarticulation to community reconstruction; from marginalization to social inclusion; from expropriation to restoration of community assets
 The reintegration with the host population, community reconstruction, formation of new social units, compensation to the community assets and psychological recovery, as significant dimensions, should be taken into consideration and combined for synergy in the reconstruction process.
- From food insecurity to adequate nutrition; from increased morbidity to better health care Health condition and nutrition level is decided by and can be improved with the long-term economical recovery of the resettlers, nonetheless, since displacement always bring about sudden and unpredictable impact and disruption on the affected population, especially the most vulnerable groups such as children, the elderly and pregnant women, there is a great necessity for mechanisms of immediate counteractions such as food aid and allowance. In the long run, the priority should be given to enabling and promoting sustainable adaptation and progress through education and other assistance.

2.10 Literature review related to the specific context of China

The Chinese hukou system

Hukou, the resident permit system in China, not only distinguishes the identity of residents in different cities, but also divides the citizens into urban residents and rural residents. Although

considered as an efficient tool for administration, the system generated large difference on rights, land ownership, access to housing, service and employment, tax and other aspects among citizens with different hukou, bringing about both constraints and priorities. The identity of residents living in urban villages varies in different cities and location; nonetheless, most of them, including the targeted urban villages along Tianzhong Lake, are categorized in rural hukou.

The major distinction between rural and urban hukou is that rural hukou enables individuals to get access to land and share the collective land ownership, while citizens with urban identity can only enjoy a land lease with the state. However, there is also certain restriction which to a large extent hinders the rural residents obtaining access to urban housing and employment.

Definition, evolution, characteristics and redevelopment of urban village in China

Urban village in China, also called "village in city", "chengzhongcun" or "villages encircled by the city", was a unique phenomenon different from the cases in the Western and other developing countries. They appeared and developed with the birth and development of the city, and located in both the outskirt and the downtown segments of the city (Pu Hao et al, 2011, pp. 218). Due to the land ownership system, inaccessibility of peri-urban land and the government's intolerance towards informal, the option of squatting has been substituted by accommodation in urban villages for both the rural migrants and indigenous low-income residents. Urban villages are identified as rural villages which have been embraced by urban districts (Zhang, Simon, Zhao and Tian, 2003). According to L.ZHANG et al, the formation of urban villages---"the slum-like settlements in parts of cities", is a product of a spatial outcome of self-help in housing in the specific context in China. The physical and socio-economic evolution of urban villages is demonstrated to be a natural and logical response of the indigenous village population and the rural migrants in facing rapid economic development and social transition (Pu Hao et al, 2011). On the other hand, Song, Zenou and Ding believe that both the intensive urbanization and the land policy in China contribute to the formation of urban villages. Since the rural communities enjoy collective ownership of the rural land, which are classified as farm land and housing land, in the urban expansion and development, the government tend to acquire only farm land to prevent compensation for farmers housing and resettlement, thus the peasants remained, kept their rural hukou and still hold the tenure for the rest of the rural land. As a consequence, urban villages are formed after land expropriation (Yan Song, Yves Zenou and Chengri Ding, 2008).

According to Pu Hao *et al*, since the administrative system in China defines the different ownership and land acquiring system for urban neighborhoods and village communities; while urban land is owned by the state and rural land is collectively owned by the communities, residents with rural hukou are provided with free access to land and the power of autonomous management. Meanwhile, the peasants' construction are much more easily approved from lower level government and less intervened by the urban planning control, sometimes the rural residents even start building without obtaining any permission. As a consequence, the villagers tend to incrementally invest in their houses not only for improving their own living standard and accommodating the expanded family, but also for generating incomes by running small

scale home-based business and providing rental rooms for migrants. In a word, enabled and motivated by the land administrative system, the villagers has put large investment into their houses and consider it a significant assets to improve the livelihood. Pu Hao *et al* (The development and redevelopment of urban villages in Shenzhen, 2011) also pointed out that due to the low cost and brief process for indigenous resident in urban village to construct and expand their houses, the rental houses provided by them became an affordable, well-located and realistic, thus the first housing choice for some rural migrants, who are both largely required in amount and contributing enormously to the inevitable trend of urbanization.

The redevelopment in urban villages involves three main actors, the government, developers and landlords, with different interests, perspectives and motivations, namely the elimination of unpleasant appearance and social problems as well as the economic benefits for the government, the considerable reward for the developers, and the resistance and reluctance from landlords driven by the profitable properties they own and the long-term revenue and higher property value brought about by the incremental improvement of infrastructures. In a large proportion of the cases, there is limited information transparency and communication thus a huge difficulty in reaching a consensus among the three. Worsening the situation, the migrant tenants as a large related and important group, are extremely powerless in decision making (Pu Hao et al. 2011). Pu Hao et al believes that the demolition-redevelopment approach not only deteriorates the livelihood of migrants and villagers, but also threatens the labor-intensive sectors which are the base of urban economic development. Since the sustainable livelihood of the two most vulnerable groups, namely the landless peasants and rural migrants, are usually neglected by the government, and few strategies are formed to avoid their long-terms pains, the redevelop programs frequently transfer great expense to the two groups, resulting in eviction, enormous losses of assets, higher transport costs and the risk of impoverishment. Furthermore, both the peasants' loss of farmland and the large scale intra-city migration cause by redevelopment impose new pressure to the outskirts and environment condition of the city, in many cases, new substandard accommodation and shelters are created in the periphery as a consequence (Pu Hao et al, 2011).

Definition and problems of Landless peasants in China

Landless peasants, who are also called land-deprived peasants, refer to peasants who hold rural hukous and own less than 200 m² farm lands per capita after the requisition of their land. There are three serious problems related to landless peasants, including the increase on the population of landless peasants triggered by urbanization and large scale of requisition, low compensation as well as the difficulties in re-employment and seeking for social support. Several related statistics are presented as below to demonstrate the significance of the problems, which are listed as: at least 0.3million of farmers became landless peasants due to the industrialization and urbanization during the last 15 years; the population of landless peasants has rose to almost 50million by the end of 2010, and more than 20% of them are suffering from unemployment; 46% of the landless peasants experienced a degradation of livelihood after the resettlement and requisition, many of which are trapped in a situation of lacking productive assets (especially farmland), unemployment, no access to social insurance and limited capital to start up business; the compensation for the requisition of 670 m² land is only 9800 yuan (approximately 950

euro), which is even less than the annual income of a farmer. (Jun Han, 2005, Interpretation of No.1 Central Government Document: Development of rural and urban villages)

The provincial demolition, expropriation and compensation principles

The expropriation and compensation principles and legal framework varies in different province, and the research project is basically based on the provincial standard of Jiangxi.

Compensation standard

According to <2010 Jiangxi Provincial expropriation and compensation standard>, all the displacees with legal tenure will be compensated, except illegal constructions and the overdue temporary buildings. There are two options of compensation, namely monetary compensation and property exchange. When options 1 is implemented, the compensation for per capita housing area less than 50 square meters is calculated according to the market value minus the compensation for land acquisition; however, the per capita housing area exceeded 50 square meters are only compensated according to the construction cost. When option 2 is implemented, the per capita housing area less than 50 square meters can be exchanged for an equal area in the resettlement unit with a payment calculated according to the price difference, the per capita housing area exceeded 50 square meters can be exchange for a unit with the standard of no more than 50 square meters per capita and 350 square meters per household, nonetheless, when the demolished house exceeds the area of the resettlement unit, the extra part will be compensated according to the construction cost.

As for the home-based business, when legal license and tax registration certificate are present, a one-time compensation equal to the sum of three-month minimum wages for all the involved individuals will be provided.

Transition time limit

When housing land is collectively owned by the community, the demolition activities should be arranged after appropriate resettlement in principle. However, when there is no resettlement housing present, the resettlers should be paid with extra allowance for transitional shelter. Besides, there is a transition time limit for property exchange, which is 18 months when the resettlement housing is less than 10,000 square meters and 24 months when it is more than 10,000 square meters.

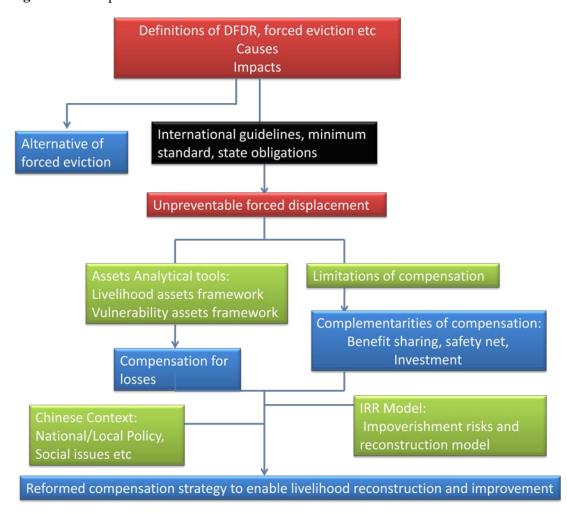
Disputes handling

In case the relocation household and the removers cannot reach a consensus on compensation and resettlement, either of the two can apply for a negotiation through the municipal land management department, and apply for arbitration by the department when negotiation failed. Once the resettlers refuse to move within the arbitrated time limit, the land management department will apply for forced demolition by the people's court.

2.11 Conceptual framework

The figure below briefly illustrates the conceptual framework of the research, providing theoretical guidance for the case study. After introducing the basic definitions, distinctions and typology, as well as causes and impacts of involuntary resettlement, alternatives should be explored comprehensively when available to prevent forced evictions. However when unpreventable and forced displacement have to be carried out after all the international laws, guidelines and state obligations are considered and extreme conditions are met, assets analytical tools are used to evaluate the displaces' loss of capitals thus the corresponding compensation, with the integration of complementarities of compensation. Furthermore, IRR model is applied to both examine the impoverishment risks and identify necessary reconstruction assistance and facilities. In the end, through compensating and recovering the losses, preventing and mitigating the risks, providing and promoting the assistance and facilities for the reconstruction and improvement, as well as integrating with the Chinese context, necessary reforms on compensation policy will be identified to enable the displacees' livelihood reconstruction and improvement.

Figure 1: Conceptual framework



Chapter 3 Research design and methodology

This chapter will present the design of research questions, variables and indicators, the validity and reliability, as well as the methods of data collection and analysis.

3.1 Revised research questions

The main research question of the thesis is defined as:

• How to compensate the displaced population, in order to improve their livelihood?

•

- Supporting the main question, 3 specific questions are listed below:
- Which livelihood assets of the affected population are disrupted by the project?"
- What are the impoverishment risks the displacees are facing and how can they be prevented?
- What assistance and facilities are needed to enable the displacees to reconstruct their livelihood?

3.2 Operationalization

Table 1: Variables and indicators

Research Questions	Variables	Indicators	Questions	Analysis
Which livelihood assets	Human capital	Lost involvement of	What is your family size? How	Qualitative
of the affected		women in labor force	many of them are working?	and
population are			Is there any female family	Quantitative
disrupted by the			members running home-based	(SPSS)
program?"			business or working part-time	
			nearby?	
			Is it necessary for her to stay at	
			home or within touch to take care	
			of your family members?	
			Are they offered with job	
			opportunities within the new	
			neighborhood?	
	Social capital	Loss of membership in	Are you involved in any	Qualitative
		community-based	community based organizations?	and
		associations	If yes, what is your position in the	Quantitative
		Loss of proximity to	organization?	(SPSS)
		relatives and close	Have you received any service or	
		neighbors	assistance provided by the	
			community organizations? If yes,	
			how frequently?	
			Where are you originally from?	
			Do you have relatives or friends in	
			the neighborhood? If yes, will you	

			be resettled together or closely?	
	Physical capital	Loss of house	What is the size/material of your	Qualitative
		Loss of valuable fixed	house? When is it built?	and
		property	Is there any unmovable and	Quantitative
		Extra distance to	valuable belonging in your house?	(SPSS)
		facilities, transportation	Is your resettlement site further	
		and employment	away from your children's	
		Loss of productive	school/hospital/the nearest bus	
		livestock	station/your work place than your	
			current house?	
			Do you own any livestock?	
			Type/number of them?	
	Natural capital	Land acquired	Do you own land in the village?	Qualitative
		Loss of proximity to	How many square meters? Are	and
		environment resources	there crops on it currently?	Quantitative
			Are there any forest/ fishponds	(SPSS)
			nearby that you can collect	(2222)
			resources? Will they still be	
			available when you are resettled?	
	Financial capital	Loss of home-based	Do you have a stable monthly	Qualitative
	i manetar capitar	business	income? What is your average	and
		Loss of informal	monthly income? What is the	Quantitative
		business	average monthly income of your	(SPSS)
		Loss of income from	family?	(SI SS)
		the community-based	What is the annual consumption	
		enterprise	cost of your family?	
		enterprise	Where do you work? What is your	
			job?	
			Does your family run any	
			home-based business?	
			Are you renting some of your	
			rooms out?	
			Is your work unit owned by the	
			community? Will it be maintained	
			after the resettlement?	
			and the resettlement!	
What are the	Landlessness	Contribution of land in	How much are you making from	Qualitative
impoverishment risks	Landicssiiess	previous income	your land every year?	and
the displacees are		Availability of	Are you provided with any	Quantitative
facing and how can		agricultural land on		(SPSS)
_		resettlement site	agricultural land on your resettlement site?	(3133)
they be prevented?		resettiement site	resettiement site!	

