

The Operation of Control In the Cultivated Land Protection System of China

Han, Haoying

hawk@ud.t.u-tokyo.ac.jp

PhD Candidate in Urban Planning

Department of Urban Engineering, the University of Tokyo

May 2005

ABSTRACT: Cultivated land protection is an elementary national policy of China to secure national food security, in which “control” has been an essential notion. Most of the studies on cultivated land protection, until now, have advocated a strict control organized by the central government. However, little research has been developed to study the operation of control in the cultivated land protection system. This paper reviews the concept and characteristics related to “control” that are applied in cultivated land protection policies. It turns out that control has been expected to achieve the goals of cultivated land protection with the following characteristics: first, the control relies much on the administrative intervention; second, it is gradually strengthened and is becoming more complex; third, it is carried out through several levels. While the cultivated land control system has gradually been established and improved, the system of control has also been challenged in recent years. This has made it difficult to simply evaluate the effect of control in the cultivated land protection system.

KEYWORD: cultivated land protection, control, China

INTRODUCTION

In China, a country with 8.6% cultivated land of the world (National Bureau of Statistics 1999; UNDP 2002) feeding more than one fifth of the world's population (20.8% in the year 2001. Source: the world bank database and FAO database, China Statistical Yearbook 2003), the food provision has been a crucial issue, to which there has been an increasing international concern since 1990s (Brown 1995; Smil 1995).

As the accelerating cultivated land loss since the economic reform and open-door policy were adopted in China in late 1970s (Feng, Liu et al. 2005), cultivated land protection, as a vital policy to ensure the food security (Liu 1997; Chen 1998; Yin, Liang et al. 1998; Zhu 2004), has got more and more attention in recent years by the Chinese government as well as in the academic field.

To implement the notion of cultivated land protection, numerous studies have been developed to call for more attention (1) to the cultivated land area loss (Liu 1997; Chen 1998; Lu and Han 1999; Shan, Yang et al. 2002; Feng, Liu et al. 2005), (2) to the cultivated land quality degradation (Liu 1997; Chen 1998; Lu and Han 1999; Shan, Yang et al. 2002), (3) to the regional character and the environmental impact of cultivated land change (Yang and Li 2000), (4) to the composition of cultivated land change (Li and Sun 1997; Fischer, Y. Chen et al. 1998), (5) to the relation between cultivated land protection and urbanization process (Zhang 2000; Deng and Huang 2004), and (6) to the economic possibility of carrying out the

policy (Dowall 1993; Shan, Yang et al. 2002; Liu, Xu et al. 2004). A majority of these studies, when concerning the solutions for cultivated land protection, appeal for a stricter control by the state in the cultivated land protection system. However, there is little research, until now, on the operation of the crucial principle—“control” in the cultivated land protection system.

This article makes a comprehensive review on the concept and characteristics of control in the cultivated land protection system. In doing so, it starts by reviewing the formation of the concept of control. Then, the characteristics of control are outlined in three aspects: the instrument, the stages and the levels of control. In the following section, some recent challenges to control are discussed. Finally, some general principles and suggestions for further work are advanced in the conclusion section.

THE CONCEPT OF CONTROL

The Definition and Goals of Cultivated Land Protection

Notwithstanding the definition of cultivated land is crucial for the constitution of relative cultivated land protection policies, there is no clear definition, until now, on the popular word— cultivated land. According to the Land Administration Law, cultivated land belongs to a special type of farmland. The latter refers to the land that is used directly for agricultural production including cultivated land, forest land, grassland, and land with a water surface for cultivation, breeding or water conservancy (Land Administration Law 2004, Article 4). Based on the current statistic caliber, it is found that only the grain and vegetable plots have been defined as cultivated land in China (Zhu 2004). Orchard and other cropland, which are thought to be more economically profitable, are defined as another type of land—horticultural land. This is quite different from the definition of cultivated land applied by FAO (Food and Agriculture Organization of the United Nations) which treat all the permanent cropland as cultivated land.

