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Strategies for risk management in urban–rural conflict: Two case studies of land acquisition in urbanising China

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ABSTRACT

Urban and rural environments show clear differences in morphology, production mode and culture. With rapid urbanisation, these differences have become a major cause of urban–rural conflict. One of the most significant challenges arises from land acquisition, particularly in China, where cities have experienced substantial growth in the 21st century. Different types of risk are associated with land acquisition conflict in different Chinese cities. In this study, two types of cities are discussed: those with a historically low level of development but recent rapid economic growth, such as Yueqing; and cities that have maintained a relatively high level of development and experienced stable growth, such as Jiaxing. Land acquisition conflict in these two representative cities is then analysed in terms of property rights, access to resources and development. Analysis is performed at the institutional level to provide more accurate insights into the dynamics of conflict. The findings of the study suggest that different risk-management strategies are used in the two kinds of city, and that conflict is more likely to occur in cities with historically weaker development, such as Yueqing. To avoid such conflict, systematic risk-management strategies should be established in these cities.

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1. Introduction

Urbanisation is a double-edged sword, with wide-ranging economic, social and environmental effects. Economists refer to urbanisation as a positive process that enhances economic growth and increases national wealth. However, it can also result in unemployment, violence, poverty, congestion and environmental problems. Urbanisation has been described as a process of ‘eating up’ rural land in response to increasing demand from residents and private firms (Zhang, 2010). The proportion of the population living in urban settings in the mid-20th century in Western countries was 72% in the United States, 87% in the United Kingdom, 79% in the Federal Republic of Germany, 86% in the Netherlands and 77% in Canada. By the 1960s, these figures had all exceeded 80%, with the rural population of the United States accounting for only 3–5% of the total population. Three cities in developed countries, New York, London and Tokyo, now have more than 6 million residents each. Cities in developing countries also have rapidly increasing urban populations, for example, those of Rio de Janeiro and Mexico City now exceed 6 million (Chu, 2013).

In China, the urban population increased from 19.4% in 1980 to 29% in 1996, and the process of urbanisation has rapidly accelerated in the 21st century, with the urban population increasing from 36.22% in 2000 to 53.73% in 2013. This rapid urbanisation is critical to China’s economic development (Shan & Wu, 2016). Urbanisation assists industrialisation and economic development through the recruitment of surplus rural labour, and is therefore beneficial to the government (Zhang & Liu, 2001), but an increasing urban population also brings problems such as bad housing conditions, underemployment, less land available for agriculture and urban environmental pollution, all of which adversely affect economic development (Yao, 1994; Wu, Luo, Zhang, & Skitmore, 2016).

Due to urbanisation, the consumption of land for urban use has remained high since the 1960s. The highest rates of land conversion from rural to urban are observed in counties experiencing rapid economic growth (Marlow, Ralph, & Kenneth, 1994). Pressure on urban land is increasing across the developing world, and is manifested in several ways. The problem of urban land conflict is growing (Horman & Orleans, 2015), and urbanisation has intensified urban–rural tension, as well as increasing the number of...
landless and jobless farmers. Urban—rural conflict management should therefore be further explored and clarified. Risk management is a control function designed to maintain a safe operational boundary for a particular hazardous process of production (Rasmussen, 1997). The management of conflict risk can thus play an extremely important role in urbanisation by ensuring that key aspects of the conflict remain within a relatively safe border, thereby reducing social risk.

2. Literature review

2.1. Conflict during urbanisation

Conflict has been defined as natural and normal discord that arises where and when the purposes, objectives or values of different individuals or groups are incompatible. To achieve their own objectives, individuals/groups will inevitably block others (George & Jones, 2006). In developing countries, rapid urbanisation has significantly affected social and economic systems in both urban and rural areas (Becker & Morrison, 1996; Liu & Li, 2011). Two important changes have resulted from industrialisation and urbanisation: the introduction of new risks and the breakdown of traditional risk-sharing mechanisms (Robert & Steen, 2000). The patterns of rural natural resource use have changed with the expansion of cities, leading to further social, cultural and economic changes that have in turn caused resentment among many peri-urban residents towards urban authorities (Vishal, 2009).

China has a large population and relatively limited available land. Since the introduction of the ‘reform and opening-up’ policy in 1978, the government has relaxed its control over economic and social institutions and China has become increasingly open to the outside world. In Chinese rural areas, the contractual household-responsibility system gives farmers long-term land-use rights, but their incomes have remained low (Knight & Jones, 2006; Rozelle, Park, Huang, & Jin, 1997; Xie & Jiang, 2016). Economic development has resulted in a high level of labour migration from rural to urban areas, with urban land expansion and farming land loss as the most significant land-use changes, accompanied by environmental degradation and land conflict (Chen, Zhang, Song, & Zhang, 2016). During China’s urbanisation, farmers have migrated from the agricultural sector to the non-agricultural sector and agricultural land has been put to non-agricultural uses, mainly through land acquisition by the state (Lou, 2007).

