

# Incompatible or Reciprocal?

## The Policies of Urbanization and Cultivated Land Protection of China

Han, Haoying

[hawk@ud.t.u-tokyo.ac.jp](mailto:hawk@ud.t.u-tokyo.ac.jp)

PhD Candidate in Urban Planning

Department of Urban Engineering, the University of Tokyo

September 2005

### **Abstract:**

China's the urbanization process has been dramatically accelerated since the reform and opening-up policies started in late 1970s. During this period, the central government of China has adopted urbanization as a major instrument to create job opportunities, as well as to improve the living conditions of the people in this country. This surge of urbanization process consequently demanded more land for public facilities, housing, and the other urban stocks, and will inevitably change substantive cultivated land into urban land. Meanwhile, the cultivated land protection policy is also an elementary national policy of China primarily for the purpose of ensuring national food security. The central government of China has already constituted very strict cultivated land protection policies since 1990s. One of the most important measures is to strengthen the control of rural land requisition system through which the amount of land transferred from rural use to urban use is censored every year. The contradiction between the system of urbanization and that of cultivated land protection began to intensify in 1990s, and has gradually stepped beyond the control of the law system.

This study reviews the policy evolution of both the urbanization system and the cultivated land protection system, analyzes the factors and driving causes of the contradiction, and explores the possibility to establish some new principles benefiting both of the former systems according to their initial objectives.

The study shows: first, the urbanization process is not the major reason for the loss of the cultivated land area; second, the current cultivated land protection policy characterized by the strict quantity control of the conversion from cultivated land to urban land is limited; third, it is possible to apply some policies and methods to promote both the objectives of urbanization and cultivated land protection. Thus, a more balanced and integrated policy system for urbanization and cultivated land protection is to be established in future.

### **Key words:**

Rural Land Requisition System; Cultivated land protection; Urbanization; China

## **INTRODUCTION**

The rapid and continuous economic boom of China was triggered by the social-economic reform and opening-up policies in 1978. The reform started from the countryside, and

then expended to the cities and towns. Land reform, as one of the most important parts of the reform, was developed from the sanction of the agricultural production responsibility system in the rural area (Lin and Ho 2005) to the still continuing urban land system reform in the urban area. Both of the reforms successfully accelerated economic development, which further increased the demand for urban and agricultural land.

After the state-owned urban tenure system and the collective-owned rural tenure system were established in the first Chinese Constitution in 1982, the state expropriation through rural land requisition system has been the only channel to convert rural land into urban land; and has hence become one of the most important issues for both urban and rural development.

The state expropriation is operated through the rural land requisition system. The 1986 Land Administration Law empowered the governments of and above county level to approve the land requisition requests of the state owned enterprises. It also demanded an unconditional obedience of the involved rural land users. However, due to the continuous loss of cultivated land and the rapidly expanded but poor managed urban land growth, the control of the rural land requisition system was strengthened by the central government (Figure 1), through the establishment of general land use regulation system<sup>1</sup> and the centralization of the approval power for rural land requisition permission<sup>2</sup> in the 1998 Land Administration Law, and the cultivated land protection system in the 1998 *Statute of Basic Cultivated Land Protection*. The negative attitude of the central government toward the land transfer from rural use to urban use was clearly advanced since the 1998 Land Administration Law<sup>3</sup>. This evidently shows the intensified contradiction between the urban and rural development, and the central government's slant in favor of rural sectors in recent years.

Toward the supervision on the land requisition, there have been different attitudes in the academic field as well as in the government. Most of scholars have supported the consolidation of the land requisition control by arguing that it can protect cultivated land and improve urban land use efficiency (Liu 1997; Chen 1998; Yin, Liang et al. 1998; Lu and Han 1999; Dong 2000; Cai 2001; Li and Hu 2002; Shan, Yang et al. 2002; Wu 2003; Ding 2004; Liu, Xu et al. 2004; You and Chen 2004; Zhu 2004). The former is thought to be a further safeguard for the central government's goal of securing national food security, social stability, and environmental sustainability (Liu 1997; Chen 1998; Yin, Liang et al. 1998; Zhu 2004; Lin and Ho 2005). However, although few studies have been developed to advocate the abolishment of the supervision, many scholars have been criticizing its poor operation.