Homelessness	Availability of legal	Are you the owner/tenant/lodger	Qualitative
Homelessness	ownership	in your house?	and
	Availability of	•	Quantitative
	resettlement site	elsewhere?	(SPSS)
	Affordability of the	Are you provided with	(51 55)
	resettlement site		
	resettiement site	resettlement site? How many alternative resettlement sites are	
		you provided with? What is the size of it?	
		What is the price for your	
T 11	D' 4	resettlement site?	O that
Joblessness	Distance to	What is the distance between your	Qualitative
	employment	resettlement site and your work	and
	opportunity	place? Is there any convenient	Quantitative
	Education level	transportation?	(SPSS)
	Availability of	What is your education level?	
	non-agricultural skills	What is the highest education level	
	Availability of side job	of your family?	
		Do you have any side job? What is	
		it?	
		Are you trained for any	
		occupation? What specific skills	
a		do you have?	0 11 1
Social	Geographic connection	Is there any friends or relatives of	Qualitative
disarticulation	with relatives and close	yours living in or nearby the	and
	neighbors	resettlement site?	Quantitative
	Living period in the	How long have you been living	(SPSS)
	original site	here?	
	Distance between	How far is it from your	
	resettlement site and	resettlement site to your current	
	original site	site?	
	Loss of membership in	Integration with previous question	
Marginalization	social associations	What is the modest min- of	Qualitativa
Marginalization	Income-gap with host	What is the market price of your resettlement site?	Qualitative
	population in resettlement site		and
		How many residents will there be	Quantitative
	Status and influence	in your resettlement community?	(SPSS)
	decline within		
E. dia 2	community	T. dham	O-diad
Food Insecurity	Vulnerable family	Is there pregnant	Qualitative
	member (Pregnant	women/infant/the elderly/patient	and
	women, infant)	in your family?	Quantitative
	Dependency on food	Do you grow vegetables /keep live	(SPSS)
	self-feeding	stocks for self-feeding in your	

			current site?	
	Increased morbidity and mortality	Availability of medical care facilities on resettlement site Psychological trauma and social stress Availability of health-related service	Are there any hospital/clinic/pharmacy in your resettlement site? Are you satisfied with the compensation standard or the resettlement policy? Is the resettlement site affordable for you? Do you feel worried about the future after the resettlement? Do you have free access to psychological therapy? Do you have access to drinking water/ drainage system/ separate in-door toilet/ solid waste collection after the resettlement?	Qualitative and Quantitative (SPSS)
	Loss of access to common property and services	Loss of shared common facilities Availability of public service on resettlement site	Do you have access to any common property in the villages? (Well/fishpond/pool/ playroom/play ground etc) Do you have access to the public facilities in the new resettlement site? (Playroom/ swimming pool/playground etc)	Qualitative and Quantitative (SPSS)
What assistance and facilities are needed to enable the displacees to reconstruct their livelihood?	Land-based reestablishment and reemployment	Aquaculture promotion Training Education Tourism promotion Access to storefronts in the community Entrepreneurship funds or tax reduction	Do you or your family have any skills for aquaculture? Are you working currently? Will your job be disrupted by the resettlement? Integration with previous question Are you willing and capable to receive any training of skills? What kind of skills? How many children do you have? How many of them are at school age? How many are at school? Will their schooling be interrupted by the resettlement? Are you willing and capable to work in tourism-related occupations or operate any tourism-based business?	Qualitative and Quantitative (SPSS)

			(Reception, waiter, souvenir	
			shops, restaurant)	
			Does your family have access to	
			any storefront in the resettlement	
			site?	
			Does your family have any	
			savings? Is it enough and available	
			for you to create your own	
			business if you need to?	
	House	Access to housing	Does your family have stable	Qualitative
	reconstruction	mortgage	monthly income? What is the	and
	reconstruction	Access to secure tenure	average monthly income of the	Quantitative
		Improvement of house	entire family?	(SPSS)
		material	Will you get legal document for	(2122)
		Space for garden	your ownership of the resettlement	
		Access to infrastructure	unit? Did you get official promise	
		and service	of not being displaced again?	
		Connection to	What is the material of your	
		transportation	resettlement house/apartment?	
		uunsporuuron	On which floor do you prefer to	
			live? Are you willing to grow any	
			plants in a garden or roof garden?	
			Are the basic infrastructures and	
			services available in the	
			resettlement site? Which	
			additional service or infrastructure	
			do you expect?	
			How do you go to work? How do	
			your children go to school? Is	
			there any bus station near your	
			resettlement site?	
-	Community	Availability of legal and	Are you aware of all your legal	Qualitative
	reconstruction,	political consultancy	rights and the government's	and
	social inclusion	Access to public	obligation before, during and after	Quantitative
	and restoration of	facilities (School,	resettlement?	(SPSS)
	community assets	supermarket)	Is all the resettlement and	(22)
	40000	Availability of public	compensation standard, planning	
		space	and regulations clear to you?	
		Registration to social	Which facilities below are	
		welfare system	considered indispensible for your	
		Proximity to previous	family and should be presence in	
		neighbors	the resettlement site? Rank them	
		Reestablishment of	please (Kindergarten/clinic/	
		СВО	pharmacy/supermarket/park/	
			r JPolitical Paris	

	Compensation to unrecoverable community assets	square/playrooms/playground/spo rt center/restaurant etc) Which kind of social welfare and insurance system are you registered in? Are you willing to be involved in a CBO in the resettlement site? Is there any community asset disrupted by the resettlement?	
Adequate	Provision of	What is it? Integration with previous	Qualitative
nutrition and	nourishment to	questions	and
better health care	vulnerable families		Quantitative
	Proximity to medical		(SPSS)
	care facilities		

3.3 Sample size and selection

A purposive sample selection according to age and gender will be done within the affected community, taken approximately 10% of the total population:

Table 2: Sample selection

Category	Population size	Sample size
Age 15-64 male	315	32
Age 15-64 female	284	28
Age 65+	145	15

A snow balling approach will be used to select respondents for the in-depth interview with the affected population and for the semi structure interview with the responsible officials.

3.4 Validity and reliability

Several methods will be used in the field work, including in-depth interview, questionnaire survey and semi-structured interview, to try to collect full information, various perceptions and to maintain the objectivity. In order to ensure and improve the validity, a triangulation of focus group discussion, observation and results from secondary data will be used. Besides, the reliability of most of the data will be tested by statistical methods in the software.

3.5 Data collection methods

3.5.1 Primary Data

A purposive sample of 75 residents will be selected out of 800 affected villagers, according to the age and gender group. Therefore, 2 representative samples of male and female between

16-59 years old, and a sample of the elderly above 60 years old will be selected as the respondents of a survey by questionnaire. In addition, several in-depth interview and 2 focus group discussion will be conducted among the affected residents. The researcher will also use observation to ensure the objectivity and try to identify the neglected problems, as well as photograph the situation in current neighborhood as a reference to identify the potential losses.

Besides, several semi structured interviews will be conducted with the related government officials in order to collect the information of objectives and interests of the government as a stakeholder, the implementation of the strategy and to identify the weakness and limitations of current policy.

3.5.2 Secondary Data

Secondary data will be collected from the relevant previous case studies and researches all over the world, a variety of literatures, reports, documents and international guidelines as well as the data from municipal department of construction and housing related to the projects.

3.6 Data analysis methods

The primary, quantitative data obtained from questionnaires will be analyzed by SPSS with an output of graphs, frequency tables as well as statistics on correlations. Besides, the qualitative data generated from in-depth interview and focus group discussion will be analyzed to achieve a better understanding of the priorities and needs of the displacees, and the data collected from literatures and municipality will also be significant to promote cross validation of the research.

Chapter 4 Research findings and analysis

4.1 Introduction

Research data collected from 75 questionnaires, interviews of the affected population and related government officials, as well as results from focus group discussion and the researcher's observation will be introduced in this chapter, meanwhile, information acquired from secondary resources will also be presented. The results are analyzed using SPSS to evaluate different variables and the various interrelationships, especially the 3 category of respondents will be used as a significant independent variable to distinguish the perceptions, demands, fears and threats to different age and gender group, in order to generate feasible, acceptable and tailored recommendations.

4.2 Current condition and policy

Although the influenced 198 families are planned to have been resettled by the end of July 2011, huge resistance from the villagers hindered the process and the negotiation was still on while the research was being conducted.

According to current official document and the interviews, two options of compensation are provided, namely property exchange and cash compensation; specifically, resettlers who select the property exchange option will be compensated at a relatively lower price for their property first, and resettled to the resettlement site about 2.7km away from the village with the condition of purchasing the resettlement apartment at a price of construction cost (temporarily set as 600 yuan/m², approximately 60 euro/m²). Although resettlers are allowed to purchase apartments of the same overall floorage as their influence house, there is a limit of maximum 100 m²/person for each family, and family members who are born against the Birth Control Law----one couple are only allowed to give birth to one child, are not eligible to the resettlement site. As for those who prefer cash compensation, 1400 yuan/m² more than that of the property exchangers' will be distributed to them for the influence house. All agricultural land of the 198 households will be

acquired at the price of 75 yuan /m², and the households will finally receive 39 yuan/ m² after

36 yuan/ m² is excluded as a "collective compensation". Secondly, all houses are categorized into 8 types according to the building structure, material, and current quality; consequently, the compensation standard for property exchangers also varies considerably, which are illustrated in the table below:

Table 3: House types and compensation standard

Type	steel and	1st	2nd	1st	2nd	1st	2nd	3rd
	concrete	degree	degree	degree	degree	degree	degree	degree
		brick	brick	brick	brick	attached	attached	attached
		masonry	masonry	and	and	house	house	house
				wood	wood			
Standard	650	600	570	400	400	270	200	100
Yuan/ m ²								

According to the detailed instructions, questionnaire survey and observation, majority of the

houses in the village are classified into type 3, type 4 and type 5, and almost all households possess attached houses of diverse quality.

Besides, there are also specific compensation standards for certain types of crops, trees, livestock, decoration materials and graves, which will be covered in following analysis as a reference. Generally speaking, the compensation consists of compensation for the overall floorage of the house, compensation for the house land, compensation for the decoration and certain attached property, temporary relocation allowance and a reward for leaving on time (1000-5000 yuan).

In terms of implementation, there is an instruction for the use of forced demolition, which states that when the resettlers strongly resist the implementation of demolition, when the resettlers refuse to accept the compensation standard and sign the resettlement agreement without a proper reason or when the resettlers reject to move before the deadline, forced demolition is allowed in extreme situations. However, no forced demolition has been practiced till now.

4.3 Assets of the affected population

A variety of the households' livelihood assets are examined through both questionnaire survey and the researcher's observation, not only to reveal the visible and invisible losses on the resettlers' investments and possession as well as to evaluate the vulnerability of them, but also to help identify their ability, resources and potential of self- reconstruction and improvement.

Human capital

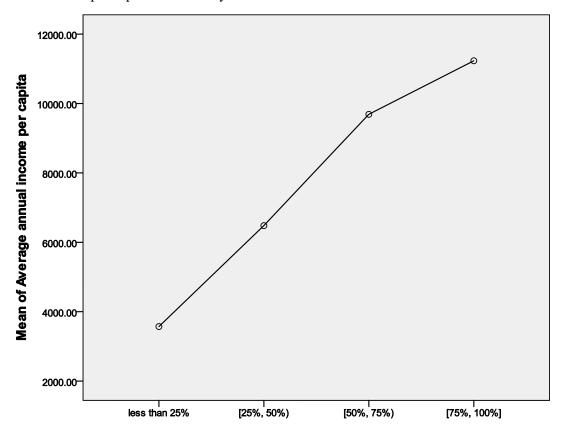
As the major asset of human capital and a vital indicator to assess the potential loss, labor capital has been examined both from quantitative and qualitative aspect. According to the results of the questionnaire survey, the Labor Force Participation Rate within the Family of 75 households is indicated below:

Table 4: Category of Labor Participation Rate within the Family

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	less than 25%	7	9.3	9.3	9.3
	[25%, 50%)	38	50.7	50.7	60.0
	[50%, 75%)	20	26.7	26.7	86.7
	[75%, 100%]	10	13.3	13.3	100.0
	Total	75	100.0	100.0	

As the statistics shows, less than half of the family members are capable to generate income in 60% of the families, which already demonstrates a relatively low involvement of labor in terms of quantity. Furthermore, the influence of labor ratio category on family average annual income per capita, which is one of the most important indicators of family's well being, is analyzed using ANOVA test:

Figure 2: Relationship of Labor Force Participation Rate within the Family and average annual income per capita in the family



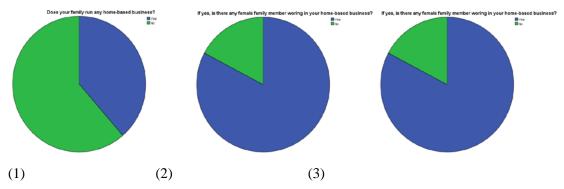
Labor Force Participation Rate within the Family

The significance is proven to be 0.003, demonstrating the per capita income of the households is obviously influenced by the involvement of labor force.

Based on the conclusion above, one most notable and predictable loss caused by the project to the households on human capital, is the lost involvement and contribution of women as labor force within the family after resettlement. Since it is a common phenomenon that households in Tianzhong village own home-based business such as grocery shops, small manufacture and even mini factories producing decoration materials, wine, as well as firecrackers, where a great number of housewives are involved in, there is a large contribution from female labors to the family's total income. However, few of these home-based businesses can still exist after resettlement to apartments; consequently, there will be a notable loss on female labor capital since it is not realistic and acceptable for a large proportion of them, as traditional housewives, to work outside instead of staying home and take care of the family. The hypothesis has been demonstrated by both the interviews and the questionnaire survey, among 38.7% of households who own house-based and home-based business, 82.8% of them admit that housewives and other female labor play roles in their business, and 83.3% of these households confirmed that the female labor involved in are not possible to work outside due to their obligation to take care of the family, children and the elderly. The graphs below shows results from the questionnaire, the blue part in graph (1), (2), (3) show the proportion of households owning home and

house-based business, the proportion of households who have female family member working in the business, and the proportion of involved female labor that are not possible to work outside due to their family obligation, respectively.

