

# Research on Adaptability of Farmers after the Loess Plateau Ecological Immigration

## —A Case Study in Checheng Village, Ji County

Qiaoyun Feng<sup>1</sup>, Longyi Xue<sup>1</sup>, Yaolin Wang<sup>2</sup>

<sup>1</sup>School of Geography Science, Shanxi Normal University, Linfen, China

<sup>2</sup>School of Land and Environment, Melbourne University, Melbourne, Australia

Email: 568248215@qq.com

Received 2 November 2015; accepted 11 December 2015; published 14 December 2015

Copyright © 2015 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

### Abstract

In ecological migrants, farmer's adaptability are the main manifestations of the effect and quality of the migration of migrants. This paper, through questionnaire surveys to migrants in Checheng Village, Ji County, Shanxi Province, studies on their adaptability to economic production, lifestyle, and social relationship, explores the Loess Plateau ecological adaptability of immigrants, and finally makes recommendations for the villagers aiming at problems appearing in the relocation process.

### Keywords

Ecological Migration, Adaptability, Checheng Village

---

### 1. Introduction

Ecological migrants move from the former residence into a relatively unfamiliar production and living environment, and they must need a gradual process of adaptation to this kind of change [1]. Immigrant work can be done efficiently, can meet the basic needs of migrants, and can prevent the occurrence of immigrants moving back which plays an important role for migrants' adaptability; the degree of immigrants' adaptability also reflects the work efficiently or not, so doing research on the adaptability of immigrants to various aspects of area of destination, and how to target improvement of the adaptability, thus reducing the likelihood of migrants moving back, which is very worthy of attention.

In recent years, the research on adaptability of ecological migration on the Loess Plateau has become one of the new hot spot in the field of ecological migration area. Currently this focuses on environmental and physiological adaptation, social adaptation, acculturation, religion and other aspects [2], to research the adaptation sit-

uation after the migration and some factors affecting immigrant [3], and analyzes problems and consequences of immigration adaptation, to find a reasonable and feasible pathways to improve migrants' adaptability. This paper, through research on migrants' adaptability to economic production, lifestyle, and social relationship in Checheng Village, Ji County, Shanxi Province, hopes to provide some reference and helps for future immigrants.

## 2. Research Methods and Data Sources

The methods used in this paper are questionnaires, in-depth interviews, and statistics. The main source of data includes 1 transcription of interview from the head of village, 5 transcriptions of interview from households moved, 3 transcriptions of interview from households unmoved, and 30 questionnaires from households moved, in Checheng Village, Ji County, Shanxi Province in May of 2013.

Questionnaire primarily aims at those households which have moved, and the contents of the questionnaire includes respondents' basic information (name, age, contact information, gender, education level, occupation, place of work now, the occupation and place of work before immigration, and other aspects), the distance of immigration, the householders' degree of satisfaction to immigration, and the reasons of satisfaction and dissatisfaction to immigration and other aspects.

Interviews include interviews with the head of villages, households moved and households unmoved.

The contents of interviews with the head of village contain the current condition of the new village and immigration, the original village life and production status, and source of income for the village population and economic status and others. The contents of interviews with the households unmoved include the basic situation of farmers, the impact on the unmoved households' life and production after some people moved and others. The contents of interviews with the households moved mainly include the condition when they moved, the satisfaction after immigration and changes of production and life after immigration and others.

## 3. Basic Profile of the Study Area

### 3.1. Brief Introduction to Checheng Village

Checheng Village is located on the eastern suburbs far from Ji County 6.5 km. Township Government is located on Checheng which includes eight unincorporated villages: Checheng, Xialuo, Gaoya, Qiaojiawan, Xiamaojiazhuang, Shangmaojiazhuang, Jiajiayuan, Liangshuigou. The village has 298 households and a population of 880, with a total area of 32 square kilometers, of which 4600 mu of arable land, 1800 mu of apples, and 1700 mu of walnuts. The population and household of this eight villages as shown in [Table 1](#).

### 3.2. Immigration Status in Checheng Village

Checheng Village is a new immigration village; immigration sources related to eight unincorporated villages, other incorporated villages in Checheng Village, including Caojing, Zhujiabao, Sang, Baipodi, Zhao, Tao, and Hukou towns outside the town village. Those unincorporated villages are 1 to 10 km away from the new village, and other villages 2 to 4 km away from it.

Poverty Alleviation Office is migration funding sector, and sources of funding is from the special item. Only the migrant household can gain funds by a per capita basis. From 2002 to 2003, per person gained total subsidy of 1500 Yuan, deducted cost for public infrastructure, and real gained 800 Yuan in the first batch subsidy. The second batch in 2006, per person gained a total subsidy of 3000 Yuan. In 2008, a total of 3400 Yuan subsidy was distributed to per person.

