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Study on Sustainable Development of Resettlement in Urbanization Process——A Case Study on the ADB-Funded Nanning Qingxiu Mountain Ecological Protection Project

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Abstract Based on derivation of permanent income hypothesis (PIH), the conflict is analyzed between expected profitability of migrants and government policy in resettlement project. Government has provided compensation for relevant building and land losses, but farmers are still unwilling to dismantle and move. On the contrary, it results in more serious social problems. The implementation and effect of resettlement policy is analyzed with ADB-funded Nanning Qingxiu Mountain Resettlement Project as an example. Finally, following suggestions are put forward for promoting sustainable development of resettlement: change ideas of resettlement to promote establishment of civil rights protection ideas; carry out early survey to protect rights and interests of owners and migrants; communicate with migrants to ensure their smooth appeal channel; and enhance coordination work with government department to ensure smooth completion of resettlement.

Key words Resettlement, Compensation, Sustainable development, China

Urbanization is an inevitable trend of social development. Since China enters industrialized development, urbanization process has been accelerating. After we enter the 21st century, all regions are speeding up construction of new urban areas, and the demand of old town renovation becomes imminent. Because interest demands of all parties in urbanization are different, conflicts constantly occur during requisition and demolition of urban land. When dealing with land requisition and resettlement problems, some local governments reduce the compensation standard and ignore social adaptability and sustainable development ability of migrants. As a result, the masses are unwilling to cooperate. Conflicts appear between local government and relocation households, and even vicious affairs frequently occur. Meanwhile, there is another extreme situation. Some local governments purposely raise the compensation standard for migrants, but fail to make proper arrangement and management of relocation fund. Consequently, some migrants suddenly become rich, however they are incapable of developing and just do nothing with the compensation. Both cases cause people to think over land expropriation and compensation policy, and building proper resettlement model becomes a focus. ADB-funded Nanning Qingxiu Mountain Resettlement Project (hereafter referred to as Qingxiu Mountain Project) was highly praised by ADB for its resettlement scheme and implementation results and it is being recommended to member states as a demonstration project. Based on these, I intend to discuss sustainable development of resettlement during urbanization, and help to solve bottlenecks in the process of promoting urbanization and building harmonious urban culture.

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1 Conflict between expected profitability of migrants and government policy based on PIH

International finance corporation (IFC) proposes some principles for resettlement of engineering project. Many scholars have done relevant researches. Based on eight principles for resettlement policy of World Bank, He Chuliang studied planning methods for involuntary resettlement of World Bank project^[1]. Shi Junhong built the index system and comprehensive evaluation method for sustainable development of ecological resettlement areas^[2]. For ecological resettlement methods, Suo Duanzhi put forward the urbanization resettlement model to provide migrants with impartial public services during research in Sanjiangyuan ecological migration^[3]. His purpose is mainly to solve adaptability problem of migrants. Zhao Hongli *et al.* studied industrialized development of resettlement^[4]. Tan Xiaoli surveyed conflicts during land expropriation and possible reasons, and believed that major reasons for conflicts lie in conflict of interest, imperfect laws, low compensation standard, and difficult to put compensation in place^[5]. Zhou Aiguo *et al.* discussed compensation mechanism of land requisition and provided several suggestions for operation mechanism, compensation allocation mechanism, conflict mediating and settling mechanism, as well as protection mechanism for displaced farmers^[6]. Zhou Jian *et al.* analyzed the legitimacy of land expropriation, fairness of compensation, and allocation of rights, and researched public participation in project planning and design. This is a case discussion of resettlement planning of actual engineering project^[7]. Wang Feng *et al.* took Huzhou City of Zhejiang as an example to survey the satisfaction of displaced farmers. Results show that the satisfaction is generally not

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high, mainly manifested in unsatisfied with resettlement housing, resettlement policy and implementation, and reduction of family income. They proposed to implement expropriation in cautious and proper way, raise the compensation and social security standard, establish and perfect laws on land requisition and organizations to accept and hear conflict cases, with the aim of protecting benefits of displaced residents^[8].

The above researches mainly discuss property loss compensation in resettlement, including land, building and proper income compensation. Many local governments provide comparatively fair compensation for such losses, but still fail to get support from most migrants. At these, some local officials feel wronged, even angry, and believe that some migrants are backward in thinking and deliberately place obstacles. Nevertheless, these policy makers neglect the consideration of another loss, namely, the loss of migrants' ability, and the compensation for consequent long-term income loss. Even if migrants are provided with compensation for actual property loss, they have to adapt to new environment, and their old knowledge, skills and habits may not suitable for new environment. We may use some models to solve this problem.

