

**Adaptation of Resettled Rural Population towards Urban Life in
Nanjing, China: from the Perspective of Resettled Residents**

by
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A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Masters of Arts
in
Planning

Waterloo, Ontario, Canada, 2018

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

The large-scale and continuing land acquisition in China is playing a positive role in regards to the national economic development while resulting in a number of issues among resettled rural residents. For the resettled residents who are forced to move into the city, it contains not only geographical transformation, but also a profound process of adaptation towards the economic, physical and social environment. Therefore, it is essential for the government to act on the issue to maintain social justice, stability as well as sustainability.

The goal of this research is to study the adaptation conditions for resettled farmers, issues faced, and possible solutions. A model derived from Du and Pan (2014)'s study, along with other literature was developed to collect data from two selected communities in Nanjing, China. Data from three perspectives, economic adaptation, environmental adaptation, and social adaptation were gathered with a structured survey, and researching findings were derived from principal component analysis and descriptive analysis. Recommendations towards the planning process on resettlement were also proposed, such as encouraging public participation and taking farmers' opinions into considerations. Policy recommendations based on the results of influencing factors and choices of potential improvements are derived from the perspectives of the farmers, including a high demand for information on social resources and investment, green space for vegetation plantations, and sufficient and diverse compensation and social insurance.

The limitations of this study include the small sample size, the resettlement time differences between the two communities, and the subjectivism towards the questions. For future studies, a larger sample with a longitudinal survey can be proposed to derive participants from more communities, and a more reasonable evaluation measurement of the adaptation level can be designed to minimize the subjectivisms of the answers.

Acknowledgements

I would like to thank my thesis supervisor Dr. Joe Qian, for his continued guidance of my thesis, and opportunities to learn during my years at the University of Waterloo. His expertise and feedbacks were inspiring and valuable for my research. I would also like to thank my committee member Dr. Laura Johnson, and Dr. Taiyang Zhong from Nanjing University, for his interest in my study, and his support on my data collection process in China. I also want to give special thanks to Dr. Pierre Fillion for his comments towards my thesis, and for being my thesis reader.

I would like to give my thanks and love to my parents and our dog Lucky, who have been through this whole process with me, giving me encouragement and comfort, and for always believing in me. And for all my friends, I am so grateful to have you around to keep me motivated, and for giving me the courage to fight against anxiety. You inspire me every day to be a better person and to cherish all the gifts given by life. And lastly, for all the dreamers, all the people who are fighting for a better future, I share this thesis with you.

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Chapter 1. Introduction

1. 1 Urbanization and Resettled Rural Residents

Urbanization refers to population growth in urban areas, usually with major social changes which occur on the way to market-based economies (Siciliano, 2014). Urbanization sets goals in promoting citizenization, where people's social and spiritual needs are ought to be satisfied (Bao et. al, 2016). In China, the pace of urbanization is very fast, along with the increasing number of rural residents and rapid land acquisition process. The behaviour is referred to as an action of "government behaviour" to use the land for the public interest, and this kind of land development has proceeded at a significant speed since the 1980s (Guo, 2001). Based on the level of urbanization and economic growth in China, the number of land-lost farmers would reach 100 million in 10 years (Bao et. al, 2016).

As one of the key terms in urbanization, land acquisition is the consolidation of rural villages into urban residential areas through the process of resettlement. This kind of movement often occurs in a top-down manner where farmers have little say about the process and destination, altering their wellbeing and way of life (Zhang et al., 2016). For resettled residents who are forced to move into the city, there is not only geographical transformation, but a change and transition of ideological concepts and behaviours. The resettlement has influence in many areas, such as work access, level of income, housing, services and infrastructures, which is a profound process of adaptation (Xie et al., 2014).

Urban expansion in China converts the rural land into urban use, leaving a large number of landless farmers who are forced to resort to urban jobs (Tang, Hao & Huang, 2016). Rural life provides an opportunity for the residents to work on a farm with employment security, while urban life has more employment opportunities with higher income (Khoo, Hugo, & McDonald,

2008; Aziz et al.,). However, urban life can bring cultural barriers, social disintegration, and environmental exposure (Thongyou et al., 2014). There are barriers to institutional and market exclusion, residential and social isolation (Liu, 2010). In areas that are more industrialized, rural residents often earn most of their income from non-agricultural properties and activities (Hao, Geertman & Sliuzas, 2011). However, after land relinquishment, farmers become more vulnerable without the living environment they are familiar with. Unemployment, social inequality and urban poverty are what landless farmers are mostly dealing with in their new life (Tang, Hao & Huang, 2016). This problem holds a great impact on the issue of social justice which is highly relevant to social stability.

1.2 Adaptation Conditions and Barriers

According to Cernea (1997), the protection and reconstruction of displaced peoples' livelihood should be the key requirement for equitable resettlement programs. Yan (2013) states that for the past thirty years, the adaptation of resettled residents is not satisfying. The land acquisition leaves some people enjoying the gains, while the rest taking on the burden of development (Cernea, 1997). Vulnerable farmers are facing many difficulties during the adaptation process of urban life, in terms of society, economy, capital, culture, opportunities, and rights (Bao & Peng, 2016).

The key to adaptation of resettled farmers is to overcome the loss of land, which leads to a reduction of income due to the rejection of the labour market (Li & Zhong, 2010). For economic adaptation, land-lost villagers are resettled in the urban areas while in a difficult situation to find jobs to adapt to urban lifestyle (Qian, 2015). Due to their low education levels and lack of essential skills, they usually take on jobs that are dirty, heavy and depressing (Yueh, 2004). The change of consumption level also has a great influence on the life of resettled

residents, as their land is gone, they have to buy the products in markets. They also need to pay for utilities such as heat and water, which increases their living expenses (Ong, 2014; Li et al., 2015). Another adaptation barrier is the lack of information on investment, entrepreneurship and social resources. The residents receive a large amount of compensation at once, but do not know how to use the money to generate long-term profits.

For environmental adaptation, a large number of landless farmers would experience the transition of a life from traditional scattered villages to the urban fabric (Zhou & Gao, 2001). In many cases, the resettled communities are copies of the urban communities, ignoring the rural residential culture, which can be very difficult for farmers to adapt physically and psychologically (Li, Zhao, & Zhang, 2014). The rural residents are forced to move into high-density residential buildings where the living space is limited (Ong, 2014; Zhao & Zhou, 2017). Multi-storey residential buildings in the newly built communities force the residents to live far from the ground level (Hoffreth & Iceland, 2011). The farmers lose the chance to grow their vegetables, leading to high costs for food and concerns for food safety. Besides, the residents no longer have a yard for interaction or recreational activities (Li et al., 2016), while the infrastructures and community services are not satisfying.

The resettlement of rural farmers is also an adjustment social status (Xu et al., 2011). While undergoing a series of transition from rural to urban life, the resettled farmers are having a difficult time adapting to this sudden social change (Hui et al., 2013). Social exclusion and right deprivation turn them into a vulnerable group in the city (Liu et al., 2010). Though they are living in the urban area, they are not considered as citizens, but still farmers. Social networks are very useful when it comes to negotiation with the host community and agents of the market and states. However, the resettled residents often find themselves unable to blend in, culturally

alienated, and socially awkward (Zhang & Tong, 2006). The failure of implementing the guaranteed insurance would also make the resettled residents feel less “covered” or treated like a real citizen.

Therefore, rational urbanization needs to consider the land transformation, occupational transition, economic restructuring and institutional shift as an integrated social-spatial process (Lefebvre, 2003). Luckily, the Chinese government is on its way to change the governance from GDP oriented towards people-oriented (Bao et. al, 2016). The 2014-2020 National New-type Urbanization Plan issued by the Central Committee and State Council states that as a road for China’s modernization, urbanization is converting into the people-oriented process, promoting population urbanization in addition to land urbanization (Huang, 2015). So the key of urbanization is actually citizenization, to help resettled rural residents accept the urban lifestyle and culture, and take actions to finish the transition. Since the resettled farmers often have low levels of education, resulting in lack of literacy, media right of speech, and stigmatization of media pictures. The government has to promote development of these farmers in addition to offering them subsistence in order to help them better adapt to the new urban life (Bao et. al, 2016)

1.3 Study Purpose and Research Gap

While the landscape of the rural area is converted within a very short period of, it is not entirely clear how the policies and services are contributing to the communities in a long-term setting. Reviewing current literature on land acquisition and resettlement in China, a lot of studies have been focusing on the farmers’ opinions towards current local compensation when their land was taken, or the willingness to give up their land for urbanization or to live an urban life (Chen et al., 2016; Shi et al., 2006; Qiong et al., 2013; Qian, 2017; Li et al., 2016), and some

studies focus on the adaptation barriers while providing professional recommendations (Wang et al., 2015; Liu & Ravenscroft, 2017; Lu et al., 2013; Qiong et al., 2013; Zhao & Zou, 2017). However, they do not provide detailed measures to quantify what approaches can ensure the standards of living conditions of resettled rural residents. There is little literature that evaluates and quantifies how well farmers are adapting to the new urban life after the land acquisition, especially on a local scale and from the farmer's perspective.

Landless farmers are rural peasants whose land and land-related rights, such as collective land ownership and land use rights are taken due to urbanization process (Han, Bao, & Peng, 2017). After making a great sacrifice to serve urbanization, landless farmers are not necessarily benefiting from the land acquisition, but experiencing under-compensated situations, discriminations, etc. (Tang et al., 2016). As a group of excellent feedback providers, they do not have much say in the planning process of resettlement. The decision making process of the resettlement is entangled with several driving forces, while landless farmers are considered as a group of passive participants with little or no choice other than obeying the decisions from local authorities (Ding, 2007; Qian, 2015). Therefore, it is important for this study to gather information from the perspective of resettled farmers, taking their opinions into consideration for the future policy-making process.

This study is not only going to collect the viewpoints of the local resettled residents, but also applying statistical analysis on the data to find out what influencing factors are playing the important roles in the adaptation process. Three perspectives are studied in a quantitative approach. Economic adaptation, environmental adaptation, and social adaptation are studied with principal component analysis and descriptive analysis. Recommendations towards planning

policy on resettlement are also proposed based on the influencing factors and choices of potential improvements.

Citizenization of the rural population is one of the major tasks for the new-type urbanization of China, it is a solid way for sustainable development of economy and society. For economic benefits, when farmers are resettled in the city, it is a waste of rural human capital, as it leaves resettled residents unemployed. In the meantime, the city has to take on the extra burden to provide essential insurance and social security (Xiong, 2013). Helping the landless farmers adapt to the economic conditions in the city is going to decrease the financial burden of the local government, ensure a long-term sustainable living standard for the residents, and contribute to the economic development of the region. The environmental adaptation looks into the differences and physical transitions for the farmers after moving into the urban area, which gathers information on what they need in terms of the community design and future neighbourhood planning. The social adaptation plays an essential part in mental health, which is relevant to social maladjustment (Engel, 1977). After the resettled villagers become marginalized in the urban society, issues on social injustice and tension are rising (Qian, 2015). Therefore, the better resettled residents adapt to new urban life, integrating into the city, the more harmonious and stable would the society be (Xie et al., 2014). In conclusion, this study is going to look into potential measures to encourage successful adaptation to the new urban economic, environmental and social conditions, in order to promote a sustainable growth, enhance community designs and lower the risk of social unrest, offering strategies for long-term planning.

1.4 Goals and Objectives

The assimilation of resettled residents to the urban setting has lagged behind the physical conversion, and research on urban adaptation is imperative. The goals of this research are to

study the adaptation conditions of resettled farmers, issues faced, and possible solutions towards the issues. There are three objectives for this research:

1) To investigate the process and outcomes of adaptation of resettled rural residents, and identify the existing issues in the process of adaptation.

2) To analyze the influencing factors under the three subscales-economic adaptation, environmental adaptation, and social adaptation, in order to find out the most influencing variables in the adaptation process with quantitative analysis.

3) To make recommendations towards policy-making during the resettlement process from statistical results on how land-related changes influence economic, environmental and social adaptation conditions, in order to help and encourage rural residents to better adapt to urban life, and maintain a stable and healthy society.

According to the goals and objectives, three research questions can be proposed:

1) What are the major changes after the resettlement in an urban setting?

2) What do farmers find the main problems and to what extent in the process of adaptation do they find in regards to economic, environmental and social perspectives?

3) What efforts are farmers looking for from the government to help them better adapt to urban life?

The reason to choose Nanjing to conduct this case study is that it is one of China's most vibrant metropolitan areas nowadays going through a dramatic urban expansion. With rural villages transformed into an urban area, Nanjing is an intensive and diverse exemplary case. This research examines two communities in the City of Nanjing, Wufu Community in Qixia District, and Zhoudao Community in Jianye District. The study areas are selected by the researcher. Wufu Community is the initial motivation of the research, as the researcher received plenty of opinions

on resettlement when conducting a research on food safety a year before, indicating the importance of the adaptation issue. Jianye Community shares a similar demographic background and history with Wufu Community, as they are both characterized with landless farmers who are forced to move into the urban area. However, they are located within different distances from the city core, representing communities that are close to and far from the highly developed area with different economic, physical and social environment. Besides, the communities were built during two phases of the policy reform with different planning policies towards compensations and social insurances, providing a good comparison.

1.5 Thesis Outline

Chapter 1. Introduction

This section introduces the urbanization process and the resettled residents in China, with their potential adaptation barriers towards new urban life. The purpose is to study the adaptation conditions of resettled farmers and issues faced, in order to find out the possible solutions towards the current issues. It aims to encourage successful adaptation to the new urban living conditions, to lower the risk of social unrest and contribute to long-term planning for a sustainable growth. The research gap, research questions, and research goal and objectives are proposed for the study.

Chapter 2. Literature Review

This chapter looks into the basic concepts of adaptation. The definition of adaptation is described to understand adaptation theories, followed by previous studies done by researchers on economic adaptation, environmental adaptation, and social adaptation. The importance of studying from the perspectives of the resettled farmers are stressed, and a theoretical framework is developed to provide a foundation for the proposed research model applied to this study.

Chapter 3. Planning Context

This chapter starts with the basic background information of the City, explains why it is representative. The second part of this chapter contains planning strategies and adaptation conditions after the resettlement, with a review of policy implementations regarding the three perspectives. It explains how current plans are related to the resettlement process and what the potential issues are in terms of policy-making and implementation.

Chapter 4. Methodology

In this chapter, the method is introduced- a case study with a quantitative research approach. Justifications for selected study areas are provided, and the research objectives are addressed with data collection and analysis methods. A survey with a simple random sampling approach is chosen, with designed questionnaires and open-ended questions based on economic, environmental and social adaptation. Principal component analysis, correlation analysis, and descriptive analysis are performed for the data analysis purposes. For the last part of this chapter, the research ethics and limitations are discussed.

Chapter 5. Research Findings and Discussions

Chapter 5 explains the results of the statistical analysis, with important influencing factors identified and explained. The relationships among variables and adaptation levels are found to answer the research questions and full fill the objectives with descriptive analysis. The interpretations of results and findings are discussed responding to three research objectives. The data-justified existing issues in the process of adaptation are explained in regards to the three perspectives: economic adaptation, environmental adaptation, and social adaptation. The most important factors under the three subscales are further discussed and modified, with an understanding of possible solutions towards the current problems.

Chapter 6. Discussion and Conclusion

This final chapter is the summary of the study background, research design, key findings and recommendations towards policy making in the resettlement process in order to help and encourage rural residents adapt to urban life and maintain a stable and healthy society. Contributions and suggestions for future studies are discussed and proposed in the end.

Chapter 2. Literature review

2.1 Introduction

China is expanding its cities outwards at a rapid pace, with increasing urban area, industrial parks and stellate towns (Cook, 2008). Among all, land acquisition is considered as the primary tool that government uses to support the increasing land demand in the urban and economic development process (Hui & Bao, 2013). The urbanization leads to significant changes in landscape, including the physical environment, economic and social characteristics of the rural communities (Xu, Tang & Chan, 2011). In order to better understand the resettlement process and adaptation barriers in terms of theories and research models, a series of literature are reviewed. First of all, the chapter looks into the basic concepts of adaptation. The following section mainly focuses on the adaptation barriers and theories on three perspectives, economic adaptation, environmental adaptation, and social adaptation. Studies mostly done on Chinese resettled residents are reviewed to provide theories and arguments that are suitable for a research under the local contexts. For the last part of this chapter, an adaptive research model derived from the literature is proposed for the study.

2.2 Basic Concepts of Adaptation

Life is about corporations between inner and outer relationships, and adaptation refers to the fitness between the individual behaviour and the physical and social environment (Gao & Zhu, 2015). According to Berry (1997), adaptation happens to people who are in response to environmental demands. It occurs during the process of transition when the living space and social environment are in change. Social adaptation lies under the balance between individuals and the social environment (Chen & Wang, 2003), which includes the reply of the social lifestyles, cultural and values between individuals as well as the society (Xie et al., 2014). Reber

(1985) considers the adaptation process as “the change of society or cultural trends”, and Zhu (1989) holds the idea that it refers to individuals accepting existing ethics, conduct process and social lifestyle.

Adaptation may take place immediately or be extended over a longer term. It has been found to be in a positive association with the length of time since arrival. Measurements of objective parameters include living and work conditions, social network and language acquisition. There can be an increased “fit” between individuals and the new context, while sometimes separation and marginalization may occur with the groups settle in a pattern of conflict brought up by acculturative stress. Lack of perceived social support, adverse life event, poor family functioning, poor physical health status and non-identification with host society can have a bigger influence on newly resettled residents other than poor material conditions (Lerner, Kertes & Zilber, 2005).

Alfred (1969) presents that the merge of immigrants is a long process with three stages, settlement, adaptation and total assimilation. In this research, the settlement is done with the land acquisition and resettlement process by the government, so it is focusing on the second phase of immigration. For the new residents, their way towards adaptation is through making their behaviours suitable for the social requirements to survive (Jia, 2001).

Nie (2009) suggests that resettled farmers’ adaptability towards urban life is highly related to economic, cultural and social conditions. When urbanization takes place, the conversion of rural land into urban area brings the economic, physical and social urban characteristics into the traditional rural communities, forcing farmers to face a new landscape as well as lifestyle (Friedmann, 2006). Therefore, the following literature reviews focus on the three

aspects of the adaptation process, the economic adaptation, environmental adaptation, as well as social adaptation.

2.3 Economic Adaptation Barriers and theories

A case study in Nanjing conducted by Chen et al. (2016) suggests that resettled residents are more satisfied with the locations, but not with their economic conditions, and employment opportunities. Many researchers have agreed that the land acquisition reduces the long-term income and living support for the landless farmers (Shi et al., 2006), while the compensation only accounts for a very small amount of the profit generated from the land (Qiong, et al., 2013).

Land lost farmers are not the same as migrant workers or traditional peasants, due to the dual urban-rural division policy (Lai, Peng, Li &Lin, 2014). As Chen et al. (2009) suggest, most rural migrants living in the city hold no urban identity to receive services, benefits or recognition. The rural migrant workers usually have essential skills for employment, farmland in the countryside, but little social insurance or compensation, while resettled farmers usually only hold skills for rural farming activities, and in a procession of some social insurance and land compensation. However, there are similar characteristics shared by both groups, such as general low education level, low-income level, cultural and social difference, and a lack of urban identification. Therefore, some adaptation conditions and theories of rural migrant workers can be applied to resettled farmers.

Job creation is of critical importance to the economic sustainability, along with diversification (Liu, Zhang, &Lo, 2014). Employment brings social connections and a sense of self-worth, according to Appleton and Song (2008), and is directly affecting the life adaptation level via income. The key to adaptation of resettled farmers is to overcome the loss of land, which leads to a reduction of income, and the rejection of the labour market (Li &Zhong, 2010).

Based on the resettlement model developed by Cernea (1997), the process of settling people in the income-generating employment is the most important step in livelihood reconstruction. Guo (2001) also mentioned in his study that the lack of alternative employment occupations contributes to economic insecurity in the continuous land expropriation.

A gap exists between people who work in the agricultural sector and those in the non-agricultural sector. When the resettled residents had their farmland, it provided an unemployment insurance. (Hodge, 1984). The transition from rural residents to urban citizens is conducted in a non-market manner, and the settlement is conducted in a market fashion (Bao et. al, 2016). Due to the existing development of the labour market system, resettled farmers cannot acquire a job easily in the competitive market, increasing their vulnerability. (Zhang & Lu, 2011).

The “ability of action”, as Ji and Qian (2011) suggests, is a determining factor whether the farmer is going to obtain resources provided in the urban area to better adjust to the new lifestyle. It depends on the human capital, physical capital and social capital. Physical capital relies on the education level, skill training, and working experience (Borjas, 1987). A study done by Chen et al. (2013) analyzed regional suitability for rural migrants’ settlement, where three indicators were used for measurement, the skills and ability of the resettled community, the degree of urgency, and the government support for resettlement. Besides, the new local industries are usually weak, despite the positive role urbanization played in resettlement and shifting from agricultural industries. The capacity of new urban industry absorption towards labour is very limited, especially with the poorly educated rural population. Rural inhabitants who are resettled could suffer from effects of an increasing labour surplus (Liu et. al., 2004). Therefore, resettled residents are at disadvantage in the labour market of cities compared to urban residents, with fewer job opportunities and worse conditions of employment (Yueh, 2004).

There is a lack of fairness when it comes to employment for resettled residents, leading to failure of satisfaction towards their expectation, leading to the biggest issue on their way to economic adaptation (Yan, 2013). One of the biggest differences between resettled residents and urban citizens lies in the type of work they do. Their limited and informal social networks make them accept unwanted jobs by urban residents (Yueh, 2004). Wang, Lao, and Zhou (2014) conducted a study on the impacts on education level, and the results show that social networks among higher education level have a positive influence on the income. A study conducted in four cities in China also proves that the income is often 8%-9% higher when the high school diploma is acquired (Zhou, 1997). A model for wage level developed by Lu and Song (2006) suggests that urban workers make much more than rural ones, with education and skill training playing positive roles on income. Hence, their employment results in low-quality jobs, as they have to do simple but heavy, dirty and strenuous manual labour while receiving insufficient wages (Zhao & Zou, 2017). The fixed schedule, fast-paced and stressful working conditions require farmers to establish a more structured and busier life routine (Fu & Lenthoo, 2017). Resettled residents tend to work extremely long hours (Feng, Zuo & Ruan, 2002), leaving them exhausted and depressed. (Li, 2006).

