Factorial Analysis on the Implementation of Land Retirement Strategy in China

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Keywords: Land retirement strategy, Factor, Implementation.

Abstract. It has been a common view that implementing the strategy of “Enforcing the grain planting capacity of land” and exploring the land retirement in the reformation on supply-side in China, but there are some problems in the implementing land retirement strategy under the household responsibility system now. In the article, we’ll give an analysis on the influencing factors of implementing land retirement strategy and the corresponding countermeasures in China after the affection on drainage, land capability or ecology of land retirement and its typical foreign experiences in strategy.

Introduction

Ordinary, land retirement is an arrangement that planting in the first and the third year while retiring in the second year on the same land. Nowadays, the land retirement strategy can also be arranged seasonally or cultivated every some years or planted from one crop to another crop or planted for nourishing plants. It is validated theoretically and practically that land retirement not only improves the drainage and the nourishment of land which raises the quality and yield of crops [1] but also makes the environment better [2].

In China, the land retirement strategy is an old farming system that can retrospect to Dynasty West Zhou [3] while the land is fully used every year due to the limit of grain yield security in modern times. Today, the grain production faces the fact that the increasing of “floor price”, the decreasing of “ceiling price” and the lack of agriculture resources. At the same time, the grain production allowance faces the pressure of limited financial subsidy and the upper limitation of WTO in agriculture of our country. Under this background, the strategy of “Enforcing the grain planting capacity of land” is presented in No.1 policy document of Central Committee of the CPC and the land retirement strategy of planting from one crop to another crop will be explored in China [4].

There are such obstacles as the highly distributed land resources, the income of peasants etc. when land retirement strategy is put into practice under the background of “Land family contract responsibility system”. So, discovering the influencing factors of implementing land retirement strategy and give the corresponding countermeasures is very important and practical.

Main Influencing Factors and Obstacles of Implementing the Land Retirement Strategy in China

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Grain Yield Security Strategy. For a long time, due to the large population and scarce arable land, to ensure the grain yield security has been always the top priority in China. And so, on the one hand our country adheres to the "1.8 billion mu arable land red line", on the other hand encourages intensive cultivation of land, which makes the land not being good rest and maintenance while a large number of application of chemical fertilizers and pesticides.
Land Retirement Compensation. The current rural land system in China is “Land family contract responsibility system” which inevitably makes the farmers, the supply side of the land, will ask the Government, the demand side of the land, for the same income (harvest) caused by the land retirement. Therefore, land retirement compensation becomes an important factor of implementing land retirement strategy.

The Employment of Farmers. The per capita arable land in China is only about 1.4 mu. In the province of Zhejiang, Jiangsu and other places, the number is even less than 0.9 mu, the land retirement strategy implementing on such little arable land will inevitably bring about the problem of the employment of farmers from the retiring land. Thus, while implementing the land retirement strategy, how to guarantee the employment of farmers from the retiring land becomes the other factor of implementing land retirement strategy.

Land Retirement Arrangements. To implement land retirement strategy, if there are not good corresponding arrangements of the land retirement pattern, also cannot achieve the desired results, which becomes another factor of implementing land retirement strategy.

Main Obstacles to the Implementation of Land Retirement Strategy

Land Fragmentation. Under the rural land system of “Land family contract responsibility system”, although the land transfer has made great progress, land being cultivated fragmently is still serious in China. No proper scale land operation and thus no guaranteeing of normal earnings of the agricultural operators has become one of the main obstacles to the implementation of land retirement strategy.

The Ability and Level of Financial Subsidies. On the one hand, land retirement compensation in our country is restricted by the ability of financial subsidies; on the other hand, our overall level of subsidy to agriculture is also restricted by "aggregate maintenance support" (AMS) commitments in the "Agreement on Agriculture" in WTO, which China had accessed to it in 2001. All these constitute an obstacle to the implementation of the strategy of land retirement.

Peasants Transformation in Employment. Under the background of China's New Normal economic situation, The ability to provide enough peasants transformation in employment another obstacle to the implementation of the strategy of land retirement.

System Design of Land Retirement. Land retirement strategy in our country is still a new thing and so there is no mature system design on it about such aspects as the land retirement objects and conditions, the land retirement proportion and period or the land retirement subsidy and compensation standards, etc.

Agricultural Echnology Promotion. For farmers, how to do crop rotation and raise nourishing plants in the implementation of land retirement are new challenges for them, the agricultural technology promotion has become a new obstacle to the implementation of land retirement strategy.

Legal Protection. Currently, the rights of farmers of land retirement lack legal protection. How to ensure the income (crop), the employment of land retirement farmers through legal protection and thus eliminating their concerns is also one of the obstacles in the implementation of land retirement strategy.
Analysis on the Ways of Implementation of the Land Retirement Strategy in Our Country

The Typical Foreign Experience

The Diversity and Rationality on the Objectives of Agricultural Land Resource Protection. The diversity and rationality on the objectives of agricultural land resource protection, which was raised in 1977 by the US economist including the guarantee of grain yield security, survival and development of local agricultural industry, a good environment, orderly and efficient use of urban and rural land and so on, is still being widely accepted to measure the conceptual framework of farmland protection objectives.