In original environment and at the level of typical residents' skills, suppose that average annual job opportunity can make them have a labor input of a yuan. In the phase of their labor ages, they can work n years. The expected return is $\sum_{i=0}^{n-1} ae^{-ir}$. The original wealth level of residents is W , then the total expected wealth level before the project is $W + \sum_{i=0}^{n-1} ae^{-ir}$.

Now, residents are forced to move to a new environment, and their wealth decreases to W_1 from W . After moving to new environment, if the probability P of adapting to new environment is low and residents fail to find a job, in case of without social security, their labor income will be zero. Even if they find a job, the old skills may influence their labor income in new environment. At this time, for each labor income a_i yuan, government will compensate C . In this situation, when government asks residents to move and residents do not resist, the expected wealth income level of residents will be $W_1 + C + \sum_{i=0}^{n-1} (1-P)ae^{-ir}$.

Residents are rational if and only if

$$W_1 + C + \sum_{i=0}^{n-1} (1-P)a_i e^{-ir} > W + \sum_{i=0}^{n-1} ae^{-ir} \quad (1)$$

holds, they will not resist requests of government. Otherwise, residents may oppose the resettlement project. Alternatively,

$$C > (W - W_1) + \sum_{i=0}^{n-1} (a - (1-P)a_i) e^{-ir} \quad (2)$$

residents will support government's resettlement order. Where, the first item in right side is non human property loss, and the second item is expected loss of human income. The inequality (2) means that if compensation provided by government can cover expected property loss and human income loss of residents, they will not oppose the resettlement.

On the contrary, even if $C > (W - W_1)$, when $C < (W - W_1) + \sum_{i=0}^{n-1} (a - (1-P)a_i) e^{-ir}$, residents will oppose the resettlement. The resettlement policy of government has covered property loss of residents, but if it fails to cover both the property loss and human income loss, the resettlement order will still

be opposed by residents. In fact, when this situation occurs, it also violates the fundamental principle that government should compensate for wealth loss of residents.

Considering the above situations, it is easy to understand why residents are still unwilling to move and more serious social problems happen even if government provides new houses and compensates for building and land losses. Major reason lies in that compensation of new houses, land and building fails to solve livelihood of residents. Therefore, government should consider how to provide residents with sustainable development ability and opportunity in new environment apart from compensating them for property loss. Even if the compensation amount can cover both expected property loss and human income loss of residents, the policy may not be appropriate. It still needs to divide the compensation into two parts: one part for making up property loss of migrants, and the other part for training sustainable development ability of residents and providing opportunity for their sustainable development. The disposal of second part can reflect humanistic care of government and improvement of welfare. In resettlement policy of some areas, residents are provided with huge sum of money, which can cover the property loss and there is a lot left, so residents have no objection at first. However, several years later, some residents spend the compensation improperly. After the environment changes, the original opportunity to obtain income is gone, and life will be hard. These problems will severely affect resettlement project of other regions and future resettlement project of this area, and consequently bring loss for welfare of migrants. Therefore, appropriate resettlement also includes the realization of sustainable development and providing working ability and opportunity for migrants.

2 Resettlement policy and effect of Qingxiu Mountain Project

2.1 Implementation of resettlement policy Qingxiu Mountain Project is in Qingxiu District of Nanning City. The project involves Administrative Committee of Qingxiu Mountain Scenic Spot, Dongfeng Garden Spot, and Fengling Garden Spot. The project consists of afforestation, infrastructure and auxiliary works. The project covers an area of 19.4 km². The ecological control and sewage control works are carried out in project area. The ecological control works are mainly in administrative area of Qingxiu Mountain scenic spot with an area of 4.1 km². The project totally needs expropriating 79.92 hm² land, in which Dongfeng Garden Spot needs 21.92 hm² (accounting for 27.4%) and Fengling Garden Spot needs 58.0 hm² (accounting for 72.6%), and the former is state-owned land and the latter belongs to rural collective land. As to land types, there are 11.95 hm² dry land (accounting for 15.0%), 1.62 hm² bamboo grove (accounting for 2.0%), 42.13 hm² orchard (accounting for 52.7%), 11.04 hm² forest land (accounting for 13.8%), and 13.18 hm² waste land suitable for afforestation (accounting for 16.5%). This will affect 54 households, about 174 persons. About 600 m² rural houses will be demolished. These houses are brick-concrete structured. The demolition will affect 3

households and about 11 persons, who will also be subject to land expropriation. In addition, about 1 506 m² temporary simple built houses will be removed. Besides, there are 3 types of infrastructure and ground attachment that will be affected by the project.

To avoid or reduce negative effect of land expropriation, in the phase of project feasibility study, full negotiation has been conducted with local government and garden spot. Finally, an optimal scheme is selected by a thorough comparison.