Figure 3: Lost involvement of female labor



In addition, the education level, which is considered as an indispensible indicator for the quality of labor capital, is described as follows:

Table 5: Individual education level

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Junior school or lower	41	54.7	54.7	54.7
	Technical secondary school	4	5.3	5.3	60.0
	High school	15	20.0	20.0	80.0
	Junior college	12	16.0	16.0	96.0
	Undergraduate	3	4.0	4.0	100.0
	Total	75	100.0	100.0	

Table 6: Highest education level of the family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Junior school or lower	16	21.3	21.3	21.3
	Technical secondary school	3	4.0	4.0	25.3
	High school	18	24.0	24.0	49.3
	Junior college	18	24.0	24.0	73.3
	Undergraduate	16	21.3	21.3	94.7
	Higher than undergraduate	4	5.3	5.3	100.0
	Total	75	100.0	100.0	

According to the tables, over 80% of the respondents, as representative samples of residents currently living in the village, have not accessed higher education, and more than half of the respondents only completed junior school or lower, indicating a relatively low level of education. Although the highest education level among the family refers to a far better result, most of the well educated are confirmed to be either working in more developed cities or still in the college, thus have relatively limited influence both on reducing the impact of the project and

on long-term livelihood reconstruction of the family, according to more than 80% of the interviews with the indigenous residents. Similarly, the influences of both education level representing the indigenous residents and the highest education level of the families on family average annual income per capita are analyzed using ANOVA test. With a significance of 0.000, the indigenous displacees' education level exerts a huge influence on the per capita income; the highest education level is also demonstrated to have an influence with a significance of 0.003, however not a completely regular and strong influence. The results are displayed below:

Figure 4: Relationship of individual education level and family average income per capita

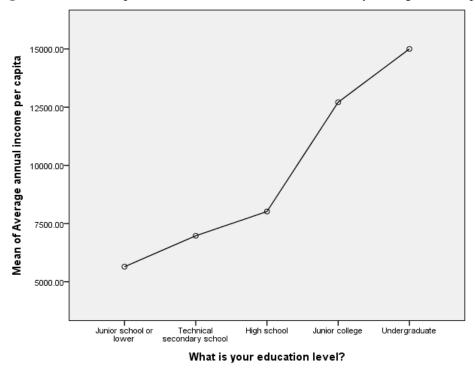
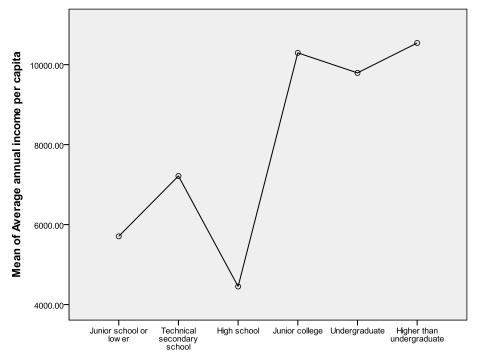


Figure 5: Relationship of highest education level and family average income per capita



What is the highest education level of your family?

Generally speaking, the education level, especially the one representing the quality of labors living on site, which is relatively low, plays an indispensible and decisive role in terms of the households' well being and ability to alleviate the impacts from the project. Regarding the fact that a significant loss on labor quantity will occur after the resettlement as mentioned above, doubtlessly the unoptimistic situation of labor quality will add to the vulnerability of the displacees, which should be taken into consideration comprehensively and requires proper instrument to tackle with.

Social capital

The social capital of the affected population was mainly assessed through the social network within the community, which is frequently broken by the resettlement projects. As stated in the literature review on urban village, the community-based social network in urban villages and rural areas is considered stronger and the relationship within neighborhood is usually more intimate compared to the urban area, which to some extent enlarged the impact of redevelopment project to the residents.

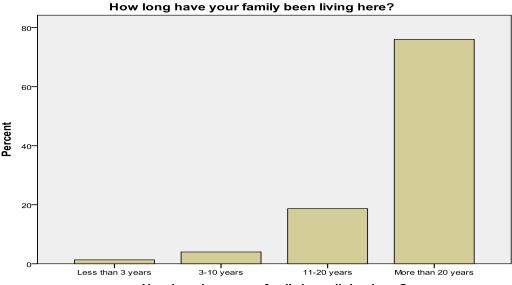


The households' living period in the current site has been included in the survey and regarded as a vital indicator to assess social capital, since a long living period usually enhance the residents' social network and interactions, sometimes from generation to generation. According to the questionnaires, 76% of the families have been living in the village for more than 20 years, which obviously can be considered as a sufficient period to create an extremely dependable and comprehensive social network.

"My family has settled down here for more than 10 generations, I grew up here and have spent my whole life here, it is like a carrier of all my memory. I'm extremely familiar with every creek and tree on this land, know the nick name of every villager, and my ancestors are buried here. I cannot express how much this land and this house mean to me, and I bet that majority of the residents are feeling the same way just like me."

---A remark made during an interview with a 70-year old indigenous resident.

Figure 6: Living period



How long have your family been living here?

Furthermore, just like in the rural areas, proximity to relatives and friends is also a precious social capital asset for residents in a large number of urban villages. Not only the frequent interactions and communications within neighborhood are considered to be a significant portion of social life, but more importantly, the intimate network that the households can claim with and obtain necessary or emergent support is a superior social capital for the residents in the village.

Table 7: Relatives or friends living nearby

					Cumulative	
		Frequency	Percent	Valid Percent	Percent	
Valid	Yes	64	85.3	85.3	85.3	
	No	11	14.7	14.7	100.0	
	Total	75	100.0	100.0		

Table 8: Possibility of resettled together

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	29	38.7	45.3	45.3
	No	35	46.7	54.7	100.0
	Total	64	85.3	100.0	
Missing	999	11	14.7		
Total		75	100.0		

The tables above indicates that up to 85.3% of the displacees enjoy proximity to relatives or friends in the current site, however 54.7% of them will not be able to resettle together according to the resettlement plan announced and the options they've chosen, predicting that up to half of the resettlers will to various extent suffer a inevitable loss on proximity to relatives and friends after the project.

Although involvement in community-based associations is regarded as a significant social capital, and is likely to be affected by resettlement project in many cases, the investigation in Tianzhong Village states a slightly different result. Only 12% of the respondents are involved in community-based organizations or associations, showing a relatively low level of participation and low influence of these organizations, thus the loss of membership after resettlement may not be as serious as expected.

Physical capital

In almost all the cases, there is a huge change and transformation occurred on physical capital of the resettlers after resettlement, especially in rural areas and urban villages. Physical capitals examined in Tianzhong Village mainly covered houses, other valuable properties which are unmovable, productive livestock as well as access to infrastructure, facilities and transportation.

As a result of the resettlers' long-term and even descendent investment and development in the village, most of the families are in a satisfactory house condition, with a considerable overall floorage, sufficient rooms, and constructed with permanent materials. The situation of households' house floorage per capita, room per capita, type of house, and building material are displaced below:

Table 9: House floorage per capita in the family

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	[10,35]	17	22.7	22.7	22.7
	(35,70]	28	37.3	37.3	60.0
	(70,100]	21	28.0	28.0	88.0
	(100,150]	9	12.0	12.0	100.0
	Total	75	100.0	100.0	

Table 10: Room per capita in the family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	(0,0.5]	2	2.7	2.7	2.7
	(0.5,1]	32	42.7	43.2	45.9
	(1,2]	34	45.3	45.9	91.9
	(2,3]	6	8.0	8.1	100.0
	Total	74	98.7	100.0	
Missing	System	1	1.3		
Total		75	100.0		

Table 11: Type of shelter

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Single storey house	1	1.3	1.3	1.3
	2-storey house	59	78.7	78.7	80.0
	3-storey house	15	20.0	20.0	100.0
	Total	75	100.0	100.0	

Table 12: Building material

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Concrete	3	4.0	4.0	4.0
	Brick	72	96.0	96.0	100.0
	Total	75	100.0	100.0	

Seen from the results above, majority of the resettlers are enjoying a relatively comfortable physical house condition, and considerable investment has been made on houses, which also caused a number of villagers complaining about the inadequacy of house compensation; after all, for a large proportion of the houses, the compensation is indeed slightly lower than the market price (for example normally 700-800 yuan/ m² for 1st degree brick and masonry structure as construction cost), creating a considerable loss. Another inevitable and notable loss on house is caused by the regulation of:

"Family members who are born against the Birth Control Law are not eligible to the resettlement site."

Since it is not a rare phenomenon that residents in rural area and urban village break the Birth Control Law and give birth to more than 1 child, especially in the early days when the implementation, supervision and penalty mechanism are relatively week in these areas. As a result, there are a large number of residents who are "born against the law" thus lost the eligibility to their resettlement site, thus bringing a same significant loss to the whole family.

On the other hand, although there are 12% of residents who might lose up to 50 m²/capita after resettlement according to the compensation policy (resettlement site maximum 100 m²/capita), they are eligible to a compensation of approximately 2000 yuan/ m² on it (almost equal to the minimum price on the market) according to the compensation policy, it is reasonable to believe that the impact on them is relatively lower due to both the acceptable compensation and their own condition as most of them are considered better-off residents in the village. In addition, although house was regarded as an extremely important productive asset for a large number of low-income groups due to the potential revenue generated by renting, the researcher was surprised to find out that it is not a issue to be taken into consideration in Tianzhong Village thus not much loss will be caused on it, the reason is illustrated in the graph below:

Table 13: Are you renting your house or some of the rooms out currently?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	5.3	5.3	5.3
	No	71	94.7	94.7	100.0
	Total	75	100.0	100.0	

According to the interviewed villagers, most of the villagers' are not likely to accommodate tenants as strangers might "break the comfortable and trusty atmosphere of a family".

Another significant loss is on certain valuable yet irremovable physical assets, such as wells, historical trees or huge and fixed furniture, especially those not involved in the compensation list (a large number of these assets are indeed not covered and assessed), even the limited assets which are entitled for compensation, there is usually a gap between the real value and the compensation standard since these assets are not considered productive and indispensible. According to the survey, 20% of respondents reported various categories of irremovable physical assets not covered in the compensation list.

Diverse livestock is also considered a contributive asset of the displacees in Tianzhong Village. According to the results of questionnaires, 57.3% of residents own livestock and the possession of different categories are displayed below:

Table 14: Numbers of sheep, pigs and cows

		1/1 6			
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0	26	34.7	65.0	65.0
	1-10	10	13.3	25.0	90.0
	11-20	4	5.3	10.0	100.0
	Total	40	53.3	100.0	
Total		75	100.0		

Table 15: Numbers of chicken, duck and goose

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0	9	12.0	20.9	20.9
	1-10	26	34.7	60.5	81.4
	11-20	7	9.3	16.3	97.7
	21-30	1	1.3	2.3	100.0
	Total	43	57.3	100.0	
Total		75	100.0		

Table 16: Numbers of cats and dogs

	0					
					Cumulative	
		Frequency	Percent	Valid Percent	Percent	
Valid	0	13	17.3	30.2	30.2	
	1-5	29	38.7	67.4	97.7	
	15-20	1	1.3	2.3	100.0	
	Total	43	57.3	100.0		
Total		75	100.0			

Correspondingly, an equal enormous loss will occur to the resettlers after the resettlement since almost none of these assets can be remained after resettlement to the apartments. According to the current policy, both the second and third categories of animals, a possession that should not be ignored, are not included in the compensation list. Besides, even livestock such as sheep, pigs and cows covered by the policy, only 50 yuan can be claimed for each animal, while the market price is approximately over 900 yuan, 1000 yuan and 3000 yuan, respectively.

Although the resettlers' access to infrastructure, facilities and transportation can be changed dramatically after displaced, limited loss related to the issue is caused in Tianzhong Lake project since the resettlement is almost arranged on-site, all the basic infrastructures are present and will be maintained, besides, improvement of basic facilities and transportation are also included in the planning and have already been started.

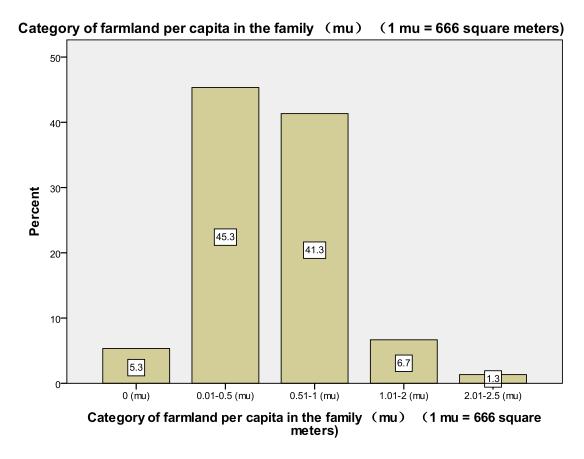
Natural Capital

There is no doubt that natural capital constitutes a vital proportion of livelihood assets for the residents in a great number of urban villages and rural areas, since they always have far more access to nature resources than other citizens. In many cases, natural capitals such as land and ponds are even considered indispensible assets for the indigenous villagers' productive activities and resource collection, obviously Tianzhong Village is not an exception.

Land is examined as the most significant natural capital for the resettlers, and the possession situation is illustrated below:



Figure 7: Farmland per capita in the family (mu) (1 mu =666 m²)



94.7% of households collectively own agricultural land in the village, and 100% of them are planting crops and making use of the land, which convincingly demonstrates the extensive ownership and extreme importance of land as a natural capital to the resettlers. However 100% of the agricultural land owned by the displacees is acquired and no land will be available on the resettlement site, thus it is almost not possible for the villagers to get access to this precious natural asset anymore, generating a series of huge loss and consequent impacts in the long term. In addition, other nature resources such as forests and ponds are also taken into consideration in the research, 100% of the respondents confirmed that there are nature assets from which they can collect resources in forms of cutting firewood, fishing, feeding animals and picking tea seeds, yet they are completely losing access to these assets either because the damage caused by the project or due to the loss of proximity.