Middle-income families of immigrant households are the most willing to move, accounting for 60 percent of the total number of these people. They generally receive higher level of education, and have plans to build a new house. The main reasons of willing to move are: facilitating their children to school, convenient transportation, and consideration for their son's marriage. The rest of people have no willing to move because of economic reasons.

Before immigration, the net income is less than 1000 Yuan per capita, and now the income is 3567 Yuan. The main source of income is from selling apple, corn, seed walnut, or working in cities, in which those items respectively accounted for 39 percent, 15 percent, 45 percent, and 10 percent. Either before or after immigration, the people of long-term working outside are relatively less in the village, but more people work as unskilled laborers.

**Table 1.** Population and household of eight villages.

	Checheng	Xialuo	Gaoya	Qiaojiawan	Jiajiayuan	Liangshuigou	Shangmaojia	Xiamaojia
Household	99	36	42	30	11	13	24	43
Population	267	121	128	88	37	42	68	129

After immigration, the village's total cultivated area are all 4800 mu, 5 mu by per capita. The old village homestead area does not change; the villagers all have homestead warrants. The new ones will be collectively distributed. Immigration has no effect to mode of operation for farming.

The village's total cultivated area and the total area of arable land by per capita do not change before and after immigration, with 5.39 mu by per capita, leaving 5 percent of maneuvering. The contracted lands are divided based on unincorporated village as unit. Immigration does not affect farmland quantity and quality of each villager. The new village homestead is accounted for village collective's more than 100 mu of lands. Originally homestead has no charge, but it is received a management fee which is 500 Yuan by per household and 1000 Yuan by per household of the villagers from other villages.

Before immigration of villages, there is a school in every unincorporated village, and it will take around ten minutes to go to school. But now Checheng Village has only one school, most kids have to go to this school. Either before or now there is a clinic in the village. Before immigration, there is no restaurant but now about 7 to 8 ones. Either before or now, the power supply situation is quite stable; the villagers pay 4.75 Mao by per kilowatt-hour for power. In addition to annual maintenance time, there is generally no power failure. Before immigration, people have to carry and use the well water. Now the village is relocated tap water, and irrigation water pumps from the river; there is no sewer and bathroom in the old village, and all toilets are dry latrines; immigrant village is relocated up sewers, and almost every household can bathe, with toilets flushing toilets and water; in 2010 after immigration, the village began to have bus to town only about ten minutes.

Both before and after immigration, there are the individual companies, but relatively larger individual businesses increase more now than before. Those individual enterprises are apple growers and walnut growers. Apple growers have 80 mu of orchards and the annual gross income is 500,000 Yuan, and 11 to 12 mu of walnut growers can gain income of 20,000 Yuan. Rich pathfinders in the village are apple growers, because walnut growers are more than other, the village formed walnut as "One Village One Product (competitive products)" situation.

## 4. Adaptability Evaluations

### 4.1. Adaptability to Economic Relations of Production

The adaptability to economic relations of production mainly refers that the continued socialization producers adjust their economic production behavior and mental state, in order to adapt to the new living environment in the process, which mainly reflects in need of financial income, employment channels, type of energy, labor skills and the subjective satisfaction to the mode of production after immigrant migration [4].

#### 4.1.1. Income

Before immigration, Checheng Village's income mainly is from agriculture including growing corn, apples, walnuts and other crops. Since Checheng Village's immigrants belongs to the provincial immigrants, unincorporated villages of this administrative villages are 1 to 10 km away from the new village, and the others villages are 2 to 4 km from the new village, production mode basically has not changed after immigration, thus the villagers still mainly farm the land. Since the new village is close to the county and transportation has been improved, a considerable part of the low cultural level young people who has been idle choose to go out to work, which has become an important part of household income. 60 percent of people believe that increased opportunities to make money, because people can go to work outside; and the people who do not believe that gain actual more income than before immigration. For example, the yield of per mu land increased from 500 jin before to 1000 jin now. Apple's income increased from 1 to 2 million Yuan to 5 to 6 million now. This reflects an increasing trend of the income of migrants.

#### 4.1.2. Employment Channel

Before immigration, the villagers' employment channels are dominated by farming, which is more single revenue stream. After immigration, due to being close to the county and convenient transportation, the people who work outside become more, and even many people do part-time work which broaden the channels of employment.