The principle of resettlement policy fully considers two aspects: one is the property loss of migrants, including losses of private and collective property, and the other is loss of residents' business income and labor opportunity. The principle of resettlement policy is as follows. (1) The influenced persons should be able to get enough compensation to maintain or improve their living condition before the project. (2) All influenced persons, no matter if enjoys lawful rights and interests, will get compensation and migration support. (3) Redistribution of land will make each immigrant obtain at least one piece of land to support living. (4) If they fail to maintain their living by land, they shall be provided with cash or physical compensation, and other opportunities to get extra earnings. (5) Influenced persons should fully understand the qualification, compensation method and standard, livelihood and income restoration plan, and time arrangement of project, and should participate in the implementation of resettlement plan. (6) Land expropriation shall not be implemented until land replacement or adequate compensation has been provided for migrants. (7) The implementation of resettlement compensation should be supervised by an execute body and independent third party. (8) Vulnerable groups (including floating population) will receive special assistance to ensure to resume production and living, and all influenced persons will be benefited from opportunities. (9) Migration plan should be consistent with new urban and rural planning. (10) Fees for migration shall be adequate and cover all aspects that are influenced. The compensation policy on providing residents with sustainable development ability and opportunity is clearly shown in items (3), (4), (5), and (10).

The compensation policy will be implemented in the promotion of project implementation. Fees for compensation of crops will be paid to contracting households, and compensation for land requisitioned and resettlement subsidy will be uniformly allocated, distributed and utilized by Fengling Garden Spot. The subsidy will be used as development fund to expand the reproduction of garden spot. Other applications will be decided by the representative assembly of garden spot households, and the return will be firstly used to subsidy persons directly influenced by the project.

For policy of building demolition and resettlement, the displaced persons can voluntarily select property right exchange or monetary compensation. For temporary simple built houses, property owner will be compensated for 180 yuan/m² and no reconstruction will be conducted. According to survey, Fengling Garden Spot has been incorporated into pilot units of new countryside construction. Thus, it is required to build a new rural

residential zone with a planned area of 59 999.82 m². After completion of construction, each person will get an 80 m² house. Calculated at three persons each family, the resettlement area is up to 240 m², in which 80 m² will be used for living and the rest 160 m² can be used for hiring out. Annual rental can reach 21 000 yuan, and per capital annual rental is about 7 000 yuan. Plus the income from tertiary industry, the annual income per capita is about 20 000 yuan, which is much higher than present 3 000 yuan.

During the resettlement, it is required to pay attention to restoration of production and employment arrangement. Nanning Municipal Government allocates 5.87 hm² land for Fengling Garden Spot, including 1.33 hm² for 21-storey commercial/residential complex Fengling Mansion and 4.53 hm² planned for construction of trade city. Fengling Mansion has a building area of 43 000 m² and the investment amount reaches 102.52 million yuan. The entire building has been rented to China-Cambodia Corporation. It will be used as a five-star hotel with a hiring period of 20 years. The annual rental is 6 million yuan and is collected from June of 2008. Later, the rental will have an increase of 5% annually and will be paid off in annual September. In March of 2007, the China-Cambodia Corporation has made an advance payment of 3 million yuan. After put into service, Fengling Mansion will have an annual income of over 15 million yuan, which is 6 million yuan higher than the estimated annual return, having an increase of 2.5 times. Besides, if calculated at arranging 1 152 persons according to its demands, the annual income per capita can reach 13 000 yuan, which is much greater than the present 3 000 yuan each person. When the hotel opens for business, persons from Garden Spot will have the preferential to be employed with a monthly salary about 2 000 yuan.

2.2 Analysis of implementation effect We check the implementation effect by questionnaire survey on spot. Among the 10 households surveyed, residences of 3 households are demolished. In all influenced 36 persons, 31 are labor forces. Before the land expropriation, 50% are engaged in agricultural production, 16.7% engaged in service industry, 13.9% in commerce, and the rest 5.6% in other industries. After the land expropriation, 27.8% are engaged in agricultural production, 27.8% engaged in service industry, 16.7% in commerce, and the rest 27.8% in other industries. Among these persons, 3 persons were preferentially arranged to sell tickets at Qing-shou Mountain Park. For those influenced persons without permanent job, the project owner will frequently arrange them to do some works they are capable of doing.

According to statistics of sample of 10 households and 36 persons, the per capita income is 5 322 yuan. The income from service industry reaches 2 325.5 yuan/person, accounting for 43.7% of the gross income. Business income is 1 590.2 yuan/person, accounting for 29.9%. The agricultural income is 958.8 yuan/person, accounting for 18%. Other income is 447.5 yuan/person, accounting for 8.4%. In the expenditure, per capita expenditure is 2 810.1 yuan. This includes 580.1 yuan/person for household business, accounting for 20.6%; 501.2

yuan/person for fixed production, accounting for 17.8% ; 116.9 yuan for taxation, accounting for 4.2% ; 289.8 yuan/person retained for the collective, accounting for 10.3% ; and 1 322.1 yuan/person for living consumption, accounting for 47.1%. The per capita net income of sample households is 2 511.9 yuan/person (listed in Table 1).

