Does Resettlement Settled the Poverty? Poverty Alleviation Resettlement Programme and Multidimensional Poverty in Rural China

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Abstract: Poverty Alleviation Resettlement is a key component of China's 'Five-Batch' policy in Targeted Poverty Alleviation. This work introduces the history of the PAR programme in China and the current phase of work arrangement. It presents findings from the literature on internal and rural-urban migration in China and other countries as well as some of the experiences and problems faced by the previous poverty alleviation resettlement projects. In addition, it attempts to build a simple DiD model to determine the impact of participation in the PAR programmes on the multidimensional poverty status of the poor in China, taking subjective and objective factors into account. It finally illustrates some shortcomings of this research for future refinement.

Keywords: poverty alleviation resettlement, targeted poverty alleviation, multidimensional poverty, internal migration, rural China

1. Introduction

1.1. Background

China's poverty alleviation resettlement was pioneered nearly 40 years ago. In 1983, the government of Ningxia Hui Autonomous Region and Gansu Province in rural Northwest China explored the implementation of a government-organised migration project with voluntary participation in San Xi Region, which was severely drought-stricken and had a population explosion as well as extreme poverty. The project is known as 'Village-Lifting Migration' (*Diaozhuang yimin*), referring to the relocation of the poor who were willing to move from the village to another place with a more habitable environment to construct a new village for farming. Because of the reduction in both population and pressure on land resources in the original habitation, the living standard of the remaining villagers was improved. By the end of 1996, there were 21 resettlement areas for migrants established, 34,700 hm of land developed, 92,000 houses built, and 280,000 people in poverty had gotten rid of the subsistence problem [1].

In the first decade of the 21st century, such poverty alleviation migration projects were extended to Yunnan, Guizhou and Inner Mongolia. As of 2014, the pilot areas had reached 17 provinces, municipalities and autonomous regions, mainly concentrated in Central and Western China. More than 12 million people in poverty were resettled by the end of 2015.

In September 2016, the National Development and Reform Commission of China issued *The National Plan for Poverty Alleviation Resettlement in the 13th Five-Year Plan Period*, including Poverty Alleviation Resettlement (PAR) as one of the 'Five-Batch (*wuge yipi*)' projects to achieve steady eradication of poverty in rural areas with a hostile environment.

It is worth noting that this is a project under the framework of Targeted Poverty Alleviation (TPA) proposed by President Xi Jinping in 2012, devoted to achieving precision in poverty alleviation in six strands:

identification of the poor,

measures to households,

plan and arrangement,

use of funds,

staffing, and

appraisal of the effectiveness.

One of the most important innovations is registering and archiving poor households (*Jiandang lika*), taking both subjective and objective factors into account. Income is the primary indicator, and housing, education, health etc., are also considered comprehensively. Applications from poor households are submitted to the villager committee for discussion, then reviewed and announced by administrations at each level, and finally aggregated into the national poverty database.

In this new phase, PAR faced both opportunities and challenges. On the one hand, previous resettlement had provided a wealth of experience, and several managerial, organisational and collaborative procedures and rules had been developed in practice. The poverty archive also made it easier to track and analyse poor households. On the other hand, most of the poor who could move out had already done so, while those not were mostly living in worse conditions and in deeper poverty, who needed greater support than before. Moreover, there was increasingly limited space for resettlement, and the need for additional infrastructure, facilities and follow-up support made budget constraints even tighter.

According to the Plan [2], 9.81 million archived poor people from 22 province-level and about 1,400 county-level administrative regions urgently needed resettlement.

Regarding the out-migrating areas, Western China, consisting of 12 province-level administrative regions, had the largest number of archived poor who planned to be resettled, accounting for over 2/3 of the total. Of the remaining 1/3 of the population, the vast majority came from six provinces in Central China, and only 2.1% were from four provinces in Eastern China. The chart below shows the specific scale of PAR projects by province during the 13th Five-Year Plan Period [2].

Figure 1: Map of PAR Missions in the 13th Five-Year Plan Period.