Financial Capital

Before exploring and assessing the loss of financial capital for the resettlers, their income level, as a vital indicator to evaluate the financial situation and capital accumulation was surveyed, in order to better analyze the degree of vulnerability and impact of losses. The stability of both individual and family income is illustrated in the tables below:

Table 17: Do you have a stable annual income?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	30	40.0	40.0	40.0
	No	45	60.0	60.0	100.0
	Total	75	100.0	100.0	

Table 18: Does your family have a stable annual income in total?

		1)	V :: 10	Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	29	38.7	38.7	38.7
	No	46	61.3	61.3	100.0
	Total	75	100.0	100.0	

Undoubtedly, it is not an optimistic result that 40% of the individuals and 38.7% of the families don't have stable income and are living in an uncertain financial condition, also implicating a limited ability to tackle with unexpected and sudden transformation or impacts such as resettlement projects. Following the two questions above, the average annual income levels of the respondents as well as their family are surveyed and studied, and the average annual income level per capita within the family is calculated as an indispensible indicator of the financial situation.

Figure 8: Individual average annual income (yuan)

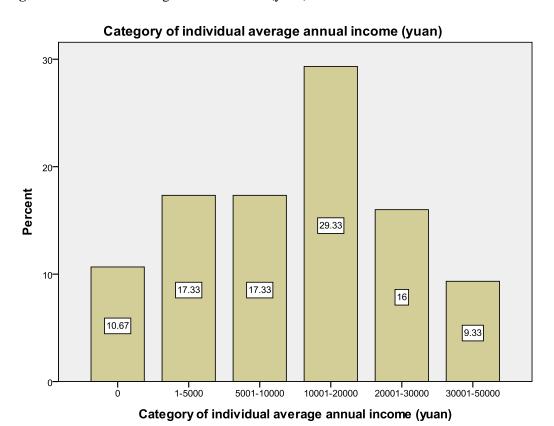


Figure 9: Family average annual income per capita(yuan)

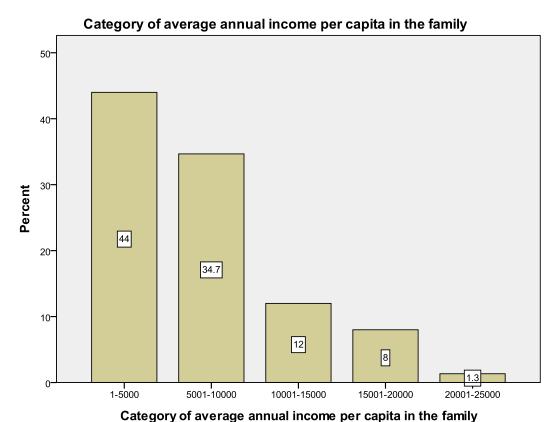


Table 19: Descriptive Statistics of individual and family per capita average annual income (yuan)

	N	Minimum	Maximum	Mean	Std. Deviation
Individual average annual	75	0	50000	16202.67	12798.838
income					
Average annual income per	75	1250.00	25000.00	7697.1116	5323.48424
capita					
Valid N (listwise)	75				

The bar charts and table above depicts the situation of income in Tianzhong Village, as a significant resource of financial capital, although a evident income gap among the individuals is revealed, the mean value of individual average annual income is almost equal with the average income of urban residents in Pingxiang City; yet the most notable drawback is the extremely low level of average annual income per capita, attributed to the large family size (with a mean value of 6.03), the mean value of per capita average annual income in Tianzhong Village is less than half of the statistic based on city-wide urban population. Worsening the situation, 44% of the families are classified to the per capita income group of less than 5000 yuan/year, struggling in a fairly poor financial situation. In a word, taking income situation as an indicator to evaluate the displacees' ability of financial asset accumulation and impact alleviation, it leads to an alarming result.

The loss of financial capital caused by the resettlement project is mainly examined on 2 aspects, loss of home-based and informal business and loss of income resource from the community-owned enterprise. As has been analyzed above, 38.7% of the respondents are suffering a loss of their house-based and home-based business, from small-scale grocery shops to mini factories. However, due to the extreme flexibility, tiny scale, limited activity and influence of informal business in the village (mainly peddling vegetables and home-made food), the data and range of informal business was fairly difficult to collect. In addition, both the villagers and the administrative confirmed that there are several community-owned enterprises of different scales in Tianzhong village, just like many other urban villages as mentioned in Chapter 2.

A swim ring renting and grocery shop---The displacee's home-based business



Table 20: Is there any of your family members working in or receiving income in any forms from community owned enterprises?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	16	21.3	21.3	21.3
	No	59	78.7	78.7	100.0
	Total	75	100.0	100.0	

Table 21: If yes, will your/his/her job and income be interrupted by the resettlement project?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	18.7	82.4	82.4
	No	3	4.0	17.6	100.0
	Total	17	22.7	100.0	
Total		75	100.0		

Although 21.3% represent a relatively low involvement of the target group, 82.4% of the participating population will encounter a certain kind of income loss from the enterprise, as a result of business interrupted, dismissed or human resource rearrangement.

Another element that should be considered as a loss of financial capital is in fact an opportunity cost, namely the interrupted self-improvement during the period of resettlement, which has been reflected in Cernea's theory. During the interviews, a number of resettlers pointed out that they are not allowed to grow commercial crops after the farm land was measured and crops on the land are recorded, in order to prevent the farmers from deliberately planting valuable crops and claiming a higher compensation in the future. Nevertheless, since the construction of resettlement site has just been started and the negotiation may also last for a long period, the large opportunity cost is generated to them.

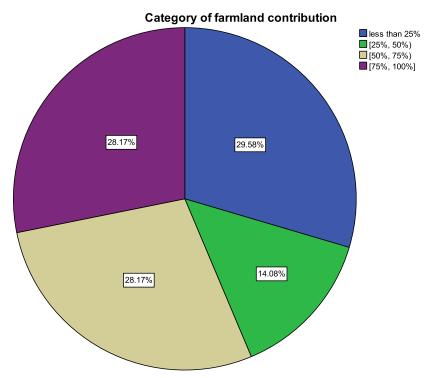
4.4 Impoverishment risks of the displacees

Considering the condition of livelihood assets analyzed above, there is no doubt that the displacees are facing a variety of impoverishment risks after resettlement, to diverse extent. These risks are analyzed from 8 main aspects, and most of the analysis will be integrated with the results presented above since there is a strong relationship between the resettlers' accumulation of livelihood assets and the seriousness of risks they are facing.

The risk of landlessness

The statistic from questionnaires shows that the average farmland owned per capita is approximately $0.615~\text{mu}~(410~\text{m}^2)$, and as has been stated in the part of natural capital, 94.7% of households are suffering a unrecoverable loss on agricultural land, predicting an inevitable risk of landlessness. However, the extent households are threatened by the risk varies dramatically due to diverse financial condition and constitution of income resources. In order to evaluate the risk for different families in a practical and reasonable approach, households' dependence on land should be estimated as a representative indicator, through measuring the contribution of farmland to the total income of the family.

Figure 10: Farmland contribution



Apparently, agricultural land generates more than half of the total income for 56.34% of the families, demonstrating their huge dependency on land thus corresponding threat from the risk of landlessness. In a word, the larger proportion agricultural revenue occupies in the family's entire income, the more seriously they are threatened by landlessness.

One issue that should be mentioned is several elements demonstrated to be strongly influencing the resettlers' dependency on farmland, the family's farmland per capita as well as the typology and scale of crops on the land, specifically the scale of commercial crops.

Table 22: Scale of commercial crops

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0	12	16.0	16.0	16.0
	0.01-1	28	37.3	37.3	53.3
	1.01-2	15	20.0	20.0	73.3
	2.01-3	9	12.0	12.0	85.3
	3.01-4	4	5.3	5.3	90.7
	4.01-5	2	2.7	2.7	93.3
	More than 5	5	6.7	6.7	100.0
	Total	75	100.0	100.0	

Both of the per capita owned farmland in the family and the scale of commercial crops are proven to have a strong correlation with agricultural land contribution to the household's total

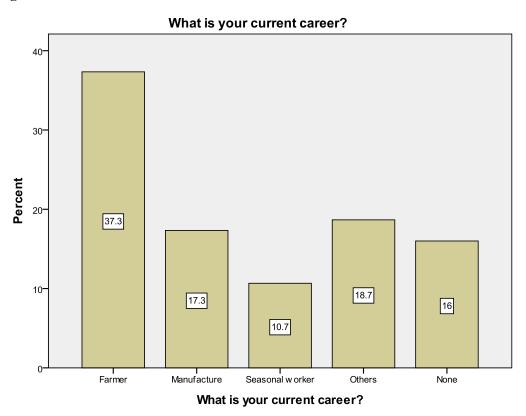
income, showing significances of 0.000. Nevertheless, compared to commercial crops, there is no evidence indicating the correlation between scale of grain crops and the statistic of farm land contribution, which might be attributed to the considerable benefit gap of the 2 categories of crops. Generally speaking, households owning more land per capita or growing more commercial crops are more likely to be largely dependent on agricultural land thus are more exposed to the risk of landlessness.

The risk of joblessness

"We are not most worried about the inadequate compensation, nor most bothered by the huge transformation of living condition, but extremely anxious about how to feed our family in the future, a future without income, without job. Since there is no doubt that we are going to join the group of landless peasants and we cannot see any opportunity of being employed, the despair and uncertainty threats us every minute, are we going to depend on begging after we leave here?"

This is an extremely impressive quote from a 45-year old farmer during the focus group discussion, and over 20-30 similar records were made while the researcher was conducting the questionnaire surveys and interviews, just as has been expected, the risk of joblessness is indeed the most extensive, most severe, most influential, longest-period and major risk for the displacees in Tianzhong Village. The analysis of joblessness first starts from the current career structure of the resettlers in the village.

Figure 11: Current career



According to the chart above, 37.3% of the respondents are farmers, which are always the

first victim exposed to joblessness in resettlement projects, since 100% of their land is acquired, there is little possibility to maintain their current career. Besides, they are normally less educated and trained thus has more limited access to reemployment. 16% of respondents are already unemployed at the moment, most of which are the elderly or housewives, obviously leaving limited chance of acquiring a proper job after the project. In addition, seasonal worker is also not considered to be a fairly stable career, and the threat of joblessness also exists, to some degree. Furthermore, a number of manufacture workers in home-based factories and community-owned enterprises are also faced with the risk. In order to obtain a more direct and clear data of joblessness risk, the plan and situation of future career is investigated to identify and evaluate the uncertainty.

Table 23: What will your career be after the resettlement?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	My job will be maintained or I'm provided with acceptable reemployment.	20	26.7	26.7	26.7
	Still uncertain None	47 8	62.7 10.7	62.7 10.7	89.3 100.0
	Total	75	100.0	100.0	

As has been expected, job still remains an unknown to 62.7% of the respondents, and 10.7% of the group confirm that they choose to remain unemployed after the resettlement, these statistics obviously and directly proved a high risk of joblessness for the resettlers.

Besides, while agricultural land, which is regarded as "a guarantee for a permanent job" is lost, the resettlers' education level and availability of non-agricultural skills are examined to estimate their opportunity to be reemployed. As has mentioned previously, the statistics of education level have indicated an unoptimistic result, and the situation of non-agricultural skills is depicted below. Obviously there is not a wide coverage of non-agricultural skills, maintaining the risk of joblessness at a considerably high level.

Table 24: Availability of any non-agricultural skill

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	18	24.0	24.0	24.0
	No	57	76.0	76.0	100.0
	Total	75	100.0	100.0	

Table 25: Available skill types

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Carpenter	2	2.7	11.1	11.1
	Computer	4	5.3	22.2	33.3
	Driving	3	4.0	16.7	50.0
	Management	4	5.3	22.2	72.2
	Others	5	6.7	27.8	100.0
	Total	18	24.0	100.0	
Missing	999	57	76.0		
Total		75	100.0		

As 2 possible elements to reduce the risk, the availability of side job and possibility of self-employment are investigated as well.

Table26: Availability of side job

			<u> </u>		
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	12	16.0	16.0	16.0
	No	63	84.0	84.0	100.0
	Total	75	100.0	100.0	

Table 27: Availability of savings

		Fraguency	Doroont	Valid Percent	Cumulative Percent
		Frequency	Percent	valiu Percent	reicent
Valid	Yes	39	52.0	52.0	52.0
	No	36	48.0	48.0	100.0
	Total	75	100.0	100.0	

Table 28: Feasibility and acceptability of start self-employment

Table 20. I customey and acceptuality of start sen employment							
					Cumulative		
		Frequency	Percent	Valid Percent	Percent		
Valid	Yes	13	17.3	33.3	33.3		
	No	10	13.3	25.6	59.0		
	Not taken into consideration	16	21.3	41.0	100.0		
	Total	39	52.0	100.0			
Missing	999	36	48.0				
Total		75	100.0				

Not surprisingly, the table of side job also illustrated a disappointing result; however, it is encouraging that 52% of households admitted that their family have certain amount of saving, and 33.3% of these respondents considered various forms and scales of self-employment to be feasible and acceptable for them as a way out of the threat of unemployment, many of which referred to the idea of renting storefronts and start their own small business. In addition, although there was a hypothesis that self-employment is more likely to be a option for the better-off residents, the correlation test demonstrated that the per capita income level of the family exert little influence on the possibility and choice of self-employment, it can also be a possible choice for other income-level groups.