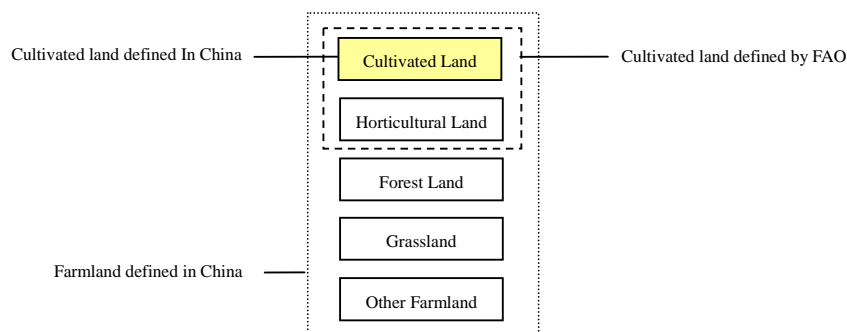


Figure 1: Definition of Cultivated Land

Data Source: Land Administration Law; Food and Agriculture Organization of the United Nations

The definition shows that cultivated land is the land most directly related to the food provision. This has firmly linked cultivated land protection to the goal of securing national food security. However, in

recent years, many other goals, including improving the environmental quality and security (Xiao 1999), and promoting the development of agriculture and rural region (Wu 2003; Zhao 2004), have also been expected during cultivated land protection. All these goals are tending to call for the application of a strict control in cultivated land protection.

The Purpose of Control in Cultivated Land Protection

In China, strict control is never a new concept. Until early 1990s, government control in every part of the social-economic life had been the most conspicuous character of the planned system. However, since the planned system began to be replaced by the market-oriented system in 1993, although there is a trend to decrease the government control in economic fields, the notion of strict government control in cultivated land protection has never stopped. According to the land administrative law, notwithstanding the there are still some economic incentives through fees, taxes, compensations, and subsidies, a punitive system on the basis of planning/ zoning system is most evident in cultivated land protection (Asian Development Bank 2000). Meanwhile, in academic field, a strict control has been supported by a majority of the studies (Wang 1998; Lu and Han 1999; Cai 2001). The reasons to adopt a strict control are primarily advanced in the following aspects:

- (1) The rural area's inferior status to the urban area (Cai 2001; Shan, Yang et al. 2002; Deng 2004). This situation had existed for a long time even before the foundation of P. R. C. in 1949, and has been lasting until now. It has at least two important influences on cultivated land: first, the urban issues are more important than rural issues; second, the price of urban land is much higher than that of rural land (Liu, Xu et al. 2004). Both of them have greatly increased the possibility to convert cultivated use into urban use.
- (2) The discrepancy of the interests of individuals and the central government. Individual activities under the complete market operation tend to covert cultivated use into other profitable land use, thus contradict with the goal of cultivated land protection based on the national interests (Qian 2003).
- (3) The difference of the interests of local governments and the central government. Current social and economic incentive system could not ensure local government to protect cultivated land based on their own interests (Liu 1997; Cai 2001; Shan, Yang et al. 2002; Ding 2004; You and Chen 2004). Consequently, a control initiated by the central government is needed to achieve the purpose cultivated land protection.

The above reasons suggested a slim possibility to carry out the cultivated land protection policies under the current urban-rural structure, through the current market operation, or by the independent administration of local governments. Therefore, a control administrated by the central government might be an exclusive choice to achieve the goal of cultivated land protection.

CHARACTERISTICS OF CONTROL

The characteristics of control can be best illustrated in three important aspects: the instrument to carry out

control, stages of control to show its historic evolution, and the levels of control to show its current operation.

INSTRUMENT OF CONTROL

The control in the cultivated land protection of China is basically established in the national content through four levels: (1) the Chinese Constitution and all the laws constituted based on it; (2) the administrative statutes promulgated by the State Council; (3) the sectional regulations issued by the ministries and committees of the State Council; and (4) the administrative orders issued by the State Council and its ministries and committees (the orders issued by the State Council have a superior power than those issued by its ministries and committees).

In China, due to the historic reasons, administrative intervention had been the most important instrument of control in cultivated land protection and other social-economic fields before the Chinese Constitution was established in 1982. Although considerable laws were established and gradually replaced the function of administrative orders since 1982, the administrative orders, until now, are still often applied as the most direct and effective way of control on the social-economic life by the state. The most evident case is that the State Council suspended the conversion from farmland to urban construction land all over the country through emergency orders in April 1997 and April 2004.