With urbanisation and the movement of the rural population to cities, different types of social conflict — caused by overpopulation, a lack of resources and other environmental and societal problems — become entangled, increasing social risk. Therefore, preventing or at least reducing various forms of conflict through risk management is of great importance to urban—rural development (Yu, Wu, Zheng, Zhang, & Shen, 2014). Urban and rural labour resources, urban land expansion and rural farmland protection are the three main factors that can result in property conflict. Resource conflict can be triggered by environmental damage, competition for natural resources, urban industrial transfer, rural environmental protection, the diffusion of pollution from urban to rural areas and/or the effects of agricultural pollution on municipal water supplies. Development conflict may arise from infrastructure construction, the distribution of educational resources, differences in environmental management between urban and rural areas, urban development and/or the return of farmland to forest (Yu et al., 2015). This study investigates the nature of urban—rural conflict and the influence of urbanisation with reference to three key types of conflict: property conflict, resource conflict and development conflict. A framework of cultural, political and system-level analysis is used to provide recommendations for devising land-use policies to mitigate urban—rural conflict (Wu & Luo, 2015). The three kinds of conflict are interrelated (Fig. 1), and are the main types of urban—rural conflict in China (Yu, Wu & Zheng, 2014).

Public conflict can be managed through either conflict control or conflict resolution. The two approaches differ significantly in their content, tools and targets. The aim of conflict control is to mitigate and ultimately end conflict. It is efficient and highly effective, but does not take into account the demands and interests of the parties involved, and thus fails to fundamentally resolve conflict. The goal of conflict resolution is to eliminate the root causes of incompatibility. The equality of others and their need for participation are considered, which can eliminate deep dissatisfaction and help to build long-term relationships. However, as conflict control often incurs lower costs, is more effective and avoids the ‘volunteer’s dilemma’, it is difficult to argue for conflict-resolution methods (Zhang, 2014).

China’s highways and other infrastructural networks expanded with the increase in car use after the 1950s. The construction of new buildings for housing, industry and business resulted in large-scale migration to the outskirts of cities, significantly dispersing the population and jobs. New problems emerged in relation to land resources, ecological and environmental protection, class conflict, social security and particularly urban—rural conflict. The most significant threat posed by urbanisation is that construction swallows up land previously used for agriculture, forestry and mining, so the rural population loses its main economic resources (Zhu & Yue, 2006). In China, the historical gap between the urban and the rural has widened further, leading to urban—rural conflict. This conflict is manifested in two ways: first, between urban and rural levels of government, on issues such as human-resources training, the possession of public resources and the distribution of educational resources; and second, between urban and rural residents, whose economic, political and cultural interests are at odds (Huang, 2010). Disagreement and outright conflict also occur in areas such as the environment, development opportunities, resource acquisition, public-goods supply, management and the cultural fusion of the urban and the rural. In terms of ecological conflict, the environmental pollution caused by urban expansion exacerbates the erosion and destruction of agricultural and ecological environments by urbanisation, in addition to the exploitation of ecological environmental resources. In terms of development conflict, household registration limitations have created significant discrepancies in the types of employment and degree of remuneration available to migrant workers and urban residents. Unstable employment and wage arrears create a strong sense of insecurity among migrant workers. Conflict over the supply of public goods may arise from the urban—rural division underscored by the household registration system, which divides infrastructure and public services into the two entirely separate categories of urban and rural provision. Urbanisation has exacerbated the exploitation of rural land, water, labour and other resources, creating conflict over resource acquisition. This urban—rural inequality in resource allocation has continued to increase under the combined influence of political and market changes (Liu & Li, 2011).

Changes in land use due to urbanisation are primary sources of social and political conflict (Plotkin, 1987), and may adversely affect environmental quality (Ellis & Ramankutty, 2008; Sala et al., 2000; Bernardino & Francesco, 2014). Stakeholders pursue their own interests in competing for limited land resources, leading to conflict. Tan (2008) has shown that land acquisition has proceeded smoothly and that serious land conflicts have been avoided in other developed countries such as the US, the UK, Austria and Germany, indicating that there is no necessary link between land acquisition and land conflict. The reasons for the frequent clashes over land acquisition in China are extremely complex. Land acquisition does not only involve the interests of the new land user but also those of the original land owner, the government, and the population at large. The consequences of land acquisition may include violations of human rights, the destruction of the social and economic infrastructure, and the extinction of cultural heritage. This conflict can thus be considered to be an environment of human rights issues (Shen, 2014). Urban and rural labour redistribution (Yu, Tan, & Lu, 2008) and the return of farmland to forest (Yu et al., 2015) also present an increasing number of land conflicts.
not follow statutory procedures, the impounding of land is illegal, compensation and resettlement procedures are unsystematic, town or village officials may be guilty of misconduct, farmers may have improper joint operations and local governments may lack the capability to manage land disputes. In 2009, Tan constructed a game-theory model of local government officials and farmers, and concluded that reducing the cost of the legal right to safeguard land, increasing the benefit of land acquisition for farmers who have lost their land, and enforcing higher penalties for illegal land acquisition can effectively discourage local governments from illegally expropriating land. These measures were also found to reduce the phenomenon of landless farmers’ appealing to higher authorities for help, thereby minimising conflict over land and promoting harmonious economic and social development (Tan & Tu, 2009).