Although extra distance to original work place used to be large issue enhancing the risk of joblessness, it is not taken into consideration in the Tianzhong Village case since the resettlement is almost on-site. Generally speaking, the risk of joblessness is extremely severe for the resettlers' of Tianzhong Village, it is emergent that appropriate instrument be taken to reduce their vulnerability and the potential impact.

Another significant issue studied in the research is the notable difference on influence of joblessness risk to respondents of different age and gender category, mainly attributed to the distinction on the current and future career elements, since 2 significances of 0.000 are shown in the chi-square test. As illustrated below, the elderly over 60 are most vulnerable to the risk of joblessness since the largest percentage of them are agricultural workers, and the table of career after resettlement also draws the same conclusion. Besides, the influence of joblessness seems to be slightly more serious on male than female of 16-59, since farmers occupy a larger proportion in male than female.

Table 29: Difference on current career among categories

	Respondent category				
	Age 16-59	Age 16-59	Age 60+		
	Male	Female	Elderly		
Farmer	12	9	7		
	37.5%	32.1%	46.7%		
Manufacture	3	9	1		
	9.4%	32.1%	6.7%		
Seasonal	6	2	0		
worker	18.8%	7.1%	.0%		
Others(kinderga	10	4	0		
rtener, driver,	31.3%	14.3%	.0%		
civil servant,					
individual					
owner, nanny,					
waiter/waitress)					
None	1	4	7		
	3.1%	14.3%	46.7%		

Total	32	28	15
	100.0%	100.0%	100.0%

Table 30: Difference on career after the resettlement among categories

	Respondent category				
		Age 16-59			
	Age 16-59 Male	Female	Age 60+ Elderly		
My job will be maintained or	11	8	1		
I'm provided with	34.4%	28.6%	6.7%		
acceptable reemployment.					
Still uncertain	21	19	7		
	65.6%	67.9%	46.7%		
None	0	1	7		
	.0%	3.6%	46.7%		
Total	32	28	15		
	100.0%	100.0%	100.0%		

The risk of homelessness

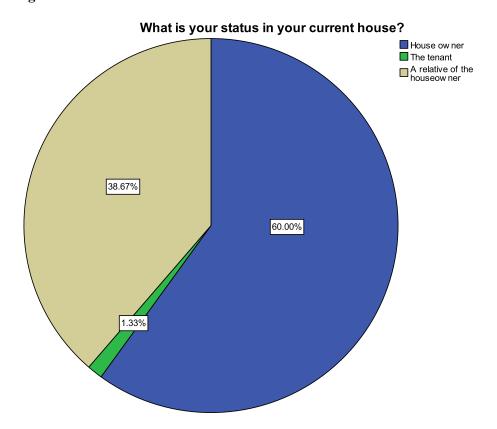
The risk of homelessness in Tianzhong Lake resettlement project mainly depends on the resettlers' tenure on the house, eligibility to resettlement site, availability of resettlement site, the rationality of resettlement process, affordability of resettlement site, availability of extra house, and the possibility of gentrification.

In numerous cases, the tenants are the most vulnerable group of homelessness in resettlement project, yet there are few tenants in the village due to the low preference for renting activity. The situation of tenure and eligibility to resettlement site are illustrated below:

Table 31: Eligibility to the resettlement site according to the current resettlement policy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	69	92.0	92.0	92.0
	No	6	8.0	8.0	100.0
	Total	75	100.0	100.0	

Figure 12: Tenure situation



As 60% of the respondents are house owners, almost 100% of which are eligible to the resettlement site, they are less threatened by the risk of homelessness; on the other hand, the situation for relatives of the owners differs due to the regulations of the policy (for example only those who were lawfully born are eligible to the resettlement site) and their relationship with the house owners. According to table 29, it turns out that majority of the resettlers are eligible to the resettlement site according to the current policy, yet a fact that should not be neglected is that the respondents are selected from the population over 16, most of them even above 28, yet the Birth Control Policy was first formulated on 1983 and the Birth Control Law was first implemented on 2002, implicating that a large proportion of ineligible resettlers are not selected as respondents, which generates a limitation on the representativeness of eligibility statistic.

According to the national and provincial regulations, the implementation of resettlement project should be started after the resettlement site is constructed and assigned to the displacees, therefore no uncertainty will be imposed on the affected population and they will be guaranteed with a home before they make the decision, reducing the risk of homelessness. Nevertheless, according to the result of both questionnaires and interviews to the displacees, who were originally supposed to leave in the end of July, the availability and certainty of resettlement site is still a problem for majority of them, directly leading to their anxiousness for homelessness and resistance to the project.

Table 32: If you are eligible, is your resettlement site already completed or assigned?

		Frequency	Percent	Valid Percent	Cumulative Percent
		Troquondy	1 0100110	valia i diddit	1 0100110
Valid	Yes	17	22.7	24.6	24.6
	No	52	69.3	75.4	100.0
	Total	69	92.0	100.0	
Missing	999	6	8.0		
Total		75	100.0		

The availability of extra house may be an effect and strong backing to reduce the risk of homelessness, yet as we can imagine, it is not realistic for most of the resettlers who are still in the level of struggling for adequate bread.

Table 33: Do you own any extra house besides the influenced one?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	7	9.3	9.3	9.3
	No	68	90.7	90.7	100.0
	Total	75	100.0	100.0	

Another element that may contribute to the risk of homelessness is the possibility of gentrification, especially for the extremely low income resettlers. Since the lowest market price is already 2000 yuan/ m^2 at the construction stage, and the average market price for apartments with similar quality and location in Pingxiang city is approximately 3000-4000 yuan/ m^2 , selling the resettlement site can bring about a profit up to 3400 yuan/ m^2 , it can be regarded as a appealing deal for the poor to purchase the resettlement unit at the construction cost and sell it at the highest market price to the better-off citizens. Therefore, effective supervision and management mechanism should be established to protect them from becoming homeless.

As the price of resettlement units for the resettlers is almost equal with the compensation for their own house, the affordability of resettlement will not become a problem of homelessness.

The risk of social disarticulation

Social disarticulation as another significant risk within urban village resettlement projects will be analyzed and integrated with the loss of social capital. Based on the previous result in the analysis of social capital loss, both the family's living period in the settlement and the loss of proximity to relatives will influence the level of social disarticulation risk. In a word, the longer the living period is, the closer, and more advanced and dependable the social network

is, the more threatened by the risk of social disarticulation.

Another notable risk of social disarticulation is caused by the forceful separation of extended families, since large 2-3 storey houses of several hundreds of square meters will be replaced by a number of 80-120 m² apartments. In addition, the resettlers' are not given the right of choosing the new apartments, both the specific location and storey are decided randomly, predicting the inevitable separation of the large families.

In addition, the risk is also estimated according to the respondents' involvement in community-based associations, an element contributing to both the respondents' dependency on the social network and their sense of identity in the original site. However, as the statistics below demonstrate, the involvement percentage is relatively low thus not likely to enlarge the risk and increase the vulnerability.

Table 34: Involvement in community-based organization and association

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	12.0	12.0	12.0
	No	66	88.0	88.0	100.0
	Total	75	100.0	100.0	

Nevertheless, the risk is still remained in a relatively high level due to the contribution of the elements mentioned previously, especially for the elderly who has spent most of their life on the land.

The risk of marginalization

Marginalization can occur to the resettlers while they are encountering a tremendous transformation and are forced into a complicated and unfamiliar urban system. As a risk usually neglected, the risk is analyzed mainly from two aspects in this research according to the context of Tianzhong Village, the income gap thus exclusion from the host population and the absence or defectiveness of necessary social welfare and insurance in the urban system.

As has been described in the part of financial capital, the per capita average income in the families of Tianzhong Village is less than half of the level of the entire urban population in the city, revealing a distinct income gap with their neighbor after the resettlement. Besides, since the area will be cultivated into a high-quality residential district with excellent environment condition and landscape according to the planning of the government, high income groups will be attracted to the area, enlarging the gap within the neighborhood and consequently contributing to the risk of marginalization.

In terms of social welfare and insurance, the results of survey are illustrated below:

Table 35: Registered social welfare or insurance system

		Resp	ondent cate	gory	
		Age 16-59	Age 16-59	Age 60+	
		Male	Female	Elderly	Total
Registered social welfare	Basic living allowance	0	1	1	2
and insurance		.0%	3.6%	6.7%	
	Medical insurance for	15	20	8	43
	rural hukou	46.9%	71.4%	53.3%	
	Endowment insurance	7	4	2	13
		21.9%	14.3%	13.3%	
	Living allowance for	0	0	5	6
	landless farmers over	.0%	0%	33.3%	
	60				
	None	11	4	3	18
		34.4%	14.3%	20.0%	
Total		32	28	15	75

Percentages and totals are based on respondents.

Apparently medical insurance for rural hukou is the most widely covered and significant insurance for all 3 categories of resettlers of Tianzhong Village, however, considering the displacees are confronting an identification change from rural hukou to urban hukou, the transformation and transition of medical insurance into urban system is also the most significant issue since insurance transformation and connection is a fairly complicated and difficult process in Chinese insurance system. In addition, the social welfare and insurance system is closely related to the citizen's career in China; nevertheless, as has been mentioned previously, tremendous change on the resettlers' career has become an inevitable trend, leading to a corresponding difficulty on their access to social welfare and insurance system. Both of the 2 points indicated in this paragraph obviously contribute to the displacees' risk of marginalization. Worsening the situation, the condition of social welfare and insurance for the resettlers is already extremely defective; the loophole on necessary insurance and welfare is fairly shocking, and a large percentage of all three categories of respondents are even insurance-less and welfare-less population, enhancing the risk and vulnerability dramatically, especially for the elderly. Even the living allowance for landless farmers over 60 which is meant to insure the basic living standard of the income-less elderly, the amount is only 100 yuan/month, covering only a tiny part of their living costs.

The risk of food insecurity

The risk of food insecurity is also neglected in many resettlement projects; according to the context of Tianzhong Village, it can threat the resettlers mainly through two aspects, the risk for the most vulnerable groups including pregnant women, infants, elderly and patients in the family, and the risk for the families highly dependent on self-feeding. Therefore, it is estimated through the two indicators below, which has a positive relationship with the seriousness of the risk and the vulnerability of the household to suffer from the risk:

Table 36: Are there pregnant women/infant/the elderly/patients in vour family?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	57	76.0	76.0	76.0
	No	18	24.0	24.0	100.0
	Total	75	100.0	100.0	

Table 37: Does your family grow vegetables, grains or raise stocks and fowls for self-feeding?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	61	81.3	81.3	81.3
	No	14	18.7	18.7	100.0
	Total	75	100.0	100.0	

According to the tables above, there are most vulnerable populations in majority of the families, and it is also confirmed by the researchers' observation, showing a relatively high possibility of food insecurity while a enormous transformation occur. Besides, 81.3% of the households are to various extent depend on self-feeding, producing the family members with sufficient and safe food, therefore the high static also implicate a risk of food insecurity when they are forced to leave the food resources and adapt to a completely new environment as well as different quality, typology and quantity of food resources.

The risk of increased morbidity and mortality

In most of the cases, violence during the process of forced resettlement is the main contributor to the risk of increased morbidity and mortality, yet no violence has occurred in Tianzhong Lake Resettlement Project and the implementation approach are mostly reasonable, admitted by the resettlers. Therefore, the risk will be examined from three other aspects based on the results of questionnaire and the facts reflected by the interviewed villagers and official, which are the access to medical and health-care facilities, access to safe basic infrastructure and service such as drinking water, as well as issues related to psychological aspects.

Both 100% of the resettlers and the official confirmed that there is currently a clinic and pharmacy within the resettlement neighborhood, and a hospital approximately 2 kilometers away, indicating a relatively satisfactory medical condition to alleviate the risk of morbidity

and mortality. Furthermore, although not completely implemented yet thus the concrete data cannot be collected, the planning for basic infrastructure is on a high-quality level and the construction has been started, attributed to the significant strategic position of the area from the vision of the government, and 100% of the resettlement units are connected to this infrastructure network. Both of the two factors have shown an optimistic picture towards the alleviation of risks.

However, the main concern is mostly on psychological aspects, including possible psychological trauma and unrest caused by the involuntary resettlement as well as the absence of necessary psychological assistance, consultancy and therapy.

Figure 13: Attitude towards the future after resettlement

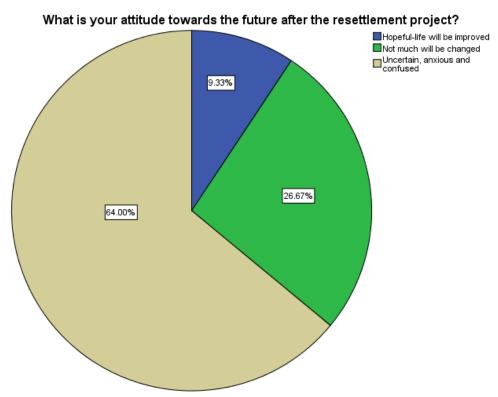


Table 38: Do you and your family members have access to psychological consultation and therapy?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	1	1.3	1.3	1.3
	No	10	13.3	13.3	14.7
	I have no idea about it and	43	57.3	57.3	72.0
	don't know where it is				
	provided		u.		
	Not taken into consideration	21	28.0	28.0	100.0

Table 38: Do you and your family members have access to psychological consultation and therapy?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	1.3	1.3	1.3
	No	10	13.3	13.3	14.7
	I have no idea about it and	43	57.3	57.3	72.0
	don't know where it is				
	provided				
	Not taken into consideration	21	28.0	28.0	100.0
	Total	75	100.0	100.0	

Table 39: Fears towards the future

		Resp	ondent catego	ory	
		Age 16-59	Age 16-59	Age 60+	
		Male	Female	Elderly	Total
Fear towards the future	Consumption will be	10	13	9	32
	raised, exceeding the	52.6%	81.3%	69.2%	
	affordability				
	Faced with the high	11	12	8	31
	possibility of	57.9%	75.0%	61.5%	
	unemployment, yet no				
	effective mechanism to				
	ensure the basic living				
	standard				
	Agricultural land is invaded	10	9	9	28
	in the name of	52.6%	56.3%	69.2%	
	development, threatening				
	food supply				
	It is difficult to adapt to the	3	5	1	9
	noisy and busy urban life.	15.8%	31.3%	7.7%	
	Price is rising while income	11	8	2	21
	is not, gap between	57.9%	50.0%	15.4%	
	development and inflation				
	There is injustice within the	6	5	4	15
	process of compensation	31.6%	31.3%	30.8%	
	and resettlement.				
	Environmental	2	4	2	8

	contamination will be caused by demolition and construction	10.5%	25.0%	15.4%	
	The traditional lifestyle and the peaceful atmosphere in the village are difficult to give up.	6 31.6%	6 37.5%	5 38.5%	17
Total		19	16	13	48

Percentages and totals are based on respondents.