Table 1: Instruments of Control in Cultivated Land Protection

| Level | Item | Promulgating Institution |
|------------------------|--|---|
| Law | Law (Fa) | NPC (National People's Congress) |
| Administrative Statute | Statute (Tiaoli) | The State Council |
| Sectional Regulation | Method (Banfa) Detailed Rules (Xize) Provision (Guiding) | Ministries & Committees of the State Council |
| Administrative Orders | Notice (Tongzhi) Opinion (Yijian) Reply (Pifu) | The State Council / Ministries & Committees of the State Council |

STAGES OF CONTROL

The evolution of the policies of cultivated land control is a process with different laws, administrative statutes, sectional regulations and administrative orders gradually added in the cultivated land protection system. Through this process, an evolution of four stages can be identified as follows:

1. The Pre-control Stage (1949-1980)

This stage was characterized by the absence of the notion as well as the laws, statutes, regulations, and administrative orders of control in the cultivated land protection. In this stage, under the strict administration of the planned system and without the establishment of the Chinese Constitution and the corresponding legal system, almost everything in the social and economic life was controlled by

administrative orders issued by different levels of government. However, despite the dramatically fluctuation of the area of cultivated land due to political events (Feng, Liu et al. 2005), cultivated land protection had not been developed as an important national issue. This resulted in the vacuum of a cultivated land control during this stage.

2. The Provisional Control Stage (1981-1986)

This stage was characterized by the establishment of two administrative statutes of the State Council, which is the symbol of the start of the control in cultivated land protection. After the economic reform and open-to-world policy had been established in China in late 1970s, China experienced an economic boom, first in the rural area, and later extended to the whole country. At that time, the need to convert cultivated land into construction and other agricultural use become stronger. According to decrease of cultivated land due to more and more rural construction, the State Council promulgated an emergent administrative order to prevent the cultivated land from occupied by rural construction in 1981. After the Chinese Constitution was constituted in 1982, two statutes issued by the State Council—*Administrative Statute for Housing Construction in Villages and Small Towns* and *Land Requisition Statute for State Construction*, began to be introduced to control the accelerating conversion from cultivated land to urban use. However, without basing on the relative laws, especially the land administrative law, the control in this stage can only act in a provisional function.

3. The Initial Legal Control Stage (1987-1997)

In 1 January 1987, two important laws- *the General Principles of the Civil Law* and *the Land Administration Law* were established, which can be treated as the beginning of the initial legal control in cultivated land protection. After that, the *Statute of Basic Cultivated Land Protection* was established in 1994 to protect good-quality cultivated land. In this stage, although the cultivated land protection and land use master plan were not emphasized in the land administration law as separated sections, cultivated land control had already become a principle notion in land administration. Meanwhile, several administrative orders were applied by the central government to intervene the cultivated land control directly. The control on cultivated land protection system was greatly strengthened in this stage.

4. The Strengthened and Integrated Control Stage (1998-)

In 1998, the devastating floods in PRC heightened the sense of urgency with respect to the programs of land use and environmental preservation. The *Land Administration Law* (3rd reading) was taken up by the State Council and NPC (National People's Congress) as an important component of the government response to the underlying causes of the floods, and was adopted at third reading on 19 August 1998 (Asian Development Bank 2000). This started the strengthened and Integrated Control Stage. Since then, concomitant with the revision of *Statute of Basic Cultivated Land Protection* for an even stricter control on cultivated land, the principle to integrate cultivated land protection into a broader environmental protection system has imposed great influence on the implementation of cultivated land protection. The *Land Administration Law* (3rd reading) demanded to convert part of the cultivated land back to forests, grassland, and lakes is demanded by for the first time (*Land Administration Law*, Article 39). In addition, the State Council issued two notices to accelerate the plan to convert cultivated land

back to forests, grassland, and lakes in 10 September 2000 and 14 December 2002. After that, the *Statute of Returning Cultivated Land back to Forests* was promulgated in 20 January 2003. In this stage, the conversion from cultivated land to forestry land has become the most important reason for cultivated land decrease (Ministry of Land and Resources, 2004; National Bureau of Statistics, 2004).

The overall review of the policies of control in cultivated land protection indicates that the control is gradually strengthened with more relative laws, statutes, regulations, and administrative orders introduced in, and is becoming more complex with the integration of cultivated land protection system into a broader environmental protection system. While comparing with the change of cultivated land area in different stages, we may find that the strengthening process of control is correlative with the decrease of the cultivated land area. Whether the process of strengthened control is the cause or the result of the accelerating decrease of cultivated land area still needs to be examined in future.