2.2. Significant management of social risk

Risk is an objective manifestation of uncertainty about events that we do not want to occur (Altman, 1968). Beck (2004) first put forward the risk-society theory as key to comprehending modern society. Giddens pointed out that traditional social risk is a local, individual and natural characteristic of external risk, whilst risk in modern society is a global, social and man-made structural risk (Giddens, 2001; Kang, 2006; Yang & Zhao, 2008).

Estes (1984) identified six general causes of social instability: the autocratic behaviour of leading figures in social organisations; a lack of social resources; political instability; an inability to satisfy human needs; and the collapse of family structure or traditional culture. In 1999, against the background of economic globalisation, the World Bank expanded on its existing social-security policy by proposing a social risk management strategy to address the challenges of social development. A variety of risk-control methods were used in the resulting risk-prevention and compensation-arrangement system to comprehensively and dynamically deal with the increasingly serious social risks faced by nations (Lin, 2002). Holzmann and Jorgensen (2000) argued that a social risk management framework comprises risk-management actors and a risk-management strategy and system made up of various prevention, mitigation and coping strategies (Holzmann, 2001). Labour, human rights and environmental sustainability are usually regarded as part of social risk (Kytle, Hamilton and Ruggie, 2005; Zhang, 2011).

Song proposed a social risk early warning system with indicators such as pain, corruption and wealth/poverty in 1989. And in 1995, he proposed the social risk synthesised index system, comprising 49 indicators in 5 categories (Song, 1995; Song, 1999). In China, scholars have investigated risk management in the context of rapid urbanisation. Social risk can be divided into three categories: traditional risk, such as earthquakes, floods, tsunamis and other natural disasters and diseases (e.g., acquired immune deficiency syndrome, severe acute respiratory syndrome and the highly pathogenic avian influenza); social risk, or the risk of system disintegration brought about by social changes such as unemployment, increasing mobility, a trust crisis and moral and other problems; and risk caused by modernisation, such as ecological crisis, terrorism, the development of high-tech ventures, changes in the population structure and network and globalisation problems. In China today, these three forms of risk coexist, and their interaction may continue for many years. Transformation risk and

![Fig. 1. Relationships between risk factors in urban-rural conflict in China.](image-url)
modernisation risk have the greatest influence on modern Chinese society (Liu, 2008).

The risks incurred in the process of urbanisation fall into eight categories: infrastructure risk, population-structure risk, public-health risk, risk of conflict of interests, energy-resources risk, environmental pollution risk, the risk of conflicting conceptions of value and rural–urban differentiation risk (Hong & Zhang, 2013).

Rapid urbanisation and the resulting increase in land acquisition are accompanied by the hidden danger of social conflict. Land acquisition and compensation procedures are extremely difficult to implement as part of development projects. For instance, land-related conflict has occurred across Vietnam (Phuc, 2014). Between 2004 and 2009, land acquisition conflict in China accounted for approximately 65% of public disturbances in rural areas each year (Ding, 2011). Chinese scholars have therefore extensively researched the causes of land acquisition risk (Zhong, 2013) and its assessment (Zhang, Li, & Liu, 2010; Tang & Liu, 2010) and management (Zhu, 2013). Departments of land management have the main responsibility for implementing the current land acquisition risk assessment system, and expert opinions are usually sought during risk evaluation. However, problems may still occur, such as unknown evaluation targets, an unclear policy orientation and unscientific evaluation procedures. Wang and Li (2011) recommended standardising the system of land expropriation risk assessment and establishing and optimising mechanisms for the support and supervision of risk assessment relating to land acquisition conflict. The process of assessment is made more reasonable and scientific by clarifying land risk evaluation targets and orientations, improving the land acquisition risk assessment system and optimising land evaluation. Wang et al. (2014) found that the risk index for social stability in China’s current land acquisition context is as high as 67.672%, and that the risk index for compensation and resettlement (75.033%) is higher than that for a land-collection programme and a production and livelihood programme, respectively. Therefore, a hierarchical risk assessment system for social stability privileging land collection over compensation and resettlement and production and livelihood programmes should be established.

3. Risk management for key conflict factors in land acquisition makes a stable society

With rapid urbanisation and the consequent increase in land acquisition, more and more rural areas in China are being transformed into urban areas, significantly affecting the harmonious and stable development of both rural and urban society. Urban expansion requires land, and an increase in land acquisition activities leads to various kinds of urban and rural conflict, which may cause mass disturbances. In the land acquisition process, it is not the amount of land acquired but the regulations implemented that determine whether urban–rural conflict needs to be addressed or managed. As land consumption is important to urbanisation, the management of land acquisition risk factors will contribute to urban harmony by making the process of land acquisition smoother.