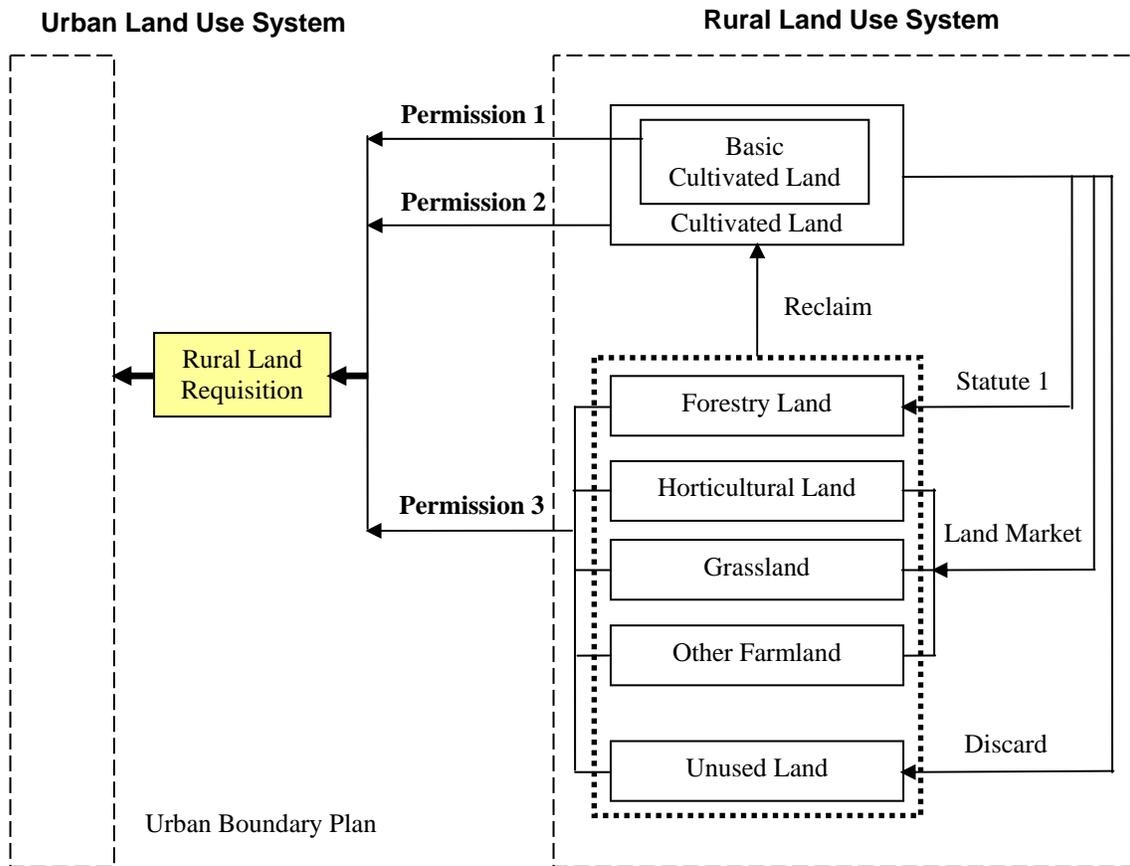


Figure 1– Operation of Rural Land Requisition System, by author

The divergent attitudes on the supervision of land requisition are evident in different levels and sectors of the government. The Ministry of Land and Resources advocates a strict control on rural land requisition to preserve cultivated land, taking a negative attitude on urban land growth. On the contrary, the Ministry of Construction has a positive attitude on urban land growth, as it argues that in the following years, economic boom and population growth will demand urban more land to accommodate the facilities and infrastructures. The former is now primarily supported by the State in the national level through the establishment a series of laws, statues, regulations, and administrative orders favoring cultivated land protection; while the latter is comprehensively promoted on the local level by local governments’ power on both urban plans and land requisition system on the local level (Figure 2).

The establishment of a strict supervision on rural land requisition has showed an evident intension between urbanization and cultivated land protection which further reflects the interests of urban and rural development. However, does the restraint of the conversion from rural land use to urban land use help to achieve either the urban or rural interests? Moreover, is urbanization and cultivated land protection basically contradictive? This paper tries to give some illustration on these issues by examining the effect of the rural land requisition policy.