Table 1 Analysis of income and expenditure based on sample survey

Item		Amount Yuan/person	Percent %
Income	Agriculture	958.8	18.0
	Service industry	2 325.5	43.7
	Commerce	1 590.2	29.9
	Others	447.5	8.4
	Subtotal	5 322	1
Expenditure	For household business	580.1	20.6
	For fixed production	501.2	17.8
	For taxation	116.9	4.2
	Retained for the village's collective	289.8	10.3
	For living consumption	1 322.1	47.1
Subtotal		2 810.1	1
Per capita income		2 511.9	

For source of income, because the project area is in outskirts of Nanning City, along the development of urban economy, there have great changes in suburban population income structure. Analysis shows that service industry and commerce become major source of income, while income from agricultural activities is reduced to the third position. This indicates that residents are gradually getting rid of constraints of agriculture, and the dependence on land is also declining.

During the project implementation, both the information disclosure and public participation are good. The households whose lands are expropriated have a full understanding of project information and resettlement policy. Therefore, they are satisfied with overall performance of resettlement works, and all of them support the project (shown in Table 2).

Table 2 Attitudes of sample households to resettlement

Items	Yes		No	
	No. of persons	Percent %	No. of persons	Percent %
1. If willing to move?	8	80	2	20
2. If satisfied with resettlement manner?	7	70	3	30
3. If concerned about future life?	6	60	4	40
4. If know resettlement policy?	9	90	1	10
5. If support this project?	10	100	0	100
6. If satisfied with compensation?	7	70	3	30

3 Suggestions for promoting sustainable development of resettlement

3.1 Change ideas of resettlement to promote establishment of civil rights protection ideas In domestic traditional

ideas, construction of quasi-public goods and public goods increases local social welfare, so it often sacrifices more or less rights and interests of aboriginals to reduce construction costs for the project. In other words, it increases the total welfare through ignoring benefits of aboriginals. The orientation of public goods and quasi public goods by IFC is to improve the economy and eliminate poverty of project area. Besides, it is dedicated to achieving " living condition of every person will not be reduced due to implementation of the project". Thus, when making resettlement policy, it is necessary to carry out a thorough survey of rights and interests, income level and living conditions of migrants before implementing the project, so as to work out proper compensation scheme and keep their living condition not lower than that prior to the project. Along with growing of civil right awareness, the public have a stronger and stronger awareness of protecting their rights and interests, which has a great influence on smooth implementation of the project. Learning from systems and procedures of IFC funded resettlement project, it is proposed to transform the traditional idea of solving resettlement problem, which is helpful for building a moderately prosperous and harmonious society.

3.2 Carry out early thorough survey to protect rights and interests of owners and migrants IFC highly values rights and interests of migrants, so project funded by IFC often have higher compensation for land requisition and resettlement. IFC usually does not support land expropriation. It thinks, on one hand, that the land expropriation will influence life of original residents. On the other hand, if land expropriation is unavoidable, it will have high requirement for resettlement. No matter buildings constructed without license or common buildings, no matter local residents or migrants, the compensation standard should be consistent. Besides, there shall be development plan and specific action plan, to ensure migrants' living conditions after resettlement not worse than original level. This is valuable experience for domestic investment project to learn from.

Owners should take thorough survey before the project, to reduce costs for project implementation and avoid unnecessary resettlement. In addition, early thorough survey can define clearly rights and interests of migrants, to avoid the situation that farmers and residents build and plant on a large scale to obtain high compensation for land expropriation. Thus, thorough survey is the precondition of ensuring rights and interests of project owners and migrants.

3.3 Communicate with migrants to ensure smooth appeal channel for migrant Drawn on the experience in constant communication mechanism with migrants in Qingxiu Mountain, we should establish evaluation mechanism for all phases before, during and after the project, to find out problems occurred in resettlement and assess migrants' living. During communication, effective information channel should be established to keep the information transparent and policy clear. Besides, it is required to minimize the influence of project on people's living, and make migrants' living conditions better than ever.

3.4 Enhance coordination work with government department to ensure smooth completion of resettlement

Smooth completion of resettlement is a precondition of smooth implementation of the project. Resettlement needs cooperation of relevant departments. For example, if the construction of resettlement residential areas lags behind, it will directly lead to interruption of resettlement works, and the progress of project will be severely affected. Therefore, it is required to enhance the communication and coordination with relevant planning department, timely find out the implementation of plan, and promptly adjust resettlement measures, to ensure smooth completion of resettlement.

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