China’s non-private land ownership laws mean that all urban land is owned by the state, and that land in rural and suburban areas is primarily owned by rural collectives (along with the state). This urban–rural distinction may lead to conflict between national and collective ownership. In China’s cities, land is nationally owned; in the country, it is owned collectively. Therefore, the urbanisation of land has become the most important dimension of urbanisation, with the movement of rural land from collective to national ownership through land acquisition by the government. Two main problems arise during such land acquisition. First, land acquisition cannot be implemented in rural areas in urgent need of land urbanisation due to problems with location, policy, etc. Second, urban fringe areas are compulsorily demolished and removed during urbanisation, with opposition from most farmers. In the Chinese context, therefore, the main focus of urban–rural conflict arising from urbanisation is the problem of acquisition, which reveals three more direct and concrete manifestations of the urban–rural conflict, as illustrated in Fig. 2. Conflict caused simply by the existing urban–rural divide is amplified by external forces (i.e., land acquisition).

Fig. 2 summarises the three categories of acquisition conflict: property conflict, resource conflict and development conflict. Cases of property conflict, which arise during land acquisition and expropriation, have three key features: the differential mode of transfer of real estate between urban and rural areas; urban–rural inequality in land income; and the competing demand for land for urban expansion and rural farmland protection. China’s urban–rural land structure means that the urban population, unlike their rural counterparts, can transfer real estate smoothly while retaining a high income. When rural land is converted to urban land through land acquisition and expropriation, farmers’ income is reduced. Those previously able to make a living from farming are likely to lose their livelihoods after land acquisition and expropriation, and it is difficult for farmers to find good jobs in urban areas. Resource conflict can arise due to the pollution of the rural environment by urban industrial projects and clashes over natural resources and inequitable resource allocation. China’s urban and rural populations have different production modes. Urban areas are industrial, and rural areas are mainly agricultural. With China’s urban expansion, an increasing number of factories have been constructed on rural land, increasing pollution and the use of natural resources such as water and land. Development conflict arises from policy configurations emphasising urban areas over rural areas. Public-security administration and the distribution of educational resources are also sources of conflict. A focus on urban areas leads to an uneven distribution of educational resources, security measures and public infrastructure. Farmers who lose their farmland and residential land to urbanisation are excluded from sources of social insurance. In short, as they are required to take on a different type of labour, they lose much more than their land through land acquisition. Urban–rural property conflict may arise during the acquisition or reservation of agricultural land, as the compensation may be lower than the economic gain afforded by land acquisition. Resource conflict may also arise, as land-use changes during urbanisation cause pollution and decrease rural natural resources. From a developmental perspective, the acquisition or reservation of agricultural land may lead to rural unemployment due to the education gap between urban and rural areas.

Land acquisition activities have different characteristics in different cities and counties in China. After 1978, discrepancies in urban development across China increased, and numerous cities with slow historical development experienced rapid industrialisation and urbanisation after the introduction of the reform and opening up policy. Their resulting economic, social and political development increased urban–rural conflict. In contrast, cities with consistently high levels of economic, political, social and cultural development experienced less urban–rural conflict as a result of rapid urbanisation and land acquisition. In addition, authorities in the latter type of city have also begun to construct conflict-management systems, providing experience in the management of urban–rural conflict. From the perspective of risk management, it is particularly important for the first type of city, with poorer historical development conditions and recent rapid urbanisation, to develop reasonable risk-management strategies to improve urban governance.
4. Case studies

Some scholars have explored urbanisation at country level; others have focused on the overall urbanisation of different areas, their problems and their governance. The current county-level research will be of particular practical significance, as the county is an important administrative unit in China. Two county-level cities in China’s Zhejiang Province are selected as the research sites: Yueqing and Jiaxing. Yueqing was the centre of some of the earliest and most active developments in the Chinese market economy, and is the birthplace of the Wenzhou model of industrial cluster development. After China’s reform and opening up, Yueqing developed rapidly; however, the city has historically been poorer than Jiaxing, with lower levels of economic, social and political development. In contrast, Jiaxing has an optimal location and abundant natural resources, and has long been known as ‘the land of fish and rice’ or ‘the home of silk’. Due to these solid foundations, Jiaxing’s economy has maintained a steady rate of development. Although its urban expansion has been rapid, competent governance and the general ease of life have reduced the risk of urban—rural conflict.

Yueqing is located in the southeast of Zhejiang Province, within the jurisdiction of the city of Wenzhou. Jiaxing, in the north of Zhejiang Province in southeast China, is a coastal city covering an area of 3915 km². Situated on the Grand Canal, Jiaxing borders Zhejiang Province in southeast China, is a coastal city covering an area of 3915 km². Situated on the Grand Canal, Jiaxing borders Zhejiang Province and the current population statistics (as of 2015) indicate the county’s historical and recent development, respectively. The population of Yueqing (including Yueqing) has increased far more than cities’ historical and recent development, respectively. The population of Yueqing (including Yueqing) has increased far more than cities’ historical and recent development, respectively.