The change in lifestyle brings a shift in the consumption structure of resettled farmers. Before the land acquisition, they relied on their own farmland production and animals raised for food and income. However, when their land is taken, they have to buy the products in markets, increasing their living expenses (Ong, 2014). Consumption expenditure, cultural activities also show an increase after living in the urban area (Li et al, 2015). With the development of the society, the living demands are beyond the satisfaction of basic needs, with more focus on the aesthetic enjoyment of the living condition and level of comfort (Taehoon et al., 2012). The

resettled farmers live with better water supply, electricity supply, but also more expenses on utilities (Li et al., 2015). As a result, their cost of living is rising with their new urban lifestyle, adding up to an obvious amount of money (Liu, Zhang, &Lo, 2014), and leading to inadaptation (Xu, Liu &Xu, 2010).

The compensation from the government plays the biggest role in the physical capital during the resettlement process; however, the social support further influences the ability of investment and willingness for entrepreneurship (Ji & Qian, 2011). Education on social-economic resources and employment selections is imperative when it comes to helping resettled farmers adapt to new urban lifestyle, as it not only increases the employment rate (Zhang &Wang, 2006; Sun, Li, & Lin, 2007), but also the ability to choose a suitable occupation while maintaining its stability (Que, Xu &Zhou, 2009). Besides, residents who have better access to information and networks are more likely to deploy social capital to increase their financial opportunities, such as loans, hiring out assets, and money lending (Kabra, 2016).

2.4 Environmental Adaptation Barriers and Theories

When the benefits derived from land acquisition and urbanization are larger than the cost of resettlement, the whole village, the land is converted into an urban area (He et al., 2009). Some researchers hold the opinion that once the environment is changed, the new-comers would automatically adjust to the new lifestyle, neglecting the inner feelings (Shang, 1999; Yang, 1992). But the farmers are mostly involuntarily transformed into urban residents, which means they are forced to undergo huge changes in habitable space and interpersonal relationships (Li et al., 2016).

As for weather conditions, an example can be drawn from the urban heat island phenomenon, which is an important urbanization-induced impact (Arnfield, 2003). In recent

years, urban heat effect has become a dominant element of the city environment (Li et al., 2015). It not only has an impact on local climate but also on human health and comfort (Parz et al., 2005; Gong et al., 2012). The loss of vegetation area and increased impervious surface largely contribute to the urban heat island effect in the resettled areas, making the summer temperature higher than in rural areas (Zhou et al., 2016). The urbanization has worsened the situation by changing the underlying surface structure and increasing the vehicle emission (Li et al., 2015).

Some resettled residents complain that in the urban communities, it is very hard for them to raise domestic animals, such as chickens and ducks, or plant their own vegetables in the open space of the community (Zhao & Zou, 2017). According to a study Li, Wang, Wuzhati and Wen carried out in 2016, many landless farmers still long to engage in planting activities rather than go grocery shopping for daily goods; hence, they would transform the green space or green belt in the community into a plantation zone, or use public spaces for personal uses on food. Some would even breed poultries on their balconies, which influences the environment and space in their neighbourhood (Li et al., 2016). Concerns regarding the plantation are not only for consumption levels but also for food safety reasons, as some farmers believe the food sold in the supermarkets is “unclean and unsafe”, with overused pesticides and hormones.

Social relation plays a key role in the transition, as urban life involves less social ties and interactions besides immediate environ (Hazelzet & Wissink, 2012). In the rural villages, social relationships often occur in the house or private home doorways (Xu & Chan, 2011). Since the rural social network is more based on kinship, they often hold a greater sense of connection and responsibility with others (Stumpf, 2012). However, in the urban communities, the social interactions often happen at the entrance of the apartment buildings, or community centres (Xu & Chan, 2011). The study conducted by Li et al (2016) offers an idea that some farmers can do

nothing but stay outside the apartment unit door since they are quite afraid to get other people's home dirty or walk to the wrong door.

Under many circumstances of land acquisition, the entire village is taken into conversion (Liu, Zhang & Lo, 2014), the city takes away their single-detached houses, and builds high-density and high rise buildings (Zhao & Zou, 2017). In the rural area, the houses are located in an organic pattern, with good lighting conditions and sufficient spaces for a variety of activities (Liu et al., 2015). Moreover, the design of the spaces in an apartment cannot match the functions traditional village houses provided (Li et al., 2016). Another change is the height of their residence. Multi-storey residential buildings in the newly built communities force the residents to live far from the ground level, which could be hard to adapt (Hoffreth & Iceland, 2011). In a study conducted by Xu, Tang & Chan (2011), some people believe that they would die if they lose the land attachment. In order to solve this problem, many elders ask for a lower level to move into and require more sitting areas in front of the building entrance to reattach to the land.

Some researchers hold the idea that adaptation is about action (Yan, 2013). Every household affected could get at least one apartment free of charge, based on the family members and other criteria (Xu, Tang, & Chan, 2011). As a result, their living environment becomes similar to commercial districts, with shared supermarkets, hospitals, green spaces and others. Cao et al. (2017) mention in their study that after land acquisition, there should be high-quality supporting facilities within the resettlement areas, such as schools, clinics, recreational facilities, sports courts, and shopping centres. These are significant contributions to long-term investments in housing, public services and improvements on living conditions (Liu, Zhang & Lo, 2014). When the housing structure and location change, there are also changes in the administrative body. When the resettlement is proposed, the gated community is always considered a default

settlement form (Csefalvay & Webster, 2012). They are usually governed by the homeowners and managed by the professional agents for property (Yip, 2012) along with enhancement of territorialisation and privacy (Blandy & Lister, 2005).

2.5 Social Adaptation Barriers and theories

The adaptation process is a transition from land-based farmer rights of a system towards a human-based citizen rights system. The household registration is not the only thing that shall change, the social security, social connections, and ideology are also in need of development (Zhang, 2008).

A large number of existing studies have been done for analyzing the spatial characteristics of rural settlement, with focuses on the spatial analysis of relationships among rural settlements and multiple land-use types, where factors affecting the distribution were discussed. (Li et al., 2015; Tian, Qiao, & Gao, 2014; Zhou et al., 2013). In recent years, there are more researchers paying attention to social-spatial transitions associated with the land conversion and rural resettlement (Tang, Hao, & Huang, 2016), leading to a socially constructed plan for farmers, rather than just land planning for rural residents. The research mainly focuses on the influencing factors of the adaptation and the combination of functions from both the government and the farmers themselves (Liang & Li, 2014). Some studies show that the adaptation process is influenced by a diversity of social factors, such as self-identification, cultural conflicts, social support, and the household registrations (Li & Yu, 2006).

Social networks are considered as the vital component in the definition of community, which separates it from the residential districts. The most common relationships exist among relatives, neighbours, and people from nearby villages (Shen & Li, 2010). However, when they enter the city, the association becomes weaker. Different from the stable, isolated and

homogeneous communities where dense and tight social economic networks exist among the villagers, now they are forced to be open after the relocation (Long et al., 2012). The resettlement areas are not necessarily accommodating the rural residents from a specific village only. According to White and Guest (2003), the new urban setting would cause the destruction of social ties. They find that urbanization encourages segmentation of communities by discouraging interconnections among residents. However, according to a study done by Xu, Tang, and Chan (2011) in Shanghai, the transition process of resettlement can lead to a frequent social interaction among the residents in the community (Hoggart & Paniagua, 2001).

The social resources can help collect employment information, essential knowledge and social support, leading to a higher social status (Chen & Zhu, 2011). Rural social connections are categorized as a kind of “field” connection, which means they are a restricted and limited variety of social roles (Stewart, 1958). The close personal social relationship plays a key role in their reorganized social life (Day, 2008). Different from the stable, homogeneous groups in the rural setting, urban residents tend to be more interactive with the urban systems to make the most out of urban resources (Oi, 1999). Urban residents shape their identity by their occupation, and one of the major aspects of their social life is with their co-workers. They tend to involve themselves in other social relationships in terms of their interest with the increasing amount of leisure time (Hui, Bao & Zhang, 2011). According to Granovetter (1973), people who gain information out of social network is more likely to obtain a higher social status and income than family relationships. The society offers social support and resources, it's whether resettled farmers have the vision and action to ask for help that really matters in the process of adaptation (Ullman and Tatar, 2001). According to a study done by Wu et al. (2016), over seventy percent of the rural residents would ask for help from their former villagers, while less than ten percent would prefer

to ask from the urban residents. Hence, the resettled farmers are transforming into new citizens, where they need to have a new understanding of life, cultural concepts, social networking, and take proactive changes in terms of how the urban society work (Xie et al., 2014).

Human beings are autonomic creatures, who can react actively towards the changes and stimulations in the surrounding environment. In the concept of citizenization rather than just urbanization, people would adapt to the new living environment with observations and imitations of the existing urban residents. Therefore, there are two perspectives in regards of adaptation, one is to build a decent social environment to help resettled farmers adapt, and the other is to educate the farmers, let them take actions to gain skills and knowledge for self-development, in order to make the transition. Among all, activities are considered a great way for education. According to Iwasaki and Smale (1998), knowledge of the recreational life of resettled rural residents can help people to cope with life transitions, releasing stress, encourage positive changes and promote psychological well-being. The urban setting offers the resettled residents a variety of recreational opportunities (Xue, Kerstetter & Buzinder, 2015). Improved living condition and working environment increase the resettled residents' interest and participation in recreational activities, which help enhance their wellbeing (Fu & Lentho, 2017). The interaction between residents and service environment considers activities as the core of consumer experiences, which can be linked to the benefits people seek (Tkaczynski & Prebensen, 2012). However, when the rural residents are forced to absorb the urban activities in a new network, the differences lying in their careers and the lack of institutional regulation would destroy their strong ties in the post-reform urban society gradually (Wu et al., 2016).

Newcomers' adaptation and community building have social capital, which is a network-based social resource that contains a web of connections, obligations, and loyalties, along with a

sense of commitment. Trust and cooperation of the collective resources can help overcome social as well as economic disadvantages of their outsider status while maximizing their values, leading to economic stability in the new setting (Gold, 1995). It is harder for the rural residents to have a sense of belonging, even after they are resettled in the urban areas. When they are separated from their land, a continuity of previous habits with nature appreciation are pursued, suggesting a connection to their old rural lifestyle. They often feel excluded and insecure, due to the deeply rooted dichotomous societal structure (Fu & Lehto, 2017). The farming life requires the farmers to live a life that is similar, physically and psychologically, therefore, they can easily acquire a sense of belonging. After the resettlement, the difference between people is enhanced, the connections are reduced, and the sense of inclusion vanishes. When the residents compare themselves with the urban residents, the differences make them feel like an outsider. For example, a large number of people assume that urban residents should have an office job, and hence it is hard for them to obtain the sense of belonging in the city without realizing the assumptions (Yan, 2013). Thomas and Florian Witold Znaniecki (2000) conducted a research on Poland farmers immigrated to America, where they adapted to modern city life by getting jobs in industrial business, which helped them to adapt to the local culture.

Gao and Smyth (2011) suggested that some rural residents find the local urban residents being unwelcomed towards their presence in public areas, and looking down on them occasionally. Li (2006) interviewed some rural workers in the City of Tianjin, and discovered such negative views, as many local urban residents thought they are superior to rural residents. Xu, Li, and Jiao (2015) conducted a study that shows the farming-related linkage is not the basic unit of social networks for the resettled residents; instead, the social ties lie in the neighbourhood and labour division. According to Dong, Liu, and Hu (2011), the resettled residents in China are

more likely to confront the market and institutional exclusion, identity and cultural discrimination, and social injustice. However, they usually have a hard time expressing their feelings or fighting for interests, due to the lack of information and knowledge of the legal process (Zhu & Gao, 2015).

Transforming a rural community into an urban one is not only de-agriculturalization, but also involves the acceptance of long-lasting total social norms, values, behaviour patterns, and customs (Liu et al., 2010). From the study done by Huang (2015), citizenization of the resettled farmers includes the “external identity and profession”, and the “adaptability to the urban life”. From Liang and Zhu’s (2015) study, with the changes made on their urban household registration system, the resettled residents have a better chance to adjust to the urban environment; however, in terms of psychological and cultural aspects, there is a great gap existing between urban and resettled residents. Most of the resettled residents still value themselves as farmers (Wu & Qin, 2008), and are likely to maintain their rural lifestyles (Zhao & Zou, 2017); for instance, some resettled farmers would grow vegetables in the urban area, in order to maintain their original identity.

Although the resettled rural residents are staying in the urban setting, trying to engage in urban living styles, they still have deep roots remaining in rural traditions that influencing their use of space and way of life (Xu, Tang & Chan, 2011), and the shock associated with this transition can enhance the difficulty of adaptation (Hui, Bao & Zhang, 2011). Li (1996) points out that when the social environment is changed, their lifestyle formed in previous social environment ought to fit itself into the new environment, and the failure of fitness would cause the failure of adaptation. Hao (1990) mentions that it is essential to learn about the cultural

aspects of the new society, including the values, beliefs, social interactions, lifestyle, as well as social organizations.

The theory of “people in the environment” suggests that adaptation needs social economic resources and space as support. Xiong (2013) found out that the human capital between urban and rural community can only be made up by compensation. The resettled residents are included in the social insurance system, as their household registration is changed from rural to urban residents. Policies like this give more support to the resettled residents in their adaptation process (Fu & Lentho, 2017). The social security policies, including the employment insurance, pension, and medical insurance, are still needed for landless resettled residents (Guo, 2012). A study conducted by Hui, Bao, and Zhang (2011) suggests that, even though the current policies on land acquisition and compensation are improved in nominal terms, the resettled farmers still face exclusion from the urban society. The low social insurance level and lack of public services are barriers on the way to adaptation (Yan, 2013). A number of them would face the new comparison between themselves and local residents, resulting in a sense of exploitation (Zhang and Tong, 2006). For instance, a study done by Zhao and Zou (2017) suggests that resettled residents in Nanjing increasingly complain that they deserve more compensation than what they have received.

2.6 Importance of Studying from Farmers’ Perspectives

The central government addresses the quality of the urbanization efforts in recent years; for instance, by putting forward the National New-type Urbanization Plan for the year 2014 to 2020. The Plan suggests that the land acquisition process should consider the appropriate settlements for landless farmers relocating into urban areas (Wang et al., 2015). The policy system at present includes market control and government participation, while discrimination

exists in welfare redistribution for the ex-farmers (Tan et al., 2011), leading to a great dissatisfaction and barriers towards adaptation (Zhao, 2009). Therefore, it is essential to implement a people-oriented urbanization policy.

The greatest indictment of the current policy is the lack of official recognition of the negative impacts on the culture and economy of resettled households when they fail to adapt to the urban settings (Liu & Ravenscroft, 2017). The failure of engaging and enrolling local stakeholders in the planning and decision-making process has limited the input of local people (Long et al., 2012: p.20). This calls for public participation to be brought into the making and implementation of the policy (Lu et al., 2013), where people's choices and opinions are taken into serious considerations (Li, et al., 2016). Qiong et al., (2013) proposed the idea to study farmland conversion in the perspective of farmers, as they are one big group of the stakeholders in land acquisition, and are excellent feedback providers. Resettled farmers are a marginal group that longs for their voices to be heard in this spatial transformation. Other than just compensating the rural residents with money, in-depth consultation with the landless farmers about their various requirements and expectations of their living space and environment, and feedbacks on adaptation after resettlement should be conducted by the authorities and policy makers in order to help them better adapt to the situation.

Instead of a "top-down" approach, it would be better for the government to use a "bottom-up" approach while planning a resettled community, to demonstrate more concerns regarding the demands from resettled residents after moving into the urban neighbourhood (Zhao & Zou, 2017). Liu and Ravenscroft (2017) suggest a similar approach in their study on Chengdu, China. They hold the idea that just because the policies are top-down in nature, it does not necessarily mean they have to be implemented in a top-down manner. Instead, a bottom-up

policy implementation with effective actions is more suitable in terms of equitable and successful realization of the schemes. Even in some cases, where it is necessary for a top-down approach, implementing policies from bottom up is ought to be taken into considerations, with support on community actions (Liu & Ravenscroft, 2017).

2.7 Theoretical Framework and Research Model

The changes in the living environment from rural to urban society are never easy since the urban-rural divide in China has infiltrated into various of aspects in life; for instance, the employment, housing, social insurance, public infrastructure and so on. (Chan, 2009). It is important to understand that the process of urbanization is not a one-step, straightforward project, but is taking many stages in different aspects in order to complete and optimize (Xu, Tang & Chan, 2011). Being involved in both may provide better well-being, which means the urban society's policies and institutions should help the newly resettled residents with physical and social assistance, such as employment opportunities and chances for them to maintain some of their culture (Li, 2004).

When adapting to the new environment, education, living, employment situations are seriously affected by the original lifestyle, and how to merge the old social network with the new one is a key issue for new settlers. In order to find the possible solutions towards adaptation issues after resettlement, Cenear (1997) proposed a risk and reconstruction model with three aspects: capturing economic and social substance, overcoming the risk through its origins, and informing social problem-solving processes. According to Qian (2017), there are five transformation phases for the resettled residents in China: 1) the conversion of farmland to urban areas by the government; 2) the demographic transformation of residents from rural households to urban household status; 3) the conversion of the lifestyle; 4) transformation from an enclosed

community to an open urban community; 5) the development and growth of socio-economic networks that help the resettled residents for successful adaptation to the new society.

Some researchers studied this issue while focusing on macro levels, as economic, social and environmental aspects (Zhang, Lei, 2008; Zhu, 2002; Wang & Wang, 2008), and there are also some people who focus on micro levels, as lifestyle, cognition, and behaviour, and social connections in a new environmental setting (Jiang, Xu & Chen, 2007; Yang, 2010; Guo, Yao & Yang, 2005; Wang & Shi, 2010).

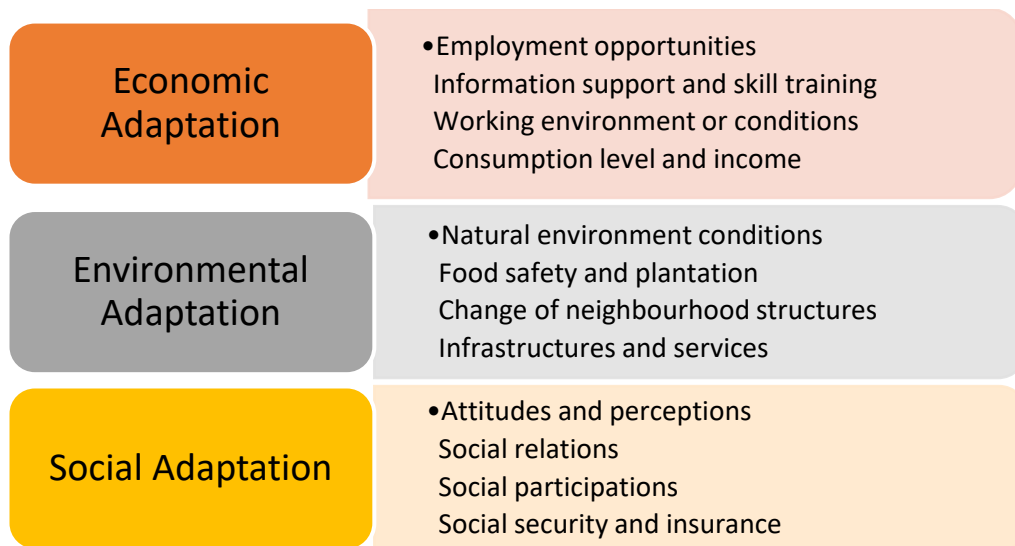
Chinese researcher Liang and Wang (2010) proposed a four-dimension model to measure the adaptation process, as in economic adaptation, social adaptation, political adaptation and cultural adaptation, similar to the one John and Richmond developed (1975). Similarly, Nie (2009) suggested that resettled farmers' adaptability towards urban life is highly related to economic, cultural and psychological conditions. According to the Maslow, the need of human can be categorized into different levels, from the basic need of survival to the realization of self-value. Based on this, Zhu and Gao (2015) designed their interview questions with a hierarchy of influencing factors, including employment which decides the satisfaction of basic living; lifestyle and social network which reflect the social participation of resettled residents of urban activities; environmental adaptation which determines the acceptance of urban settings and senses of belonging. They studied adaptation using economic base, knowledge and skills, ideology, and cultural concept as factors to measure the similarity between resettled farmers and original urban residents. They referred to the Theory of Action by Talcott Parsons, stating that resettled rural residents should be autonomic and take actions to cope with the new urban environment. The study done by Xie et al. (2016) measured the adaptation with the new citizen urban adaptation scale developed by Du and Pan in 2014, which contains five dimensions- environment

adaptation, work adaptation, values for adaptation, interpersonal adaptation and psychological adaptation. The model considers resettled residents' adaptation towards the new urban society as a transformation of awareness of life, economic conditions, interpersonal relations, and cultural conceptions, in addition to the inner sense of belonging due to environmental changes. Lin (2009) mainly focuses on the economic perspective, stating that the influencing factors of the adaptation contain economic development level, the attachment to the land, and compensation from the government. Feng (2005) however, has two study perspectives regarding social adaptation perspective- psychological adaptation and behavioural adaptation. To study the social adaptation, Zhong, Li and Yu (2009) propose three adaptation aspects towards resettled rural residents, which are social adaptation, cultural adaptation and psychological adaptation. Ye (2008) looks into the adaptation process with parameters of urban employment, social psychology/identity, and social interactions, with cultural adaptation as the nature of landless farmers' social adaptation. Wu (2013) suggests two perspectives to study the adaptability, the first one emphasises on the influential factors-social memory, social identity and urbanization scheme; the second perspective focuses on citizenization- willingness, urban discrimination and government policy.