Unfortunately, 64% of the respondents are worried, anxious or uncertain about the life after resettlement, and the extremely limited knowledge, awareness and access to psychological assistance undeniably adds to the negative situation, allowing a high vulnerability of suffering psychological trauma or social stress and contributing to the risk. A concrete example was provided by a resettler in the project, whose cousin has committed suicide under the stress of resettlement, it turned out that he and his family broke up due to conflicts on the distribution of resettlement units as well as the compensation, and is extremely stressed by the crisis of unemployment at the same time, therefore the 42-year old man ended his life in huge psychological trauma without appropriate guidance and therapy. Furthermore, the resettlers' fears toward the life after resettlement are also categorized and depicted in the table above, with the distinction of different categories of respondents, many of which are tremendously related with the households' personal life, thus sufficient consideration should be taken during the process of policy making, compensation and assistance in the long run, in order to effectively mitigate the risk.

The risk of losing access to common property and service

Losing access to common property and service is a common risk in resettlement projects, especially in urban villages and rural areas where the population is more dependent on the community thus common property and service often plays a vital role in households' lives. To evaluate the seriousness of the risk, the displacees' dependency on common property and service should be analyzed.

Almost 100% of the resettlers pointed out that there are a few common properties such as wells, mahjong rooms and play grounds in the village, invested by the residents and maintained by the administrative office of the village, however the compensation for these properties are not included in the current policy. On the other hand, facilities such as playrooms, play grounds are also included in the construction of resettlement site, and a number of other facilities will also be available after the resettlement site is completed. Generally speaking, the risk can be mitigated to a fairly low level as long as the project is constructed according to the plan.

The resettlers' access to and dependency on community service and assistance is also

described below, indicating that 56% of the respondents have access to community service and assistance on the current site, however only 8% of them admitted to have enjoyed it frequently and are likely to have a high dependency on it. In a word, there is no reliable evidence that the risk of losing access to common property and service is threatening the resettlers to a large extent.

Table 40: Have you ever enjoyed any social assistance and service from the community?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Yes, very frequently	6	8.0	8.0	8.0
	Yes, occasionally	36	48.0	48.0	56.0
	No, never	33	44.0	44.0	100.0
	Total	75	100.0	100.0	

4.5 Necessary assistance and facilities to enable the resettlers' reconstruction and improvement

Based on the results analyzed above and the knowledge on the resettlers' possession and loss of livelihood assets as well as the impoverishment risks they are faced with, an exploration and study of necessary, effective and tailored assistance and facilities to enable the displacees' reconstruction and improvement can be conducted, countering the negative consequences summarized above, attempting to recover or compensate for the possible losses, to mitigate the risks and ultimately, to enable the improvement.

Land-based reestablishment and reemployment

Although struggled to suggest a resolution of keeping or creating new access to agricultural land for the resettler, it turned out that no appropriate condition is available currently due to the large coverage and dramatic development of the project. Therefore, this researcher mainly focused the work on assistance towards appropriate reemployment.

Aquaculture promotion is usually an economic and effective solution to create reemployment opportunity for the displacees of reservoir projects, however the suggestion is also denied by the planners since it is considered mismatch with the function of Tianzhong Lake, namely water storage, drinking water supply, flooding control and tourism development. Inspired by this, promoting reemployment through creating tourism related job opportunity became a more realistic resolution. As a result, the displacees' ability and willingness to participate in tourism-related business is surveyed, demonstrating its feasibility and acceptability for up to 62.7% of the respondents.

Table 41: Are you willing and capable to run or work in tourism-related business? (E.g. souvenir shop, tour guide, restaurant, renting stuffs...)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	62.7	62.7	62.7
	No	28	37.3	37.3	100.0
	Total	75	100.0	100.0	

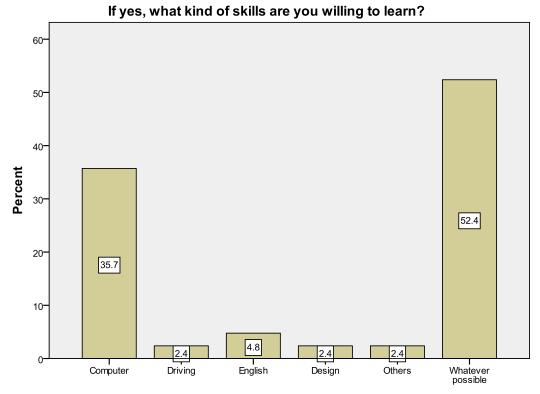
However a large number of respondents also reflected that most of the tourism-related job opportunities provided by the government currently are relatively low-income jobs such as dustman and entrance guard of the parks, some even suspect that comfortable jobs are saved for those who have personal relationships with the officials. Considering this, the villagers' suggested that all direct job arrangements of resettlers executed by the government should be transparent to the community, so that the necessary trust and cooperation between grassroots and the administrative can be established at the first stage. Furthermore, the officials also indicated that the reason why "only low income jobs are accessible for the resettlers" may be the limited vacancy of employments; after all, the availability of highly profitable job opportunity to a large extent depends on the degree of tourism development, and the project is still at the beginning stage. Generally speaking, more transparency is needed to prevent corruption and establish basic trusts, and it is the government's task to promote tourism projects sustainably and dramatically, thus the quantity, quality and acceptability of job opportunities can be improved constantly.

There is no doubt that training provision is another effective instrument to promote the displacees' opportunity of reemployment, and it is almost emergently needed considering the severe absence of non-agricultural skills, low education level and high joblessness risk.

Table 42: Capability and wiliness to take non-agricultural trainings

		Res	pondent categ	ory	
		Age 16-59	Age 16-59	Age 60+	
		Male	Female	Elderly	Total
Are you willing to take	Yes	21	17	4	42
trainings of non-agricultural		65.6%	60.7%	26.7%	56.0%
skills after the resettlement?	No	11	11	11	33
		34.4%	39.3%	73.3%	44.0%
Total		32	28	15	75
		100.0%	100.0%	100.0%	1.0E2%

Figure14: Preferred skills



If yes, what kind of skills are you willing to learn?

The table and chart above demonstrate the respondents' high wiliness, capability and preference to take non-agricultural skill trainings, which can be applied as a reference of the scale and type of training provision. Additionally, as a relationship with a significance of 0.03 is shown in chi-square test between the category of respondents and willingness and preference to take trainings, diverse courses can be arranged according to the characters of each category, both to attract the resettlers' interests and to provide applicable skills.

Since a considerable number of resettlers' confirmed their ability and acceptability to start self-employment, and many of them expressed their willingness and affordability of getting access to small storefronts, relative assistance can be provided through mechanisms such as entrepreneurship funds or tax reduction, favorable rents to store fronts within the resettlement neighborhood (which can also be considered as a solution to alleviate the loss on female labors), and administrative support such as easier process to obtain permissions.

Several resettlers also suggested establishing an Adult Education Center in the resettlement neighborhood, both to improve the education level of the resettlers thus their job opportunities and to enrich the resettlers' spiritual life.

House reconstruction

Although there are supposed to be few problems on connection to transportation, access to infrastructure, service and facilities seen from the current situation, and the resettlement site is planned and is being constructed according to a relatively high standard, covering all basic

infrastructure, service, ensuring acceptable distance to important facilities, connecting to the main transportation network, improvement and reforms are still required based on the analysis above so that a adequate housing condition can be provided.

The most significant activity should be reforming and advancing the mechanism of apartment distribution according to the resettlers' complaints and problems. Although it is not realistic to allow the resettlers choosing the location and storey of all their apartments, a number of respondents mentioned that at least 2 of the apartment for a extended family should be located in one building so that the elderly can be taken good care of; besides, both the officials and the resettlers indicated that at least one apartment should be located on 1-2 storey for a family, for the sake of children and the elderly. In addition, 86.7% of respondents expressed that they wish to have a small garden or open balcony where they can still do some planting, which is not a difficult suggestion to be realized.

Community reconstruction, social inclusion and restoration of community assets

Before analyzing the resolutions to promote community reconstruction, social inclusion and restoration of community assets, an important remark from the focus groups discussion should be mentioned at first. While discussing the necessary assistance and facility to enable community reconstruction and to improve inclusion, a great number of resettlers indicated that the existence, voice and organization of the community were not respected from the beginning, not to mention after the resettlement, and the exclusion they have felt is mostly not from the society but from the government, both imposing strong query on the democracy and transparency in the decision making and implementation process, no matter before, during or after the resettlement. "The community is never respected, and the voice representing us grassroots is always ignored, we are considered non influential nor important in our own project, and we were struggling to get the political and legal information closely related to our destiny, feeling extremely excluded and helpless." 2 tables below also prove the resettlers' complaints:

Table 43: Are you aware of all your legal rights and the government's obligations during the whole process of compensation and resettlement?

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Not at all	22	29.3	29.7	29.7
	Know a bit, but expecting	46	61.3	62.2	91.9
	more legal consultancy and				
	assistance				
	It is very clear to me	6	8.0	8.1	100.0
	Total	74	98.7	100.0	
Missing	System	1	1.3		
Total		75	100.0		

Table 44: Are you familiar with all the policy, compensation standard, planning and related laws about this resettlement project?

		1 9			
					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Not at all	14	18.7	18.7	18.7
	Have some knowledge	49	65.3	65.3	84.0
	about it, but not completely				
	understand				
	Very familiar	12	16.0	16.0	100.0
	Total	75	100.0	100.0	

As establishing a powerful, dependable, experienced and trustworthy community which is capable to really benefit and support the resettlers, both defending their rights and assisting their reconstruction should be the objective of community reconstruction, and involving the displacees into various issues, welfare systems and the lifestyle in the urban system, encouraging their participation in the social structure, allowing them to share the benefits of development, ensuring them to fully enjoy their legal rights are all significant indicators of social inclusion, powerful and reliable legal and political consultancy and assistance should be provided as a prerequisite, to ensure the transparency and legality of government policy and activity and to fulfill the displacees and their communities with their own legal rights. A legal and political consultancy center should be established to support and enhance the communities as well as to preserve the grassroots' individual rights, enabling the resettlers' participation in decision makings that affect them. In a word, a consultancy facility to help the community become a strong and effective representative of the resettlers, and to enable the resettlers' participation is emergently needed.

Another indispensible assistance currently is filling in the loopholes of necessary social welfare and insurance of the resettlers, simplifying and accelerating the transforming process of existing insurance according to the results above. As the most significant mechanism to reduce the displacees' vulnerabilities and fears, as well as to prevent deterioration of their living standard, the current situation of social insurance and welfare, including problems such as limited coverage and extremely inadequacy in amount, is extremely alarming and should be improved immediately, especially for the landless peasants and the elderly.

The reestablishment of CBO is also considered necessary by the resettlers, which is likely to receive remarkable cooperation from the residents, since majority of them have shown enthusiasm to participate.

Table 45: Willingness to be involved in CBO

		Davaget	Valid Darsont	Cumulative
	Frequency	Percent	Valid Percent	Percent
Valid Yes	45	60.0	60.0	60.0

No	30	40.0	40.0	100.0
Total	75	100.0	100.0	

As an instrument to restore the community assets and improve the resettlers' livelihood on resettlement site, enlarging their access to public facilities has been taken into consideration and the preference of resettlers are also recorded:

Table 46: Extra facilities expected

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Library	2	2.7	8.3	8.3
	Employment center	2	2.7	8.3	16.7
	Institution for adult	3	4.0	12.5	29.2
	education				
	Entertainment facilities	14	18.7	58.3	87.5
	Others	3	4.0	12.5	100.0
	Total	24	32.0	100.0	
Missing	999	51	68.0		
Total		75	100.0		

Table 47: Most Indispensible facilities

	-		onses	Percent of	
		N	Percent	Cases	
Most Indispensible facility	Kindergarten	37	15.7%	53.6%	
	Clinic	55	23.3%	79.7%	
	Pharmacy	28	11.9%	40.6%	
	Supermarket	41	17.4%	59.4%	
	Park	21	8.9%	30.4%	
	Plaza	12	5.1%	17.4%	
	Playroom	22	9.3%	31.9%	
	Playground	6	2.5%	8.7%	
	Gym center	9	3.8%	13.0%	
	Restaurant	5	2.1%	7.2%	
Total		236	100.0%	342.0%	

Last but not least, not only should there be a reasonable compensation for unrecoverable community assets, but the compensation as a collective part should be managed and supervised by the resettlers' own community thus the spending of it will be transparent, suggested by the resettlers. Since normally the compensation for collective part is managed by the administrative office in the village and the expense is usually not reported, the resettlers frequently queried the rationality and legality of its management.