Table 1 shows the changes in the population of some cities in Zhejiang Province. The peak population figures (before the Opium War) and the current population statistics (as of 2015) indicate the cities’ historical and recent development, respectively. The population of Wenzhou (including Yueqing) has increased far more than that of Jiaxing, reflecting the former’s rapid development in recent years.

4.1. Yueqing: the case of Qian Yunhui

Yueqing is a flourishing city with a prosperous economy, and was one of the first in China to develop a market economy. In 1998, the proportion of the population living in urban was 45.5%, and increased to 60.9% in the year of 2015. Since 1993, Yueqing has ranked among the top 100 cities in China in terms of overall economic strength. In 2004, the city’s gross domestic product (GDP) was 22.06 billion; urban residents had a per capita annual disposable income of 15,945 yuan and a per capita living area of 40.1 m². In contrast, the per capita net income of rural residents was 7547 yuan and their per capita living area was 41.8 m². Living standards in Yueqing corresponded to the ‘fairly well-off’ category proposed by the Chinese government. In the year of 1978–2014, the differences in income between urban and rural residents has increased rapidly.

Most reports on the Qian Yunhui case in Yueqing are based on public opinion or sociological analysis. On the morning of 25 December 2010, in the village of Zhaiqiao, Qian Yunhui, the former director of the village committee, was crushed by a truck and died instantly. It was a traffic accident, however, Mr Qian had repeatedly petitioned for land acquisition on behalf of the villagers. Due to Mr Qian’s high profile and involvement with land acquisition petitions, news of the event spread quickly, and the subject was passionately debated on online networks such as the Sina microblog and the Tianya forum. Rumours from the landless villagers such as ‘deliberately run over’ flooded online networks (Wang, 2011). Fortunately, the government solved the problem in time and stopped the spread of the rumours. Setting public opinion aside, however, and focusing on land acquisition conflict, this case reveals the increasingly severe contradictions in China’s land acquisition policies. Informal riots occur when a group of citizens living in the same geographical area express their common anger and discontent in relatively spontaneous ways (Almond & Powell, 1987). In the process of land acquisition, informal riots may block streets and lead to violent protest. Villagers’ petitions provide an example of institutional political participation.

The lack of transparency in the Chinese government’s methods of land acquisition leads directly to conflict. As petitions are sometimes not worked, villagers with a common interest in the land take collective action. Land acquisition conflict usually arises from the accumulation of conflict factors in three areas: property, resources and development. In-depth analysis of these factors reveals that institutional factors play the most important role in deepening public discord and accelerating conflict. Farmers generally regard land acquisition as a method of government centralisation. Differences between urban and rural areas in terms of social insurance (education, medical care, housing, etc.) and the dual household registration system are the key concerns of landless farmers, related to their means of production and livelihoods. Landless farmers are also concerned with the inequity of rights and other cultural and political issues raised by land acquisition. As

![Fig. 2. Key conflict factors in land acquisition.](image-url)
evident from the case of Mr Qian, these concerns may have a major influence on public opinion.

4.2. Jiaxing: the ‘two exchanges and two divisions’ policy

In 2000, Jiaxing had a residential population of 3,312,600, of whom 38% were urban residents. In 2015, the population had increased to 4,585,000, of whom 60.9% were urban residents.

The prefecture-level city of Jiaxing administers seven county-level divisions, namely two districts, three county-level cities and two counties. Jiaxing is known as the ‘home of silk’, and is a producer of textiles, such as woollen goods. Jiaxing is also one of the world’s largest exporters of leather goods. In addition, the city hosts mechanical, chemical and electronic industries. Along with population growth, urbanisation is accelerating. In recent years, Jiaxing has experienced steady economic development. In 2010, the city had a total GDP of 229.6 billion, increasing in 2015 to 351.706 billion. Although the average annual growth rate is declining, it is still as high as 7%. Fig. 5 shows the difference between the per capita disposable income of urban residents and that of rural residents from 1985 to 2014. The per capita net income of rural residents has consistently been lower than the per capita disposable income of urban residents. Over time, however, the difference in income between urban and rural areas has increased. Rural residences in Jiaxing are numerous, small and scattered. The city’s 620,000 rural households are scattered across 17,000 villages. Villages are generally small, and each has an average of 22 rural households, with each rural person having 350 m² of land. Farms are scattered and decentralised, duplicating and thus wasting rural infrastructure. Due to urbanisation and ongoing expansion, Jiaxing’s limited land supply cannot meet the requirements of urban development, and the contradictions and conflicts of urban–rural space utilisation continue to intensify (Zhou, 2011).