According to the existing literature, three perspectives are derived, which are economic adaptation, environmental adaptation, and social adaptation. In fact, the economic, environmental and social aspects are deeply connected. The first aspect is the environmental adaptation, where transitions of surroundings happen, followed by transitions of roles and social activities, which includes the changes in activity rules (Jia, 2001). Liang and Li (2014) focus on the influence of individual characteristics of resettled farmers on the adaptation process. They suggest that the psychological identification influenced by the new physical environment is one

of the most important factors (Zhang & Tong, 2006), followed by the education level and skill training which contribute to the employment (Lou, 2005). Their personal social network and willingness of citizenization also have a positive relationship with employment rate (Qian, 2005; Wang, 2012; Li & Liu, 2012). Similar to research mentioned above, aspects such as social adaptation and psychological adaptation (Tian, 1995), social economic adaptation (Jasinskajap-Lahti, 2008), environmental identity (Tao, 2000), living condition adaptation (Wang et al., 2003) can all be taken into considerations when designing the measuring scales for adaptation.

The model originally developed by Du and Pan (2014), whose scales are verified for reliability and validity in their study, is modified according to the background situations of this research, with three perspectives that are going to be examined through quantitative-based methods. The first one is the economic adaption, including the employment condition and income, working style, consumption level, and information on investment, etc. Environmental adaptation comes next, with changes happening in the physical environment and surrounding properties, also how the new community structures affect people's daily life and their attachment to the land. Social adaptation is going to focus on interpersonal relations among resettled residents and original urban residents, social participation, as well as social security. As for the different values on life for adaptation, this study is going to sort it into social adaptation, for it concerns the capability of adaptation towards the urban cultural conception and way of thinking (Du & Pan, 2014). The chart below demonstrates the categories of the variables examined for the purpose of this study.



There are plenty of studies on the satisfaction towards land acquisition compensation and how well they are being implemented, but little about how resettled residents are doing with the new living physical and social environment after getting relocated. Besides, existing literature focuses on the scale of a region or province, while few put their focus on a community in a city which can actually provide more detailed opinions and experiences of resettled residents. As a group of excellent feedback providers, they do not have much say in the planning process of resettlement. The decision-making process of the resettlement is entangled with several driving forces, while landless farmers are considered as a group of passive participants with little or no choice other than obeying the decisions of local authorities. Therefore, it is important for this study to gather information from the perspective of resettled farmers, taking their opinions into consideration for the future policy-making process. From the literature and theories reviewed above, there is a suitable model of research with three different perspectives representing the adaptation level of the resettled residents. As the research gap is filled with the investigations on their living condition and current lifestyle, the adaptation, and satisfaction towards resettlement life are going to be under the light. Moreover, this study is not only going to propose policy

recommendations towards the planning decisions on resettlement from the perspective of a researcher based on the adaptation barriers, but also going to ask the farmers what they want the government to do better in order to help with their life, proposing a new perspective of policy suggestions.

Chapter 3. The Planning Context

3.1 Introduction

As a city located in the southeast part of on mainland China, Nanjing holds a suitable location for development. At present stages, resettlement is becoming a sustainable development process, with a total urban area under control and revitalization along the way. This chapter starts with the basic background information of the City, explaining why it is representative. Several Master Plans of the City were presented for their goals and objectives for the city design and future development. The trends and planning strategies are examined in order to make sure this research falls under the planning context of the City. The following part presents how related planning policies influence the resettlement and adaptation process, and what can be done to improve the adaptation conditions for the resettled rural residents.

3.2 Research background

Nanjing is located on the east coast of China, about 300 kilometers from Shanghai, with Yangtze River winding the way through the city from west to east, as the map (Figure 1) shows (Made in China, 2016).

Enclosed by rivers and mountains, Nanjing lies in a strategic place with natural landscape perfectly merged with towering modern buildings. The city has a population of over 6 million people and a perfect blend

of traditional and modern architectures. It holds a very long and at some point, violent history since it is one of the four ancient capitals (Nanjing, 2013). Meanwhile, the cultural legend of

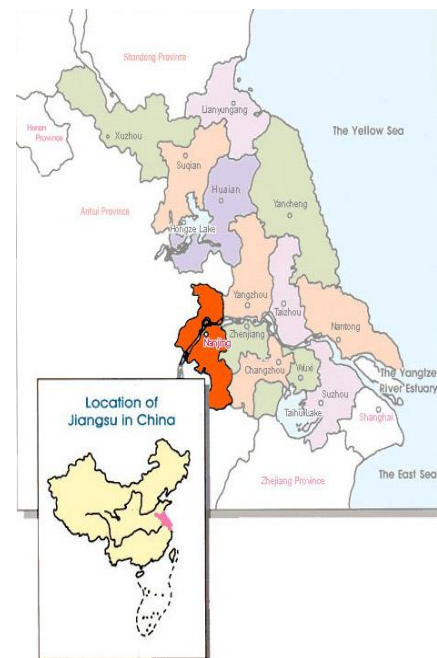


Figure 1. The City of Nanjing. (Source: Made in China, 2016)

2,500 years has contributed to this essence of the creativity. There are 11 districts and 2 counties in Nanjing. As a very important comprehensive industrial production base of China, its chemical and electron in industry capacity stand the second place throughout China. It is categorized as one of the Forty Excellent Cities in investment for hardware, and one of the top 50 cities regarding comprehensive strength. Recently, Nanjing has been developing rapidly, with investments bringing in large companies from both across the country and abroad. Multiple universities are built in Qixia District, creating opportunities for local business and attracting high technology companies to settle for innovation (Made in China, 2016). According to the official site of Nanjing (2013), the City has become a paradise for entrepreneurs from different backgrounds all over the world.

As Nanjing Municipal Planning Bureau (NMPB) states in the Master Plan of Nanjing (2008-2020), the ideology is to carry out the Scientific Outlook on Development, to build the construction of a resource-saving and environment-friendly society, and to promote the fundamental transformation of the mode of economic development, spatial growth pattern and regional coordination for both urban and rural areas in Nanjing, in order to realize the sound and rapid development of Nanjing's economy and society.

Unlike the existing national central cities such as Beijing, Shanghai, and Shenzhen, Nanjing is recently upgraded as the eastern central city. The Chinese State Department (2016) suggests that Nanjing is a city with great potential, and the further development should take place in its surroundings while having the city core under control. This promotes more land acquisition and resettlement as well as urban revitalization, making Nanjing representative for developing cities in China with rapid urbanizations and resettlement.

3.3 Planning Strategies and Adaptation after Resettlement

The management of Chinese government can be divided into GDP-oriented (urbanization) and people-oriented (citizenization) governmental performance management phases. From the early 1980s to 1990s, the government policies were mainly focused on the disadvantaged people, the protection measures included production resettlement, welfare resettlement, lifetime guarantee, and land usufruct returning (Bao et. al, 2016). In the 21st century, the focus of the policy has gradually shifted to support resettled farmers. As Zheng and Sun (2006) stated, to solve the difficulties farmers face, development of land lost farmers must be prioritized rather than only offer subsistence. Hence, resettlement became a sustainable development process that includes compensation supports, employment, housing and social security, and building a sustainable long-term protection mechanism to help land lost farmers adjust to urban life (Shen, Peng, Zhang & Wu, 2012).

3.3.1 A review of Policy Implementation

The local state plays a relatively large role in regards to land centered urbanization process. Ever since the mid-1990s, the urbanization and economic growth have been depending on the land-centred policies (Deng & Huang, 2004) where the enforcement of land policies from the central government is usually hard (Qian, 2008). During the urban expansion, political power is often connected to personal interests of the private developers, rural collective cadres, and local officials (Qian, 2017); therefore, the present urban spatial sprawl is more likely to be driven by the lucrative local state (Ping, 2011). The land-related policy modification generates new tensions among the authorities and other market participants.

Land and profit-hungry local states use the land to generate profits (Ho & Spoor, 2006), bringing spatial and social transitions from traditional rural lifestyles to urban lifestyles, with

subsequent process of adaptation within the resettled society (Hui et al., 2013). The adaptation has two phases, the first one includes the population status change, economic and physical transformation comes along, and the other one includes social changes, such as their ideology, values, culture, lifestyle, and mindsets.

In 1986, the “Land Management Law” was introduced to set fundamental rules to determine the standards for land compensation, including compensations for the farmland, young crops growing on the land, and resettlement subsidy. In 2004, the law amendment increased the highest standard to thirty times of annual income generated from the land for the preceding three years, but an issue was raised as the rural land value was determined by policy instead of market price, leaving the farmers out of the share of huge differential rent in the market brought by the development after land acquisition (Zhao, 2009). Besides, the compensation only took direct economic losses into account (Ma & Hu, 2014), which did not consider the values of social security, environmental ecosystem, lifestyle, and rural culture. In recent years, in order to cope with the complicated situations of land acquisition and resettlement, new approaches are introduced and put on trial in some cities such as Nanjing. However, the process of decision making and implementation are not transparent and can be quite confusing to the farmers where they still have very little control over.

Since 2000, Jiangsu Province adopted a variety of resettlement policies to enhance the life quality and living conditions of resettled residents in the urban areas, and Nanjing was an initial choice for the institutional reform. There are two major policy reforms in Nanjing since the 2000s. The first phase is from 2004 to 2011, during which Wufu Community in Qixia District was resettled. The following phase is from 2011 on, which Zhoudao Community in

Jianye District was founded. The reasons for community selection are justified in the following chapter with further explanations of the study areas.

3.3.2 Policies on Economic Adaptation

In the first phase of land policy reform, the compensation policies were premised on increasing the amount of the fees to secure a basic living standard for the resettled residents (Zhou et al., 2014). The local government revised the policies in a local context and the standard was raised to 270,000RMB/ hectare of farmland in a monthly payment to the personal accounts of the resettled residents.

This stands for a breakthrough of the amendment of the compensation policy in Nanjing, offering a sustainable living income for those who lost their income sources with farmland.

However, the policy reform in 2004 was not considering the land market price in regards to the location and type. In 2011, the local government of Nanjing began to take location and market values of the land into considerations, introducing differential land rent to the compensation policies. The price level for some land rose to over three times than the standard in 2004.

As the Plan (2008-2020) mentions, the City plans to promote the idea of attracting rural residents to work in the industries, and encourage manufacturing to promote the development of farming (NMPB, 2008). The resettlement allows rural residents to move into the urban areas, living in a complete neighbourhood, and thus encourages the development of rural area. A large number of universities and scientific research institutions near resettled areas offer rich resources of science and technology, attracting high-tech and innovative companies to invest and locate in the region (NMPG, 2009). For example, the university cluster in Qixia District and the ecological technology island in Jianye District have developed projects that have attracted high-tech talents

and companies, contributing greatly to the development of the region and providing employment opportunities for newcomers.

3.3.3 Policies on Environmental Adaptation

According to the implementation of Nanjing Compensation and Resettlement of Housing Demolition designed by Nanjing City Bureau of Land and Resources(NCBLR) (2007), the resettlement is taking place under the city planning, land use planning, and urban construction planning. There are two kinds of money compensations, one is the compensation for the original residents, and the other one is for resettled residents. The latter one is managed by the Sub-district Office to be used for community planning and neighbourhood building. As for the location of the resettlement, it follows the principle of "relative proximity" (NCBLR, 2007), in order to have the rural residents relocated in a short distance from their original living place. This creates a similar living environment for the resettled residents, which helps them to better adapt to the urban physical settings. The newly built residences belong to the affordable housing, with preferential policies provided by the government.

The objectives for planning in the Master Plan (2008-2020) includes strengthening the coordination between the city core and surrounding areas in the industry, infrastructure, and environmental protection to speed up the development of rural areas and promoting the equalization of basic public services in resettled communities. The areas for resettlement are put in use for supporting the city function and services, for instance, the Jiangxinzhou (Central Island, Jianye District) is located around the city core and developed as an ecological technology industrial island to contribute to the economic and ecological development of the City, along with rural residents relocated on it. Therefore, the resettled communities hold a convenient spot for business, service and commercial goods trading. The current plan suggests a hierarchy of

commercial cores from the city center to surrounding areas, allowing residents in all parts of the city to have access to shopping centers and business activities. To realize this objective, Nanjing needs to increase the stability of urbanization, manage the quality control of city development in the case of rapid growth of the population, and to accelerate new patterns of coordinated development of urban and rural agglomeration development.

3.3.4 Policies on Social Adaptation

As for the city building, the Master Plan of Nanjing promotes a transit-based city planning and design model, enhancing connections between the city cores and surrounding areas. The goal for community planning in the area is to integrate urban facilities with the living environment, creating complete, healthy, safe neighbourhoods with a decent natural environment (NMPG, 2009). The Master Plan of Nanjing for 2007-2030 proposed a city with dynamic economic development, distinct cultural characteristics, beautiful living environment, and a harmonious atmosphere where residents can interact with each other and enjoy recreational activities. After the first phase of policy reform, the resettled residents do not hold many social security programs enjoyed by the urban residents, failing to break the dualistic system between the rural and urban society farmers (Zhou et al., 2014). However, the landless farmers can now enjoy basic social insurances as urban residents (Zhou et al., 2014).

Chapter 4. Methodology

4.1 Introduction

In this chapter, the research design is introduced to two selected communities, Wufu Community in Qixia District, and Zhoudao Community in Jianye District. The chapter presents an introduction to the study areas, data collection methods, data analysis process, and research ethics. With a goal to find out the adaptation condition of resettled farmers and possible solutions, I conducted a case study of two communities. I collected data through a structured survey, with questionnaires and open-ended questions. Data were collected with a simple random sampling method, with a response rate of 75%-90% in the two communities. A valid return sample size of 150 residents was derived from each community. I then applied a quantitative approach to data processing and analyzing.

4.2 Case Study and Study Areas

The case study originates from the desire to obtain a deep understanding of a small number of cases (Yin, 2012). By conducting a case study, the researcher engages in a close analysis of the research questions on a specific geographical level (Wicks, 2010). Lloyd (2010) have applied cases studies to understand the tensions inside of a gentrifying community. Berg and Lune (2010) adopt similar approaches to obtain an in-depth understanding of the phenomenon. Therefore, I carried out a case study in Wufu Community and Zhoudao Community, which belong to Qixia District and Jianye District (Figure 2) in



*Figure 2. Study Areas.
(Source: Lehuolishui,
2017)*

Nanjing. The aim is to obtain a rich understanding of the proposed research questions. The study

areas are selected by the researcher. Wufu Community is one of the reasons why the study is conducted. When I was conducting a research on food safety a year before, I received a large number of complaints about the resettlement policies and community designs. The reason to choose Wufu Community and Zhoudao Community include their similar demographic, historical and cultural backgrounds. They are both in the midst of a significant growth and reform, promoting research interest. The neighborhood went through drastic modifications with long-term implications on individual lives and the city as a whole. However, the resettlement happened in different phases of policy reform, and in a different location which resulted in different economic, environmental and social conditions of the communities. The differences provide valuable comparisons between the two situations, and the detailed comparisons of the backgrounds are provided below.

Due to the development of the university cluster in Xianlin, Qixia District, farmers from the area were resettled in a newly constructed neighborhood lying remotely from the city core.

Wufu Community is one of the resettled community. The detailed zonings are shown on the map, with Wufu Community marked as the yellow star (Figure 3). Wufu Community is a resettled community built in 2006, due to the construction of Xianlin

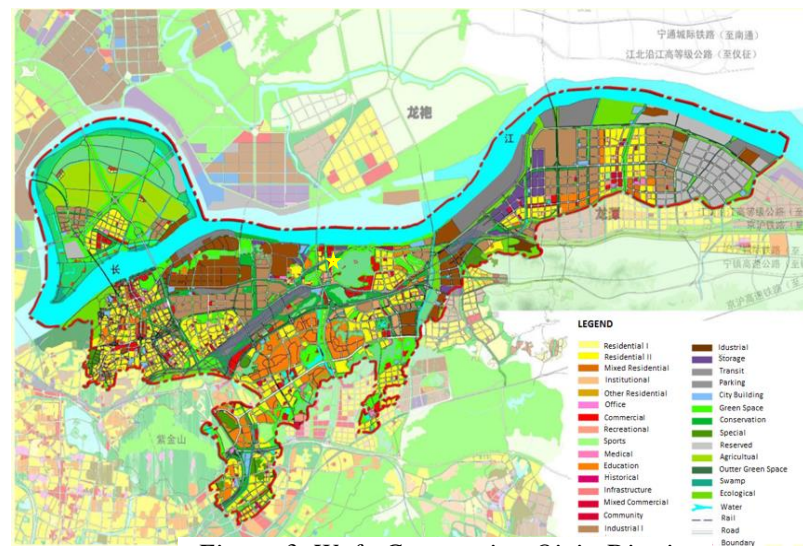


Figure 3. Wufu Community, Qixia District
(Source: Tao, 2010)

University Cluster and Shugang Road. It has an area of 240,000 square meters, with 72 buildings and over 2500 apartments within the area (Fang, 2017)

The planning department builds an eco-park on the island which lies in the center of Yangtze River, and the farmers on the island are resettled into high-rise residential buildings due to the park constructions and commercial districts. The zoning of the district for this island is shown in Figure 4 (Yu & Yao, 2010), and Zhoudao Community is marked as the yellow star on the map. Zhoudao Community is one of the resettlement areas for rural residents built in 2014. The total areas of the community are 232,000 square meters. The Lvzhouyuan and Huafangyuan are community groups that are built and put in use first, with around 3000 apartments in high rise residential buildings (Fang, 2017).

There are some similarities between the two communities since they are all built for resettled farmers that have similar backgrounds, such as low education levels, rural living experiences, cultural characteristics etc. However, due to their unique locations, time for development, policy reform experiences, the compensation and social insurance policies, employment opportunities, new living conditions, and social environment can be quite different in terms of economic adaptation, environmental adaptation, social adaptation.

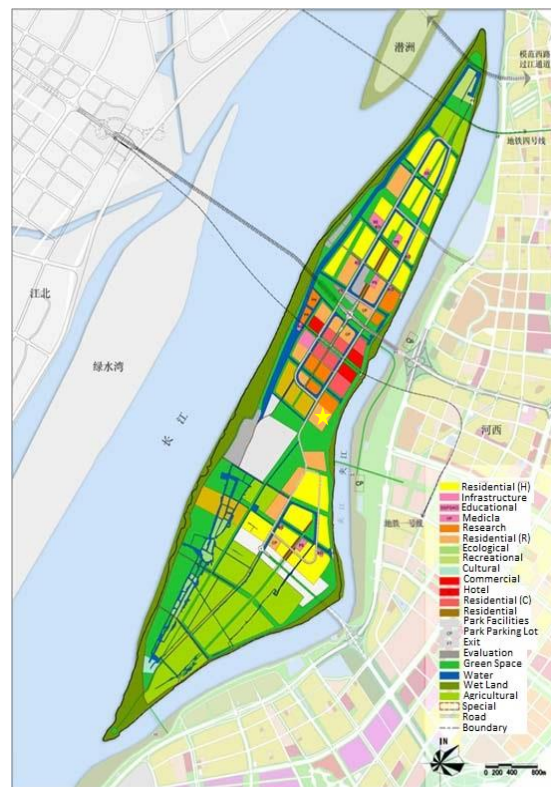


Figure 4. Zhoudao Community, Jianye District

For economic adaptation, according to the 2010-2030 plan of Qixia District, the objectives include infrastructure and service construction to enhance the function of the city, developing Longtan area to keep up with harbor economic growth, encouraging local industries and land intensifications (Tao, 2010). The surrounding working opportunities are mainly heavy industries or manufacturing companies, such as Kanghua construction company, Mingfeng fertilizer factory, and Nanjing Shiyue printing factory, etc. These companies and factories offer low technical job opportunities that are more suitable for resettled residents with low education levels. On the other hand, the income for the job would not be high enough to satisfy urban life, and the working environment can be quite dirty and stressful. According to Nanjing Jianye 2010-2030 Plan, the objectives contain heritage protection, international relationship development, and ecological conservation. The government wants to build it as a brand of Nanjing with its high technological industries, innovative and ecological friendly projects. For the economic adaptation of the residents, unlike Wufu Community, there are mainly educational institutions, hospitals, tourism companies, and ecological scientific institutions. Therefore, they offer diverse job opportunities for urban residents or people with an academic background; however, due to the low education level of the resettled rural residents, the employment rate is quite in doubt. Similar to Wufu Community, the working pace for mentioned jobs is a lot faster than working on a farm.

For environmental adaptation, Wufu Community is located far from the city core or well-developed areas. It is located on the west side of Qixia Mountain Conservation Area, with a great natural environment and a comfortable climate. The buildings in this community are generally about seven storeys, which are different from houses they used to live in. The Plan for Qixia District encourages environmental protection and transit system enhancement for people (Tao,

2010). The outsides of the community are taken by factories and highways, so services and infrastructures are mainly located within the community as small-sized markets and shops. Travelling towards the other parts of the region is inconvenient, and there is a low rate of car ownership among the resettled residents.

For Zhoudao community, it is located near the city core and well-developed areas. With the Yangzi River Bridge connecting the island with the mainland of the city, and multiple subway lines and bus routes in use, the island is developing on a fast pace with a blueprint of building it into an ecological high-technological island. The services and infrastructure are recently constructed, and not only limited to the community. This is a place that highly connects to the outside and the buildings are high-rise apartment buildings, compared to those seven-story apartments in Wufu Community. The climate for this community is nice, with Yangtze River on its side with a large number of green spaces.

