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Influencing factors of farmers' willingness to withdraw from rural homesteads: A survey in zhejiang, China

Hongxia Chen[a,*], Luming Zhao[b], Zhenyu Zhao[a]

[a] Department of Public Management, Ningbo University, Ningbo 315211, China
[b] Department of Applied Mathematics, Ningbo University, Ningbo 315211, China

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ABSTRACT

The purpose of the paper is to analyse the influencing factors on farmers' willingness of withdrawal from rural homesteads (WRH). Methods that included field surveys, factor analyses and case studies were used for this paper. The results show that farmers have a strong willingness to own the property on which their homesteads sit. There are deviations between homestead systems and execution. It is common that the area of a homestead exceeds the lawful standard, and one peasant family owns two or more homesteads. Peasant families have many concerns about WRH, which include: reduction of employment, lack of supporting social security, high expenditure of new houses, low compensation criteria for homesteads, decline in standard of living and inconvenience in agricultural production. Among all means of compensation, peasants prefer allocated residences, and they pay more attention to public service facilities and fundamental facilities. The authors argue that implementing employment and social security policies and setting up linkage mechanisms of WRH could help to smoothly push forward WRH.

1. Introduction

With the accelerating pace of urbanization and industrialization in China, there have been many changes in population structures, employment opportunities, ideas of value, and living styles and standards (Unger, 2002; Mukherjee and Zhang, 2007; Tilt, 2008; Goodman, 2008; Zandbergen and Ignizio, 2010; Li et al., 2014). A large amount of rural population has moved into towns. Rural out-migration is an important driver of local land use and land cover change (Kates and Parris, 2003; GLP, 2005; Lambin and Meyfroidt, 2011; Seto et al., 2012). Massive rural out-migrations have transformed China from an agricultural society into an urban and industrial society (Long et al., 2012). Most of these people work and live in towns while continuing to own rural homesteads. Although the rural population is dropping, the total area of rural construction land is rising (Long et al., 2012). Some farmers even own more than one house in their rural hometowns (Xu and Guo, 2012). These phenomena have led to continuous enlargement of rural homestead areas in China instead of decreasing synchronously; this has led to a serious waste of the land (Liu et al., 2014). China's rural population has declined by about 13 percent, yet the rural homestead areas have increased by about 4 percent from 1997 to 2007. The per capita land area even reaches as high as to 229 square meters, thus showing the reverse development trend (Zhang, 2013). However, the vacancy rate of rural homesteads in China has reached 10–15 percent (Han, 2008). Thus, the reform of rural land use in China is different and more complicated than in many Western nations.

Withdrawal from rural homesteads(WRH) is a good approach to solve this problem. Therefore, research on WRH has become a hot topic. Scholars have studied "system reform", "policy arrangement", and "protection of farmers' rights" (Hu and Zhang, 2013; Li et al., 2015; Tang et al., 2012). As the process of WRH should be carried out after the agreement of farmers, there were some studies focused on "withdrawal willingness". The influencing factors of farmers' WRH vary from farming type, family type, present living conditions and the regional economy (Chen et al., 2009). Survival, economy and social benefits are the focus of farmers' decision-making regarding land circulation (Zhou, 2013). The influencing factors on farmers' willingness of WRH are employment, pension, the cost of living and agricultural production. The farmers' locations, ages and insurance conditions have also certain influence on their willingness of WRH (Peng and Fan, 2012). The inconvenience caused by changing jobs, high prices of urban houses, high living cost, farmers' ages, and the compensation policies of WRH also affect the implementation of WRH (Wang et al., 2015). In fact, farmers' ages, education backgrounds, family incomes, the numbers of the older people who need support and the diversity of compensation mode options have positive effects, while the job-changing frequency of family

* Corresponding author.
E-mail address: 8805172@163.com (H. Chen).

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members, number of children and present living space negatively affect farmers' willingness for WRH (Chen, 2012). Moreover, farmers' understanding of land rights also affects implementation of WRH (Peng, 2013). The above studies showed various influencing factors that affect WRH. However, few studies have highlighted the importance of these factors and ranked them.

The objective of this paper was to determine the influencing factors on farmers' willingness of WRH and rank them based on an investigation of Zhejiang Province. The findings may hopefully contribute to the policy making and accelerate the process of WRH.

2. Study area and definition

2.1. Study area

Located on the southeast coastline of China and south of the Yangtze River Delta, Zhejiang Province is one of China's most developed provinces. It comprises an area of 105.52 thousand km^2, of which the construction land occupies 12.66 thousand km^2, accounting for only 12.0 percent (ZJDLRC, 2013). The conflict between increasing demand for construction-used land and serious protection of farmland is on the rise. Even though the rural population has decreased since 1996, the total area of rural housing is increasing (Long et al., 2012). In 2012, the average living space per capita in China was 37.1 square meters, while it was 61.5 square meters in Zhejiang Province (ZJBSC, 2012). The process of urbanization is reducing the rural population at a rate of 491.6 thousand people per year, which means that a large number of farmers will withdraw from rural homesteads, making Zhejiang Province a good example for studying farmers' willingness of rural homestead withdrawal.