In 1993, Jiaxing’s city authorities launched a ‘land in exchange for social security’ policy to compensate farmers who had lost their land. In 2008, Jiaxing’s municipal committee and government carried out a ‘two divisions and two exchanges’ pilot project to establish areas for urban–rural integration. The policy of two divisions of rural homesteads/contracted land and two exchanges (rural-house demolition/land acquisition) led to the construction of a new rural community. More specifically, ‘two exchanges’ refers to the process of exchanging rural homesteads for urban real estate and exchanging rural land contracting management rights for social security. Farmers can transfer their rural land contracting...
management rights via a subcontract, lease or investment on the condition that such circulation is ‘lawful, voluntary and paid’. If the circulation period is more than 10 years, the farmer can apply for social insurance according to the payment standard for urban and rural residents under the social pension insurance scheme. In cases of agricultural investment in which a development company undertakes the development of a whole area, farmers can exchange their rural land contracting management rights for social insurance.
under the landless farmers endowment insurance policy. Three methods of exchanging rural homesteads for urban real estate are available. First, town real estate can be purchased with received monetary subsidies. Second, farmers can exchange their homesteads for resettlement housing or build joint row houses in resettlement areas. Third, farmers with industrial houses can exchange their homesteads for standard industrial buildings in the Industry Functional Area (Qiu & Wang, 2010). The two divisions and two exchanges policy has given farmers greater choice. Those seeking to change their living environment can give up their homesteads but reserve contracted land; others can give up contracted land in exchange for social insurance. Those who voluntarily become urban citizens can give up their homesteads in exchange for real estate in town, and abandon their contracted land in exchange for social insurance. They then become part of the city, which is another manifestation of urbanisation.

The practice of two divisions and two exchanges achieved good results from the very beginning. In 2009, 10,854 households signed up, 2816 sets of settlement housing were built or rebuilt, 4321 households relocated, 7142 households were moved and land contract and management rights covering 3200 ha were transferred. The two divisions and two exchanges programme, particularly the exchange of homesteads for housing, has addressed the problems of scattered living and poor infrastructure. Living conditions have improved and land has been acquired for construction, accelerating urbanisation. Farmers willing to exchange their homesteads benefit from a more advantageous government policy, which not only reduces the costs incurred by exchange and transfer but increases farmers’ property income and revitalises their assets.

This policy, based on farmers’ voluntary exchange of land, greatly reduces the risk of conflict resulting from land acquisition. Analysis of the factors responsible for land acquisition conflicts confirms that the practice of two divisions and two exchanges has had promising results. Farmers can select the land-use type most valuable to them in either urban areas or rural agricultural areas, helping the government to balance the land demands of urban expansion and rural farmland protection. The replacement of homesteads means that landless farmers can attain the same housing conditions as urban citizens, which eases the conflict between urban and rural areas caused by differences in the methods of transfer of real estate and land income (residential income). With regard to resource conflict, farmers can choose to work in the city or continue to farm their land to earn a living. They can also choose their lifestyle based on whether they prefer living in the countryside or in the city. The choice of an urban lifestyle decreases the pollution caused by urban industrial projects. Development conflict is sometimes difficult to resolve, but the policy takes the future demands of farmers into consideration and gives them the chance to become urban residents with a fair level of social security. This relieves the conflict caused by the other factors.

4.3. Comparison of Yueqing and Jiaxing

Comparison of the land acquisition conflict in the above two cities shows that the gap in income between the urban and rural residents of Jiaxing increased year by year, but was never as severe as that between the urban and rural residents of Yueqing. Analysis of the risk factors relating to land acquisition conflict in Jiaxing suggests that the two divisions and two exchanges policy has given farmers the right to choose to exchange their homesteads or contracted land, settling the problems of property, resource and development conflict in a more diplomatic way. Of course, some insurmountable risk factors remain in the wider environment, such as differences in educational resources and in policy inclination and infrastructure between urban and rural areas. The two divisions and two exchanges policy has not mitigated the influence of these factors, which should be addressed in the context of Jiaxing’s wider environment. In Yueqing, the death of Mr Qian — caused by an ordinary traffic accident — provoking a major social reaction, as Mr Qian had a special status as a petitioner on behalf of many landless farmers. This case had adverse social effects, not only in its exacerbation of the unresolved risk factors relating to urban—rural conflict, but also due to its institutional influence.

The institutional problems caused by land acquisition are mainly due to government centralisation, as responsibility is given only to high-level authorities. Although the ownership of land in China is either national or collective, the state has the right to impose land acquisition and overall planning policies, constraining collective land ownership. The dual structure of urban and rural, such as the dual household registration system and the dual social security system, also causes institutional problems. Limitations on household registration result in significant differences in the distribution of benefits and social security, leading to social inequality. Therefore, analysis of both conflict risk factors and the characteristics of China’s institutional system leads to recommendations for the risk management of urban—rural conflict.