As for social adaptation in Wufu Community, due to the closed mode of this closed-gated community, residents do not need to interact with original urban residents so often. The location and living environment have changed for the rural residents, but people around them remain the same. Similarly, the cultural difference is less significant. The community was built before 2011 when the compensations for farmland were not evaluated based on market price, which were far from enough for the residents to live a decent life under the urban consumption conditions, and the social insurance was insufficient. Due to its location and surroundings, the residents in Zhoudao Community share have a closer connection and contact with urban residents compared to the Wufu Community, making social adaptation less easy. The high-technological companies and tourism industry bring in both workers and visitors, with an increase in human interactions and activity participation. So they are facing various cultural differences and comparisons

between workers and visitors. Luckily, the community was built after 2011, with land price evaluated considering both location and quality, which increased the amount of compensation and social insurance greatly.

According to the analysis and comparisons of two study areas above, they are chosen to represent two kinds of situations, where the researcher can examine the influencing factors with different circumstances at a local scale.

4.3 Data Collections

Surveys consisting of both questionnaires and open-ended questions were carried out in September 2017 to collect data for this research. With statistical approaches for data analysis, the quantified associations between the adaptation level and each explanatory variable can be found (Palys & Atchison, 2013). A questionnaire is easy to answer and takes less time. It can be answered in private, leaving the data totally anonymous and confidential. So it is good for sensitive questions such as income level. The open-ended questions give the participants a chance to express and explain their opinions towards the current issues, and their expectations towards the policymakers.

In general, the social survey often uses a random sampling method to pick the population at a random level. However, in reality, sometimes the sample cannot represent the characteristics of the population. This can be improved by setting selection criteria before selecting the sample and use a larger sample size to extend the range of population covered in the research (Lameck, 2013). As there are approximately 3000 apartments in each community, I drew a sample of 5% on a simple random sampling basis, which resulted in 150 surveys in each community. There were two criteria for the selection of the participants. First of all, they must be a resettled resident who used to live in the rural area before moving into the city, and they must live inside of the

selected community currently. The other criteria required the participants to be over eighteen years old. These recruitment methods excluded some residents but guaranteed the quality of questionnaire results. Due to the confidential reasons, I set the sampling unit as individuals. There was no way to determine whether the participants belong to the same household, as they were reached in a public setting.

This research was conducted on Fridays and Saturdays, from 9am to 4pm. For this study, the valid return rate for Wufu Community was 90%, and the rate for Zhoudao Community was 75%, resulting in 300 valid responses in total for further analysis. The response rate was calculated based on the in-person refusal after the researcher explained the study to the potential participant. There was a large number of people who would walk away before the researcher talked to them, lowering the response rate to around 30% for both communities. To maintain the same sample size for the data analysis, the researcher evaluated the data quality on site to determine if the data was valid, and kept count until reached 150 returns in each community. The high response rate is a result of the little time and effort required to complete the survey, confidential agreement that gained trust from the participants. More importantly, it is because the residents are not satisfied with the current conditions, and the survey provided them a way to express their opinions and the hope for a change.

When conducting the survey, the researcher started from the inner part of the two selected communities and conducted the surveys along multiple directions from the community core to the edges. Hence, the samples were equally distributed among the study areas. Due to safety reasons, the researcher did not knock on individual doors, but approached the participants in public space, such as community parks, parking lots, and at the foot of the apartment buildings. This can create some bias to the data, for example, female residents and the elders

more likely to appear in public places. The data was collected based on a face-to-face situation, so the content and questions could be clarified when necessary. The researcher firstly approached the potential participants with the information letter to ask if the residents meet the criteria of the recruitment standards, if so, whether they were willing to participate in the study. There was no contact prior to the day of data collection, and no name or personal address was recorded on the survey data sheet. If they would like to have a feedback report, they could provide their contact information. The information was recorded on a separate sheet and stored in a different place from the surveys.

In terms of questionnaire design, three aspects mentioned above were merged into the following questions:

1) What do you think are the major changes during the adaptation process in the new urban setting? (In terms of living environment, working and employment conditions, and social conception that should be noticed.)

2) How are you adapting to the urban living environment, and what has been easy or hard to adapt to? (self-evaluation)

3) What are the most influencing factors that you find in your adaptation process?

4) What are you looking for from the government and policymakers to improve the adaptation capability towards the new urban life?

Therefore, surveys (Appendix 1) with both questionnaires and open-ended questions were carried out in Wufu Community and Zhoudao Community, with 39 questions in total. The questions represented adaptation conditions from multiple subjects. There were 27 variables from three perspectives, so I used a five-point Likert scale to evaluate the level of adaptation

with choices of "mostly disagree", "somewhat disagree", "moderate", "somewhat agree", and "mostly agree" for the questionnaires.

The questionnaire started with items on basic information, such as age, gender, level of education and social identity. It asked for the occupation of the residents before and after the land acquisition, as well as their income level, as part of the demographic data collection. There were 27 variables in total under the following perspectives, with three open-ended questions in the end. For economic adaptation, potential questions focused on employment opportunities and job selection, indicating the difficulty in finding a decent job with limited education level and skills. Other than taking the money offered by the government, the questionnaire asked if they managed to gather information on investment, and entrepreneurship. The following part moved on to the working environment, which is different from the openly farming land in the rural area. If the resettled residents got employed, there could be a chance that the jobs are low-paid, dirty, heavy, and stressful. As the living expenses were much higher in the city than in the rural villages, their income and compensation might not be sufficient. The distance from home to work was another variable in this category, for their working location was changed from nearby farmland to somewhere in the city or further.

As for environmental adaptation, I proposed possible changes in the living environment. The weather condition was the first variable. Before the resettlement, rural villagers grew their own crops, vegetables, and animals; however, the change of the neighbourhood environment required them to buy the products from the supermarket instead. This increased their living expenses and raised the concern for food safety. The high rise buildings increased the intensity of residents, but also limited them from interaction and visitation in their yards. Moreover, sometimes they mix several villages that were resettled into

one community, increasing the unfamiliarity among the residents. As discussed in the literature review, many rural residents found themselves deeply attached to the land on the ground, the higher building level they live, the more insecure they feel. The questionnaire also asked about the style of gated community, if they felt the gates are inconvenient. Lastly, it asked for their opinions on the newly built infrastructures and services.

The social adaptation was designed to include the changes in the social network, such as making new friends among resettled residents and urban residents. So the first question in this part asked if they can get along well with the urban residents. Due to the cultural differences between urban and rural society, the resettled residents lacked interest in celebrating festivals or attending community recreational activities. Another question asked if they can follow up with urban thinking style and values and if their old traditions could blend into the new urban setting. Even when their household registration was changed into “urban residents”, they had a high chance to be excluded by the original citizens. More importantly, the survey asked if the residents find the social insurance sufficient, which was essential in terms of social security. After the questions on their adaptation levels in regards to the three aspects, the survey moved on to the policy perspective.

There were eighteen potential planning policy recommendations based on each of the questions in the sections before, proposed by the researcher while drawing ideas from the literature (Hui et al., 2013; Li et al., 2016; Liang & Cao, 2014; Liang & Wu, 2014; Zhao & Zou, 2017), towards the local and central government. Some of the recommendations are in response to the 27 items under the three perspective. The participants were asked to select the recommendations they prefer, or they could provide their own opinions in response to the open-ended questions.

4.4 Data Analysis Process

In the study carried out by Du and Pan (2014) on new citizens' adaptation to the urban society, they develop a model with five perspectives, including economic adaptation, environmental adaptation, cultural adaptation, social adaptation and psychological adaptation. They use Likert Scale to quantify the variables like this study. For the data analysis process, they apply a principal component analysis to remove the low loadings and double loadings in order to simplify the data. Scree Plot test is used to justify the five derived adaptation subscales, followed by correlation analysis between each item in the subscale, and the total adaptation score. Their model is tested and proved to be validated and representative for the adaptation study. Another study that conducts a principal component analysis for dimension reduction is by Fu and Lehto (2016). They study the social adaptation via leisure travel experience of Chinese urban resettled residents, with a canonical correlation analysis to access the activity motivation relationship. However, unlike Du and Pan, a cluster analysis is applied on the raw variables to derive the groups based on the similarity of activity participation. As for Xie et al. (2014), they also choose social survey to gather data for urban social adaptation of new citizens in the process of urbanization in China. They carry out a regression analysis with focuses on the p-value and standard regression coefficient between the demographic data and social adaptation levels.

Liang and Zhu (2014) conduct a research on the well-being of Chinese Landless Peasants, where they adopt models such as Positive and Negative Affect Schedule, and Satisfaction with Life Scale, with focuses on economic and physical conditions of the resettled residents. For their quantitative analysis, they choose confirmatory factor analysis to consider a complexed model with many factors. They use a descriptive analysis to look into the detailed characteristics of the data, such as the maximum and minimum value of a variable, the mean value, standard deviation,

and skewness for data distribution. The study done by Qian (2017) looks into the adaptation in small town urbanization in China, with a survey containing sixty questions. The study adopts a descriptive analysis approach to perform detailed analysis of factors such as demographic data, employment and income, home workplace commuting pattern, compensation approaches and the attitudes towards the land acquisition and resettlement. From the literature, a comprehensive data analysis approach can be developed for this study.

In this study, I processed the data using Microsoft Excel and SPSS. The results of the questionnaires allowed me to examine the data straightforwardly. A three-step data processing model was developed, with the principal component analysis to simplify data, the scree plot test to test the feasibility of categorizing the data into three subscales, and the correlation analysis with Pearson's R to test the relevance of each perspective and the total adaptation score. I performed descriptive analysis after the three-step model. As a result, comparisons between the two study communities with their individual characteristics are further analyzed.

Principal component analysis rotated multivariate dataset into a new configuration which was not as difficult to interpret. The main purpose was to simplify data; for example, to compress data by reducing the number of dimensions without losing too much information. It also found relationships between variables and patterns in n-dimensional data (Everitt. & Hothorn, 2011). The values for the factors were the scores for each question in the three adaptation perspectives derived from the Likert Scale. Therefore, I put the answers to each question into a principal component analysis, where low loading variables and double loading variables were left out for further analysis. The components derived from the principal component analysis are combinations of original variables in the data. With different loadings, the variables were categorized into a new set of component based on their individual statistical influence. For

example, the variables revealing the economic conditions could be put into a new component called “economic adaptation”. I conducted a Scree Plot test as the following step. The eigenvalue of the components and difference between them items could test whether it was reasonable to categorize them into three subscales, which in this case were economic adaptation, environmental adaptation, and social adaptation.

The Pearson’s R examined the relationships among different variables, with the p-value for statistical significance evaluation. I focused on the correlations between the score of each perspective and the total score of the whole scale (total adaptation level/score) to test the relevance of each perspective with Pearson’s correlation coefficient, and their statistical significance (p-value).

In addition to the results derived from previous analysis, the data were analyzed for further investigation of the issue with descriptive statistical analysis. With the adaptation score comparisons between the two resettled communities, and among different perspectives which co-responded to the background information, the adaptation status was examined and understood. For example, the surrounding institutions influence the employment opportunities, leading to a different adaptation performance under the perspective of economic adaptation. This contributed to the knowledge of resettled residents in Nanjing and in other areas with similar background and development progress.

4.5 Research Ethics and the Role of the Researcher

Since there were human participants from Wufu Community and Zhoudao Community involved in this research, the data collection ethics were submitted to and approved by the University of Waterloo's Office of Research Ethics (ORE# 22374) on August 2017 before the

research was conducted in Nanjing, China. The research ethics made sure that no harm towards the participants was conducted in physical and psychological perspectives.

When approaching participants, I explained the purpose of the study with an information letter. The letter emphasized that the study was voluntarily and expressed the rights and responsibilities of the researcher and the participants. Considering that some participants could not read the consent letter due to their low education levels, the consent form was read to the participants by the researcher. Meanwhile, I provided a hard copy of the letter for the participants to keep with all the contact information.

The topic of resettlement could be a sensitive issue for some residents, so there was a chance that the participants would encounter emotionally distress. Hence, the participants had the rights to withdraw their answers anytime during or right after the survey, or end the survey whenever they felt uncomfortable. Information provided was confidential and only used for the purpose of this study (Breg & Lune, 2012). The contact information of the researcher and the supervisor, Dr. Joe Qian, along with the contact information of the Office of Research Ethics at the University of Waterloo were provided for the participants in case they have further questions, or want to withdraw from the study due to personal reasons.

The data was used only for the research of adaptation conditions in this study. When the researcher was collecting the data, the completed surveys were kept with the researcher in a sealable envelope in the bag until reached home. There was no chance for other people to see the answers. The coding process took one week after the survey. The hard copies of the questionnaires were shredded right after coding. I plan to keep electronic data on my hard drive for 2 years with a passcode in a locked drawer. After 2 years, the data will be erased completely.

The feedback letter was available for the participants, including all of the research

information, such as the purpose of the study, research timeline, and participation contributions, etc. The feedback can be provided through email, mail or on the phone whenever needed.

4.6 Limitations and Potential Issues

With the research method designed and introduced, the researcher promoted an ethical and valid data collection and analysis procedure. However, there were some limitations. A number of challenges lied in the sample recruitment process to obtain a representative sample. Due to confidential reasons, no names or addresses were recorded, thus there was no way to identify the residents in the same household. Since the compensation was calculated based on the area of farmland, population in each household and so on, it could influence the condition of their adaptation. The questions were created based on the adaptation barriers, with ideas from the knowledge of resettlement process and policies, as well as the existing literature. It had little flexibility when it came to people from different backgrounds. The survey asked the same questions to all the participants, without considering the individual characteristics such as age, family structure, and previous economic conditions. The researcher should have done a pilot survey before the actual data collection to detect potential issues, evaluate their level of understanding towards the questions, in order to revise the survey questions. For example, it was not very useful to ask employment conditions towards the elders as they were mostly unemployed. Another limitation caused by the lack of a pilot survey was that the concerns about maintenance issue were not foreseen when designing the questions. I only realized this issue after the data collection.

As for the data collection time, the researcher should have visited the communities every day during the week to spread out the samples. If the survey is carried out during weekdays, people in urban areas or people who are young, single, better educated and socially active are

difficult to reach. On the opposite, elder residents, less educated and socially isolated individuals can take up a larger proportion of the sample (Menold, 2014). It was also essential to perform data collection with a wider range of time; for example, from morning to evening, instead of only focusing on office hours. Failing to include the early morning and evening hours added a bias to the data, as the working residents were not able to reach during their office hours. Due to the confidential issue, the participants were reached under a public setting instead of in their apartment. This caused a sample bias as well; for example, there were more female residents than male residents in the park or playground with their children and grandchildren. The elders tended to sit in front of their apartment buildings during the day to get sunshine and chat with their neighbours, while the young were not present.

Survey research relies heavily on the accuracy of responses from the participants. Among all the problems of inaccuracy, the researcher often confronts issues of data quality, such as extreme instances where some participants have to be removed from the dataset, due to a great lack of engagement during the survey (Calabrese, 2012). In this case, the resettled farmers had a low level of education, ranging from elementary school to high school, creating difficulties in understanding interview questions or providing effective answers. Confidential issues rose when the participants felt the questions were invading their privacy. For example, when the researcher asked about their annual income, some of the residents did not give an answer. Considerable efforts such as confidential agreement were made to ensure there was no reason to feel threatened of releasing the information. Social issues sometimes rose during the questionnaire, when the characteristics, behavior or the attitude being surveyed conflicts with social norms and were considered as undesirable by most of the society (Boyce & Neale, 2006).

Chapter 5 Research Findings and Discussions

5.1 Introduction

Resettlement affects millions of people every year since the rural land is increasingly converted from its traditional uses towards urban constructions (Cernea & Mathur, 2008). The life after resettlement has been reported as unsatisfactory by many studies (Smyth et al., 2015; Cernea et al., 1996) The issue of resettlement induced by development has become a source of social tension and noncompliance in China. The government of China needs to be sensitive and thoughtful to the needs of the citizens, to care for their adaptation conditions, in order to minimize the effect of noncompliance towards the policy implementation and legitimacy (Wu, 2017).

The research questions in this study are mostly answered via data analysis and research findings in this Chapter. I answered the first question with quantitative analysis performed with principal component analysis, Scree plot test and correlation analysis. The principal component analysis and the scree plot sorted the questions into three subscales, as stated in the literature review, economic adaptation, environmental adaptation, and social adaptation with reasonable loadings. The second question was mostly answered based on the correlation analysis and the descriptive analysis on each item under the subscales. As the research findings show, the total adaptation score is highly correlated to all three subscales, with economic adaptation taking the highest correlation coefficient in both Wufu Community and Zhoudao Community. In order to look into the details of the variables to determine the barriers on their way to adaptation, I performed descriptive analysis to compare two communities. In addition to the policy recommendations made from first two questions, suggestions in regards to adaptation conditions are proposed based on the choices made by resettled residents.

5.2 Quantitative Analysis

5.2.1 Principal Component Analysis

First of all, the data collected for two communities were combined together to conduct a principal component analysis. As Table 1 shows, the Kaiser-Meyer-Okin Measure of Sampling Adequacy is a value between 0 and 1, with closer to 1, the better the results. In this case, the value is 0.907, which means the analysis went well, and the statistical significance of Bartlett's test of Sphericity being less than 0.05.

Table 1. KMO and Bartlett's Test Results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.907
Bartlett's Test of Sphericity	Approx. Chi-Square	927.527
	df	3
		51
	Sig.	.000

The initial eigenvalues refer to the variances of each principal component, with standardized variables. The total contains the eigenvalues, with the first component taking the highest value (9.402), and the variance is decreasing for the second component (2.520), and the third component (1.398). The cumulative of variance explained (Table 2) is the total variance explained by the principal components, as we can see from the table, the first three principal

components can explain nearly 50% of the total variances of the data. In this case, the three principal components are economic adaptation, environmental adaptation, and social adaptation.

Table 2. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.402	34.822	34.822	9.402	34.822	34.822
2	2.520	9.334	44.155	2.520	9.334	44.155
3	1.398	5.179	49.335	1.398	5.179	49.335

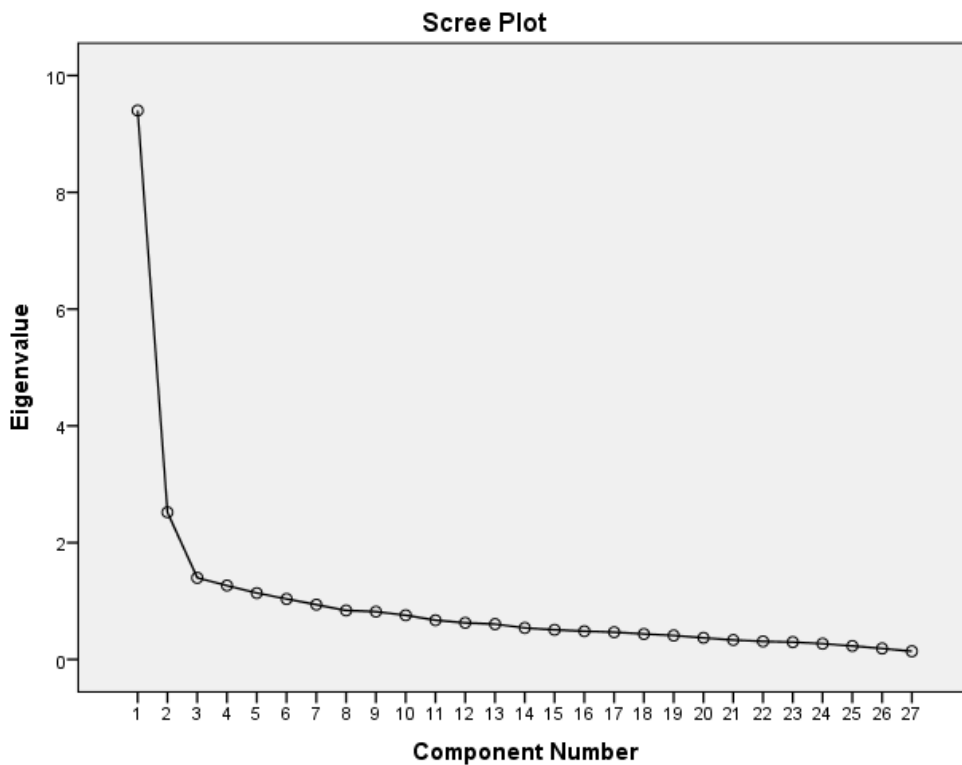


Figure 5. Scree Plot Test

The principal component analysis rotated the data and found a list of new components to explain the data pattern. In this case, each of the components in the Scree Plot represents a combination of the original variables. In each of the dot in Figure 5, there are several items from the questionnaire with different loadings, which indicates the relationship between the component and the coded variable. From the Scree Plot test, it is easy to see that the first three principal components have the highest values with sharp drops. From the fourth component on, the line is nearly flat, meaning that each component after is accounting for a very small share of the total variance. This supports the further analysis with three components while reducing the dimensions of the data. The first three components represent economic adaptation, environmental adaptation, and social adaptation. The following tables (Table 3, Table 4 and Table 5) show what items are included in each of the first three components, and their factor loadings.

Each item or question in the questionnaire was coded as a variable with a list from VAR0001 to VAR00027. After the rotation (Varimax with Kaiser Normalization), the variables were categorized into three perspectives, which are economic adaptation (Table 3), environmental adaptation (Table 4), and social adaptation (Table 5) based on their loadings. One thing to notice is that the variables are not independent, instead, they are correlated with others at the same time, which explains why some variables seem to fit into other subscales as well.