#### 4.1.3. Changes in Types of Energy

Changes in the type of energy reflect, from the side of migration, on economic production adaptability. Before immigration, the villagers' energy types are as shown in **Table 2**.

After immigration, the increased in energy are coal, solar energy, etc., which shows immigrants in Checheng Village make effort to adapt to the local production environment and actively use the new energy sources.

#### 4.1.4. The Need of Labor Skills

Through in-depth interviews to households who have moved, we find that most people think they need to improve their qualifications or their families. When the original mode of production unchanged after immigration, those who work for this production believe they do not need to upgrade their qualifications and labor skills. The current education and labor skills, which they can cope with the current production requirements, cause by the source of immigrants from the village surrounding Checheng Village.

#### 4.1.5. Subjective Satisfaction to the Mode of Production

Immigration adaptability to economic production can also be explained by immigrants' subjective satisfaction to immigration (**Table 3**).

The table clearly shows us that the villagers in Checheng Village are very satisfied with immigration, especially completely satisfaction reached to 66.67 percent, and dissatisfaction (including extremely dissatisfaction and no satisfaction) are almost nothing, which indicates that this immigration is basically to achieve the government's expectations.

In the survey, the author finds that the main reason for immigrants' dissatisfaction to economic production includes backward production tools, labor shortages, lack of irrigation water, etc.

### 4.2. Adaptability to Lifestyle

Living environment adaptability refers to the process that the individual, through the continued socialization, adjust their behavior patterns of life and psychological state to adapt to the new environment [1].

#### 4.2.1. Consumption Expenditure

Consumer expenditure of immigrants includes daily expenses of food, clothing, transport and communications, housing, education, health care, entertainment, and heating and electricity and others. Before immigration due to traffic inconvenience, immigrants' lifestyle are more single, with food and vegetables and other basic food self-sufficiency, lower housing and daily life expenses. Living expenses of immigrants mainly are on health and education, and generally living expenses are less. After immigration, consumer spending of the daily life of migrants increased significantly. With the distance between the village and the county reduced, prices rise significantly, and the consumer level has obviously not suited immigrants. In the survey interview process, many residents say that the fee of electricity, water, heating costs, telephone charges, and the children's tuition and other

**Table 2.** Villagers' energy types before relocation.

	Electricity	Coal	Straw	Wood
Frequency	100%	80%	60%	40%

**Table 3.** Adaptability of migrants in Checheng village to production mode of resettled area.

	Extremely dissatisfied	Not satisfied	Generally satisfied	More satisfied	Completely satisfied	Total
Frequency (%)	0	0	20	13.33	66.67	100

expenses changes a lot so that they hardly bear. Either Before or after immigration, monetary gifts accounted for a large part of the proportion of living expenditure. Under the impact of Chinese traditional culture, housewarming gifts of residents has become a larger part of consumer spending in the new environment.

#### 4.2.2. Daily Life and Customs

Immigrants all are from the villages on the periphery of Checheng Village, with the same lifestyle and customs, thus they have better adaptability to the daily life.

The people in the area of destination, as small changes in production after the relocation, still buy flour to make food and few grind flour.

Immigrants are satisfied with education, health care and other facilities, and think the child's prospect good. The conditions of supply water, electricity, gas and the more convenient transportation facilitate people's lives.

There are different customs in the different regions. If the people, whose customs are significantly different between the two regions, move together, that may result in conflicting which is not conducive to social harmony and stability. But for immigrants in Checheng Village, the customs of immigrants from different regions are relatively similar, so major conflict will not happen and the immigrants lead a more stable life.

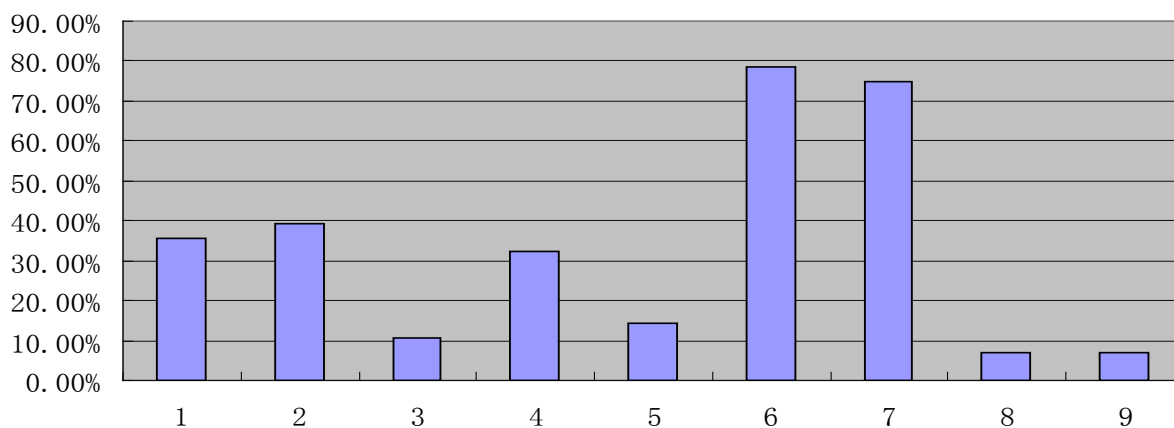
#### 4.2.3. Immigrants' Satisfaction to the Area of Destination