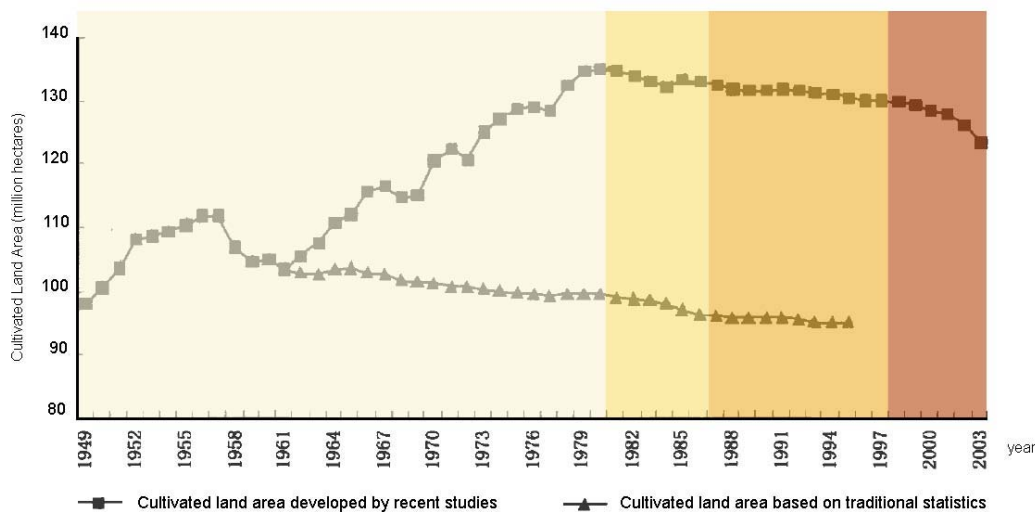


Figure 2: Evolution of Control and Cultivated Land Area (1949-2003)

Data of Cultivated Land Area from (Feng, Liu et al. 2005)