The different levels of development, land expropriation and government management in the two cities have different consequences for the implementation of risk-management strategies. Table 2 shows the distinct circumstances of Yueqing and Jiaxing and the different risk-management strategies implemented in these cities. Yueqing has historically shown a low level of economic development, but since China’s reform and opening up has experienced rapid growth, whereas Jiaxing has exhibited relatively stable development over time. In terms of government-management ability, the Yueqing city authorities have not yet established a scientific system for managing risk, and strategies for managing the risk of land acquisition conflict are fairly informal and implemented only during particular land acquisition projects. In contrast, Jiaxing has a good government-management system and a systematic and reasonable strategy for managing the risk associated with land acquisition.

5. Research findings

This study investigates the potential factors increasing the risk of urban—rural conflict, and highlights institutional structure as the key underlying reason for urban—rural conflict. Regulating the risk factors associated with land acquisition can alleviate conflict. However, in the case of Mr Qian’s death, urban—rural conflict broke out due to a defective system. During the land acquisition process, property conflict arises primarily from differences in the methods of transfer of real estate between urban and rural areas, income inequality in land income and the competing demand for land for urban expansion and rural farmland protection. Therefore, decreasing the difference between land income in urban and rural areas will play a key role in improving land acquisition compensation and reducing the risk of conflict. Resource conflict arises from the pollution of the rural environment by urban industrial projects, contention over natural resources and/or the unequal use of resources. Although analysis shows that urban areas always take priority over rural areas in the competition for natural resources and that environmental resources tend to be transferred from rural areas, the two divisions and two exchanges programme implemented in Jiaxing ensures that those at risk of losing their land are fully consulted, that their suggestions and demands are considered and that reasonable channels for institutionalised political
participation (petitions, etc.) are provided. This reduces the risk of conflict. Finally, development conflict may arise from policy configurations that emphasise urban areas and ignore rural areas, security-administration conflicts and/or the uneven distribution of educational resources. It is difficult to resolve the discrepancy between urban and rural education and its effect on the land acquisition process; however, adjustable policies will strengthen the participation of those who lose their land, thereby further reducing the risk factors (see Fig. 6).

The government is the driving force of economic and social development and continues to dominate the urbanisation process in China. Therefore, the role of the government is closely connected with urban-rural conflict. In China, the government has a monopoly on power. Local government is concentrated at a high level. Market rights are highly influenced by policies and social rights are concentrated, forming a highly centralised administrative system. Government centralisation is clearly reflected in land policy. China's land system is characterised by a combination of state ownership and collective ownership. However, collective land is essentially controlled by the state, and cannot be transferred to the land market except through government expropriation and acquisition. As the value of rural collective farmland is not released to the market, farmers do not benefit as much as urban residents from the great economic growth resulting from land acquisition. Local governments tend to acquire land at low prices. Therefore, the compensation provided for agricultural-land acquisition is far lower than the gains resulting from the transfer (Weng, 2005). Farmers' income is also reduced by the activities of village managers, resettlement units and other intervening layers. The government receives a large income from the transfer of land, with longer-term benefits through investment. However, those who lose their land do not enjoy the same benefits. The increasing number of landless farmers in China is testament to the damage done to this population, which has intensified the discrepancies and conflict between urban and rural areas. Therefore, it is vital to reform government-centralisation policies to increase the credibility of the government and better serve the community.

Due to the intensification of urbanisation, conflicts between urban and rural culture in China have become increasingly acute. These conflicts exacerbate the destructive power of urbanisation and impede the future development of cities. Urban-rural conflict at the cultural level has three main dimensions: cultural differences, habits and values. To minimise the cultural differences between urban and rural areas, Desakota cultural systems can be established to promote convergence in all areas.

Significant problems have emerged as a result of China's increasingly strict urban and rural household registration system and conflict in the market economic system. The welfare-allocation system, which is based on the household registration system, leads to inequity between urban and rural areas, hindering the construction of a harmonious society. The most obvious feature of the household registration system is its differentiation of citizens. The

| City     | Acreage (km²) | Development after the Reform and the Opening up | Government management ability | Risk management strategies in land acquisition |
|----------|---------------|-------------------------------------------------|------------------------------|-----------------------------------------------|
| Yueqing  | 1223          | Historically a low level of development, with rapid economic growth | At a low level. | Casual; set up for projects. |
| Jiaxing  | 3915          | Historically known as the 'Land of fish and rice' or 'Home of silk', due to its rich resources and rapid development; now shows stable growth in the economy, society and politics. | A good historical foundation and steady improvement. | Systematic; 'Two for two' strategies taking the risk factors into consideration, thereby decreasing the urban-rural conflict. |

Fig. 6. Analysis of conflicts factors in land acquisition (connected to Fig. 2).
registration system divides citizens by family and tenure into two categories: an ‘urban population’ and a ‘rural population’. These categories correspond to different levels of social status. Citizens are branded with an urban or rural identity at birth, conferring a different status, different benefits and different rights and obligations. The household registration system thus creates divisions between urban and rural areas, causing political, economic and cultural divergence between agricultural and non-agricultural populations. There are significant differences, for instance, between the urban and rural social security systems. Their serious imbalance is not conducive to efforts to resolve problems in rural areas and ultimately build a moderately prosperous society in terms of education, health care and housing. In China, the influence of the market economy has resulted in changes to the household registration system. On 30 July 2014, the State Council published a regulation on the ‘further promotion of the reform of the household registration system’. This regulation was designed to solve the problem of a large rural population long resident in China’s cities by improving their employability and ability to adapt to the competitive urban environment. The hope is that their families will be newly able to settle in cities and towns, increasing the orderliness of population flow. The aims of this policy are to promote the rational distribution of small cities and towns, to enhance economic concentration and to create favourable conditions for the transfer of agricultural populations settled in towns. This policy, along with the reform of the household registration system, is expected to create a better and fairer social system.