Adequate nutrition and better health care

Based on the conclusion of in the risk of increased morbidity and mortality, necessary assistance to provide nutrition to the vulnerable groups should not be neglected, especially during the transition period. This can be realized with the cooperation of the community based organizations, it is also practical that a certain amount of fund allocated to and managed by the CBO for the provision of nutrition to low income families in the long run.

Furthermore, besides the proximity to better medical facilities, the resettlers' psychological health should also be taken into account, a psychological consultancy center should be established to provide the resettlers, who are suffering an enormous transformation in their life, with adequate psychological assistance and therapy, preventing the same tragedies happen again.

4.6 Most valued aspects by the resettlers

At last, the most valued aspects in the resettlers' traditional lifestyle are surveyed, and their responses are summarized as a reference for exploring more satisfactory and acceptable compensation policies for them in future studies.

Table 48: Most valued aspects in current lifestyle

		F	Respondent cate	gory	
		Age 16-59	Age 16-59	Age 60+	
		Male	Female	Elderly	Total
Most valued in current	Comfortable	18	18	10	46
lifestyle	living condition	56.3%	64.3%	66.7%	
	Wonderful	19	16	9	44
	landscape in the	59.4%	57.1%	60.0%	
	village				
	Close	17	21	5	43
	relationship with	53.1%	75.0%	33.3%	
	neighbors				
	Agricultural	10	13	6	29
	products	31.3%	46.4%	40.0%	
	Others	2	0	1	3
		6.3%	.0%	6.7%	

Total	32	28	15	75

Percentages and totals are based on respondents.

To sum up the research findings, it is undeniable that the project is triggering considerable losses on the displacees' livelihood assets including human capital, social capital, physical capital, natural capital and financial capital, which obviously should be comprehensively involved in the compensation in various forms. Besides, the displacees are also forced to face a diversity of impoverishment risks including landlessness, joblessness, homelessness, social disarticulation, marginalization, food insecurity, increased morbidity and mortality, losing access to common property and service, among which landlessness and joblessness are considered the most serious, highly coverage and influential currently. To prevent or minimize the impoverishment risks, reestablish and improve the displacees' livelihood, a series of assistance and facilities which can be provided by the municipality, including reemployment, house reconstruction, community reconstruction, social inclusion and restoration of community assets, as well as adequate nutrition and better health care, are explored and examined according to the context, with their acceptability and feasibility among the resettlers demonstrated to be relatively high.

Chapter 5 Conclusion and Recommendation

Based on the information and analysis above, conclusion on how to compensate the displaced population in Tianzhong Lake Resettlement Project and improve their livelihood will be drawn referring to the existing theories. Besides, several recommendations will be made for the formulation and implementation of compensation policies, as well as further studies.

5.1 The displacees' loss of livelihood assets caused by the project

According to the various responses as well as the researchers' own observations, the displacees' in Tianzhong Village is confronting a great loss on their human, social, nature, physical and financial capital due to the resettlement project. To make the situation even worse, as the most significant resource to mitigate and recover from sudden impacts such as forced displacement, the current livelihood assets possessed by the villagers have already been considered inadequate, increasing their vulnerability to a higher level.

Both the quantity and quality of the respondents' human capital are estimated to be relatively

low, reflected in the Labor Force Participation Rate within the Family and the labors' education level, respectively. Worsening the situation, a great loss on the involvement of female labor will be imposed on the resettlers after resettlement to the apartments, specifically, loss of the female labor force working for home-based and house-based businesses, the majority of which are demonstrated not possible to work outside due to their various family obligations.

Social capital is considered abundantly possessed in the village at the moment, demonstrated by the long average living period of the respondents, frequent interaction among the residents, as well as the wide, intimate and strong social network. However, inevitable loss of social capital is caused to the displacees in Tianzhong Village as an expense of the project, including the sudden interruption to their previous social network which has taken a considerable period to be constructed, as well as the dramatic loss of proximity to relatives and friends since over half of the villagers are not offered with the opportunity to resettle together with relatives and friends nearby.

Although most of the residents in Tianzhong Village are regarded as urban poor, it is demonstrated that their possession of physical capital is strikingly considerable, reflected in both the satisfactory physical condition of houses (including large overall floorage per capita in the family, abundant rooms, as well as permanent building material), and the number of livestock. Nevertheless, the most visible and notable loss on the resettlers' livelihood assets is also on their physical capital, in forms of 3 categories: loss on houses due to mismatch of cash compensation and the value of houses and ineligibility to resettlement site for a great number of displacees born against Birth Control Law; loss on irremovable physical assets such as wells, historical trees and a large number of fixed furniture, since they are either not involved in the compensation list or the large gap between their value and the compensation provided; tremendous loss on productive livestock, fowls as well as other animals, not only because almost no condition are available on the resettlement site to keep them, but also due to the ignorance or extreme inadequacy in terms of compensation.

As one of the most favorable and depended livelihood assets in a large number of urban villages just as Tianzhong Village, the displacees' natural capital is also seriously threatened by the resettlement, triggering a great loss consequently. The most significant, influential, unrecoverable and high coverage loss is considered to be the 100% loss of agricultural land, which is not only the main resource of the resettlers' income but also extremely related with the issue of employment. Worsening the situation, the one-time compensation distributed to the resettlers is only approximately half of the total amount, with the other half received and managed by the administrative office as collective compensation. Besides, a complete loss on access to environmental capital where various resources can be collected through activities such as cutting firewood, fishing, feeding animas and picking tea seeds is also confirmed by the respondents.

Since the current financial situation of a large proportion of the resettlers is not optimistic, which is proven by the stability and level of income per capita within the family, the impact

of loss of financial capital is to a certain extent intensified due to limited mitigation ability and resource. The main losses are categorized as the loss of home-based and house-based business as well as loss of income from community owned enterprises caused by business interruption and human resource rearrangement. Although the coverage of these losses among the resettlers is considered relatively lower, their large influence cannot be neglected. Another loss occurring to a large number of displacees is the interruption of self-improvement during the project since the farmers were not allowed to grow commercial crops after the agricultural land was measured and crops were recorded.

In other words, it is concretely proven that the resettlement is triggering multiple losses on all 5 categories of the displacees' livelihood assets, yet a large number of the losses above are ignored either intentionally or unintentionally in the policy, which requires a reasonable and comprehensive reform on both the coverage and standard of compensation, in order to at least reach the full restoration level as the minimum standard and a first step.

5.2 Impoverishment risks the displacees' are facing

The impoverishment risks brought to the displaces by Tianzhong Lake project, which need to be prevented taking various activities not only in short term but more importantly in long term, is categorized into 8 categories including impoverishment risks of landlessness, joblessness, homelessness, social disarticulation, marginalization, food insecurity, increased morbidity and mortality as well as losing access to common property and service.

Undeniably, the risk of landlessness is inevitable due to the complete loss of access to agricultural land after the resettlement, however the impact and degree of seriousness of the risk is to a large extent decided by the displacees' dependence on land, represented by the contribution of farm land in the household's total amount of average annual income, which is demonstrated to be considerably high for majority of the resettlers. Correspondingly, it is reasonable to believe that the impact of landlessness as an impoverishment risk is extremely enormous for a large number of the displacees.

Joblessness is regarded as the most threatening, influential and complicated impoverishment risk to the displacees in Tianzhong Village both by the villagers and the officials, and farmers, who occupies a more than 1/3 of the affected population are undoubtedly the first victims of the risk. However, the number of displacees whose jobs are interrupted by the resettlement directly or indirectly is far more than 1/3 of the population, including villagers with various careers. The extent to which the displacees be impacted by the risk of joblessness is mainly decided by the availability of non-agricultural skills, availability of side jobs, as well as feasibility and acceptability of starting self-employment, all 3 of which contribute to the mitigation of risk. While the situation of the former 2 elements is proven to be extremely unoptimistic, it is encouraging that a considerable proportion of the resettlers are capable and willing to start various scale of their own business as a way out, which are expected to alleviate the risk effectively. Furthermore, it is proven that the group over 60 years old is most vulnerable to the risk of joblessness, followed by female between 16-59 years old.

Mainly depending on the resettlers' tenure on the house, eligibility to resettlement site, availability of resettlement site, rationality of resettlement process, and possibility of gentrification, the seriousness of homelessness as an impoverishment risk varies considering the context of Tianzhong Village. Since tenants only occupies an extremely tiny percentage of the displacees, and the rest of them are either living as owners or relatives of owners, majority of the villagers are eligible to the resettlement site; yet for those who were born against the Birth Control Law thus excluded from accessing resettlement site, the risk of homelessness is still considered as a significant issue. In addition, as the construction of resettlement site has just started, a large number of the displacees, whom the government is trying to persuade to move out at the moment, will inevitably face the risk of homelessness. For the affected households struggling in an extremely low income level, the possibility of gentrification also contributes to the risk of homelessness, due to the huge profit that can be made through selling the resettlement apartment in the market.

Based on the conclusion on the loss of displacees' social capital, the extent to which they are threatened by the risk of social disarticulation is influenced by both their living period and the loss of proximity to relatives and friends. Furthermore, the forceful separation of extended family caused by the limited size of resettlement apartment also largely contributes to the existence of the risk, maintaining it at a fairly serious level.

The risk of marginalization is mainly triggered by exclusion from the host population and the absence or defectiveness of necessary social welfare and insurance in the urban system. While the exclusion is mostly attributed to the evident income gap between the displacees and the rest of the urban population, especially their better-off neighbors in the resettlement site as a high quality residential district, the deficiency on their social welfare and insurance system is either caused by the loophole on registration to necessary and basic insurance and welfare, or due to the extremely complex and difficult transition or transformation process for their registered systems after dramatic changes on career and hukou.

Since the population of vulnerable groups such as pregnant women, infants, the elderly and patients is considerably high and the majority of the resettlers have been growing food or raising livestock and fowls for self-feeding, the risk of food insecurity after resettlement should also be taken into consideration, especially for households with large percentage of vulnerable family members or have large dependency on self-feeding.

Although often neglected, the main contributive elements for the risk of increased morbidity and mortality are mostly on psychological aspect in Tianzhong Village, demonstrated by concrete example and statistics. Since the majority of resettlers feel uncertain, anxious and confused thus have various fears towards the future after resettlement, serious psychological trauma is likely to be triggered, yet limited access to and awareness of psychological consultancy and therapy are available at the moment, adding to the seriousness of the risk.

Considering the context of Tianzhong Lake Resettlement Project, to what extent the resettlers

are facing the risk of losing access to common property and service is mainly decided by their dependency on these property and service, which is demonstrated to be relatively low for majority of the affected population in Tianzhong Village. Besides, the government's plan of recovering and improving most of the basic common facilities also help to mitigate the risk effectively.

Generally speaking, the risks of landlessness and joblessness are the major impoverishment risks faced by the displacees in Tianzhong Village, requiring extremely systematic and sustainable mechanism to tackle with; yet the rest six risks which are often "invisible" also need to be taken into consideration and prevented by effective instruments.

5.3 Required assistance and facilities to enable the displacees' livelihood reconstruction and improvement

Considering the various losses and risks, as well as the specific context in Tianzhong Village, assistance and facilities to enable the displacees' livelihood reconstruction and improvement should be provided mainly on 4 aspects, namely reemployment, house reconstruction, community reconstruction, social inclusion and restoration of community assets, as well as adequate nutrition and better health care.

As the most urgently needed and indispensible assistance, improvement of reemployment can be implemented through tourism development and promotion thus creation of tourism related job opportunities, providing training of non-agricultural skills, as well as enabling, encouraging and supporting self-employment, all 3 of which are proven to be acceptable and feasible for the resettlers. In addition, providing adult education should also be considered as a suggestion from the displacees to promote their opportunity of reemployment.

Besides fundamental requirement of providing basic transportation connection, infrastructure, service and improving building materials which are basically met by the current policy and planning, certain reforms including reforming the apartment distribution mechanism in order to ensure at least 2 of the apartments for an extended family be located in one building and at least 1 of the apartments be located on 1-2 storey, in addition, small garden or open balcony are also expected by majority of the resettlers.

Assistance and facilities towards community reconstruction, social inclusion and restoration of community assets mainly include providing powerful and reliable legal and political consultancy to involve, enhance the new community, to preserve the displacees' individual rights and to enable the participation of grassroots, filling in the loopholes of necessary social welfare and insurance of the resettlers, ensuring smooth transformation of existing insurance system, reestablishing and supporting the CBO, compensating the unrecoverable community assets, as well as transferring the management and spending of collective compensation from the administrative office to the community.

In order to maintain adequate nutrition of the displacees and provide better health care, supply of sufficient nourishment for the vulnerable groups, especially during the transition period, cooperation with the CBO to sustainably provide nutrition for low income family as well as the presence of both medical and psychological care facilities are all required as enabling assistance and facilities.

Almost all of them are proven to be realistic and desirable for the resettlers, as well as feasible for the government, thus are to a large extent likely to be realized. Of course feasible and effective assistance and facilities are not limited to those mentioned above, mechanism such as benefit sharing should also be introduced when the compensation system is improved and becomes more mature in Pingxiang city, with the commitment of the government.

5.4 Final conclusion for reform of compensation policy

Based on the conclusions above as well as the theories and previous experience from the literature, the reform of compensation policy in Tianzhong Lake Resettlement Project should be considered through 3 aspects, namely recovering the losses, preventing or mitigating the risks, as well as assisting and enabling the reconstruction and improvement.

As the first step, all 5 types of losses of the displacees' livelihood assets should be assessed and covered comprehensively, and compensated through cash compensation with a fair price equal or above the market value, or a recovery above the original level, or a combination of the two. For unrecoverable losses such as animals, land, house, other irremovable physical property and home-based business, adequate cash compensation is required, while for losses such as lost involvement of female labor, recovery instruments such as providing access to storefronts within the neighborhood or creating other in-door business opportunity should be adopted.