Table 3. Economic Adaptation Variable Loadings

Variable number	item	Factor loading
VAR00009	I cannot get social education on investments or entrepreneurship	0.758
VAR00001	It is hard to find a job in the urban area skill requirements	0.735

VAR00008	It is hard to generate sufficient information on employment opportunities and job selection	0.709
VAR00003	The job that I can find are often low-paid, dirty, and heavy	0.705
VAR00007	The distance to work in too long compared to before	0.632
VAR00002	The current urban working environment is quite depressing for me	0.625
VAR00004	The working pace is too fast and very stressful	0.611
VAR00006	The consumption level in the city is too high	0.416
Eigenvalues	2.52	
% of Variance	9.33%	

Table 4. Environmental Adaptation Variable Loadings

Variable number	item	Factor loading
VAR00011	I prefer growing my own vegetables and fruits	0.578
VAR00018	The high rise buildings make me lose my attachment to the land.	0.543
VAR00012	I feel uncomfortable with urban public transportation system	0.522
VAR00010	Weather condition in the city is not satisfying	0.52
VAR00017	The gated communities are inconvenient for me	0.455
VAR00013	The neighbourhood structure limited my visitations and interactions with others	0.396
Eigenvalues	1.398	
% of Variance	5.18%	

Variance

Table 5. Social Adaptation Variable Loadings

Variable number	item	Factor loading
VAR00026	It is hard for me to build new relationships outside the community	0.776
VAR00027	I am not interested in attending activities outside my own community	0.768
VAR00022	I am having difficulty following up with urban thinking style	0.755
VAR00019	I cannot get along very well with original urban residents	0.722
VAR00024	I am unable to adapt to urban views on money and consumption	0.671
VAR00025	I feel excluded by urban residents	0.653
VAR00020	I am not interested in celebrating festival in urban styles	0.644
VAR00023	My old rural traditions and culture astonish and annoy urban residents	0.596
VAR00016	I am not satisfied with the new infrastructures and services.	0.536
VAR00015	The changed housing structures have too much influence on life	0.429
VAR00014	I find it hard for a mixed group of villagers	0.422
VAR00021	I am not interested in urban recreational activities in communities	0.348
VAR00005	The social insurance and land compensation are not sufficient	0.318
Eigenvalues	9.402	
% of Variance	34.82%	

5.2.2 Correlation Analysis

As I sorted each item into three subscales, which are economic adaptation, environmental adaptation, and social adaptation according to the principal component analysis, the correlation analysis was then performed. The correlation between the total adaptation level and three subscales were conducted to investigate the relevance of each subscale regarding the total adaptation condition (Table 6 and Table 7).

Table 6. Correlations between Total Adaptation Level and Subscales in Zhoudao Community

		Economic Adaptation	Environment Adaptation	Social Adaptation
Total Adaptation Level	Pearson Correlation	0.927	0.678	0.685
	Sig.(1-tailed)	0.000	0.000	0.000

Table 7. Correlations between Total Adaptation Level and Subscales in Wufu Community

		Economic Adaptation	Environmental Adaptation	Social Adaptation
Total Adaptation Level	Pearson Correlation	0.867	0.373	0.616
	Sig.(1-tailed)	0.000	0.000	0.000

From Table 6, the total adaptation level is strongly correlated with the economic adaptation, with a Pearson correlation of 0.927 and a statistical significance value lower than 0.01 (single-tailed). As for Wufu Community, according to table 7, the correlation between the total adaptation level and economic adaptation is also strong, with a Pearson correlation

parameter value of 0.867. The environmental adaptation for Zhoudao Community shares a similar correlation coefficient with a p-value that is less than 0.01, suggesting the rejection of the null hypothesis. Unlike Zhoudao Community, the correlation for environment adaptation for Wufu Community is not very strong, as the value for Pearson correlation parameter is only 0.373. An explanation for this is that Wufu Community is located far from highly-developed city cores, but around the Qixia Conservation Area, making the physical environment similar to rural areas in some degree. As for social adaptation, the two communities both hold a moderate-strong relationship. All three subscales share a p-value less than 0.01, which means they are statistically significant. Therefore, the three subscales are all positively correlated with the total adaptation level, with a moderate to strong relationships accepted with high significance levels.

5.3 Descriptive Analysis

5.3.1 Demographic Analysis

Among the 150 participants in Zhoudao Community, Jianye District, 63 are male and 87 are female, making the data representative of the population. As for Wufu Community, Qixia District, there were 59 males and 91 females participated in the study. According to United States Census Bureau (2018), the ratio between male and female in China is 105.7:100; however, in this study, the ratio is 67:100. This is because the participants were reached out in the public place of the two communities. In China, female rural residents are usually in charge of taking care of the family's daily life. Therefore, there were more female residents to reach, when they were going grocery shopping in the neighbourhood, chatting in public squares, and taking their children or grandchildren to the playground. Another reason is that many male residents would go to other cities to work as a migrant worker after losing their land, leaving the elders and female residents behind in the communities.

As Figure 6 shows, the age distribution among the sampled population in Zhoudao Community indicates that the population aged between 46 to 55, and 56 to 65 make up two largest age cohort among the age intervals, which are respectively accounting for 24.7% and 20.0%. The other groups share a portion around 15% to 18%. Population aged between 18 to 25 years old is the least pronounced age group, with a share of 6.7% only. For Wufu Community, Qixia District, the population distribution is relatively similar to Zhoudao Community, with people from 46 to 55 years old taking up the largest portion, followed by people aged from 56 to 65 years old. The young generation is taking the least portion of the population with only 4%. In all, the data indicates an elder population in the communities.

The results for age distribution in two selected communities are quite similar. According to United State Census Bureau (2018), people in their late 40s to early 50s, and late 20s to early 30s takes on the largest portion of the total population. This is similar to the population pyramid derived from the collected data. Therefore, the age distribution of two communities follows the pattern of the whole country.

The results show that the young tend to have more opinions towards the adaptation conditions, while the elders are neutral towards the situation, especially towards economic adaptation, as they are mostly unemployed at the moment. Age is a key influencing factor when it comes to social adaptation. For instance, activities with a sociable and entertaining purpose are not as popular among resettled residents as among urban residents, especially those which require interaction with local urban residents (Fu & Lenhto, 2017). This is related to the age of the residents. As a large number of the young resident were spending a lot of time in the city before resettlement instead of engaging in farm work, they were already aware of the variety of activities in the urban area. Therefore, it is easier for the young to adapt to the modern urban

living style (Wang, Zhang, & Cheong., 2014). The geographic location and economic conditions of the households determine the age distribution (Qian, 2017). The differences between the two communities suggest a better socioeconomic condition for residents in Zhoudao Community.

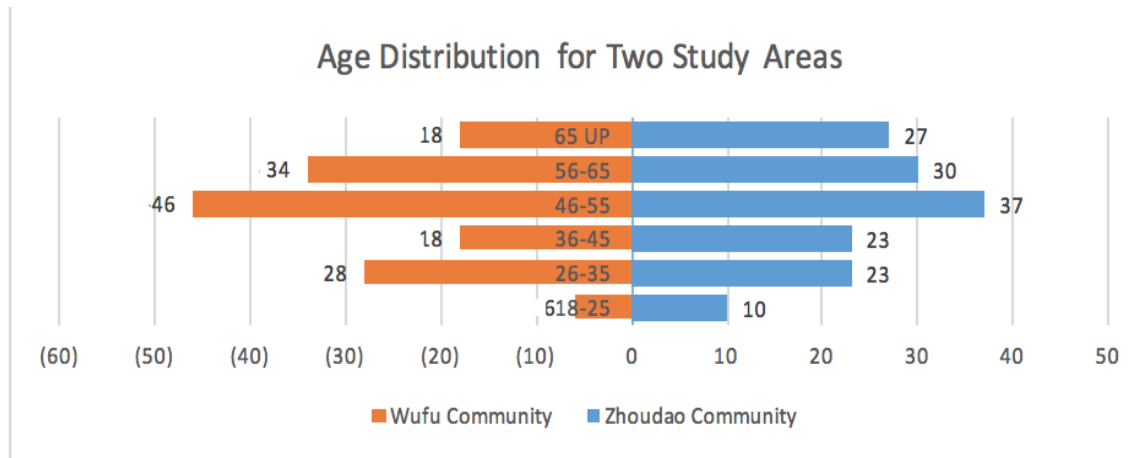


Figure 6. Age Distribution for Two Study Areas

The results of the survey in Zhoudao Community suggest a low education level of the resettled farmers (Figure 7). As can be seen from the data, only 10% obtained a Bachelor's degree or higher. However, 28.7% of the population only have middle school degrees, which also makes the largest cohort of the sampled population, followed by 20% of the population that hold a high school degree. There are 10.7% of them received no education at all, comprises of illiterates. The results are rather similar since the two communities are all located within the same city, sharing similar economic, environmental and cultural background. For Wufu Community, Qixia District, the highest degree obtained is a Bachelor's degree, accounting for 4% of the total population. Compared to Zhoudao Community, there are more people with a college degree (22.7%) and high school degrees (24.7%) in Wufu Community. However, the largest cohort of the sample population still falls under the category of middle school education, with a percentage of 30%. Similar to Zhoudao Community, and 10.7% of them received no

education at all. As discussed in the literature review, education level has a positive impact on employment rate and income. In this case, the education level limits the job opportunities for the resettled residents, making them engage in heavy, dirty and stressful working conditions. Besides, from the difference between the two communities, it can be seen that it is advantageous to live closer to the city core.

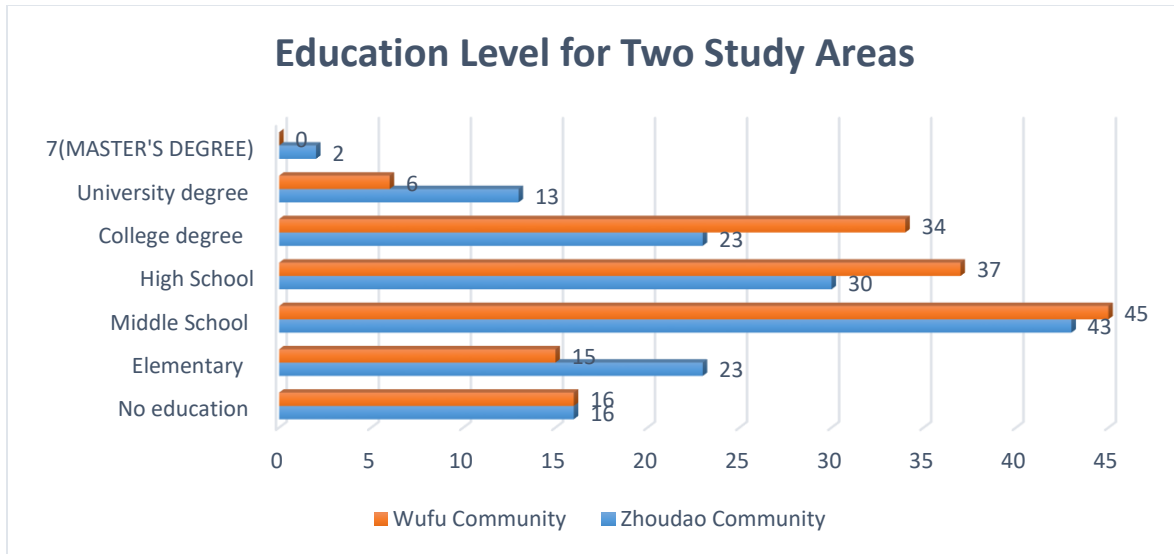


Figure 7. Education Levels for Study Areas

During the urban expansion, political power is often connected to personal interests of the private developers, rural collective cadres, and local officials (Qian, 2017); therefore, the present urban spatial sprawl is driven by the lucrative local state (Ping, 2011). The party member and village cadres not only have an influence in the decision making process during the land acquisition and resettlement, but also an impact on the attitude of the farmers towards the urbanization process since they earn more trust than the government leaders (Qian, 2017). Among the 150 residents in Zhoudao Community, 92.7% of them are ordinary residents that hold no political identity or social status. Only 7.3% of them belong to the Chinese Communist Party, and no one is in the position of village cadres or township cadres. Participants in Wufu

Community also reflected the absence of political identity, as 95.3% of them hold no political status or occupation related to the government, and only 4.7% of them are members of the Chinese Communist Party. Therefore, this sample well represents the common households of the resettled farmers with great analytical value. Their political status puts them in a position where their opinions are hardly valued, increasing the difficulty in adaptation as their needs are not heard and properly fulfilled.

Before the land acquisition, 43.3% of the resettled residents in Zhoudao Community were working in the sectors of agriculture, forestry, and animal husbandry, making the largest portion of the population (Figure 8). The second income source was to work in the nearby factory, or as a migrant worker, which account for 18.0% and 9.3% of the total population. The unemployment rate was 14%, with people claiming they obtain no income sources. After the resettlement (Figure 9), only 5 people managed to keep working for agriculture, forestry, and animal husbandry, taking up only 3.3% of the total population. 55 out of the 65 people are unemployed now since they lost their farmland. Compared to before, only 8.7% of the total population still work for the nearby factory, and migrant workers increased to 10.7%. The rest of the shared portion remains relatively the same, while the unemployment rate increasing from 14% to 62%.

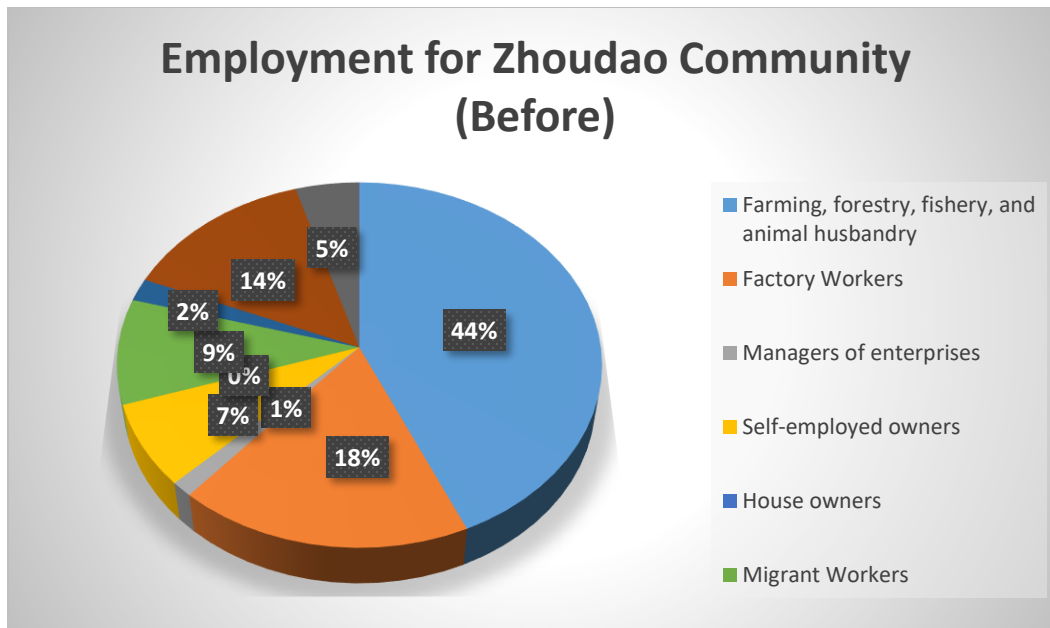


Figure 8. Employment Condition Before Land Acquisition, Zhoudao Community

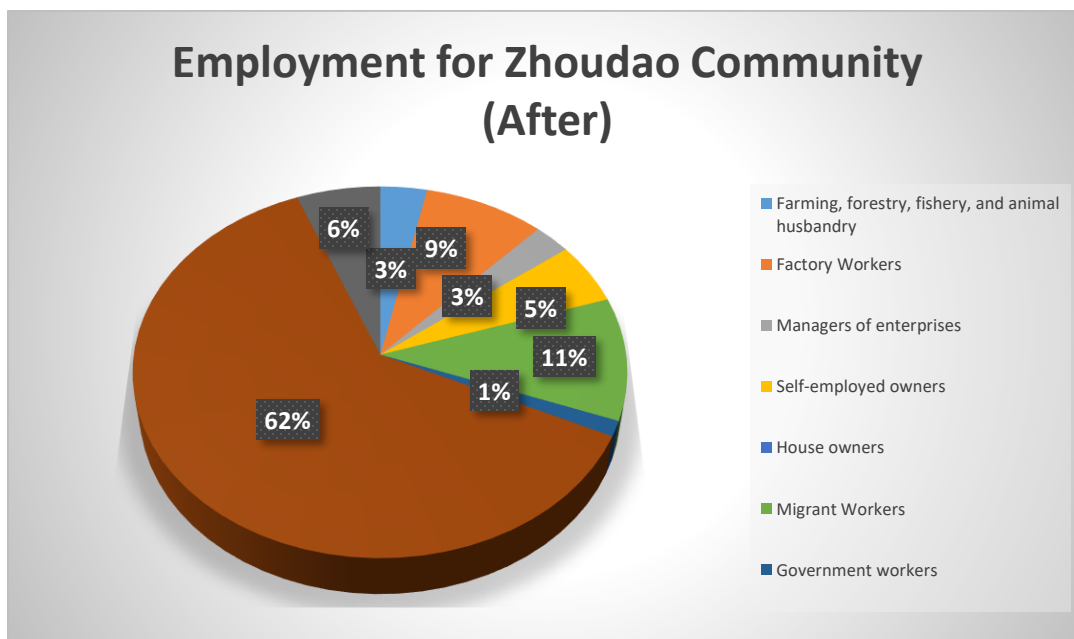


Figure 9. Employment Condition After Land Acquisition, Zhoudao Community

For Wufu Community (Figure 10 and Figure 11), there were 39.3% of the population working as a rural farmer, while the number dropped to zero after the farmland are taken by the

government. Among the 59 people who used to work as a farmer, 43 of them are currently unemployed, increasing the unemployment rate greatly. As for people who worked in the nearby factories before, 13 out of 33 became unemployed. After losing the farmland, 11.3% of the population chose to work as a migrant worker, increased the number by 6.6% compared to before. Unlike Zhoudao Community, there are no government officials in Wufu Community, but more people working as a teacher, or an office clerk. Not surprisingly, the unemployment rate for Wufu Community has increased to 53.3%, more than twice the amount compared to 21.3% before the land acquisition. After the land acquisition, the unemployment rate increased rapidly in both communities, making the economic adaptation more difficult than usual. According to the participants, the reason for the high unemployment rate is the lack of essential skills to acquire a decent job in the city, and that they need to take care of their grandchildren. The employment situation certainly contributes to the failure of adaptation, for it has a direct impact on the long-term income of the residents. Generally speaking, there is a better chance to get employed and make a living in near the city centre; however, due to the special education and training conditions of the farmers, they have a better chance to find a job with the manufactory factories and heavy industries near Wufu Community.

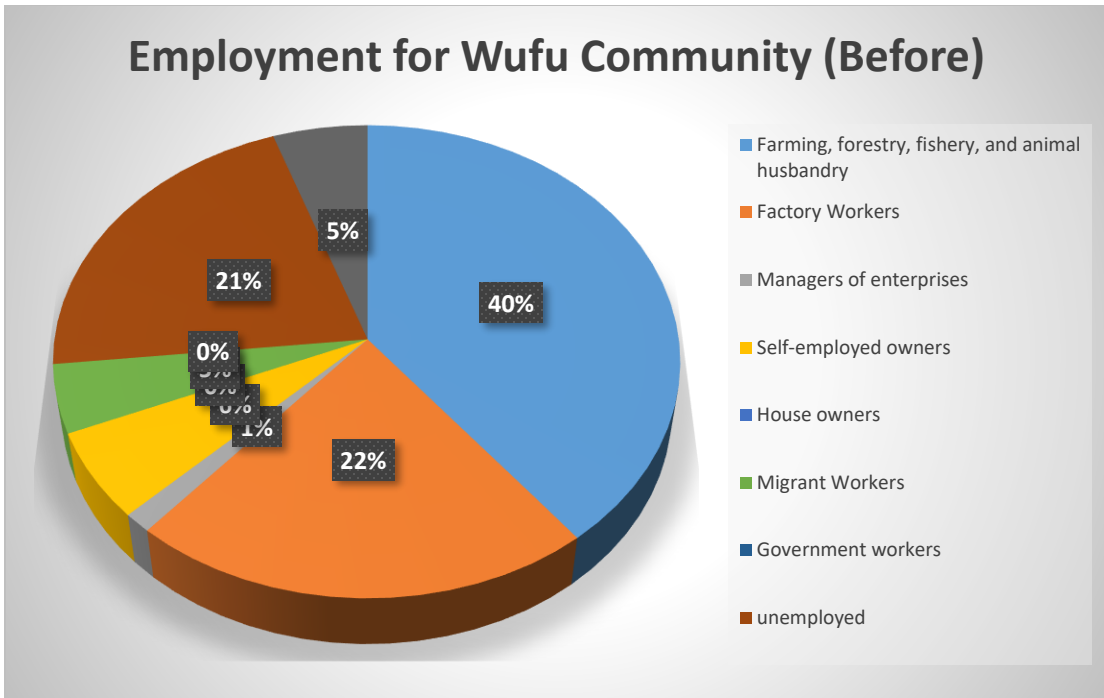


Figure 10. Employment Condition before Land Acquisition, Wufu Community

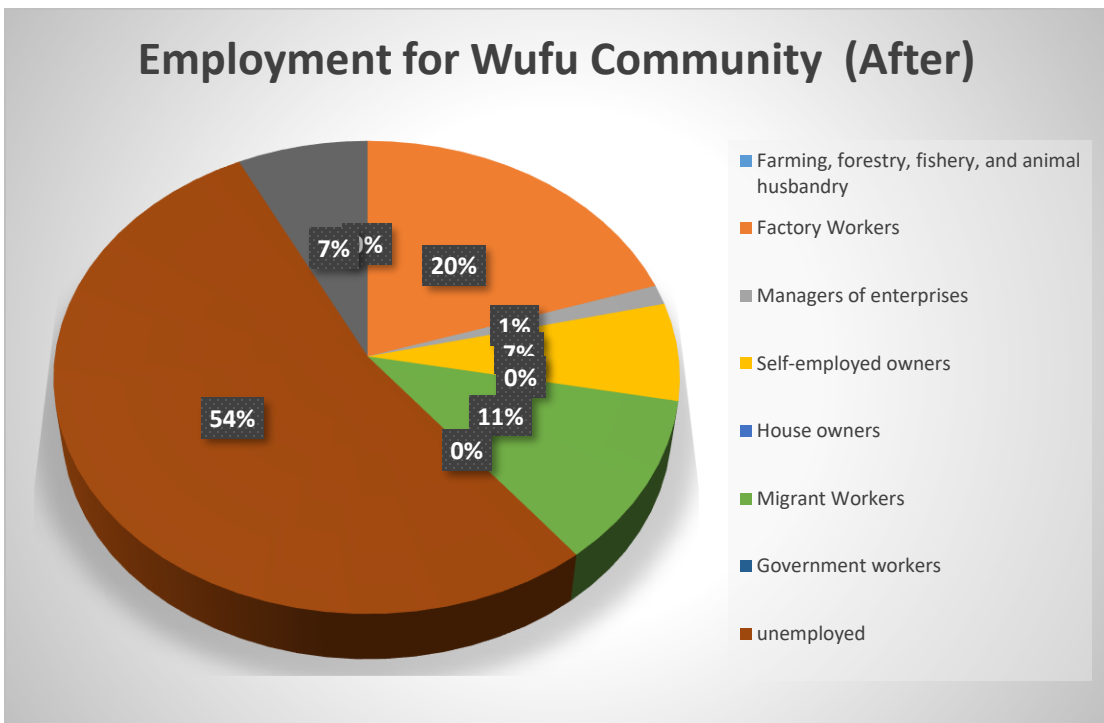


Figure 11. Employment Condition After Land Acquisition, Wufu Community

A pyramid structure can be observed for the income levels in Zhoudao Community. Due to the sensitivity of the topic, not all participants were willing to reveal their annual income. Fortunately, the confidential agreement managed to encourage 146 out of 150 participants to answer this question. Before the acquisition and resettlement, the majority of the income groups were considered as low-income groups (Figure 12), with 19.9% earning an annual income less than 20,000 Chinese Yuan (RMB). The following groups were those who earn 20,001 to 30,000 RMB (17.1%), and 30,001 to 40,000 RMB (13.7%). Another respectively large group fell into the cohort of 50,001 to 60,000, with a share of 11.6% of the total answered participants. Surprisingly, there were 17.8% of the population earning more than 90,000 RMB per year, making the differences among resettle residents relatively large. To conclude, the annual income before land acquisition showed financial difficulties for the majority of the participants in Zhoudao Community, Jianye District, with a very small portion holding a higher income level.