As to the main causes of poverty in the sending areas, the largest proportion, 34.7%, were in areas where public services were seriously lagging, followed by people from places with a severe lack of resource carrying capacity, with a share of 32.2%. In addition, there were 16% in areas where exploitation was restricted or forbidden, 10.8% suffering from frequent or prone geological disasters, 0.8% with a high incidence of endemic diseases, and 5.5% in other types of areas.

The resettlers would move to two types of resettlement sites – villages and towns, and they could freely choose whether to continue agricultural production or to seek jobs in other economic sectors. In general, about 2/3 of the villagers would be resettled in new-built or nearby existing villages, and the rest would be resettled in towns or industrial parks. In addition to the housing, PAR would also provide further supports, including infrastructure (e.g., water, electricity, road, telecommunication), public services (e.g., basic education, healthcare, culture and sports services, commercial outlets), land remediation and ecological restoration.

The basic goal of poverty alleviation is 'Two No Worries and Three Guarantees' (*Liang buchou, san baozhang*) said by President Xi, which means that the rural poor not worry about food and clothing and are guaranteed compulsory education, basic medical services and safe housing.

1.2. Significance

Targeted Poverty Alleviation is China's practice in eradicating domestic poverty and achieving Goal 1 (No Poverty), one of the 17 Sustainable Development Goals the United Nations advocates. TPA is important in the poverty reduction field in China and the globe, yet it lacks enough attention from academia. By studying the successes and shortcomings of the Chinese case, we can help the poor in developing countries more precisely and practically in the future. This study intends to use PAR as an entry point to promote understanding and in-depth research on TPA among scholars from a multidisciplinary perspective.

2. Literature Review

Despite the limited research on PAR, we can still obtain information on the impacts of internal migration on poverty and migrants through internal and rural-urban migration studies.

Many scholars agreed on the positive, often economic, effects of internal migration on poverty reduction at individual and household levels outside China. Siddiqui [3] summarised that migration offers migrants subsistence, job opportunities and financial income increases. Sugiyarto, Deshingkar, and McKay [4] found in Indonesia that there was a significant fall in the poverty rate among total internal migrants, where the rate of return migrants experienced a greater decline than that of current migrants, implying that it takes time for migrants to escape from poverty. Additionally, there was an inverse relationship between the distance of migration and the poverty reduction effect, possibly because of the cost and limitations of migration. Adjei, Serbeh and Adjei's research in Ghana [5] focused on the differential impact of the attributes of internal migration destinations, i.e., rural versus urban areas, on the socioeconomic welfare of migrants. Both rural-urban and rural-rural migrants generally gained higher incomes, but the former had a more pronounced increase in income than the latter. However, the urban immigrants bore a higher living cost due to the high monetisation in cities and sometimes did not improve in terms of housing, health, and general living condition. In contrast, most rural immigrant households enjoyed significant improvements in accommodation and health conditions despite relatively lower income growth, since their low costs of living gave the opportunity to register the health insurance scheme, and they were unlikely to face the risk of poor-quality housing.

Some scholars studied poverty alleviation resettlement before the TPA in China. From the perspective of theoretical analysis, Zhang [6] mentioned the Harris-Todaro model [7], describing the relationship between rural-urban migration and unemployment, in her work. The model hypothesised

that the difference between expected urban wage and rural wage is the determinant of the migration for rural people. The inflexibility of urban wage, caused by the minimum wage, leads to labour surplus and unemployment in urban areas. Zhang suggested that the case in China was consistent with the Harris-Todaro model. There were generally more work opportunities, larger amounts of funding and higher income in cities than in rural areas; however, migrants working in cities from rural China were normally confined to low-paid jobs because of limited education level, while there were also some migrants who established small business in the manufacturing or service sectors. Although the employment of resettlers in the PAR project is likely to be more secure than that of spontaneous rural-urban migrants, it still deserves our attention when measuring the effectiveness of the project.

With respect to migration in different regions of China, scholars commonly agree on the economic benefits that migration brings to migrants. Zhang's case study [8] in Shanxi indicated that rural-urban migration could raise overall income and directly reduce poverty in rural areas through remittances. Luo and Yang's study [1] of the early resettlement projects in Ningxia showed that per capita grain crop yield and livestock inventory were significantly higher for migrants than for non-migrants in the sending areas. Leng, Feng and Qiu [9] examined the short-term effect of participation in the PAR programme on income in Western and Central China from 2016 to 2019. They found that resettlers had their income increased by participating in the PAR programme. Further, the village resettlement was positively correlated with agricultural income, and the urban resettlement had a positive effect on wage income.