Zhejiang Province has 11 cities. To reflect the investigated farmers' real willingness fully and accurately, we selected areas using the methods of stratified sampling and random sampling. First, we used the stratified sampling method to find areas with different social economic development and urbanization. Then, we chose different counties and districts in each prefecture-level city according to the proportion of industrial structure and per capita income. Finally, we selected samples and sent investigators to conduct in-home interviews and distribute questionnaires. According to the above principles, the sample points of the survey were Xiaoshan District of Hangzhou, Yuyao County of Ningbo, Cangnan County of Wenzhou, Xinchang County of Shaoxing, Jiashan County of Jiaxing, Dongyang County of Jinhua, Wenling County of Taizhou and Suichang County of Lishui (Fig. 1).

2.2. Withdrawal from rural homesteads

There are two forms of land ownership in China, state-owned land and collective land. Unused rural homesteads increased rapidly with the emergence of a large quantity of rural out-migrations. According to 'Land Management Law of China', farmers, as members of collaborative economic organizations, have the right to own a piece of residential land. At the same time, urban citizens are not allowed to buy houses in rural area. Therefore, when farmers become rural-urban migrants or live permanently in urban areas, their houses remain vacant (Long et al., 2007). WRH means that farmers give up their use right to have rural homesteads, under the guidance of local government or rural collective economic organizations, and acquire money or new houses as compensation (Peng and Fan, 2012). WRH is one of the most important solutions for opening up the stock of rural construction land, thereby using land more economically and intensively and keeping the dynamic balance of farmland. According to practices in China, WRH could be classified into two types. Formal WRH is the passive withdrawal under land acquisition and internal transfer within rural collective organizations. Informal WRH mainly refers to the withdrawal pushed by policies such as the replacement of rural homesteads, reorganization of rural homesteads, village relocation or a combination (Ouyang et al., 2009). According to the enforcing agencies of the WRH, we can divide WRH into four modes: government-led, village-spontaneous, enterprise-pushed and market-allocated. Among the four types, the government-led type was the largest proportion (Xu et al., 2012). To achieve the rational use of land, local governments have tried their best to guide farmers and push WRH voluntarily by village relocation and a combination of modes, including building new houses intensively and encouraging farmers to move into towns. However, some local governments have made inroads on the land rights of farmers with the aid of public power. On 28 December 2011, the Ministry of Land and Resources issued a statement and stipulated local government should fully respect farmers' willingness to relocate. Any compulsory relocation, compulsory construction, forcing farmers to move into apartment buildings and so on are forbidden (MLR, 2011). WRH must be based on farmers' willingness.

3. Methods

3.1. Questionnaire and survey design

Because of the diversity of farming types, economic levels and regions, the progress of rural homestead withdrawal shows obvious characteristics in different regions in China. Different modes apply to regional variations: the replacement of rural homesteads, the circulation of rural homesteads and the virtualized trade of the rural homesteads index (Cai and Xu, 2012). The questionnaire was designed on the basis of relative studies and former research. It contained three parts. Basic information was designed to obtain interviewees' gender, age, education, average yearly income members of their family and so on. The second part was to evaluate the interviewees' understanding of rural homestead use correctly. The last part was to measure the willingness of rural homestead withdrawal. It was concluded from the second part of the questionnaire how farmers understood the rural homestead use right they owned. With the data from the third part of the questionnaire, the influencing factors and their importance were acquired by factor analysis.

The number of samples was decided by the household size of each county and district. Two or three village households were chosen randomly for the survey. Each sample area stood for different urbanization levels and economic development levels in Zhejiang Province. There were problems such as one household owning more than one homestead and land area exceeding the standard and the unused land area; this meant that there was a large potential space for WRH. After a preliminary investigation, we modified the questionnaire and implementation plan. We conducted formal investigations in July and August 2014 and January and February 2015. The number of farming families we investigated is shown in Table 1. Among eight surveyed areas, the sample households were distributed in eastern Zhejiang (Xiaoshan and Xinchang), western Zhejiang (Dongyang), southern Zhejiang (Wenling, Cangnan and Suichang) and northern Zhejiang (Jiashan and Yuyao). The surveyed samples reflected circumstances of the entire Zhejiang Province.

In this study, interviewees were first asked whether they were willing to join the investigation about the willingness of WRH. Those who answered "yes" were invited to take part in the investigation and answer the questionnaire.

3.2. Methodology

The data were analysed using SPSS software. Descriptive statistics were used to analyse averages and standard deviations. To guarantee minimum data loss, the basic idea of factor analysis was to study internal relationships among variants by reducing dimensionality and identifying the relevant variants. Factors with good relativity fell into one category. Finally, there were some hypothetical variants. The relativity between different kinds of variants was very low. These