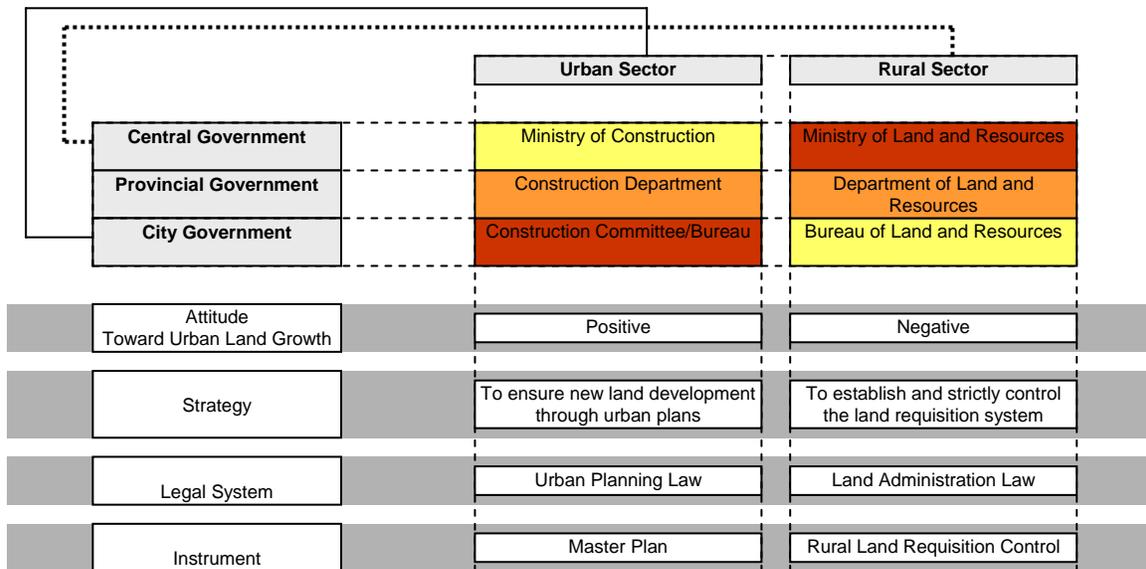


Figure 2– Various Interests of Different Levels and Sectors in the Government, by author

This study is developed through the following four parts. It begins with the review of the characteristics of the transition of cultivated land. Then, the rural land requisition control’s approach to cultivated land protection is examined. In the following section, some factors that may hamper the achievement of the land requisition system are analyzed. Finally, the summary and some outlooks are provided in the conclusion section.

### CHARACTERISTICS OF THE TRANSITION OF CULTIVATED LAND

Although the official data on the cultivated land area of China have been either inadequate or inaccurate in different governmental sections (Fischer, Y. Chen et al. 1998; Yang and Li 2000; Zhang 2000), the comprehensive land survey in 1996 and the availability of satellite image in land change analysis have made it possible to have a clear view on the change of cultivated land area. One of the recent illustrative studies is Feng’s model reconstruction of cultivated land area based on various data sources on cultivated land and grain yield (Feng, Liu et al. 2005) (Figure 3). Contrary to the traditional studies considering that the cultivated land in China decreased after it increased to a peak amount in 1957 (Sun and Li 1997; Chen and Li 1998; Shan, Yang et al. 2002), Feng noted through the reconstructing model that the cultivated land area of China did not decrease until 1979. However, all these studies support the point that the cultivated land of China has been decreasing since 1980, the beginning stage of the reform.

This decrease, together with China’s grain-market crisis from 1993 to 1994, and the Lester Brown’s influential but controversial projection on China’s future food scarcity (Brown 1995), urged the state of China stipulated a series of polices to conserve cultivated land (Cui 1995; Ke and Tang 1996; Yang 1999). The principle of cultivated land protection was intensified in the following years as a national policy, and later led to

the consolidation of cultivated land protection policies and the supervision on rural land requisition system in the 1998 Land Administration Law.