Immigrants' satisfaction to the living conditions of the area of destination is an important factor to measure the adaptability of immigrants and it is an important reflection of immigrants' adaptation to the area of destination.

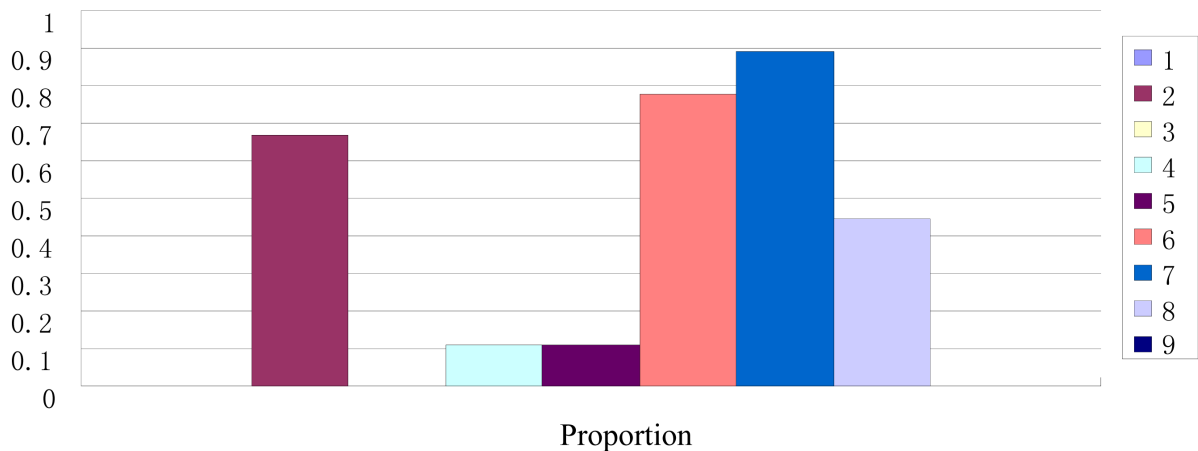
By **Figure 1** and **Figure 2**, after immigration the highest degree of satisfaction is to the water, electric, gas and road conditions and convenient attending school, indicating that in the process of immigration in Checheng Village, the government focus on the construction of infrastructure, which is worth learning ; in unsatisfactory indicators, the immigrants feel good to living conditions, but they have smaller or no place to store tools than before; cost of living increase much more than before, such as the fees of water and telephone charges and other aspects.

#### 4.3. Adaptability to Social Relations

Immigrant's social relations include parents, siblings, neighbors, other relatives, friends, village committee, etc. With the change of production and living environment, social relations of immigrants will change, mainly in terms of neighborhood friends and relatives [5]. Adaptation of their social relations is analyzed through change of social networks before and after immigration. Before immigration, the old Checheng Village located in the mountains, with traffic developed and shortage of information, so social relations of immigrants is relatively simple, with big limitations. After entering the new destination, the immigrants of expectation to the future new



**Figure 1.** Ratio of immigrants' satisfaction index to the area of destination. Notes: 1. the new houses; 2. the houses that are subsidized or given by the government; 3. jobs increased; 4. convenient transportation for immigrant workers; 5. income increased; 6. conditions of supplying water, electricity, and gas, and of road improved; 7. convenient attending school and good future for children; 8. participation in the decision process of relocation or full understanding the relevant policies of relocation; 9. easier neighborhood association or more closer neighborhood relations; 10. other reasons (transcript).



**Figure 2.** Ratio of immigrants' dissatisfaction index to the area of destination. Notes: 1. facilities not covered for the new house; 2. few government subsidies the amount of debt increased; 3. few new jobs; 4. the sources of income reduced; 5. in adaptation to lifestyle or inconvenient life; 6. living expenses much more than before; 7. well living conditions, but no storage place of farm tools; 8. no garden for vegetable or flowers; 9. discrimination to immigrants or not close relations with other immigrants; 10. others aspects.

life is high, and very willing to meet new friends. Developed transportation and communication also make more contact with relatives and friends, and communicate feelings more frequently.