Furthermore, diverse impoverishment risks should be prevented or mitigated to the minimum standard as the second part of compensation policy, according to the various decisive elements of the risks. For instance, to prevent risks such as homelessness caused by gentrification or unavailability of resettlement site, reform on the administration mechanism towards strict supervision and management as well as necessary aid are required; to mitigate the risk of landlessness, certain allowance and basic insurance should be provided immediately.

As the final step, enabling assistance and facilities to reconstruct and improve the displacees' livelihood requires sustainable investment, implementation as well as tremendous involvement of the community. Reemployment promotion, which plays a indispensible and extremely vital role in livelihood improvement, is undeniably the most significant and urgent task, not only job opportunities but better opportunities with relatively higher and more stable income should be created through both macro and comprehensive promotion, capacity building and political, legal, administrative or financial support as encouragement and stimulation instrument. Dramatic improvement of social welfare and insurance system is also considered extraordinarily important especially for landless peasants and the elderly, in order to maintain the livelihood above the original level. Besides, the promotion of facilities and

infrastructure, better nutrition, medical and psychological health care can also contribute effectively to the improvement of the displacees' livelihood. Although government frequently acts as the initiators, the emphasis should be put on the transparency of decisions as well as the capacity building and encouragement of the community and individuals thus their comprehensive and effective involvement in the reconstruction and improvement.

5.5 Compatibility with existing theories

Most of the research in Tianzhong Lake Resettlement Project is based on the existing theories, and all the 3 questions are examined according to the guidance of previous literature. It is proven during the field work that basically all the losses and impoverishment risks to various degrees occur to the urban poor in a resettlement project, and some are even enlarged on the displacees in urban villages. However, though the house is often regarded as a fairly productive asset for the poor in most of the literature, it turned out that traditional perception and cultural influence sometimes are likely to hinder its productive functions through decision making. Besides, although most of the reconstruction assistance and facilities mentioned by Cernea are considered acceptable and feasible within the context of the project, suggestions such as land-based reestablishment are usually neither applicable in the Chinese context of dramatic urbanization nor acceptable for the government due to the difficulty on planning, location selection and the so-called "high opportunity cost", especially in secondary cities with limited resources like Pingxiang, although it is almost the only mechanism to completely prevent the risk of landlessness. In terms of house reconstruction, besides the improvement of physical house condition, which is already realized in most of the Chinese resettlement projects, the government should also take the house reconstruction of numerous extended families into consideration since they occupy a large percentage of the affected households, especially in urban villages and rural area; specifically, resettling a large family into several apartments of standard size and located in several buildings, separating the old parents and the later generations cannot be regarded as a complete house reconstruction no matter how luxury the apartments are, thus the location and connection of resettlement sites for extended families should also be included and emphasized in the policy of house reconstruction. Another point that should be mentioned in the assistance for better health care is the extreme significance of better psychological health care including psychological therapy and consultancy. The municipality should focus on improve the displacees' access to better psychological care not only due to the absence of institutes providing psychological assistance but also because a large number of the resettlers in China, especially in secondary cities where the consciousness of psychological care is extremely limited, are neither familiar with nor willing to accept these kind of assistance out of conservativeness. However, since suicide and violence caused by psychological traumas from involuntary resettlement have become a huge problem in China, it is emergent to promote psychological health care for the displacees, not temporarily but constantly, to prevent the risk of increased morbidity and mortality.

Furthermore, although top-down approaches are frequently used in China in terms of reconstruction after resettlement, not only directly providing subsidy and service, but also

taking almost entire responsibility of management and maintenance, and due to both political reasons and the context of the country. However, when it comes to preventing or mitigating the risks and improving the livelihood after resettlement, the implementation should also be designed in a bottom-up way, not only the participation and initiatives of displacees should be considerably stimulated, especially in secondary cities where capacity and resource of municipality is limited, but also the acceptability and capacity thus reaction and degree of cooperation of the displacees should be studied carefully before making the decision of offering certain assistance or facility, in order to both decide the scale of assistance and ensure the effectiveness as well as efficiency. For instance, although training is a fairly effective instrument to improve the displacees' reemployment opportunity, it turned out that a nearly half of the population are not willing to accept it due to various reasons, which is actually not expected by the local government.

5.6 Recommendations

A number of related recommendations are stated below both for the decision making, implementation activities of municipality and for the area of further studies.

Recommendation for the municipality

Although the Tianzhong Lake Resettlement Project already shows a large progress compared with the previous project in both compensation policy and the implementation process, there is still a large space for improvement.

- Ensure sufficient transparency of the policy and knowledge of laws through effective announcements and very detailed explanations to the resettlers, especially the illiterate ones, in order to both eliminate the misunderstanding and protect their legal rights.
- Always respect the displacees' voice during the process of decision making, while the realistic and reasonable suggestions should be adopted, certain alternatives should also be considered for the infeasible requirements.
- Fully activate the community based organizations which are trusted by the grassroots as a extremely effective bridge between the government and the displacees, and transfer certain functions of management, communication, assistance, consultancy and maintenance to the resettlers' own organizations.
- Regard the compensation and reconstruction process as a long-term task rather than a one-off job and a cost of development, keep the process of sustainable improvement even when limited resources can be invested in.
- Focus on enabling the displacees in improvement rather than direct provision except in certain necessary situations.

Recommendation for further studies

Due to the limited period, the research is not able to cover all of the creative improving mechanisms, however further study is expected on the application of benefit sharing system in the context of Pingxiang city as well as the involvement of community-based organization in livelihood reconstruction and improvement.

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Annex 1: Questionnaire

Questionnaire for the resettlers of Tianzhong Lake Project

Ge	nder: Male	Female	Age:		Telephone:	
1.	There are	reside	nts in your far	nily, and	of them are wo	rking.
2.	Does your fa	mily run an	y home-based	business?		
	□Yes			□No		
	If yes, is ther	e any femal	e family mem	ber working i	n it?	
	□Yes			\Box No		
	If yes, it is no	ot possible f	or them to wo	rk outside sind	ce they have to take	e care of the family?
	□Agree		□Disagree	С	I'm not sure	
3.	Are you invo	olved in any	social commu	inity in the vi	llage?	
	□Yes			□No		

		•	y? and service from the community?		
	□Yes, very frequently	□Yes, occasionally	⊓No, never		
5.	Do you have relatives or	r friends living neart	py?		
	□Yes		□No		
	Will you be resettled tog	gether?			
	□Yes		$\Box N_0$		
6.	How long have your fan	nily been living here	?		
	□Less than 3 years □3	3-10 years □10-20	years □More than 20 years		
7.	The overall floorage of the state of the sta	your shelter is	m^2 ;		
	□Single storey house	□2 storey house □	3 storey house □Others		
	The building material is	:			
	□Brick □Concrete □	□Others			
8.	Is there any unmovable valuable belonging on your land? (eg, well, furniture)				
	□Yes		□No		
9.	Does your family own li	ivestock?			
	□Yes		□No		
	If yes, there arepi		cows,chickens, ducks and gooses.		
10.	Your family ownsAre there crops on your				
	□Yes, there are	_mu of commercial of	crops (eg: vegetables, fruits, trees, beans),		
	mu of grain cro	ps (eg: rice, wheat),mu of other crops.		
	□No				
11.	Is there any forest/lakes/	pond where you car	a collect resources?		
	□Yes		□No		
	Can you still get access to	o them after the proj	ect?		
	□Yes	□No	□I'm not sure		
12.	Do you have a stable an	nual income?			
	□Yes		□No		

	Your average annual income is about, Does your family have a stable annual income in total?	
	□Yes □No	
13.	The average annual income of your family is about in total, and the annual consumption of your family is about Your current career is, after the resettlement, your career will	
	The distance between the resettlement site and your current work place is	-
	□Less than 1 km □1-3 km □3-10 km □More than 10 km	
14.	. Do you have any side job?	
	$\Box Yes$ $\Box N_0$	
]	If yes, what is the distance between the work place and your resettlement site?	
	□Less than 1 km □1-3 km □3-10 km □More than 10 km	
15.	. Your main transportation tool is:	
	□Walking □Bicycle □Motor bike □Bus □Car □Taxi	
16.	. Are you renting your house or some of the rooms out currently?	
	□Yes □No	
17.	. Is there any community owned enterprise in the village?	
	\Box Yes \Box No	
	Is there any of your family members working in it?	
	$\Box Yes$ $\Box N_0$	
	If yes, will your job be interrupted by the resettlement project?	
	$\Box Yes$ $\Box No$	
	. Your family can make about yuan from your farmland every year . You are living in your current shelter as:	
	□The owner □The tenant □A relative of the owner	
20.	. Do you own any extra house besides the current one?	
	$\Box Yes$ $\Box No$	
21.	. Are you eligible to the resettlement site according to the current resettlement policy of Tianzhong Lake Project?	the
	\Box Yes \Box No	
	If yes, is your resettlement site already completed or assigned?	

	\Box Yes \Box No
	The overall floorage of your resettlement unit is m ² The price you have to pay for the resettlement unit is yuan/ m ² Your education level is:
	□Secondary school or lower □Technical secondary school □High school
	□Junior college □Undergraduate □Higher than undergraduate
	The highest education level of your family is:
	□Secondary school or lower □Technical secondary school □High school
	□Junior college □Undergraduate □Higher than undergraduate
24.	Have you ever been trained of any non-agricultural skills?
	\Box Yes \Box No
	What kind of skills do you have? There are rooms in your current house, rooms in your resettlement unit, and the resettlement unit is on the floor. Is there pregnant woman/infant/the elderly/patient in your family?
	$\Box Yes$ $\Box No$
27.	Does your family grow vegetables, grains or raise stocks and fowls for self-feeding?
	□Yes □No
28.	Is there hospital/clinic/pharmacy near your resettlement site?
	$\Box Yes$ $\Box No$
29.	Are you satisfied with the current compensation standard and resettlement policy?
	□Yes □Tolerable □Just so so □Not quite □Definitely not
30.	How do you feel about the price of your resettlement site?
	□Quite cheap □Acceptable, within the family's affordability
	□A little bit high □Too high, much higher than the family's affordability
31.	What is your attitude towards the future after the resettlement project?
	□Hopefullife will be improved
	□Not much will be changed
	□Uncertain, anxious and confused

	If you have chosen the last option, why?							
	□Consumption will be raised, exceeding the affordability							
	□Though faced with the high possibility of unemployment, there is no effective mechanism							
	to ensure the basic living standard							
	□ Agricultural land is invaded in the name of development, threatening food supply							
	□ It is difficult to adapt to the noisy and busy urban life.							
	□Price is rising while income is not, the speed of development cannot catch up with the speed of inflation.							
	☐ There is injustice within the process of compensation and resettlement.							
	□The demolition and development process will cause environmental contamination in the							
	area.							
	□The traditional lifestyle and the peaceful atmosphere in the village are difficult to give up.							
32.	Do you and your family members have access to psychological consultation and therapy?							
	$\Box Yes$							
	$\Box \mathbf{No}$							
	□I have no idea about it and don't know where it is provided							
	□Never thought of that							
33.	Is there any common property owned and used by all the residents currently?							
	□Yes							
	$\Box No$							
If yes, will it/them be damaged by the project?								
[\Box Yes \Box No							
34. Are you willing to take trainings of non-agricultural skills after the resettlement?								
	$\Box Yes$ $\Box No$							
If yes, what kind of skills are you willing to learn? 35. There is/are child/children in your family, and of them is/are at school of them is/are at school, will the project interrupt their schooling?								
	\Box Yes \Box No							

36.	Are you willing and capable to run or work in tourism-related business? (eg, souvenir shop, tour guide, restaurant, renting rubber rings or bicycles)						
	$\Box Y_{es}$ $\Box N_{o}$						
37. Does your family have the ability and access to the storefronts within the reset neighborhood?							
	$\Box Yes$ $\Box No$						
38.	Does your family have any savings?						
	$\Box Yes$ $\Box N_{O}$						
	If yes, is self-employment feasible for you?						
	□Yes □No □Never thought of it						
39.	You expect to live on the floor Are you willing and capable to do some gardening? (on the roof or in the garden)						
	$\Box Yes$ $\Box No$						
40.	. What additional infrastructure or service are you expecting besides the basic ones						
41.	What is the main transportation tool for your children to go to school?						
	□Walking □Bicycle □Motorbike □Bus □School bus □Car □Taxi						
	Is there any bus station near your resettlement site?						
	$\Box Yes$ $\Box No$						
	Can you take taxi conveniently on your resettlement site?						
	$\Box Yes$ $\Box No$						
42.	Are you aware of all your legal rights and the government's obligations during the whole process of compensation and resettlement?						
	□Not at all □Know a bit, but expecting more legal consultancy and assistance						
	□It is very clear to me						
43.	Are you familiar with all the policy, compensation standard, planning and related laws about this resettlement project?						
	□Not at all □Have some knowledge about it, but not completely understand						
	□Very familiar						
44.	Which facilities below are considered most indispensible for your family? (Maximum 4)						
	□Kindergarten □Clinic □Pharmacy □Supermarket □Park □Plaza □Playroom						

	□Playground	□Gym center	□Restaurar	nt				
	□Others							
45. Which social insurance and welfare system are you registered in at the mome								
	□Living allowa	nce □Medica	al insurance	□Endowment insur	rance			
	□Others							
46.	. Are you willing to transfer your rural hukou into urban hukou?							
	□Yes	□No	□It d	loesn't matter				
47.	Do you want to be involved in the CBO of the new neighborhood?							
	□Yes	□No						
48.	8. Faced with a huge transformation, what will you miss most in your current lifestyl							
	□Living conditi	on [□Relationshi	p with neighbors				
	□Agricultural p	roducts	□Wonderful	landscape in the vill	age			