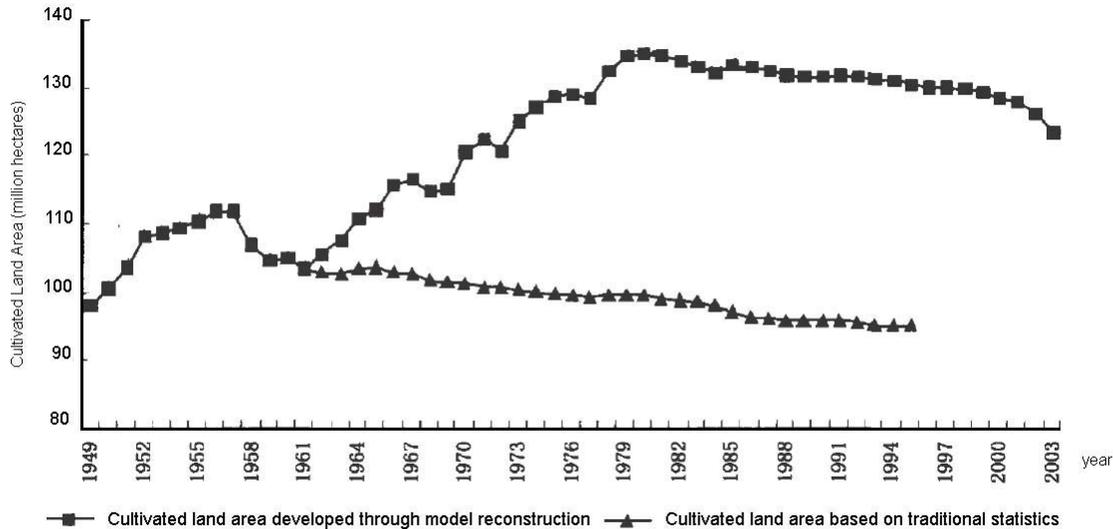


Figure 3- Transition of Cultivated Land Area (1949-2003) (Feng, Liu et al. 2005)

In addition to the evident decline at the national level since 1980, the quality and spatial distribution of cultivated land also experienced a significant change. A scrutiny revealed that the decline mainly occurred in the coastal and central provinces where land is relatively fertile and land productivity is high; however, for the western-border region as a whole, cultivated land did not decline but increased. Cultivated land increased in some northwest and frontier provinces, primarily through reclamation. This partially offset the loss in the southeast (Yang and Li 2000). This gain, however, has been made at the expense of natural environment (Yang and Li 2000; Lin and Ho 2003). Moreover, the loss of farmland in the south may not be sufficiently covered by land reclamation in the north, because of the great difference in their quality and multiple cropping capacities (Lin and Ho 2003).

## EFFECT OF LAND REQUISITION SYSTEM

Since the establishment of the rural land requisition system was based on the notion that urbanization seriously caused the decrease of cultivated land area<sup>4</sup>, the effect of land requisition system could mainly be examined through two aspects: first, whether construction is the primary cause of cultivated land decrease; second, whether the adoption of land requisition system could prevent or significantly decelerate the decrease of cultivated land area.

### Source and Destination of Cultivated Land Conversion

Traditionally, the conversion from cultivated land to urban use was thought to be a chief reason for the decrease of cultivated land; while several recent studies have drawn a different conclusion. Through the analysis of the land conversion from 1988 to 1996, Fisher found that reclamation was the largest contributor to the cultivated land increase,

while the conversion of agricultural structure, viz. the conversion from cultivated land to other agricultural use such as horticulture, grassland, forestry land and fish ponds, was the main cause for the decrease of cultivated land (Fischer, Y. Chen et al. 1998). This conclusion was further supported by Yang's study on the cultivated land conversion from 1978 to 1996 (Figure 4) (Yang and Li 2000) and Li's study from 1986 to 1995 (Li 2000)<sup>5</sup>. A further examination of the condition from 1997 to 2003 with the data of the Ministry of Land and Resources also shows that the conversion of agricultural structure, especially that to ecological forestry use, has the largest share of all types of cultivated land loss (Figure 5). All these studies and data have clearly proved that urbanization is not the principal reason for the decrease of cultivated land area as it was thought to be.

Table 1—Factors for the Increase and Decrease of Cultivated Land Area, 1978-1996 (Yang and Li 2000)

Source of Increase of Cultivated Area	Source of Decrease of Cultivated Area
Reclamation	Conversion of cultivated land to other agricultural land-use types
Drainage from shallow sea, lake, swamp and/or waterlogged land	Construction by state-owned units
Rehabilitation and reuse of discarded areas;	Construction by rural communities
Conversion from other agricultural use	Peasant housing
	Loss due to disasters
	Abandonment of cultivation

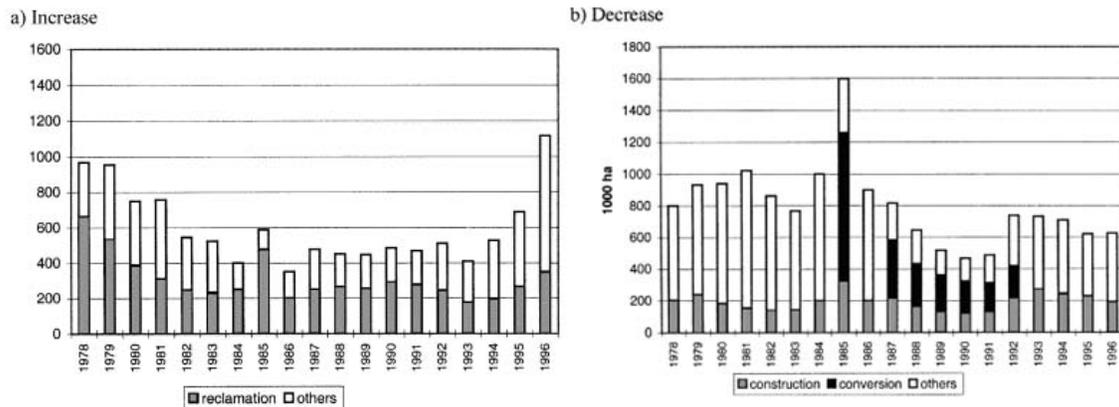


Figure 4- Sources and Destination of Cultivated Land Conversion in Cultivated Land, 1978–1996 (Yang and Li 2000)