In the survey, the author finds that immigrants have good relationship with neighborhood in Checheng Village, and they do not been bullied after immigration. The relationship has some changes that the immigrants became more estranged with relatives with friends than ever before, and if they are in an emergency or a dilemma, they more ask to original friends. After immigration, the majority of immigrants say the village cadres do not often visit their home, and chat with them, which shows the village cadres do not well in this regard.

## 5. Conclusions and Recommendations

### 5.1. Conclusion

From the adaptability to economic production, the satisfaction of immigrants' adaptation to production mode is relatively high. The household income is higher than before. Due to the close to the county, the growing number of migrant workers broadens the income sources. After immigration, labor skill requirements also increased, which requires migrants to enhance their quality of labor objectively. Overall, migrants have better adaptability to economic production of immigration at short range. In the term of adaptation to lifestyle, the migrants' satisfaction to education, health care and other are relatively high. They are also very satisfied with the new house to live in, but a smaller area of the new house has no enough room for farm tools to store, which cause some difficulty. In addition, after immigration immigrants' living expenses increase, adding to the burden of immigration, this is not conducive to social stability. From the adaptability of social relations, the immigrants have good relations with neighborhood after immigration, but with the lack of village cadres' concern for them.

### 5.2. Recommends

#### 5.2.1. Broaden the Sources of Income Immigrant Families

The immigrants' mode of production in Checheng Village are more single, which mainly dominated by farming. A part of people are willing to work out. Therefore, narrow source of income impacts adaptability of immigrants to the area of destination. Thus, the industry structure should be changed with deep processing products based on the development of farming. In addition, migrant workers have a need to improve their work skills or the family's. For this requirement, the government should organize training institutions, strive to improve their cultural qualities and job skills, offer the immigrants some vocational and technical training, and popularize scientific knowledge of agriculture, so that they can foothold in the new environment and improve the adaptability to the new environment to achieve the Government's purpose of ecological poverty alleviation.

### 5.2.2. Raise Government's Awareness of Responsible

Government's role in the resettlement work should not be underestimated. The Government should actively safeguard the fundamental interests of immigrants, improve the relevant policy and approach, actively improve the ability of immigrants to overcome difficulties, and effectively solve the employment problem of migrants, and promote the production and development of migrants. In addition, the Government policy should tend to the lives, health care, social security system and other aspects of immigrants and ensures the basic livelihood of migrants. The Government should communicate with the immigrants, understand the needs of immigrants and timely solve those problems. With government's strong backing, immigrants rely on their own strength gradually to adapt to the area of destination.

### 5.2.3. Strengthen Instruction of the Housing and Other Infrastructure

It is essential to ensure the basic livelihood of migrants that strengthening instruction of housing, transportation, education, health and other infrastructure. Therefore, it is very important to strengthen instruction of the infrastructure so that immigrants can improve the adaptability to the area of destination, have no intention of moving back and live and work in the area of destination. But the government departments cannot fully deliver on its promises Checheng Village, causing some immigrants' dissatisfaction to new home, and downfall of confidence in the government and of adaptability to the area of destination. For example, immigrants' small housing courtyard cannot meet the daily needs, which will lead to resentment of immigrants.

## Fund

National Social Science Fund Project "Large-scale Ecological Migration Sustainable Development in Poor Areas" (12BJL076), Shanxi Province Philosophy and Social Science Project "Poverty Migration Patterns study in Shanxi".

## References

- [1] Fei, J.L. (2010) Xiangride Farm Remote Poverty Alleviation Immigrants to Move into the Adaptability Evaluation. *Capital Normal University Journal*, **31**, 58-62.
- [2] Ma, X.X. (2012) The Theory and Practice of Eco Migration in Recent Years in China. *Ningxia Social Sciences*, **4**, 56-59.
- [3] Tian, X.J. (2012) Tongxin County Ecological Migrants' Living Conditions and Social Adaptation—Shishi CMC Huian Village Settlements Huang Jiashuicases. *Ningxia Social Science*, **4**, 60-65.
- [4] Ma, X.M. (2013) Investigation and Study on the Social Adaptability of the Ningxia Ecological Migrants. *Journal of Yinchuan Municipal Party School*, **15**, 49-52.
- [5] Taungs (2007) Research on the Social Adaptation of Ecological Migrants—Taking the Ecological Immigration Points of Mongolia as an Example of Minzu University of China.