However, the income levels changed greatly after the resettlement process, as Figure 12 shows below. The residents are more cautious about their income level. There are 8 residents who refused to reveal their annual income; however, the confidential agreement managed to encourage over 90% of the residents to give the researcher a range of their income for analysis. There is 36.3% of the population who has an annual income lower than 20,000RMB, which is an increase of 16.4%, compared to the income before the resettlement. The share of each income cohort from 20,001 to 80,000 RMB all have a slight decrease, while still maintain a shape of a pyramid. 2.7% of the population have an income between 80,001 to 90,000RMB, suggesting an increase in revenue. As for people who earn more than 90,000RMB per year, the share increased to 19.2% from 17.8%, taking a larger part of all the participants. After the resettlement process, most of the residents have a lower income, with a majority of them being under the low-income

level. However, a larger income gap is formed with more people falling into the highest income cohort.

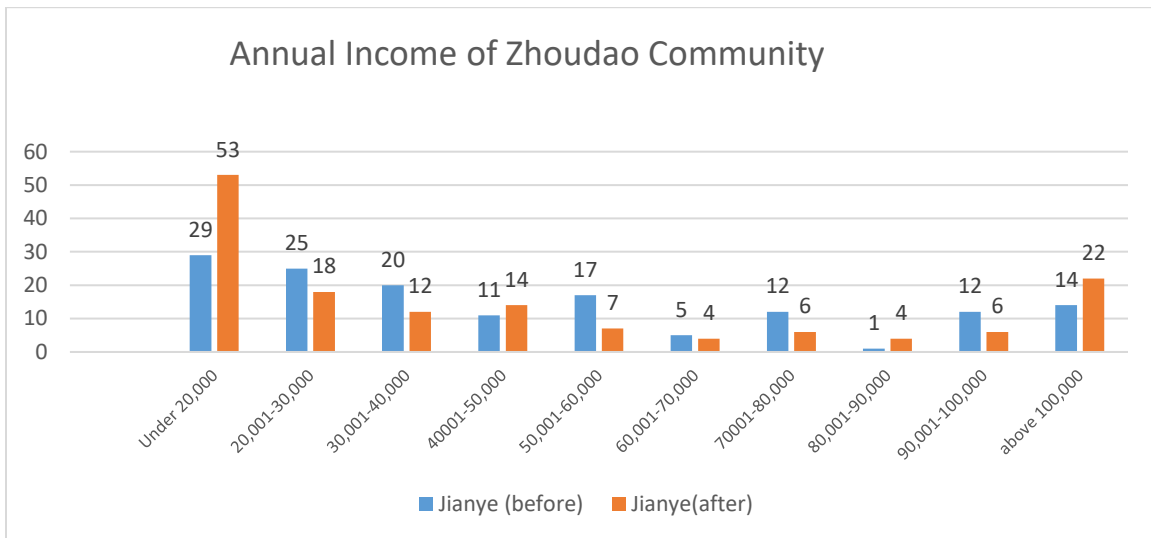


Figure 12. Annual Income of Zhoudao Community

For the Wufu Community in Qixia District, the household income changed in a different way (Figure 13). Before the land acquisition, there were 88 people living under the poverty line, accounting for 60.3% of the total population. 16.4% was earning 20,001 to 30,000RMB per year, making it the second largest cohort among all income groups. The share for the rest of the income level was minor, with almost no one making more than 80,000RMB per year. Unlike what happened to Zhoudao Community, the number of people living under the poverty line decreased by half after the resettlement, even with the high unemployment rate. There are only 24.7% of the sample population claimed they have an annual income less than 20,000RMB currently, and the number of people who earn 20,001 to 30,000RMB/year has increased to 24.7%. There is also a slight increase in the cohort of 30,001 to 40,000RMB/year, from 4.1% to 11.6%. As Wufu Community was resettled before 2010, unlike Zhoudao Community which was built afterward, the income level for the general public has increased greatly since then, which

can explain the decrease of people who have an annual income less than 20,000RMB. There are 14.3% of the population who make more than 90,000RMB/year, making it a giant leap from only 0.7% from before. According to the income level results, there are more people living under the poverty line after the resettlement in Zhoudao Community, Jianye District, but also a small increase in the rich group. This can be a result of the short resettlement time for Zhoudao Community, as the residents are not able to secure a job yet. Another reason is that the surrounding areas are taken by high-technology companies, which offer few job for people with a low education level. For Qixia district, the number of population living under poverty line actually decreased, but that is partially due to the fact that its resettlement happened over a decade ago, and the income levels for the general public have increased in the time period.

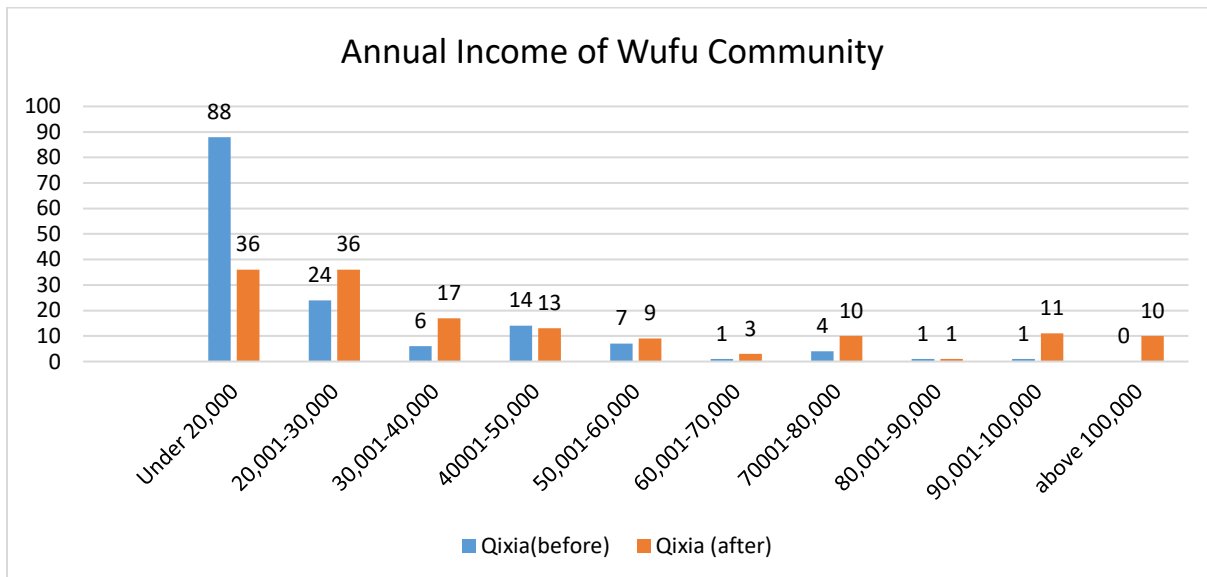


Figure 13. Annual Income of Wufu Community

5.3.2 Economic and Employment Adaptation for Resettled Residents

During descriptive analysis, the answers derived from the 5-point Likert scale are put into excel. The choices for each variable are displayed in the charts below. The specific numbers of each choice are labeled.

For the economic adaptation, 36% of the population in Zhoudao Community finds it hard to get a job due to their lack of skills and knowledge, as the job in the city requires high techniques and ability (Figure 14). Compare to Zhoudao Community, people in Wufu Community is having a harder time finding a new job, as 48.7% of the population cannot find a job with their ability and education levels, while only 27.3% find it easy to adapt to the employment situation (Figure 15). One of the main difficulty for the resettled residents to complete the transformation from rural to real urban citizens is unemployment. As the research findings show, there is a great increase in unemployment rate in both communities after the resettlement. This issue is more serious in Qixia District as new skills are normally required for successful entry into formal jobs (Kabra, 2016). Similarly, a study done by Huang, He and Yang (2017) indicates that education level and occupational skills are the most influencing factors on the vulnerability of land lost farmers, as they provide a capacity of sustainable livelihood. Therefore, the government should offer assistance in employment training to guarantee post-resettlement welfare. Besides, the newly developed industries have limited ability when it comes to labour absorption. The fact that they are not able to hire many residents also leads to a higher unemployment rate.

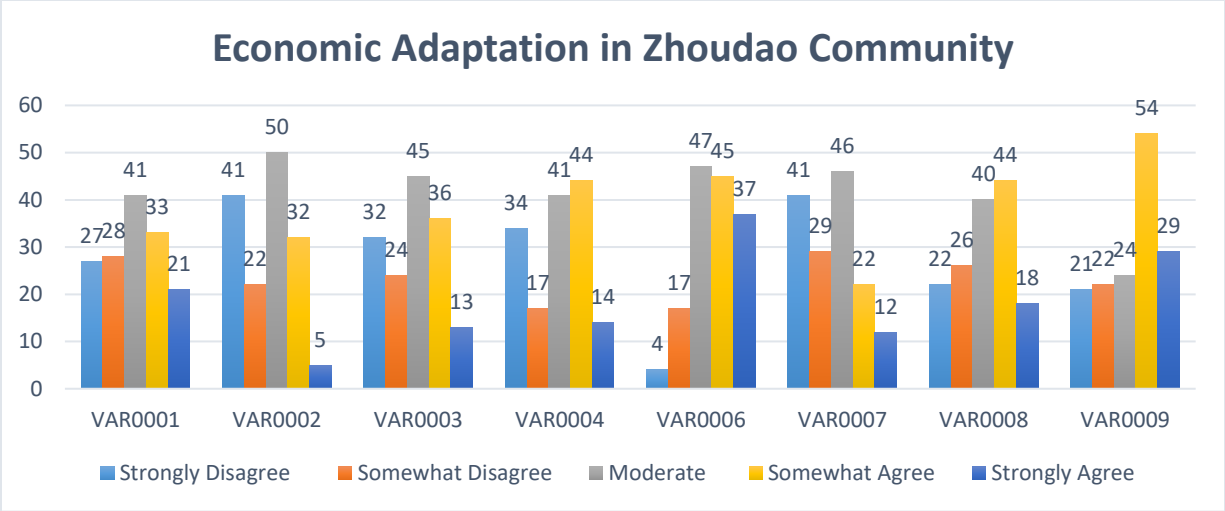


Figure 14. Economic Adaptation in Zhoudao Community

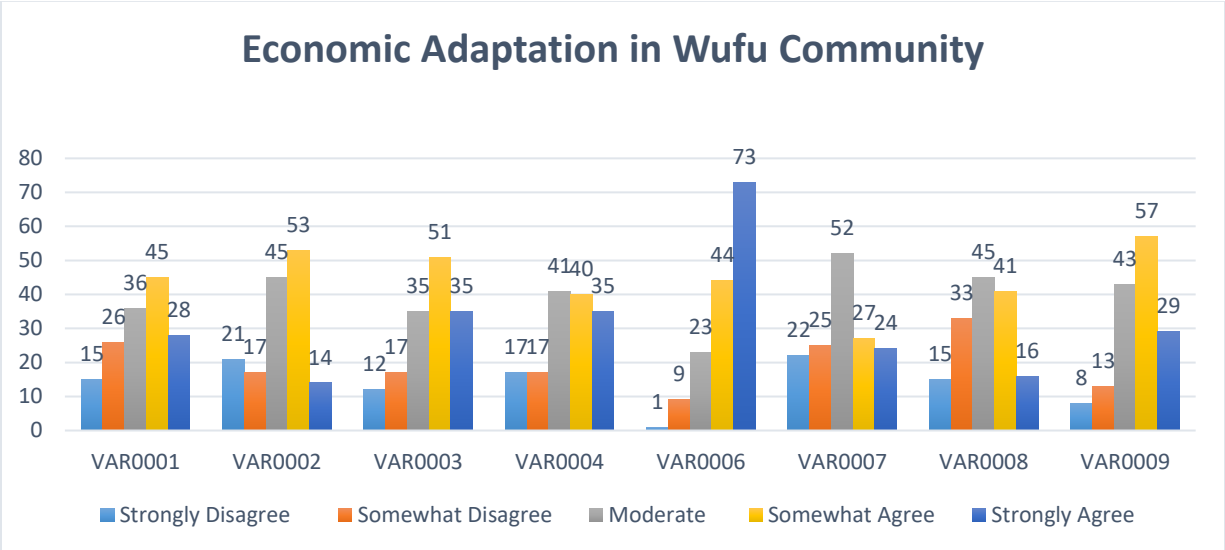


Figure 15. Economic Adaptation in Wufu Community

As for the working environment, 75.3% of the resettled residents in Zhoudao Community consider themselves well-adapted or neutral towards the urban working environment, instead of feeling depressed. However, the numbers are rather different in terms of the resettled residents in Wufu Community, for 44.6% of them point out that the current urban working environment is quite depressing and causes them a great deal of stress, only about 25% of them can manage to

cope with it. This can be explained by the fact that in Zhoudao Community, the community is located near a newly built eco-park with education institutions and high-technology companies, where the working environment is pleasant while in Wufu Community, the heavy industries contribute to the stress and depression.

In Zhoudao Community, not many people think the jobs they obtain in the City are low-paid, dirty and quite heavy. This can be explained by the fact that there are various of educational institutions, hospitals and tourism companies, and ecological scientific companies. On the contrast, in Wufu Community, the surrounding working opportunities are mainly with heavy industries or manufacturing companies, such as Kanghua construction company, Mingfeng fertilizer factory, Nanjing Shiyue printing factory, etc. These companies and factories offer low technical job opportunities with low income. 57.3% of the population find themselves engaging in "Three -D" jobs, which refers to "dirty, dangerous and demeaning" (Tao, 2006) and not being fairly paid. As Figure 16 of the bulletin board in Wufu Community shows, most of the employment opportunities are cooks, waitresses, truck drivers, and loaders. According to the current education level and Chinese education system, it is not easy for the residents to go back to secondary schools. Therefore, from the opposite perspective, these low-technical jobs are easier to acquire with a little skill training.



Figure 16 Bulletin Boards in Wufu Community on Employment Opportunities (Source: the author, 2017)

As another determining factor towards life quality, the high consumption level in the city compared to the household income is causing serious problems during the adaptation process. In addition to the higher priced of common goods in the city, there are many extra costs in association to urban lifestyles, such as heating, public transportation, and as some residents stated, extra curriculums for children. Before the resettlement process, many of them grew their own crops, vegetables and even raised their own animals for domestic consumption, while now they have to purchase all the items in markets instead of selling the products to earn extra income. In Zhoudao Community, 54.7% of the population said the expensive goods and other expenses are stressing them out. Aside from basic living expenses, some residents told the researcher that, quote, *“the education fee is too high, as our children need to take extra courses for math, English and so on, they add up to a very high cost”*.

In Wufu Community, 78% of the population complains about the high consumption level, among which 48.7% find it very hard to live in the city with so many expenses on goods, education etc. Though some farmers made a fortune by renting their compensated apartments to

migrants and other residents, the portion of actual beneficiaries is below a quarter. For example, the first floors are turned into commercial areas as Figure 17 shows. Another important expense for the residents is the neighborhood maintenance fee. The communities hire maintenance companies to be in charge, where their services were not satisfying compared to the amount they cost. Moreover, although the economic condition may improve in a short term with a large amount of compensation received at once, most of them are lack of stable and long-term income (Liu et al., 2015).



Figure 17 Commercial Uses of First Floors, Wufu Community (Source: the author, 2017)

Among all, 77.3% of the participants in Zhoudao Community have no/little problem with their distance to work. However, after the land acquisition, a large number of the resettled residents lost their job, as the unemployment rate increased from 14% to 62%, resulting from their age and lack of essential skills. This explains why only 22.7% of the population finds it is harder for them to go to work after the resettlement. Similarly, residents in Wufu Community are comfortable with the distance to work, with only 34% think it takes too long to go to work after the resettlement, but as mentioned above, the sharp rise of the unemployment rate has a great

influence on this question. Due to the development of the university cluster in Xianlin, Qixia District, farmers from the area were resettled in a newly constructed neighbourhood remote from the city core. Among the people who have a job, a resident told the researcher, *“it takes too long for me to go to work now after the land acquisition, before that I worked on a farm, and it took no time to get there, but now I have to travel every day to work somewhere else.”*

Almost half of the participants (41.3%) in Zhoudao Community point out that they are not to generate sufficient and useful information on employment opportunities and job selection. This is a difficulty they face during the job hunting journey. In Wufu Community, the numbers are quite similar, with 38% of the population cannot generate information.

5.3.3 Environmental and Physical Adaptation for Resettled Residents

As for the weather condition, the choices in Zhoudao Community (Figure 18) are almost evenly distributed among the five choices, this is highly related to the actual individual feelings. However, for Wufu Community (Figure 19), even though the community is located far from the city core or well-developed areas, on the west side of Qixia Mountain Conservation area, with a great natural environment and comfortable climate, 54.6% of the residents in Wufu Community find the temperature higher than rural areas. According to the study done by Zhou (2016), the main reasons for the urban heat island phenomenon are human activities, as the urban development takes away the farmlands and green space which absorb the heat. The constructions add impervious surfaces, which leads to water reduction and increased temperature. When the rural residents are resettled in an area that contains less open water or vegetation, they find themselves unable to adapt to the generated heat in summer. Besides, the residents lived in a low height house on a farm before the land acquisition, with big windows for ventilation. However, after moving into the high-rise buildings, the indoor temperature increased greatly as the heat

generates faster at a higher level, and the lack of ventilation. The results of this influencing factor address the importance of green space and open water, which are necessary for community design.

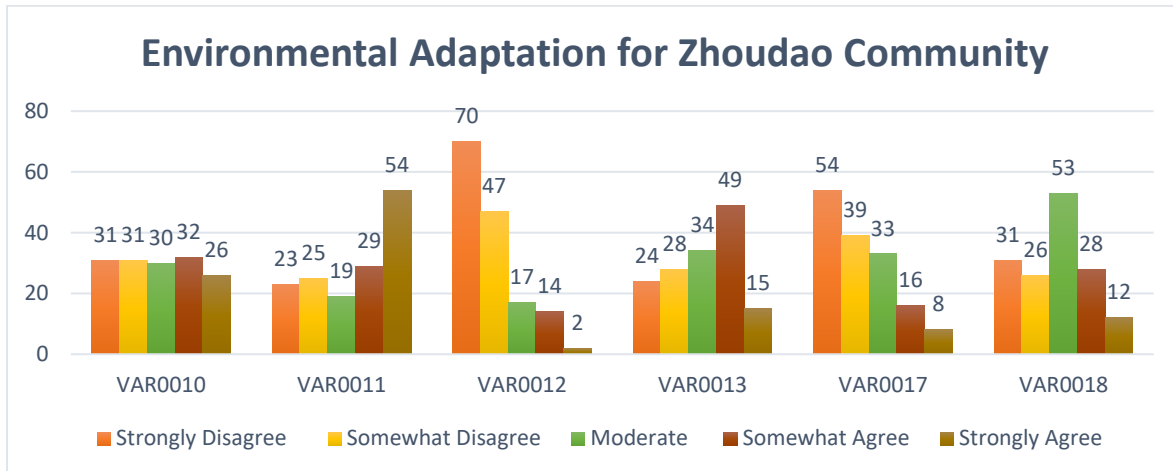


Figure 18. Environmental Adaptation for Zhoudao Community

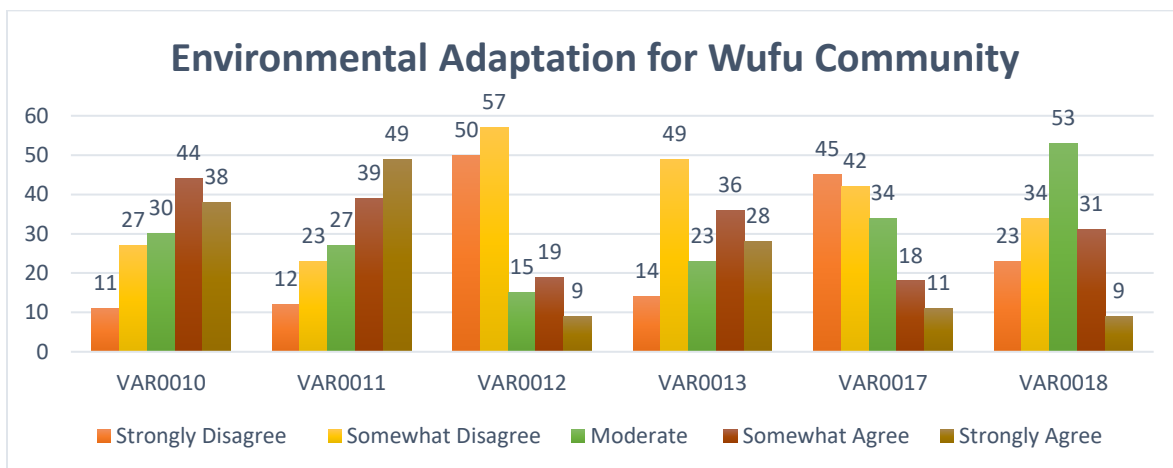


Figure 19. Environmental Adaptation for Wufu Community

According to the results, 55.3% of the resettled urban residents prefer to grow their own vegetables in Zhoudao Community. As the ex-farmers have nowhere to grow their own vegetables or raise their animals, they are spending a lot of money than before, and as some residents said, “the groceries in the supermarket are so expensive”.