Source: Data for 1978–1990 are from the [Ministry of Agriculture, ZNTZ, 1979–1991](#). Data for 1991–1996 are from [ECCAY, ZNN, 1992–1997](#)

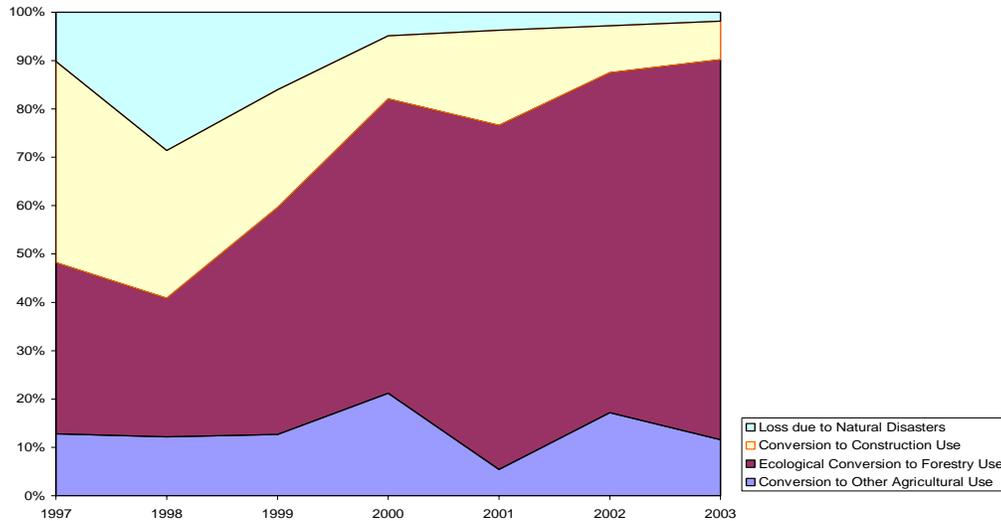


Figure 5- Composition of the Decrease of Cultivated Land Area (1997-2003)

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

### Implementation of Land Requisition System

The examination of the decrease of cultivated land area may be helpful to observe how the consolidation of land requisition system has affected the cultivated land area. Since some recent illustrative studies on cultivated land area's transition (Feng, Liu et al. 2005) did not provide specific data, some traditional data are considered to be used in this study. According to Yang's study, the official statistics of cultivated land had been underestimated before 1996 and such an underestimation was systematic (Yang and Li 2000). Therefore, a time series analysis of changes in cultivated land is feasible because the systematic underestimation would not significantly affect the conclusion (Ash and Edmonds 1998; Smil 1999; Yang and Li 2000). Moreover, the data on the yearly change of cultivated land area promulgated by the Ministry of Land and Resources (called the State Land Administration before 1998) since 1986 have been widely accepted as the most reliable data (Fischer, Y. Chen et al. 1998; Feng, Liu et al. 2005). This has made possible a continuous analysis of the transition of cultivated land.

Since most of the relative studies support that the cultivated land of China has been decreasing after 1980, a curve of the cultivated land decrease from 1980 to 2003 is developed in this study to examine the effect of rural land requisition system on cultivated land conservation (Figure 6).

It can be found from the curve that, after the land requisition system was formally adopted in 1998, the cultivated land decrease was not successfully prevented as it was supposed to; on the contrary, the decrease was evidently accelerated. This is accordant with Feng's argument that the land decrease have been accelerated after 1999 (Feng, Liu et al. 2005).