Land expropriation cannot be avoided in regions undergoing rapid urbanisation. In China, land acquisition is the only way of converting rural land to urban land; therefore, land acquisition is the fundamental premise of land urbanisation. However, land acquisition activities also lead to urban and rural conflict. This study shows that land acquisition risk management strategies differ between regions, and that cities with previously lower levels of industrial economic development have grown more quickly in recent years with an expansion of urban land. Strategies for managing the risk associated with land acquisition in these cities should thus be developed to prevent or decrease urban—rural conflict. A number of strategies are possible. First, a conflict administration system should be established by the government. Second, it is important to respect farmers’ choices during land acquisition, so formal and informal mechanisms for communication between farmers and government authorities should be established. Third, increasing the compensation provided for land acquisition will decrease conflict in cities. Fourth, laws or rules for land acquisition should be established to decrease acquisition for urban economic use and maximise the use of land to provide public-welfare services. Finally, it would be beneficial to improve the law-enforcement mechanism for land acquisition and increase the supervision of this mechanism.

Little research has been conducted on the role of planning in urban—rural conflict. Planning plays an important role in delineating urban and rural areas and determining the conditions of land use. The government has the sole right to implement land acquisition and planning policies, which guide China’s urbanisation. The rational use of these instruments can reduce urban—rural conflict risk factors and thus improve the management of urban—rural conflict.

6. Conclusions

In the wake of urbanisation in China, urban—rural conflict has become an increasingly serious problem, which now presents a major obstacle to the sustainable development of both urban and rural areas.

In China, land acquisition has always played a significant role in urbanisation. As the acquisition of land to facilitate urban expansion is an important cause of conflict between urban and rural areas, managing the risk factors leading to urban—rural conflict over land acquisition is very important. Two types of city are addressed in this paper: the first consistently showing a relatively high degree of economic, political and cultural development and government-management ability, with Jiaxing as an example; and the second exhibiting weaker historical economic development but rapid growth after China’s reform and opening up, with Yueqing as an example. Although the demand for urban land and consequently land acquisition have increased in the latter type of city, no scientific systems have been implemented to manage risk. In Jiaxing, the two divisions and two exchanges land acquisition policy has given farmers the right to choose and comprehensively protected their interests. In Yueqing, however, strategies for managing the risk associated with land acquisition are relatively informal and contingent on particular land acquisition projects, and are thus less effective. As a result, incidents such as the death of Qian have exacerbated urban—rural conflict in Yueqing. Cities like Yueqing urgently require comprehensive risk management strategies to reduce conflict between urban and rural.

Three main interacting types of conflict can occur in the process of urbanisation: property conflict, resource conflict and development conflict. This paper investigates these three types of conflict and the 21 key factors causing urban—rural conflict proposed by Yu et al. (2015) with specific reference to land acquisition. The key causes of property conflict are differences in the mode of transfer of real estate between urban and rural areas, urban—rural land income inequality and the competing demand for land for urban expansion and rural farmland protection. The key causes of resource conflict are the pollution of the rural environment caused by urban industrial projects, the competition for natural resources and inequitable resource use. The key causes of development conflict are policy configurations that emphasise urban areas over rural areas and the inequitable allocation of social security and distribution of educational resources.

The risks of these types of conflict must be clearly understood to identify ways of mitigating their consequences. For example, in one risk scenario, a property developer occupies land illegally, and the farmer who has lost the land attacks the developer without filing a report with the government. To reduce such incidents, the government should develop relevant policies to help both developers and farmers. Government policies play a critical role in exacerbating or reducing the risk of urban—rural conflict in China, particularly in relation to land acquisition and resettlement. And the wishes of those affected should also be considered to increase their non-institutionalised political participation.

Analysis of China’s institutional structure reveals that the root causes of urban—rural conflict are government centralisation, with responsibility delegated only to high-level authorities; dual urban—rural configurations such as the dual household registration and social security systems; and differences in cultural values between urban and rural areas urban—rural. Institutional reforms are difficult to implement, as they require effort from both the government and society as a whole. Yet reform is the most direct and effective way of combating the risk factors associated with urban—rural conflict in China. The wider public should be consulted on prospective policies to ensure that the government approaches the issues of land planning and acquisition in a more fair and rational way.

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