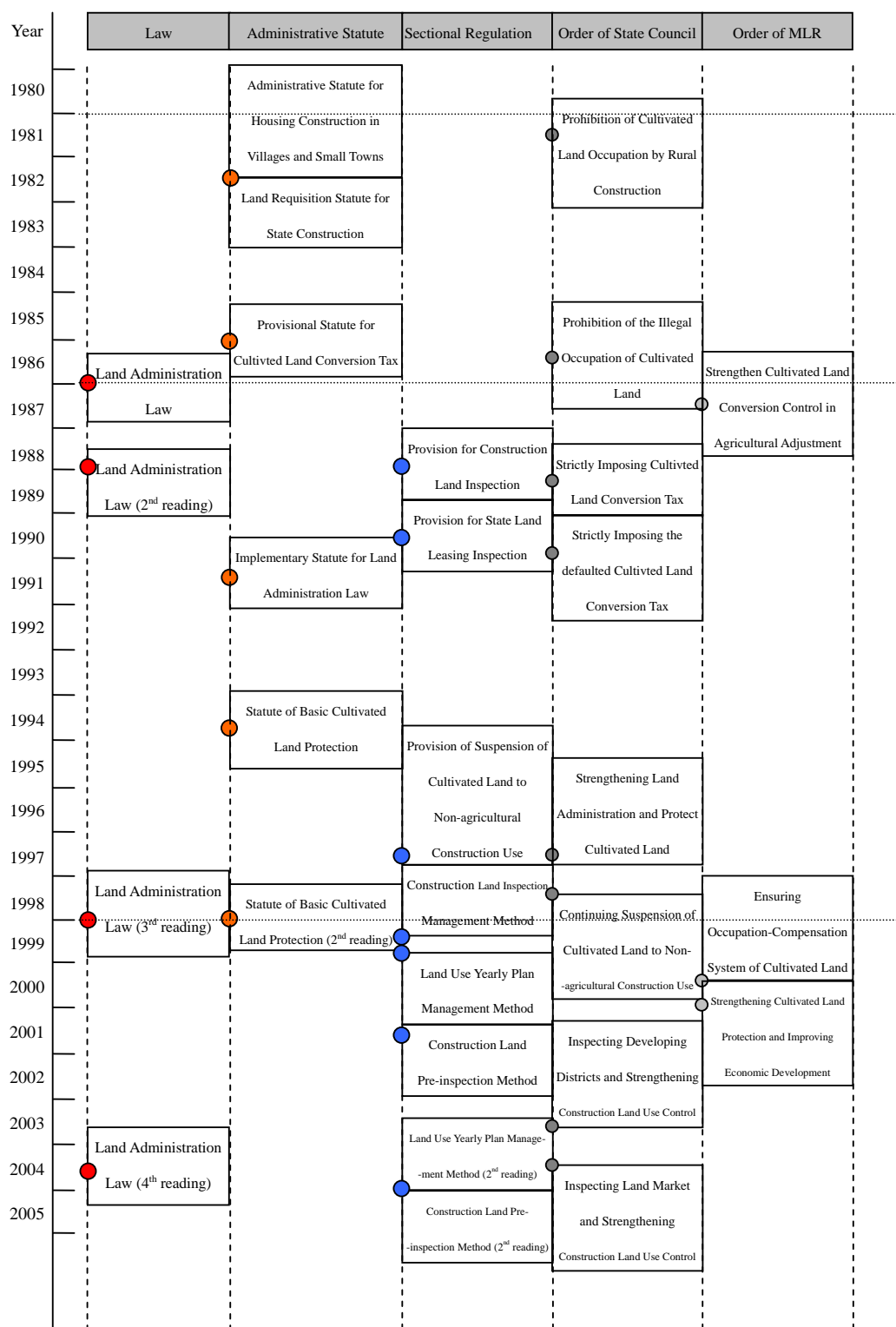


Figure 3: Evolution of Cultivated Land Control Policies

MLR=Ministry of Land and Resources

LEVELS OF CONTROL

After stages of evolution, a system of cultivated land control is gradually established. Current cultivated land control is primarily operated through four levels: (1) land use regulation, (2) farmland requisition regulation, (3) cultivated land occupation-compensation control, and (4) basic cultivated land protection. Through the reduction of the scopes of different levels, a gradually strengthened hierarchical control is applied.

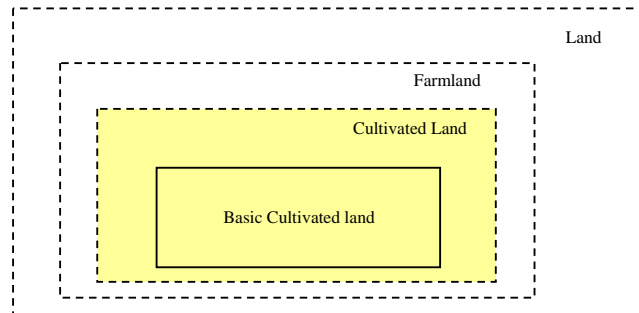


Figure 4: Levels of Land Use Control

Data Source: Land Administration Law

Land:

According to the Land Administration Law, all the land use should be controlled through the land use regulation system. The land use regulation system includes two elementary parts: land use master plan and land use yearly plan. Both of them are applied as the key instruments to protect cultivated land through a national land classification standard, detailed plan and complicated hierarchical application and approval procedures.

Farmland:

The farmland requisition regulation is an important way to prevent the conversion from cultivated land to urban land. Any conversion from farmland to construction land must be inspected and approved through the farmland requisition system. The land requisition of large projects needs to be approved by the State Council. Other types of requisition should be inspected and approved by the governments of provincial level, city level or county level respectively (Land Administration Law, Article 33). Any requisition of more than 70 hectares of the farmland must be supervised and approved by the State Council (Land Administration Law, Article 45). Moreover, a certain amount of compensation should be paid for farmland requisition, which includes the compensation for the land, for the reallocation of the former residents, and for the crops and other additions on the farmland (Land Administration Law, Article 46).

Cultivated land:

An occupation-compensation system is applied for all the cultivated land. According to the *Land*

Administrative Law, the people's government of the provinces, autonomous regions, and municipalities directly under the central government should strictly administrate the land use master plan and the yearly land use plan, to ensure the land area in their administrative area not decrease. Any approved urban construction which will occupy cultivated land must reclaim the same amount and similar quality of cultivated land in other places under the supervision of the land administration and agricultural sections of the State Council. If a province, autonomous region, or municipality directly under the central government can not achieve land recruit in its own administrative area, an application has to be made to reclaim the land in the other administrative areas which need to be approved by the State Council (Land Administration Law, Article 33). Moreover, more procedures during the conversion from cultivated land use to other use have been established to protect the cultivated land. Any requisition of more than 35 hectares of the cultivated land that does not belong to basic cultivated land must be supervised and approved by the State Council (Land Administration Law, Article 45).