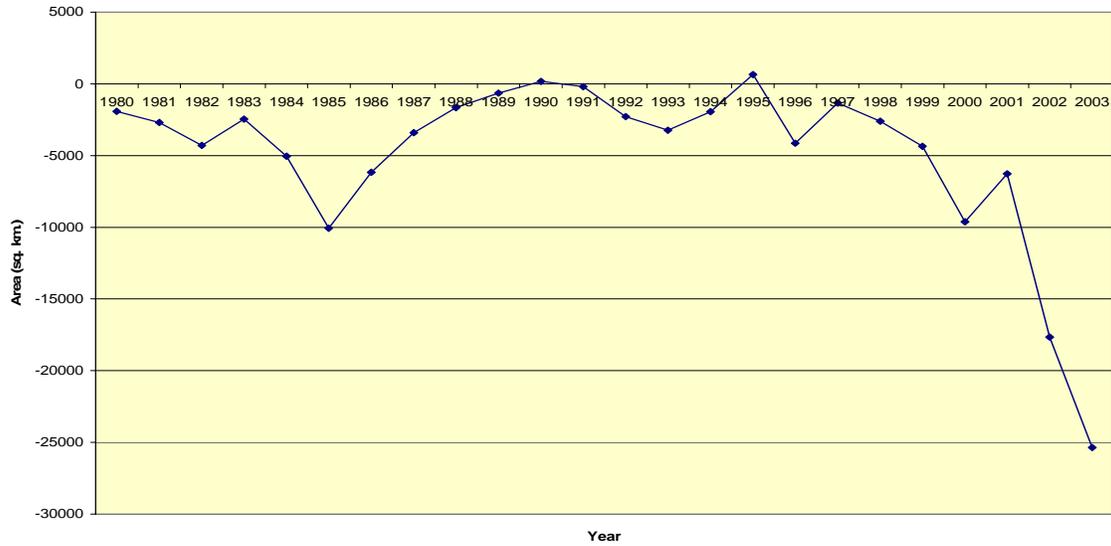


Figure 6- Decrease of Cultivated Land Area (1980-2003)  
 Data of 1997 to 2003 from (Li 2004), Source: Land Use Transformation Investigation 1997-2002, China Land Resource Yearbook-2003; Data of 1980 to 1996 from (National Bureau of Statistics 1999)

A further examination of the relation among cultivated land decrease (Figure 7) shows that the area of cultivated land decrease has little correlation with that of requisition land according to the statistical data from 1997 to 2003. Furthermore, the gap between them tends to become larger in recent years. This proves that the constraint of rural land requisition may contribute little to cultivated land conservation.

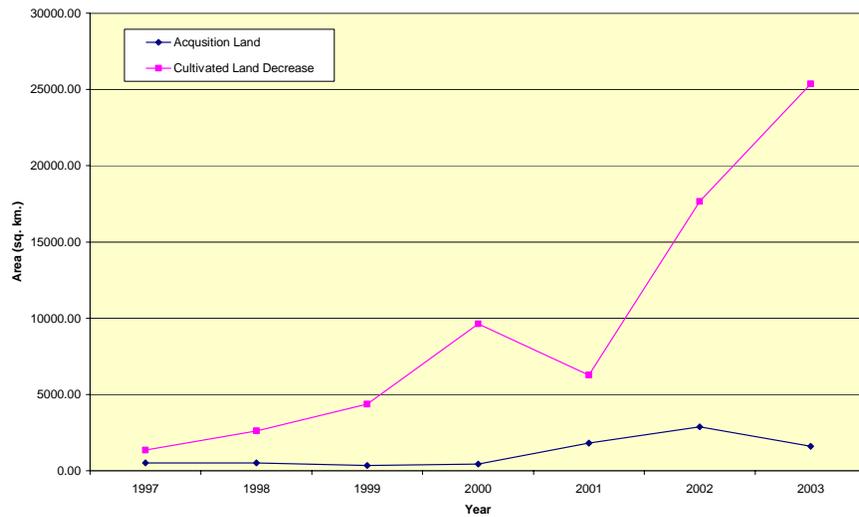


Figure 7- Increase of Requisition Land Area and Decrease of Cultivated Land Area (1997-2003)  
 Data of Cultivated Land from (Li 2004), Source: Land Use Transformation Investigation 1997-2002, China Land Resource Yearbook-2003, and China Statistical Yearbook from 1997 to 2004

## FURTHER HINDRANCE TO RURAL LAND REQUISITION SYSTEM

What has been discussed above proves that the strengthened land requisition system can not achieve the goal of cultivated land preservation; furthermore, it has generated many new problems such as the rocketing urban land price and living cost. Thus, the consolidation of the rural land requisition system is far from a success if judged by the goal it was supposed to achieve. The large disaccord of the goal and practical effects of rural land requisition has, greatly resulted from the neglect of other influential factors on cultivated land preservation. Several following factors may be important to help understand the trend of an accelerating decrease of cultivated land, which is opposite to the one expected to be achieved through the strict supervision of rural land requisition:

- First, the implementation of the *Statute of Returning Cultivated Land back to Forests*. Although *the Statute of Returning Cultivated Land back to Forests* was promulgated in December 2002, its experiments and implementation started to be carried out by the local government as early as from 1998 (People's Government of Wuhan, 1998). The promulgation of this statute indicates the effort to integrate cultivated land protection into a broader environmental protection system, and has imposed great influence on the implementation of cultivated land protection. The conversion from cultivated land to forestry land has become the most important reason for cultivated land decrease. In 2003, the percentage of this type of conversion reached as much as 78.6% (Li 2004).

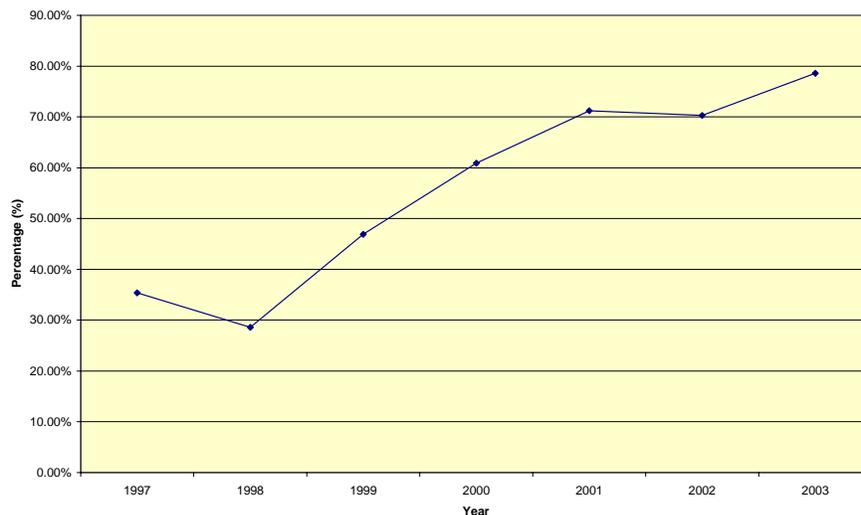


Figure 8- Percentage of cultivated land that was converted into forestry land (1997–2003)

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

- Second, the market force favoring horticultural use rather than cultivated use. The conversion from cultivated land into horticultural land, which is economically more profitable, was prevalent. This clearly suggests the strong effect of market force (Lin and Ho 2003). This conversion, undoubtedly, impaired the government's effort of conserving cultivated land use.

- Third, the low standard of rural land requisition fee. Although the amount of requisition fee has been increased by the central government through the revisions of Land Administration Law, it is still charged based on the value of agricultural land. Since the land value will increase dramatically after it is conveyed by the government as urban land, the land requisition fee has little power to keep cultivated land from conversion.

In addition to the above factors, the neglect of the inevitable trend of the urbanization process and its substantive need for land may be the most important reason to prevent the rural land requisition system from achieving its goal of cultivated land protection.

After the reform in 1978, the demand for urban land use was greatly increased. In addition to the conspicuous impulse of the economic prosperity, some factors are also important to help advance urban land growth, including the market correction of the under-development of housing and real estate development in the planned economy (Ding 2003), the relaxation of the urban population control policy (hukou) (Zhang 2000), the strengthening of local government's influence on land use issues, the financial reform which cut down central/superior government's fund on local government (Zhang 2000), and the low cost of land requisition in the suburban area (Ding 2003). The demand for new urban land is tremendous. According the prediction of the Ministry of Construction, from 2000 to 2020, the urbanization ratio of China may increase from 30% to 50%. That means the cities and towns would have to provide land urban facilities to accommodate additional 1% of the country's population every year, which is equal to more than 10 million people for China.

The strengthening of the rural land requisition has seriously constrained the supply of rural land growth. The result is not only the rise of urban land price and living cost and the transition of urban spatial growth pattern, but also the prevalence of illegal conversion through black market. Lin noted in his research that, from 1993 to 1996, for which data are available, the cultivated land illegally taken away for various development purposes amounted to 76,000 hectares, which was about 18 percent of that legally approved for conversion. This still did not include the numerous cases of illegal land use conversion that were never caught. In terms of the amount of cultivated land illegally converted for development purpose, state units and collective organizations were responsible for the majority (67 percent) of the total area of the cultivated land illegally taken away for other use (Lin and Ho 2005).