Poverty alleviation resettlement can also generally reduce poverty vulnerability. To be more specific, Li, Gao and Li's research [10] on households in the mountainous areas of southern Shaanxi found that participation in poverty alleviation resettlement, to some extent, reduced the probability of female-led households falling into long-term poverty vulnerability, on the other hand, centralised resettlement also effectively decreased short-term poverty vulnerability. Conversely, male-dominated households were more likely to increase their short-term poverty vulnerability due to their excessive consumption habits. Ning, Yin, Wang and Wang [11] surveyed a sample of 1688 farm households in 16 poor counties in eight provinces and concluded that poverty alleviation resettlement could reduce poverty vulnerability through two mechanisms: improving capital structure and changing means of livelihood.

Nevertheless, the resettlement programme before TPA may sometimes have little or no impact on changing the economic and social well-being of migrants and resettlers, or even the negative.

From the economic point of view, the poverty reduction effect of migration and relocation in some areas was not satisfactory. Zhang [8] suggested that people in Shanxi prefer to move within the province, where relatively isolated terrain, few jobs that local industry can provide, long housing construction time and weak government support led to little poverty reduction. Zheng and Wang [12] found that in Ningxia, the land in some of the relocation sites was unavailable for cultivation and insufficient to feed the relocated people; they hence had to return to the sending areas or find another place to settle. Another issue is the raising and use of funds. Luo and Yang [1] investigated that many of the poor in Ningxia were crowded out from resettlements. Mainly because the prescribed subsidy standard was too low to finance the relocation; plus, the funds allocated by the government need to go through a series of processes, which could not be guaranteed once the policy changed. The mismatch between environmental protection requirements and the local economic base was also a major problem. In Ningxia, a study by Luo and Yang [1] revealed that only fall crops and non-wood forests could be grown locally due to water-saving irrigation requirements. Therefore, farmers had little source of income between planting and maturation.

From the social point of view, the biggest problems the migrants met were integration and adaptation. In a study on early migration resettlement in Ningxia, Ma [13] observed and analysed that social problems, such as increased crime rates and conflicts with indigenous people due to immigrants'

socio-cultural maladjustment, cultural deficiencies and psychological imbalances, became more frequent in the destination areas. Ma and Ma [14] discussed that in Ningxia, on the one hand, immigrant's accents and dress codes became cultural symbols that separated them from the aborigines, and their fading sense of local identity and lack of belonging left them at a loss; on the other hand, resettlers would also face prejudice and discrimination from the indigenous people, because of the difference in customs and the misunderstanding that the outcomers had taken away their employment opportunities. Early poverty alleviation resettlement was not very effective in children's development and education either. According to Zhan, Zhang and Lu's study [15], the relocation programme in Boshan, Shandong Province, raised dropouts among school girls and worsened their performance in the short run, negatively influencing their human capital accumulation progress. Resettled girls also earned less than those who stayed in adulthood and tended to bear children earlier. Boys also had fewer long-term economic benefits than the control group. Furthermore, Zheng and Wang [12] pointed out that the absence of vocational and technical training for resettlers in the Ningxia resettlement programme made it difficult for advanced production techniques and management concepts to be effectively disseminated and was detrimental to migrants' production and operation.

3. Research Questions

What is the impact of the PAR programmes on each dimension of poverty of the participating poor households?

How does the impact of the PAR programmes on resettlers differ across regions and destinations?

4. Methodology

4.1. Data

We will get the list of archived poor households (*Jiandang lika pinkunhu*) by published by the local Poverty Alleviation Offices, and then select 200 households in each of Western, Central and Eastern China, half of which participate in the PAR programme, called the treatment group, and the other half not, called the control group, trying to ensure that participants in both groups are from the same or adjacent villages to minimise possible disturbance of the results due to different levels of development in different villages. We will use the data in three years: 2016, 2021, and 2026, as the PAR programme began in 2016 and ended in 2021, with a follow-up survey in 2026 to observe long-term impacts. The data will be obtained from China Poverty Alleviation Database and our own designed household survey. The specifics of the data we require are described in the next section.