The Complementary on Legal Protection and Policies. The United States is relatively mature in the implementation of land retirement strategy for the laws of their land and land retirement strategy are relatively comprehensive and systematic. Early in the 1930s, the US government formulated the "water and soil conservation and domestic production rationing law" to improve the severe ecological problems caused by over-exploitation. According to statistics, there are already 12 laws on land conservation, land reserve, agricultural insurance, etc. that are related to land retirement strategy and land now.

Meanwhile, the US government also adopted relevant policies, programs, projects technical means etc. to guide or constraints or impact the land use, resource planning & management and protection of agricultural land in areas. All these make the legal protection and the policies complement each other.

Fully Play the Role of Market Mechanism. To get the aim of farmland preservation consistency, the interests of the United States federal government, local governments, landowners and farmers of various action subjects are realized by giving full play to the market mechanism adjustment.

Pay Attention to Public Participation. In US, the farmland protection legislation system and policy planning is formulated by negotiation, that is to say, from bottom to top. Besides, US legislative bodies and governments encourage and ensure public participation in the development of agricultural land protection laws and regulations. All these make the land retirement strategy easy to set up and supported by the population [6].

Change the Grain Yield Arrangement and Get Compensation or Give Subsidy to Relative Farmers. In 1996, to cut down the storage rate of rice, the Japanese government took such land retirement strategy as decreasing the planting areas of rice to 787,000 hectares on the one hand and giving 70,000Yen/ha subsidy for the farmers joining the land retirement strategy or getting 100,000 Yen compensation form those of no joining on the other hand [7].

The Differential Compensation Standard for Different Regions. In US, in the process of implementation of land retirement strategy, the farmers can offering the lowest price they can accept according to the opportunity cost and cost-benefit. The compensation standard can even be specific to each household [8].

Suitable Land Retirement Strategy Arrangement. There are different land retirement strategy arrangement from country to country. In Israel, that is 1 of every 7 years but in UK, that is 1 of every 3 years, which was the famous traditional Norfolk Rotation System. That is, the land is divided to such 3 parts as the winter wheat one, the spring wheat (or soybean) one and retirement one in some village, then the 3 parts forms a land-use circle [9].
The Way of Implementation of the Land Retirement Strategy in China

**Diversity and Reasonableness of Agricultural Land Resources Conservation Goals.** Considering the fact of large population, serious difference between rural and city habitants and consistent development pressure in China, learning the experiences of other countries, such as the United States, Japan and so on, we may establish such diversity and reasonableness of agricultural land resources conservation goals including as grain yield security, increasing farmer's income and environment protection, etc.

**The Complementary on Legal Protection and Policies.** To rebuild the land retirement strategy is a new thing for China, we may learn such countries as the US, Japan, etc., making laws or policies on land conservation, land reserve, agricultural insurance, etc. that are related to land retirement strategy. At the same time, according to the opportunity cost and cost-benefit, setting up such subsidy or compensation measures as giving subsidy for the farmers joining the land retirement strategy or getting compensation form those of no joining.

**Suitable Land Retirement Strategy Arrangement.** Associated with the history practices of land retirement strategy, learning from the experiences from US, Israel, UK and other countries, we may research on the suitable land retirement objects and conditions, the land retirement proportion and period or the land retirement subsidy and compensation standards, etc.

**Fully Play the Role of Market Mechanism.** Learning from the United States and other countries, we may fully play the role of market mechanism to get the pool efforts from the United States federal government, local governments, landowners and farmers of various action subjects to get the aim of farmland preservation consistency in the process of action of land retirement strategy.

**Advices on the Polices of Implementation of the Land Retirement Strategy in Our Country**

**The Reasonable Strategy on Grain Yield Security**
According the fact of the increasing of “floor price”, the decreasing of “ceiling price” and the lack of agriculture resources, we may make such reasonable strategy on grain yield security as cutting down the production of maize and other grains on the one hand, raising the specialties of regional rural products on the other hand. And so we may also avoid the domestic competition of same industry or quality and translate the advantage of resources into industry or products or competition one.

But the reasonable strategy on grain yield security do not mean the giving up of the strategy, we should focus on the aim of “Enforcing the grain planting capacity of land” taking the land retirement arrangement of rotation or planting the nourishing plants mainly.

**Strengthen the Market Construction on Land Transfer and Farmer Employment**
According the fact of serious land fragmentation, we may strengthen the market construction on land transfer, which is associated with its information, by fully playing the role of market mechanism and actively promote the moderate scale management of land.

For the farmers’ employment, we should also strengthen the market construction on the farmer employment by giving information of employment and training on increasing the farmers’ abilities.

**Make the Special Law System on New Occupational Farmers to Give Policy Support**
The implementation of land retirement strategy is associated with the training of new occupational farmers because the moderate scale management of land and the spreading of agricultural technologies should be done by them.
For this reason, we should put the making of special laws or policies on new occupational farmers into the schedule as early as possible to provide the rights security for them in employment, training and policy support, etc [10].

**Strengthen the Policy Expection of Government on Land Retirement Strategy**

It is significant important for the government to guide the mechanism and socialism under the background of mechanism of rural production and the socialism of rural subsidies. We should strengthen the protection of domestic & foreign market and make the reasonable policy expection of purchasing, storage and compensation or subsidy on rural products including main grain plants to lay good foundation for the implementation of land retirement strategy.

**Acknowledgement**

This research was financially supported by the Hubei Social Scientific Foundation (No: 2015173); Hubei County Economy Development Research Centre (No: HBXY2016201)

**References**