Basic cultivated land:

According to the *Land Administration Law* and *Statute of Basic Cultivated Land Protection*, the area of the basic cultivated land in each province, autonomous region, or municipality directly under the central government, should make up of at least 80% of the total cultivated land. The detailed proportion in each administrative area should be confirmed according to the national land use master plan. The following types of cultivated land should be classified into basic cultivated land:

- (1) The cultivated land inside the provision bases of grain, cotton, and vegetable oil, which are authorized by the branches of the State Council or the People's government beyond the county level. (*Land Administration Law* and *Statute of Basic Cultivated Land*)
- (2) Cultivated land with good irrigation and good conservation of soil and water, and the less fertile cultivated land that can be or being improved. (*Land Administration Law* and *Statute of Basic Cultivated Land*)
- (3) Vegetable provision base. (*Land Administration Law* and *Statute of Basic Cultivated Land*)
- (4) Cultivated land for scientific research, teaching and experiments. (*Land Administration Law* and *Statute of Basic Cultivated Land*)
- (5) Other cultivated land authorized by the State Council. (*Land Administration Law*)

The boundaries of the basic cultivated land should be confirmed in each Xiang or Zhen (the administrative organization under the county level), and organized by the land administration branch and the agricultural branch of the county government (Land Administration Law, Article 34). Basically, the basic cultivated land can not be used for other agricultural use, such as forestry, horticulture, and fishery (Land Administration Law, Article 36). Only the State Council has the power to approve the conversion from basic cultivated land to other use (Land Administration Law, Article 45).

Table 2: Levels of Control for Cultivated Land Protection

| Item | Major Methods of Control | Relative Laws, Statutes and Regulations |
|-----------------------|---|--|
| Basic Cultivated Land | <ul style="list-style-type: none"> Any conversion from basic cultivated land to other use must be supervised and approved by | <ul style="list-style-type: none"> Land Administration Law Statute of Basic Cultivated Land Protection |

| | | |
|-----------------|---|--|
| | the State Council. <ul style="list-style-type: none"> • Land Use Master Plan • Land Use Yearly Plan | <ul style="list-style-type: none"> • Provisional Statute for Cultivated Land Conversion Tax • Land Use Yearly Plan Management Method • Construction Land Pre-inspection Method |
| Cultivated Land | <ul style="list-style-type: none"> • Any requisition of more than 35 hectares of the cultivated land must be supervised and approved by the State Council. • Land Use Master Plan • Land Use Yearly Plan | <ul style="list-style-type: none"> • Land Administration Law • Provisional Statute for Cultivated Land Conversion Tax • Land Use Yearly Plan Management Method • Construction Land Pre-inspection Method |
| Farmland | <ul style="list-style-type: none"> • Any requisition of more than 70 hectares of the farmland must be supervised and approved by the State Council. • Land Use Master Plan • Land Use Yearly Plan | <ul style="list-style-type: none"> • Land Administration Law • Land Use Yearly Plan Management Method • Construction Land Pre-inspection Method |
| Land | <ul style="list-style-type: none"> • Land Use Master Plan • Land Use Yearly Plan | <ul style="list-style-type: none"> • Land Administration Law • Land Use Yearly Plan Management Method • Construction Land Pre-inspection Method |

RECENT CHALLENGES TO CONTROL

Although a cultivated land control system has gradually been established and improved, and the notion of strict control has been supported by most of the relative studies, the system of control has already been challenged in several aspects in recent years.

The biggest challenge is the contradiction between the objective and the result of control. Since 1998, according to the Land Administrative Law (the 3rd and 4th reading), the basic objective of control is to ensure the area of cultivated land not to decrease in quantity and not to deteriorate in quality in the national level as well as in each municipality every year. Whereas, after examine the land use change during this period, it turns out that the cultivated land of the whole country has continued to decrease. According to the statistics of the Ministry of Land and Resources, the cultivated land decreased 100.898 million Mu (6.73 million hectares) from 1997 to 2003. In addition, the decrease of cultivated land tends to be accelerating (Li 2004) in this period. One prominent reason is the shortage of land that could be reclaimed into cultivated land which was once the most important cause to increase cultivated land area (Fischer, Y. Chen et al. 1998; Yang and Li 2000).