4.2. Variable Description

To examine the impact of the PAR programme on the multidimensional poverty of participating poor households, we select five dimensions, which are assets and properties, education, healthcare, employment, and living standard, with a total of 15 numerical variables to measure the impact. These variables reflect the specific targets of 'Two No Worries and Three Guarantees', most of which are objective indicators, but a subjective variable, i.e., Integration, is also taken into account. This section partly refers to Leng, Feng, and Qiu's work [9], while the consideration of resettlers' integration issue is inspired by Ma [13]. We group the resettlers by region and destination to study the differential impact of the PAR programme on them.

Table 1: Variable Description.

Variable			Description
Categorical Variable			
		Region	The region of residence (Western, Central or Eastern China)
		Destination	The destination of the resettlement (village or town), only for the treatment group
Numerical Variable			
Assets and	**Properties**	Income	The total annual household income per capita in CNY, including labour and agricultural income
		Assets	Cash, cash equivalents and other financial assets owned by the household per capita in CNY, excluding income
		Loan	The total household loans per capita in CNY, including consumption, investment, housing and car loans
		Housing	The size of the house owned by the household in m^2
Education		School Distance	The straight-line distance to the nearest school in km
		Education Proportion	The number of household members who have complete 9 years of education divided by the total number of people
Healthcare		Hospital Distance	The straight-line distance to the nearest health care institutions in km
		Medical Expenditure	The total annual health care expenditure per capita in CNY
Employ	**ment**	Unemployment Proportion	The number of unemployed age-appropriate household members divided by the total number of labour force in the household

Table 1: (continued).

Living Standard	Agriculture Proportion	The number of agricultural labour divided by the total number of working members in the household
	Water	A dummy which equals 1 if the household gets access to tap water, otherwise 0
	Electricity	A dummy which equals 1 if the household gets access to electricity, otherwise 0
	Road Distance	The straight-line distance to the main road of the village or town where the household lives in km
	Public Transport	The straight-line distance to the nearest bus stop or metro station in km
	Integration	A dummy from 1 to 10 which represents the level of integration into the community perceived by the household, with 1 having the weakest sense of belonging and 10 having the strongest sense of belonging

4.3. Econometric Method

We will use a Difference-in-Differences model to estimate the impact of participating in the PAR programme as a regression

$$y_{it} = \beta_0 + \delta_0 resettle_i + \beta_1 after_t + \delta_1 resettle_i * after_t + \varepsilon_{it} \tag{1}$$

where for each numerical variable, y_{it} is the value of household i at the year of t, $resettle_i$ is a dummy which equals 1 if household i participates in the PAR programme and otherwise 0, $after_t$ is a dummy which equals 1 if year t is 2021 or 2026 and otherwise 0, and ε_{it} is the error term. The parameter δ_1 is the policy effect of the PAR programme. We primarily focus on its positivity, negativity, and statistical significance to determine the impact of the programme on a particular dimension of participating households.

We will run the regression twice using data from 2016 combined with the data from 2021 and 2026, respectively, to observe the PAR programme's short- and long-term impact on all samples in the control and treatment groups. In addition to the study for all samples, we will run the regression for the control group plus village-to-village resettlers versus village-to-town resettlers, respectively,

to study the differential impact across destinations. Similarly, we will also run the regression in four regions to investigate the regional impact of the PAR programme.

5. Conclusion

As this is a multidisciplinary study that requires a comprehensive understanding of various fields such as development, poverty and migration, further studying and reading on multidimensional poverty is needed to complement the theoretical basis of this study. The Alkire-Foster Method is a widely used and generally recognised method to measure multidimensional poverty, which would be well suited for application to this work after systematic learning.