Similar words were heard from residents in Wufu Community, with a lot of complaints on the expenses on groceries. In Wufu Community, 58.7% of the population would choose to grow their own food rather than buying them in a market. Besides the issue with the expenses, food safety is also a rising issue, as some residents informed the researcher that,

“the food safety is a big problem now. It is very hard for me to trust the vegetables in the markets with all that air, water, and soil pollutions, or the pesticides and hormones they put into the products. I would love to grow my own vegetables like old days”.

The residents in Zhoudao Community were resettled near their original farmlands. They are sorted into the newly built eco-technology park area on the island, which means they have access to various of public transit systems, including newly constructed subways and bus lines. Therefore, 78% of the residents are adapted to the urban transportation systems and find it very easy to go around the city. However, as one resident told the researcher, there were many people riding an electronic bike in the neighborhood, which increases the risk for pedestrians. Similarly speaking, in Wufu Community, even though the percentage of residents having a car is not high, the newly built subway stations and bus routes around the community offers convenient access to outside place. 72.13% of them find it easy to adapt to the urban transit system. Since the community structure and physical distribution of the residents are changed greatly, 42.7% of the residents in Zhoudao Community find themselves having little visitation or interaction from the surrounding residents, and for Wufu Community, 42.7% of them find the lack of interactions from their neighbours.

The developers expect the gated communities to be a self-regulated and self-sustaining system with the urban fabric; therefore, when the resettlement is proposed, the gated community is always considered a default settlement form (Csefalvai & Webster, 2012). Liu et al. (2010)

proposed that the gated community is not likely to suit the former rural residents with their lifestyle and social networks since they would feel isolated by the gates and fences, as Figure 20 shows below.



Figure 20. Community Gate in Wufu Community, (Source: the author, 2017)

If the residents want to hang out with their friends or family in the streets, they have to enter and exit through the very limited number of community gates, which is very inconvenient and time-consuming (Zhao & Zou, 2017). As a resident said, *“the closed gated communities make it hard to have connections outside, as we have to go ground the fences to get in or out”*. However, the gated community is not a problem for the majority of the population in the two selected communities, with 62% of them getting used to it pretty quickly. Similarly, the gated community is not causing much trouble with the residents in Wufu Community, with their functions on social security. Less than 20% of the residents find it inconvenient, while 58% is pleased with the new form of their living neighbourhood. In this case, the security provided by the gates are more important than the trouble of getting around. As one of the special features of Chinese communities, the gate and fences around are built for the safety of residents. The gated

community help create a sense of identity for the neighbourhood, in order to accommodate the landless farmers, who made a transition from rural to the urban living environment. After the land acquisition, the farmers were put into high-rise buildings, making them further from the ground, this causes the issue of loss of land attachment based on the literature reviews before. For Zhoudao Community, the share of people who adapted it well and not are pretty similar (37.3% and 36.7%). As for Wufu Community, the numbers are rather evenly distributed, providing similar results as Zhoudao Community. So the buildings are not causing much trouble in the process of adaptation.

5.2.4 Social Relationship, Attitude and Security Adaptation for Resettled Residents

After the resettlement, the rural residents are forced to encounter with the original urban residents, however, they do not need to interact with each other constantly, as the rural residents are placed into a separated, newly built community for them. In Zhoudao Community (Figure 21), 52.7% of the residents find it not difficult to get along well with the original urban residents or having communication issues, among which 28% chose the answer “strongly disagree”, making it the largest share among all the choices; while 24.7% find it uncomfortable in some degree. Similarly, almost half of the population (42%) of Wufu Community (Figure 22) find it not difficult to interact with the urban residents as well, while 28.7% holding the opposite opinion. The separation between resettled residents and original urban residents, for instance, the closed-gated community gather old villagers together instead of mixing them with the urban residents has made the situation better. Around half of the resettled residents find no problem to interact with the urban residents since there are not many chances for them to encounter or have a conversation with them on a daily basis, especially those who are currently unemployed. This provides a positive result from designing a separate community for the landless farmers, as it

helps to maintain their old kinship and creates a more familiar and relaxing atmosphere to help them adapt to the urban life.

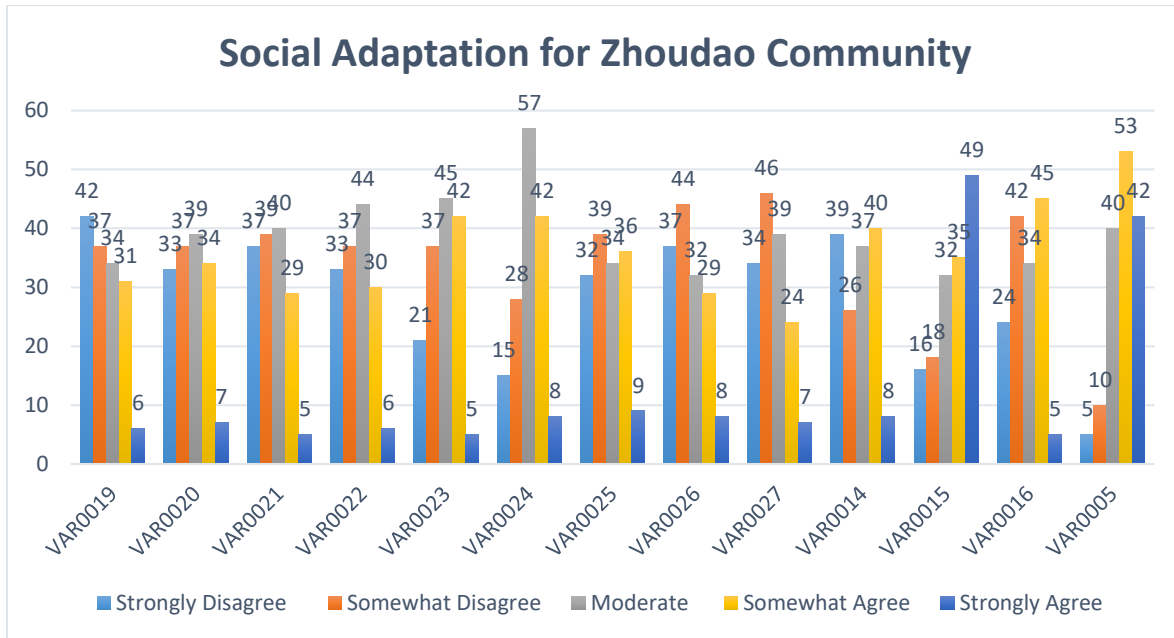


Figure 21. Social Adaptation for Zhoudao Community

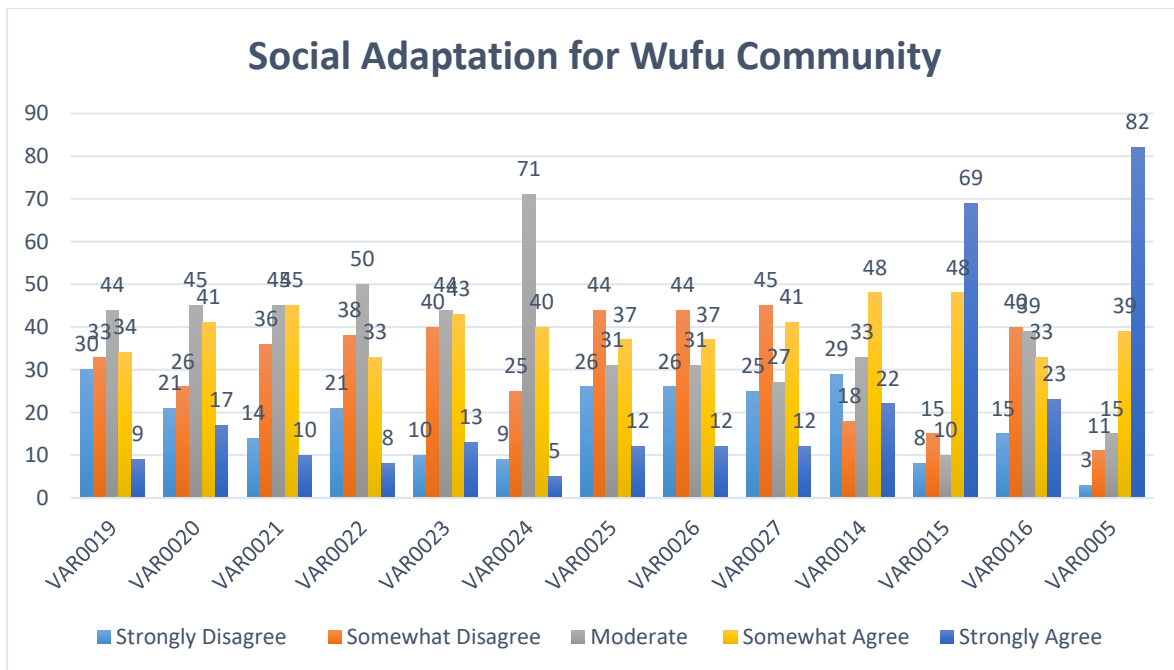


Figure 22. Social Adaptation for Wufu Community

Festivals take a very important part of the culture. Urban residents usually have their own ways of celebrating. For the resettled residents in Zhoudao Community, they tend to have an open mind about the festivals, with 46.7% being totally or partially adapted to the urban festivals, and 27.4% show little or no interest. In Wufu Community, the numbers are slightly different, there are more people showing no interest (38.6%) than those (31.3%) who are interested in celebrating the festivals in an urban style. Xu et al. (2011) suggest that some resettled residents are trying to acclimatize to their new urban lifestyle, by participating in community activities such as singing, square dancing, and clubs at senior community centres. As the researcher went around the community, many bulletin boards were observed with various of recreational activities. Looking at the numbers from two districts, residents in Zhoudao Community show more interests in the community recreational activities with 24.7% show great interests, and 26% shows moderate interests. On the contrary, residents in Wufu Community show fewer interests towards the activities, with only 9.3% share a great interest. Those who show little or no interest take up 36.7% of the total population. Therefore, the research findings of this study suggest a moderate participation toward community recreational activities, with a higher interest rate in Zhoudao Community where the living condition and surrounding environment is better than Wufu Community.



Figure 23 Square Dancing in Zhoudao Community, (Source: the author, 2017)

Even though the farmers are embracing the urban customs, lifestyles, they are still facing the differences for conflict in regards to self-identity, attitudes, and thinking styles (Fu& Lenth, 2016). Some resettled farmers did successfully adapt to the urban life and distinguished themselves from the rest of their community members. They tend to have an open mind about being a citizen, living a life that holds a similar cultural reproduction trajectory, and following an urban daily lifestyle (Nelson, 1989).

As the results suggest, the rural resettled residents tend to keep some of their old traditions, and sometimes it can astonish or annoy the urban residents. For Zhoudao Community, 31.3% of the residents agree with this opinion, while for Wufu Community, the number is higher by about 10%. Sometimes the old traditions also bother the rural resettled residents, since they are now living in a high-density neighbourhood rather than having their own yards. In the newly built urban neighbourhood, there is little drying space, however, many ex-farmers would dry their clothes in public space downstairs rather than in their own balcony. The parking spot and other public spaces would be transformed into ceremonial space, with a shed fixed up over those

space (Li et al. 2016). For instance, a resident in Wufu Community informed the researcher that, “it is too noisy when they hold weddings or funerals”. The picture below indicates the issue, as the residents turn the seating areas into peanuts drying zones.



Figure 24 Drying Zones for Peanuts in Zhoudao Community, (Source: the author, 2017)

As for the exclusion by original urban residents, over 30% of the total participants expressed their concerns on not being treated equally or included even after their household registration systems are changed from “rural” to “urban”. The household registration system, also known as “Hukou”, is an instrument to distinguish urban and rural residents, and for the allocation of services and goods (Müller, 2016). Resettle residents stand in a marginalized position. Though their household registration system has been converted from "rural" to "urban", they are still lack of economic wealth, education, social recognition and political influence (Müller, 2016). This causes the residents to feel excluded from the urban society, which prevents them from social integration and equality. In Zhoudao Community and Wufu Community, thirty

percent of the sampled population experienced unequal treatment and exclusion from the urban society after their household registration systems are changed.

The resettled residents that are not willing to accept the urban-based lifestyle can struggle with their changed socioeconomic status. Learning the urban lifestyle is regarded as a path to inclusion, with being included in the leisure sphere (Fu & Lentho, 2017). Many resettled residents report a lack of sense of belonging in the urban community. Though their Hukou is changed to “urban residents”, they feel marginalized, making it difficult for them to adapt to urban life (Hui et al., 2013). As a result, most landless farmers have low identity recognition and encounter many difficulties adapting to the urban environment (Zhang & Tong, 2006).

While feeling excluded from the urban society, some resettled residents are not interested in building new relationships outside of the community at all. As discussed above, one of the most important reasons for the lack of interest in leisure activities could be related to urban discriminations. A resident put the responsibility on the gates, “*the closed gated communities make it very hard for me to have connections outside*”. The results show a very similar pattern for the interests in attending activities outside the communities. Comparing two study areas, there are more people in Zhoudao Community willing to have a life outside the community, due to the central location and surroundings of the community, which bring cultural challenges and opportunities at the same time. Urban residents are more interested in participating activities based on their personal interests; for instance, attending schools, recreational gatherings or contests for seniors, while the traditional rural residents tend to consider housework, grandchild care as leisure activities (Su, Shen, & Wei, 2006). Therefore, even with the changes on household registration system, the resettled residents have a difficult time to pursue urban activities. Instead of going to clubs, shopping centres, spas and others, the resettled residents tend to enjoy

mountains and water more. Their activity pattern shows the attachment to precious rural lifestyle, but also traces of transitions towards urban style leisure activities (Su Shen, &Wei, 2006).

The internal relationships among family and community members of resettled residents play a bigger role compared to those outside the neighbourhoods, as the emotional intensity involved is relying on the strong ties. As the urbanization and resettlement process has opened up the gate of old village committees, a social-economic based relationship is developing to gradually replace the family-based and neighbourhood-based ones (Wu et al., 2016). There are new and more sufficient recreational infrastructures and public spaces in Zhoudao Community, Jianye District, for example, a children's playground designed for kids to play and adults to communicate with each other. However, the interactions are mainly with previous friends or neighbours. Rural residents prefer to contact with their relatives and old friends, as the contact brings spiritual pleasure, and the sense of self as well as social identity.



Figure 25 Children's Playground in Zhoudao Community, (Source: the author, 2017)

The largest portion (43.3%) of the residents in Zhoudao Community find it comfortable living with a mixed group of people from different villages in a high-density community, while 32% prefer to live with only their acquaintances around. Unlike Zhoudao Community, residents in Wufu Community have more preferences when it comes to their neighbors, as 46.7% of stating that they would prefer to live with their previous villagers. The government is inclined to consolidate the farmers from several villages into one high-density neighbourhood, as it allows the government to better control the farmers, save some land and space, and increase the efficiency of infrastructures (Zhang et al., 2017). However, this has a drastic influence on their social interactions (Xu et al., 2011). As the neighbourhood is made up of a mixed group of residents, their consumption patterns and cultural preferences are different as well (He, 2015). This implies the reason why almost half of the population in Qixia District prefer to live with their old friends and families rather than people from other villages.

As the housing structures have changed from the single detached houses to high rise apartment buildings, 56% of the population think the changes have too much influence on life, stating that the apartments make them feel uncomfortable and squeezed. For example, a resident informed the researcher that, *“the bathroom is way too small in the buildings”*. Apart from the space, the residents are not getting enough sunlight in their apartments, due to the high density of buildings. Some complained that the walls are not soundproof, so they would have to endure the noises from their neighbours next door while having trouble keeping their own privacy, and since they do not have a yard with their own garbage disposal place, there is *“too much garbage in the building, causing terrible smells, lowering the air quality, and making me sick”*.

The adaptation challenge is bigger in Wufu Community, with 78% of the residents expressing their willingness to live in a sing-detached house with larger space, among which 46%

share a strong willingness to have their previous housing structures back. Since the apartment buildings are usually six storeys in Wufu Community, a resident said, “*there are no elevators in the building, so it is very hard to the elders to go up and downstairs*”. In this case, resettled farmers would like to occupy undefined spaces or public green spaces for their own use, especially with storage and social interaction spaces (Li et al., 2016).



Figure 26 Kindergarten in Wufu Community, (Source: the author, 2017)

When a resettled community is built, public facilities such as hospitals, educational institutions, parks and shopping centers are taken into planning as well. While the residents are having trouble adapting to the apartment style living space, some of them (33.3%) in Zhoudao Community find similar problems with the nearby infrastructures and services. For instance, compared to urban shopping centers, they would rather shop in the streets. However, 44% of them find no trouble with these changes. This is because the district where Zhoudao Community is located in is developing at a fast pace due to the blueprint of building it into an ecological

high-technology island. In Wufu Community, the services and infrastructures are mainly located within the community, with small-sized markets and shops, as the outsides are taken by factories and highways. According to a study done by Milbourne and Kitchen (2014), rural resettlement is an intersection of socio-economic flow from people's activities. Though individual activities are usually affected by personal characteristics, lifestyle, and economic foundations; they actually result from similar needs, such as shopping and visiting, which are demonstrated in the research findings above that resettled residents have little trouble adapting to the newly constructed infrastructures. Therefore, it is good for the communities to have more services accessible to rural resettled residents in order to help them adapt to the urban lifestyle and gain satisfaction in their lives (Woods, 2012).

There are mainly two types of resettlement, according to Liu, Zhang, and Lo (2014), involuntary and voluntary resettlement. In China, the case is usually the involuntary one, hence the government would try to maintain and enhance the living conditions of resettled residents with compensation, social insurance, and promotion of socioeconomic development (McDonald, Webber, & Duan, 2008). Economic conditions are considered as one of the most important influencing factors in people's social life (Kawanaka, 2014). The land expropriated by the government takes away the sustainable income of the farmers. For the current social insurance and land compensation efficiency, due to the policy reform in 2011, the majority of the residents (63.3%) in Zhoudao Community received dozens of thousands of RMB with newly built apartments as compensation. However, they point out the lack of insurance is a very influential barrier for them to adapt to the urban living style in a long-term setting. The situation in Wufu Community is worse since the resettlement happened over a decade ago before the land policy reform, the compensation was up to twenty thousand RMB with an apartment, and the social

insurance was around 600 RMB in total. As a result, 80.7% of them think the social insurance and compensation are far from enough for them to live in the city, among which 54.7% chose “strongly agree”. As some residents point out, they only have 300 RMB as medical insurance per year, which is far from enough for them to go to the doctors, or even “*cure the flu*”. As for the compensation, a resident said, “*the compensation is so unfair, we only got one apartment, and now we three generations have to squeeze into this tiny place to live, which is very inconvenient and uncomfortable*”.

The residents in Wufu Community complained heavily about the lack of social insurance and security, as the compensation is not covering their living expenses in a long-term setting, and the social insurance, especially medical insurance, is far from enough. Under the current policy, compensation for landowners in rural areas consist of three coverages: the loss of farmland, on-site property and expenses of relocation (Wu, 2017). Compensation is distributed in a gradual fashion, which often results in delay or less than promised (Gao, 2001). As a result, the resettled households find the procedures as unequal or unfair. After the resettlement of Wufu Community, the city increased the standard for compensation, while left the level low for the farmers there. Some residents would also question the rule of calculating the floor area. In all, the resettled residents are dissatisfied with the incremental value of their land, and the failure of implementing social insurance would make the resettle residents fell less “covered” and treated like a real citizen.

5.4 Policy Recommendations Analysis

The researcher further asked the participants to select what they want from the policymaker to help them better adapt to the new urban environment. The results are not too different since the two communities are all located within the same city. Though the amount of

compensation and social insurance is quite different, most of the approaches are rather similar, such as community design and cultural building. The residents share similar opinions towards the resettlement policy, indicating that the local government of Nanjing should take these issues into consideration for future neighbourhood planning. Besides, the sample size is too small to reveal significant findings. However, through the comparisons, there is something to be noticed.