Moreover, the quality of cultivated land also seems to be deteriorating in this period (the Ministry of Land and Resources) due to the lack of concrete measures to protect it during the implementation of cultivated land control (Yang and Li 2000). There is research auguring that, in respect of the food production capacity, the newly reclaimed low-graded farmland in environmentally fragile frontier regions has never been able to compensate for the loss of fertile land in the southeastern part of the country where multiple cropping index and population density are high (Lin and Ho 2003).

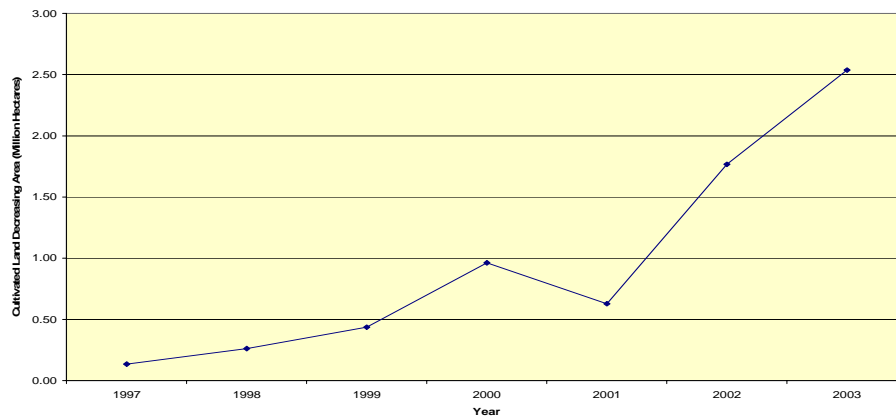


Figure 5: Decrease of Cultivated Land (1997-2003)

Data from (Li 2004), Source: Land Use Transformation Investigation 1997-2002 and China Land Resource Yearbook-2003

Another challenge for the implementation of control can be observed in the periphery part of the cultivated land control system. The farmland requisition regulation system and land use regulation system are two of the most important periphery system to ensure the cultivated land control. In recent years, both of them have been facing strong criticism. The former is challenged by the abuse of the requisition power in the name of the obscure “Public Interests” (Li and Hu 2002; Wu 2003; You and Chen 2004; Zhao 2004), an evident low compensation standard (Wu 2003; You and Chen 2004) and poor administration in farmland compensation (Li and Hu 2002; Wu 2003; You and Chen 2004; Zhao 2004); meanwhile, the latter is challenged by a difference land classification system in urban areas administered by the Ministry of Construction, as well as the fact of continuous cultivated land loss through the local governments land conversion approval (Dong 2000; Qian 2003).

CONCLUSION

In the cultivated land protection system of China, “control” has been adopted as one of its most distinct characteristics. Since there is a slim possibility to carry out the cultivated land protection policies under the current urban-rural structure, through operation of market, or by the independent administration of local governments, a control administrated by the central government have been suggested to be an exclusive choice to achieve the goals of cultivated land protection.

From the review of the concept, instrument, stages and levels of control, it turns out that the control in cultivated land protection system was not established on the basis of the normal legal system, but has been relying much on the administrative intervention. Historically, the notion and methods of control is gradually strengthened and is becoming more complex with the integration of cultivated land protection system into a broader environmental protection system. Currently, the control is implemented through the plans and inspections of different levels.

Although a cultivated land control system has gradually been established and improved, and the notion of

strict control has been supported by most of the relative studies, the system of control has already been challenged in recent years, by the contradiction between the objective and the result of control, and the problems arising in the periphery part of the cultivated land control system, such as the farmland requisition regulation system and land use regulation system.

It is very difficult, until now, to simply judge whether or not the control in cultivated land is effective. However, an examination of the relationship between the cultivated land control system and other relative systems, and a study on the correlation of the cultivated land change and the evolution of the policies of control might help to understand better the operation of control in cultivated land protection, and would be fruitful topics to be developed in future.