## **CONCLUSION**

The consolidation of the rural land requisition system shows the central government's ambition to achieve the national goal through the direct control on local issues. This is basically following the way of land disposition in the planned system which was prevalent before the reform. However, neglecting the tremendous need for urban land growth and directed by the notion of treating urbanization as a threat to cultivation or food production within the complex market-oriented economic system, the rural land requisition system seems difficult to achieve its goal of conserving cultivated land. Furthermore, the consolidation of the central government and the land administration

sectors' power on land requisition could seriously impair the operation of the land market, constrain the urgent demand of urbanization, and result in the emergence of black markets for land requisition.

The basic reason for the frustration of the rural land requisition system is that urbanization, whose land supply is strictly controlled by the rural land requisition system, is not the principal reason for the decrease of cultivated land area; while at the same time, some important factors beyond the control of rural land requisition system, such as the policy of *Returning Cultivated Land back to Forests*, the market force favoring horticultural use rather than cultivated use, and the low standard of rural land requisition fee, have all greatly accelerated the cultivated land decrease.

Since cultivated land protection is driven by various factors, its approach needs a comprehensive strategy rather than a simply quantitative control of land requisition. Instrumentally, the adjustment of the policy should carefully consider all the important factors that may result in the degradation of cultivated land, and focus on the most important ones, such as adjustment within agricultural structure and natural disasters, and calculated the influence of the new policy on the other social-economic goals. In the philosophy level, it should be realized that as the urbanization and industrialization will accelerate as a consequence of economic growth and structural change, further reduction of cultivated land is therefore an inevitable trend that the government will never be able to reverse (Lin and Ho 2003). What needs to be urgently solved in future may not be how to prevent the rural or cultivated land from converting, but how to achieve a transparent and accountable transition.

## REFERENCES

- Ash, R. F. and R. L. Edmonds (1998). "China's land resources, environment and agricultural production." The China Quarterly(156): 836-879.
- 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, B. and S. Li (1998). "Analysis of the farmland losses in China: 1986-1995." Progress in Geography (in Chinese) **17**(3): 43-50.
- 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.
- Cui, X. (1995). "Dui midaizi shengzhang zerenzhi de jidian zhengcexing sikao (Some policy thoughts on the provincial governor responsibility)." Rural Investigation (in Chinese)(10): 10-15.
- Ding, C. (2003). "Land policy reform in China: assessment and prospects." Land Use Policy **20**(2): 109.
- Ding, L. (2004). "Preliminary study on the current farmland aquisition 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.
- 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.
- Ke, B. and R. Tang (1996). "Price spiral of agricultural products, inflation and macroeconomic control." Chinese Agricultural Economics (in Chinese)(7): 3-8.
- 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, Y. (2000). Zhongguo tudi ziyuan (Land Resources of China). Beijing, Zhongguo dadi chubanshe (China Land Press).
- 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.
- Lin, G. C. S. and S. P. S. Ho (2005). "The State, Land System, and Land Development Processes in Contemporary China." Annals of the Association of American Geographers **95**(2): 411-436.
- 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.
- 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. (1999). "China's agricultural land." The China Quarterly(158): 414-429.
- Sun, L. and X. Li (1997). "Driving Forces of Arable Land Conversion in China." International Institute for Applied Systems Analysis.
- Wu, X. (2003). "Who takes the farmers' cheese?" Urban and Rural Construction (in Chinese) **11**.
- Yang, H. (1999). "Growth of China's grain production 1978-1997: a disaggregate analysis." World Development **27**(12): 2137-2154.
- 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.
- Zhu, L. (2004). "Study on "cultivated land gross area dynamic stable regulation". "Journal of Huazhong Agricultural University (in Chinese) **51**: 47-50.

---

<sup>1</sup> In the 1998 Land Administration Law, a land use regulation system which demands the enacting of general land use plan in all levels of government was first established.

<sup>2</sup> All the *Basic Cultivated Land*, cultivated land over 35 hectares, and other land over 70 hectares must be supervised and approved by the State Council.

<sup>3</sup> Article 19 demands a control of the conversion from agricultural land to non-agricultural land. Article 31 demands a strict control of the conversion from cultivated land use to other use.

<sup>4</sup> This can be clearly found in the yearly bulletins of the Ministry of Land and Resources since 1986.

<sup>5</sup> From 1986 to 1995, of all the removed cultivated land, 62% were taken for agricultural production other than the cultivation of food staples, 21% went into construction projects carried out by the state and collectives, and the remaining 17% were caused by natural hazards and environmental degradation. The single-most important source of farmland loss has been structural changes within the agricultural sector (Lin and Ho 2003).