For Zhoudao Community (Figure 27), some residents think that the medical insurance is too little. There is also rising demand for job opportunity offering after the resettlement (50%), and a significant number of people (40%) prefer to have skill training sessions to help them adapt to the urban job market, and more information on investment, entrepreneurship as well as loans (28%). Other comments include a large number of people asking to lower the maintenance fees and better management. As for the environment adaptation, 81.3% of the sampled population would like to have more common areas and green spaces. 64% of them voted for lower building height, and 56.7% of the total population suggest promoting farmer's market in the community. 38% of the population encourage community gardens for vegetables and fruits growth, indicating the urgent need for safe, fresh and local products. Among all the suggestions, more than ten residents told the researcher,

“the facilities and infrastructures in the community are in need, there are not many choices for grocery shopping, and the government should take over the maintenance of the community instead of giving it to some other company”.

Another suggestion is to increase the publicity of cultural building and environmental protection to build a clean and sustainable community. For social adaptation, the residents are hoping to have more community activities in order to interact with other residents (80.7%), follow by a demand for increasing publicity of social resources and entertainment of the City

(60.7%). Almost half of them encourage community centres for traditional rural activities, such as wedding and funeral venues. The choices for the government to offer more compensation (78.7%) are in high demand, as well as the enhancement of social insurance (69.3%).

As for Wufu Community (Figure 28), the results are pretty similar for economic adaptation, with demands for a job offer (56.7%) and skill training for jobs (53.3%) in the lead. As for the environment adaptation, 94% of the residents ask the government to build more green spaces or common areas to create more opportunities to meet and talk with other residents. Similar to Zhoudao Community, there is a large demand for farmers’ market (52.7%), and community gardens (35.3%) in the neighbourhood. Many residents suggested *“increasing the publicity and education of environmental protection, to make the community cleaner”*.

As for the building structure, they would prefer to have the height of each story increased. For

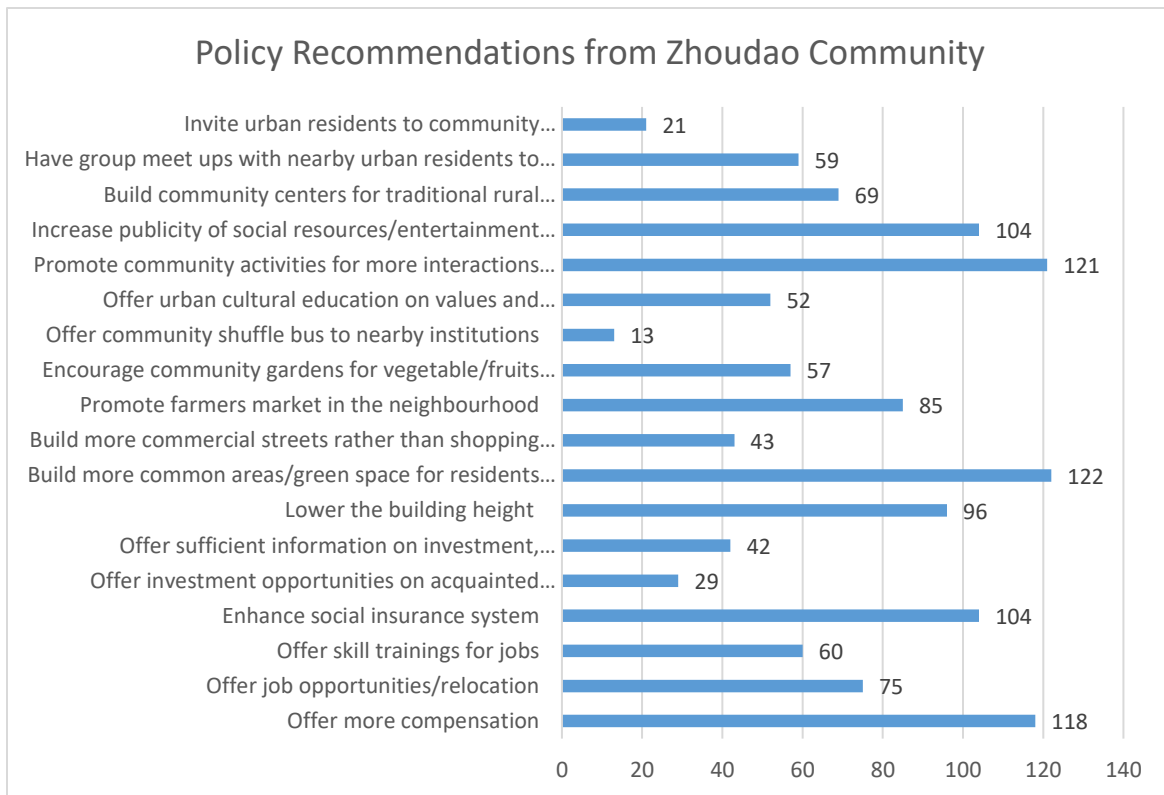


Figure 27 Policy Recommendations from Zhoudao Community

social adaptation, resettled residents in Wufu Community also prefer to attend more community activities (84.7%) and to learn more about the social resources and entertainment of the City (60.7%).

Compared to Zhoudao Community, there are more people in Wufu Community asking for more compensation, since the resettlement happened before the second policy reform with insufficient compensation and insurance to cover their living expenses. Many residents think the compensation is not fair compared to resettlement afterward, and they deserve more houses to make up for their loss of farmland. Some people expressed their concerns towards the elders, hoping the government can provide necessary care. There are also more people asking for common areas for residents to meet and interact. Besides, residents in Wufu Community want the planners to build more commercial streets, since the surroundings are taken by factories and highways, and there are only small-sized markets within the gates.

For Zhoudao Community, people are more concerns with the building heights, as they live in high-rise buildings compared to 7-storey apartment buildings in Wufu Community. They also long for community centres where they can have traditional rural activities, such as weddings and funerals. Since the amount of compensation for Zhoudao Community is over 3 times as the other community, residents are eager to learn about investment and entrepreneurship, making long-term profits out of their money. Even the resettlement happened after 2011, which means the resident get more social insurance than those in Wufu Community, they still long for a better social insurance system. This might due to the higher cost of services such as medical treatment in the city centre.

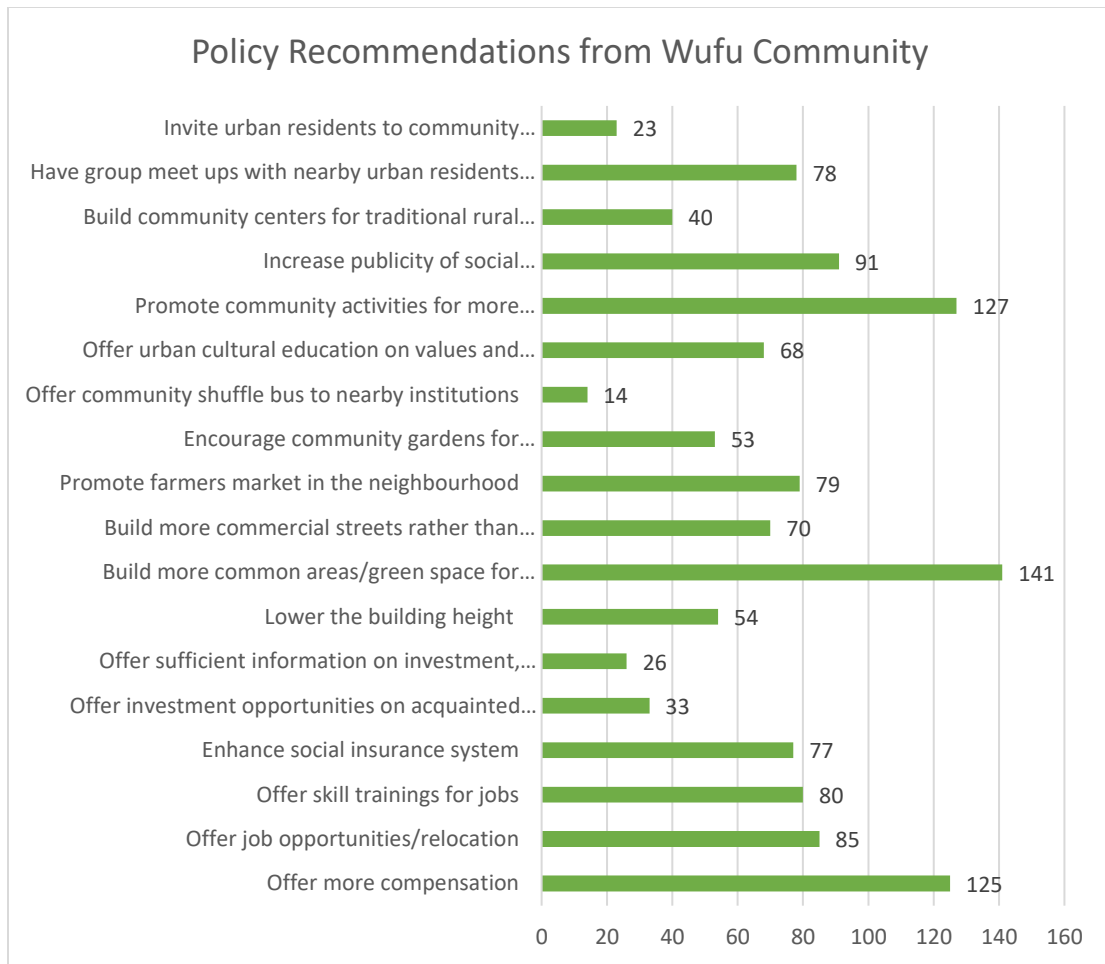


Figure 28. Policy Recommendations from Wufu Community

A study done by Zhao and Zou (2017) suggests that when making policies of resettlement, planners need to consider more thoroughly for the physical conditions and features of the resettled communities. The neighbourhoods ought to increase the beauty of the urban environment, instead of turning into urban informalities. To reach this goal, it is imperative to improve on the institutions of land acquisition and resettlement and launch a more people-oriented urbanization policy. The landless farmers are in urgent need of cultural design criteria, to fulfill their expectations and help them adapt to the urban physical and psychological environment. For example, the community planners may design more green space or public areas to encourage daily interactions among residents, small scale of plantation area for vegetable

planting, import farmers' market into the community, and enlarge storage and drying space in addition to the design of the apartments and public space (Li et al., 2016). The residents are also longing for more engaging community activities to take place, and to learn about social resources and entertainment of the City, and hoping to have community centres for their traditional rural activities such as weddings and funerals.

The policies from the central government are requiring social security programs to benefit the farmers in a long-term setting when acquiring farmland from the rural residents. Since the enforcement of the Land Management Law in 2004, there have been mandatory public notices and consultation in the process of the resettlement. In 2010, the State Council carries out the "Urgent Circular on Further Enforcing More Rigorous Administration of Land Conversion and Villager Relocation in Land Expropriation and Effectively Protecting People's Rights and Interest" to all the provincial government (Qian, 2017). This states the determination of the government in regards to minimizing the violent eviction and resettlement, but the outcomes from the implementation are mixed. The government should reconsider the existing institution of land compensation, as it is usually compromised. The insufficient compensation worsens the financial condition and leads to increasing difficulties in the daily life of landless residents (Tan et al., 2009). There are some potential ways for this problem, for example, to improve the level of compensation for the resettled residents, but not limited to cash or housing. Job arrangements, skill training sessions or employment information sessions are some ways to enrich their ability to adapt and live a sustainable life. Another measure is to enhance education by establishing the comprehensive labor market systems for both urban and rural residents and arrange special employment security for the resettled farmers to reduce the difficulty in finding a job and increase their ability to adapt to the urban environment (Liang &Cao, 2014). Finally, to improve

the planning and implementation process of the social insurance systems, such as housing insurance, medical insurance and pension (Liang & Wu, 2014).

Chapter 6. Conclusions

The urbanization in China has been large-scale and rapid. An important motivation for the government is financial insufficiency, as it tries to balance revenue and expenditure (Tao & Xu, 2007). Land acquisition is playing a positive role in regards to the national economic development, while resulting in a number of social problems, such as the unemployment issue of resettled residents. According to the China City Development Report from 2011, the number of the landless farmers has reached 45 million and may rise to 110 million by the year of 2020. For the resettled residents who are forced to move into the city, there is not only a geographical transformation but a change and transition of ideological concepts and behaviors. As the resettled residents are facing challenges in various of aspects, and potentially marginalization in their new urban life, it is essential for the government to act on the issue to maintain social justice, stability as well as sustainability.

The goal of this research is to study the adaptation condition of resettled farmers, issues faced, and possible solutions towards the issues. Three perspectives, which are economic adaptation, environmental adaptation, and social adaptation were studied with a quantitative approach, via a refined model originated from the study of Du and Pan (2014) and existing literature on adaptation. This study collected the viewpoints of the resettled residents with a structured survey which contained both questionnaires and open-ended questions in two communities in Nanjing, China. Principal component analysis and correlation analysis were applied on the data first to sort the variables into three subscales, and descriptive analysis was conducted on demographic data and previously processed data to find out how do the farmers feel about these existing problems. Recommendations towards planning policy on resettlement

were also proposed based on the results of influencing factors and choices of potential improvements derived from the perspectives of the farmers.

From the research findings, I come to several conclusions. Age and education level are highly related to the unemployment rate and the types of job they manage to acquire, making it more difficult for elders and people with low education levels to adapt to the lifestyle under high consumption level and working environment in the urban area. As the research finding shows, there has been an increasing request from the resettled residents on the information and social support on investments and entrepreneurship, making their money sufficient in a long-term perspective. There is also an increasing demand from the residents towards plantation of their own food, with concerns about expenses and safety. As for social adaptation, the residents tend to have a harmonious relationship with their neighbours; however, the lack of interest in social activities, and the insufficient social insurance are influencing the adaptation process and quality of their life. Overall, residents resettled in Zhoudao Community, which is located in a highly developed area in 2014, after the land policy reform, show a higher rate of successful adaptation compared to those in Wufu Community, especially with their living environment and access to social resources.

From the addressed issues, some policy recommendations are proposed in order to reduce the adaptation barriers for the resettled residents. The government should pay an increasing attention to the compensation approach and community designs, in order to improve the living conditions of landless farmers, maintain their life quality and help them adapt to the urban life in a long-term setting. For example, it is essential to build a neighbourhood to implement a people-oriented urbanization policy and take the farmers' opinions and choices into considerations. Other than just compensate the rural residents with money, in-depth consultation with the

landless farmers about their various requirements and expectations of their living space and environment, and feedbacks on adaptation after resettlement should be conducted by the authorities. As for community designs, planners need to consider more thoroughly for the physical conditions and features of the resettled communities to cope with their rural habits and culture. Instead of a “top-down” approach, a “bottom-up” approach used with effective actions that are more suitable in terms of equitable and successful realization of the schemes. For specific policy recommendations, the policymakers should enhance social security programs to benefit the farmers sustainably; for example, job arrangements, skill training programs, social resources information sessions, and social insurance programs are some ways to enrich their ability to adapt and live a sustainable life.

This study has some important contributions and outcomes. First of all, a database consisting a sample of two resettled communities with 300 residents are achieved and put into data analysis. The results are available and suitable for future research uses, and for policy making references. There is a contribution of knowledge, as the research gap is filled with the adaptation condition, barriers and potential solutions are gathered from the resettled residents. It is particularly interesting with the presence of strong and controlling municipal government and the different social status caused by the household registration system. While institutional factors are country-specific, there are still common grounds for mutual learning. The research opens up multiple learning processes for both Chinese and international communities, providing a unique perspective government-led urbanization and resettlement, in regards to planning policies and community design.

The limitations of this study include the limited sample size. The study only has two communities as the sampling locations, and for each community, only 150 surveys were done,

making it hard to represent the whole area for quantitative analysis. The male participants and the young are open about their opinions, while female and the elders being cautious or less interested. Another concern is the resettlement time. Though the time difference is essential for the study as they are in two stages of policy reform which happened in 2004 and 2011, the Zhoudao Community, Jianye District was built in 2014, which is eight years younger than Wufu Community, Qixia District. The fact that Zhoudao Community is new can hide some long-term issues at the moment. The other problem is that "adaptation" is a rather subjective concept, as everyone can feel differently, undermining the validity of the research. It is hard for the researcher to evaluate their adaptation levels based on the same standards, with people coming from the different educational background and income levels.

Therefore, for future studies, a longitudinal survey can be proposed to recruit more participants from more communities, in order to perform the quantitative analysis with more accurate assessments of the variables. Moreover, a more reasonable evaluation measurement of the adaptation level should be designed to minimize the subjectivisms of the answers. As Nanjing is a city on the east side of the country, it would be better to draw samples from the middle parts and western parts of China to expand the study across the country for cross-regional comparisons.

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Appendix 1. Survey

PART 1. Personal Information (Please select all that apply)

- 1) Gender ()
 1. Male
 2. Female
- 2) Age ()
- 3) Level of Education ()
 1. No education
 2. Elementary school
 3. Middle school
 4. High school
 5. College degree
 6. University degree
 7. Others
- 4) Political Status ()
 1. Village cadres
 2. Township cadres
 3. Party member
 4. None of the above
- 5) Employment BEFORE land acquisition ()
 1. Farming, forestry, fishery, and animal husbandry
 2. Factory Workers
 3. Managers of enterprises
 4. Self-employed owners
 5. House owners
 6. Migrant Workers
 7. Government workers
 8. Others
- 6) Employment AFTER land acquisition ()
 1. Farming, forestry, fishery, and animal husbandry
 2. Factory Workers
 3. Managers of enterprises
 4. Self-employed owners

5. House owners
6. Migrant Workers
7. Government workers
8. Others

- 7) Family income BEFORE land acquisition per year () RMB
Family income AFTER land acquisition per year () RMB

PART 2. Adaptation Conditions and Process

- 1) It's hard to find a job in the urban area with high skills and ability requirements
 1. Strongly Disagree
 2. Somewhat Disagree
 3. Moderate
 4. Somewhat Agree
 5. Strongly Agree
- 2) The current urban working environment is quite depressing for me
 1. Strongly Disagree
 2. Somewhat Disagree
 3. Moderate
 4. Somewhat Agree
 5. Strongly Agree
- 3) The job that I can find are often low-paid, dirty, and heavy
 1. Strongly Disagree
 2. Somewhat Disagree
 3. Moderate
 4. Somewhat Agree
 5. Strongly Agree
- 4) The working pace is too fast and very stressful compared to working on a farm.
 1. Strongly Disagree
 2. Somewhat Disagree
 3. Moderate
 4. Somewhat Agree
 5. Strongly Agree

5) The social insurance and land compensation are not sufficient for urban life in a long-term setting

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

6) The consumption level in the city is too high compared to my household income

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

7) The distance to work is too long compared to before, and it takes longer to go to work now

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

8) It is hard to generate sufficient information on employment opportunities and job selection

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

9) I cannot get social support or education on investments or entrepreneurship

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

10) Weather condition in the city is not satisfying, such as urban heat island effect in summer

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

11) I prefer growing my own vegetables and fruits rather than going grocery shopping.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

12) I feel uncomfortable with urban public transportation system; it is harder for me to go around.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

13) I have little visitation/interaction with surrounding residents, and I am not used to it.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

14) I find it hard for a mixed group of villagers from different areas to live together in a high-density community, I prefer to have only my acquaintance around.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

15) The changed housing structures have too much influence on life, I prefer to live in a single-detached house with more space.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

16) I am not satisfied with the new infrastructures and services provides.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

17) The gated communities make me feel trapped and lose my freedom, it is inconvenient for me.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

18) The high rise buildings make me lose my attachment to the land.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

19) I cannot get along very well with original urban residents; I find it difficult to communicate with them.

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree

5. Strongly Agree

20) I am not interested in celebrating festivals in urban styles

1. Strongly Disagree

2. Somewhat Disagree

3. Moderate

4. Somewhat Agree

5. Strongly Agree

21) I am not interested in attending urban recreational activities in communities

1. Strongly Disagree

2. Somewhat Disagree

3. Moderate

4. Somewhat Agree

5. Strongly Agree

22) I am having difficulty following up with urban thinking styles and views

1. Strongly Disagree

2. Somewhat Disagree

3. Moderate

4. Somewhat Agree

5. Strongly Agree

23) My old rural traditions and culture astonish and annoy original urban residents

1. Strongly Disagree

2. Somewhat Disagree

3. Moderate

4. Somewhat Agree

5. Strongly Agree

24) I am unable to adapt to urban views on money and consumption

1. Strongly Disagree

2. Somewhat Disagree

3. Moderate

4. Somewhat Agree

5. Strongly Agree

25) I feel excluded by original urban residents even after changing the household registration

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

26) It is hard for me to build new relationships outside my community

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

27) I am not interested in attending activities outside my community

1. Strongly Disagree
2. Somewhat Disagree
3. Moderate
4. Somewhat Agree
5. Strongly Agree

PART 3. Open-ended Questions.

- 1) What other economic aspects do you find hard to adapt in the urban area?

- 2) What other environmental aspects do you find hard to adapt in the urban area?

- 3) What other social aspects do you find hard to adapt in the urban area?

PART 4. Policy recommendations

- 1) Please select the recommendations you want to make.
 1. Offer more compensation
 2. Offer job opportunities or job relocation programs
 3. Offer essential skill training sessions
 4. Enhance social insurance system
 5. Offer investment opportunities on acquainted farmlands
 6. Offer sufficient information on investment, entrepreneurship, loans etc.

7. Lower the building height
8. Build more common areas or green space for residents to meet and interact
9. Build more commercial streets rather than shopping centers
10. Promote farmer's market in the neighbourhood
11. Encourage community gardens for vegetable and fruits growth
12. Offer community shuffle bus to nearby institutions
13. Offer urban cultural education on values and traditions, etc.
14. Promote community activities for more interactions among inner residents
15. Increase publicity of social resources/entertainment of the urban area
16. Build community centers for traditional rural activities (such as weddings, funerals, etc.)
17. Have group meetups with nearby urban residents to interact with each other
18. Invite urban residents to the resettled community activities on farming, vegetable growing and so on.

2) What other policy recommendations do you want to propose?