REFERENCES

- Asian Development Bank, E. D., Office of Environment and Social Development, (2000). Reform of environmental and land legislation in the People's Republic of China. Manila, Asian Development Bank.
- Brown, L. R. (1995). Who will feed China? Wake-Up Call for a Small Planet. New York, World Watch Institute.
- Cai, Y. (2001). "The mechanisms of cropland conservation in Chinese rural transformation." Geography Science (in Chinese) **21**(1): 1-6.
- Chen, L. (1998). "Necessity to control arable land in China and the present task." China Population, Resources and Environment (in Chinese) **8**(1): 33-36.
- Deng, D. (2004). "Analysis on the "dilemma"." Journal of Lingnan (in Chinese) **1**: 40-43.
- Deng, F. F. and Y. Huang (2004). "Uneven land reform and urban sprawl in China: the case of Beijing." Progress in Planning **61**(3): 211-236.
- Ding, L. (2004). "Preliminary study on the current farmland acquisition system and the protection of the interests of farmers." Journal of Southwest University for Nationalities **25**: 194-196.
- Dong, H. (2000). "On administrative problems and institutions of China's cultivated land resources." Journal of Northwest Normal University (in Chinese) **36**(1): 129-135.
- Dowall, D. E. (1993). "Establishing urban land markets in the People's Republic of China." American Planning Association **59**(2): 182.
- Feng, Z., B. Liu, et al. (2005). "A Study of the Changing Trend of Chinese Cultivated Land Amount and Data Reconstructing: 1949-2003." Journal of Natural Resources (in Chinese) **20**(1): 35-43.
- Fischer, G., Y. Chen, et al. (1998). "The Balance of Cultivated Land in China during 1988-1995." International Institute for Applied Systems Analysis.
- Li, M. and Z. Hu (2002). "Farmland expropriation and construction of farmland's property rights system." Research of Agricultural Modernization (in Chinese) **23**(4): 303-305.
- Li, X. and L. Sun (1997). "Driving Forces of Arable Land Conversion in China." International Institute for Applied Systems Analysis.
- Li, Z. (2004). "Coordinating cultivated land protection and construction land and ensuring the healthy development of urbanization." Macro-economy Study (in Chinese) **12**: 16-20.

- Lin, G. C. S. and S. P. S. Ho (2003). "China's land resources and land-use change: insights from the 1996 land survey." Land Use Policy **20**(2): 87-107.
- Liu, S. (1997). "Land use regulation- land use regulation, cultivated land protection and the social-economic sustainable development in China." China Land Science (in Chinese) **11**(6): 10-14.
- Liu, Y., H. Xu, et al. (2004). "The economic lever for cultivated land protection." Economic Tribune (in Chinese) **21**: 109-111.
- Lu, H. and T. Han (1999). "The difficulties and methods of land use regulation." China Land Science (in Chinese) **13**(4): 18-20.
- National Bureau of Statistics, C. (1999). Statistic data corpus of China for 50 years. Beijing, China Statistics Press.
- Qian, Z. (2003). "Farmland Protection in China: Analysis of Theories and Policies." Management World (in Chinese) **10**: 60-70.
- Qian, Z. (2003). "Rational Reflection on China's Rural Land Protection Policies." China Land Science (in Chinese) **17**(5): 14-18.
- Shan, Y., L. Yang, et al. (2002). "Economic analysis of loss of cultivated land in China." System Sciences and Comprehensive Studies in Agriculture (in Chinese) **18**(4): 300-303.
- Smil, V. (1995). "Who will feed China? concerns and prospects for the next generation." China Quarterly **143**: 801-813.
- UNDP, E., WRI (2002). The World Resources Report: 2000-2001. Beijing, China Environmental Sciences Press.
- Wang, J. (1998). "Farmland protection and land use regulation." China Land Science (in Chinese) **12**(6): P1-P5.
- Wu, X. (2003). "Who takes the farmers' cheese?" Urban and Rural Construction (in Chinese) **11**.
- Yang, H. and X. Li (2000). "Cultivated land and food supply in China." Land Use Policy **17**(2): 73-88.
- Yin, J., G. Liang, et al. (1998). "The relation among industrialization, the cities' and towns' development and the protection of cultivated land." Land and Natural Resources Research (in Chinese) **3**: 13-16.
- You, L. and S. Chen (2004). "Discussion on shortcoming and consummation of rural land requisition system in China." Journal of Chongqing Technology and Business University (in Chinese) **65**: 18-21.
- Zhang, T. (2000). "Land market forces and government's role in sprawl: The case of China." Cities **17**(2): 123-135.
- Zhao, S. (2004). "New viewpoints existing questions of our farmland conscription system and practice and conscription compensation strategy." Rural Economic Issues (in Chinese) **4**: 54-56.
- Zhu, L. (2004). "Study on "cultivated land gross area dynamic stable regulation". " Journal of Huazhong Agricultural University (in Chinese) **51**: 47-50.