In the process of data collection, there may occur unit nonresponse and item nonresponse due to the nature of household survey and respondents. It is inevitable that some questions involving subjective and sensitive factors, such as income, may differ from the actual situation. There is also no guarantee that we will have full access to all the data we need, especially for those years that have passed. Moreover, the prerequisite of the DiD model, i.e., common trends of two groups before the PAR programme, is not easily satisfied; therefore, we may need to sacrifice some randomness to ensure that samples could provide sufficient data.

The classical DiD model applied in this study is simple and may cause bias due to the omission of some potential influencing factors like the socioeconomic differences between regions and the different timing of the programme implementation. We can incorporate these effects and replace with a time-varying DiD model.

References

[1] Luo, Q., and Yang, G. (2009) Experiences and Results of Aiding the Poor by Migration in Ningxia. Research of Agricultural Modernization, Vol. 30: 575-578.

[2] National Development and Reform Commission of China (2016) The National Plan for Poverty Alleviation Resettlement in the 13th Five-Year Plan Period.

[3] Siddiqui, T. (2012) Impact of Migration on Poverty and Development. Migrating out of Poverty, University of Sussex, Working Paper 2.

[4] Sugiyarto, E., Deshingkar, P., and McKay, A. (2019) Internal Migration and Poverty: A Lesson Based on Panel Data Analysis from Indonesia. In: Jayanthakumaran K. et al. (Eds.) Internal Migration, Urbanization, and Poverty in Asia: Dynamics and Interrelationships. Asian Development Bank, Singapore. pp. 135-162.

[5] Adjei, P. OW., Serbeh, R., and Adjei, J. (2017) Internal Migration, Poverty Reduction and Livelihood Sustainability: Differential Impact of Rural and Urban Destinations. Glob Soc Welf (2017), 4: 167-177.

[6] Zhang, M (2003) Poverty and Internal Migration in China. In: China's Poor Regions: Rural-Urban Migration, Poverty, Economic Reform and Urbanisation. RoutledgeCurzon, London. pp. 21-54.

[7] Harris, J.R., and Todaro, M.P. (1970) Migration, Unemployment and Development: A Two-Sector Analysis. American Economic Review, Vol. 43: 126-142.

[8] Zhang, M (2003) To What Extent Can Migration Resolve Rural Poverty? In: China's Poor Regions: Rural-Urban Migration, Poverty, Economic Reform and Urbanisation. RoutledgeCurzon, London. pp. 157-166.

[9] Leng, G., Feng, X., and Qiu, H. (2021) Income Effects of Poverty Alleviation Relocation Program on Rural Farmers in China. Journal of Integrative Agriculture (2021), 20(4): 891-904.

[10] Li, C., Gao, B., and Li, S. (2019) Households Vulnerability to Poverty Based on the Gender Difference Perspective: An Empirical Analysis of South Shaanxi. Statistics & Information Forum, Vol. 34 No.12: 74-83.

[11] Ning, J., Yin, H., Wang, S., and Wang, Q. (2018) Does Poverty Alleviation Relocation Reduce Poverty Vulnerability: PSM-DID Analysis Based on the Quasi-Experimental Study of the Poverty Alleviation Relocation from 16 Counties in 8 Provinces. China Population, Resources and Environment, Vol. 28 No.11: 20-28.

[12] Zheng, G., and Wang, C (2008) Lun Ningxia Diaozhuang Yimin Shijian Zhong De Huanjing Zhili Yu Kechixu Fazhan [Study on Environmental Governance and Sustainable Development in the Practice of 'Village-Lifting Migration' in Ningxia]. Social Sciences in Ningxia (2008), Vol. 6: 107-109.

[13] Ma, W. (2008) Study on Diaozhuang Immigrants' Criminal Problems in Ningxia from the perspective of Anthropology. Social Sciences in Ningxia (2008), Vol. 3: 58-62.

[14] Ma, W., and Ma, W. (2010) The Explanation of Prejudice and Discrimination in Diaozhuang Resettlement of Ningxia Using Anthropological Theories. Northwest Population (2010), Vol. 6 No.23: 15-19.

[15] Zhan, L., Zhang, J., and Lu, C. (2020) The Long-Run Effects of Poverty Alleviation Resettlement on Child Development: Evidence from a Quasi-Experiment in China. Demographic Research, Vol. 43, Article 10: 245-284.