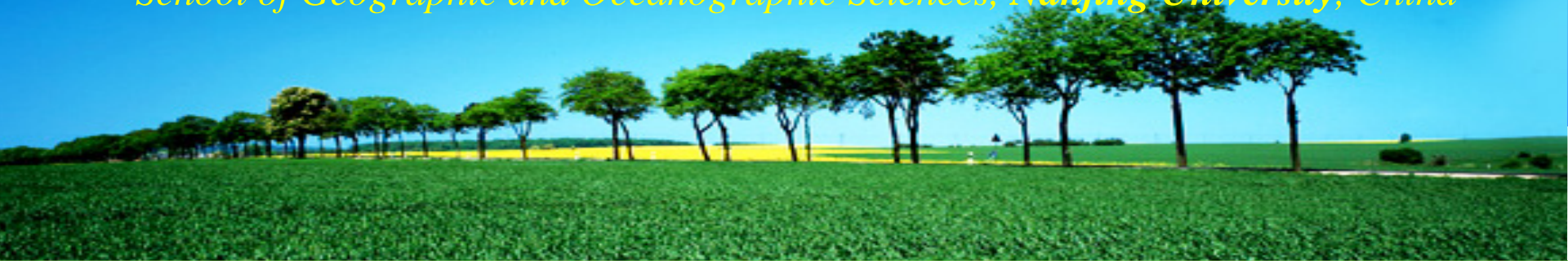


Success or Failure: Evaluating the Implementation of National Land Use Planning in China

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Contents

1

Introduction

2

Outlines of 3 Plans

3

Assessment of Plan Implementation

4

Discussions

5

Summary



Introduction

❖ **China's land use planning system**

Two systems: two major systems relevant with spatial planning in China-urban planning system and land use planning system.

Two laws: Land Administration Law, Urban and Rural Planning.

Nominally, government is in charge of these two systems, *Practically*, land use administration agencies and construction agencies at different level are responsible for overall land use planning and urban planning



Introduction

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Introduction

❖ **China's overall land use planning system**

Five level system: there are five level land use planning corresponding to Chinese administrative levels-national, provincial, municipal, county and town level.

Top-down method: There are requirement about the relationship between planning and its upper-level planning in land use.

“local governments' general land use plan must be made based on their upper-level government's general land use plan”



Introduction

❖ **China's national land use plans**

To date, there has been three national land use plans made.

The 1st plan: National Land Use Plan(Draft), 1993

The 2nd plan: National Land Use Plan(1997-2010), 1999

The 3rd plan: National Land Use Plan(2006-2020), 2008,
In effect nowadays.



Outlines of 3 Plans

❖ 1st plan

- Achieving **self-sufficiency in grain and staple produce** and maintaining the amount of arable land no less than **120 million ha**;
 - Raising the coverage rate of forest from 13 percent to 17 percent;
 - Properly increasing the amount of grassland;
 - **Ensuring the necessary supply** of land for construction, especially land supply for national key construction; enlarging urban and rural residential land and increasing transportation land and water facilities land;
 - Converting 2 million ha of arable land to construction land during 1991 and 2000;
 - Developing unused land, improving low and medium-yield arable land and strengthening the control of water & soil loss.
- .

Outlines of 3 Plans

❖ 2nd plan

- ❖ Retaining **arable land**: no less than **129.33 million ha** and **128.01 million ha** before 2000 and 2010 respectively;
- ❖ Maintaining the amount of **basic arable land** above 108.56 million ha;
- ❖ Increasing the area of forest land to 235.33 million ha and 249.99 million ha until 2000 and 2010 respectively;
- ❖ Increasing the area of grass land to 267 million ha and 268.67 million ha until 2000 and 2010 respectively;
- ❖ Strengthening the improvement of low and medium-yield arable land;
- ❖ **Containing** construction land expansion and **ensuring** supply of land for key construction project and infrastructure construction. Keeping the amount of newly increased construction land less than 1.36 million ha during 1997 to 2000 and 2.048 ha during 2001 to 2010; Converting arable land to construction use less than 1.9667 million ha;
- ❖ **Increasing arable land** by 4.408 million ha and 21.5427 million ha of other agricultural land during 1997 to 2010 by land consolidation & rehabilitation.
- ❖ **Improving land ecology and environment**. Converting 3.478 million ha of arable land due to the implementation of Grain for Green during 1997 to 2010; Decreasing the amount of land with water and soil loss by 50 million ha; Decreasing the amount of land with desertification by 22 million ha.



Outlines of 3 Plans

❖ 3rd plan

- ❖ Holding the **bottom line** of 1.8 billion mu of arable (**120 million ha**). Maintaining the amount of arable land no less than 121.20 million ha and 120.33 million ha before 2010 and 2020 respectively; Maintaining the amount of basic arable land above 104 million ha.
- ❖ **Ensuring the land supply** for development in a scientific way. Keeping the amount of newly increased construction land less than 1.95 million ha and 5.85 million ha during 2006 to 2010 and 2006 to 2020 respectively; Keeping the annual growth rate of production of secondary industry & tertiary-industry per unit of construction land over 6% (over 10% during 2006 and 2010);
- ❖ Keeping the **total amount of construction** land less than 33.74 million ha and 37.24 million ha before 2010 and 2020 respectively;
- ❖ **Increasing arable land** by 1.14 million ha and 3.67 million ha during 2006 to 2010 and during 2006 to 2020 by land consolidation & rehabilitation;
- ❖ Getting remarkable achievement in **ecological protection** regarding land;
- ❖ **Strengthening the role of land administration** in macro controls; Making significant progress in control of soil & water loss, land desertification, and farmland pollution.



Assessment of Plan Implementation

- ❖ Land statistical standards have been changed after 1996 land survey, it is almost impossible to evaluate quantitatively the first plan implementation by comparing its goals and outcomes.
- ❖ The 1st plan had not been implemented effectively([Cai, Zhang et al. 2009](#)).
- ❖ This study focused on the evaluation of the 2nd plan and the 3rd plan.

Assessment of Plan Implementation

❖ *Fulfillment of the goals of arable land protection*

Total amount of arable land:

Item	2000	2010
Actual	128.24 million ha	121.68 million ha
2 nd plan	129.33 million ha	128.01 million ha
3 rd plan		120.33 million ha

Basic arable land:

Year	2004	2006	2008
Actual	102.95 million ha	105.46 million ha	104.99 million ha
2 nd plan	108.56 million ha		
3 rd plan	104 million ha		

Conversion to construction use

Period	1997-2010	2006-2010
Actual	2.948 million ha	1.1165 million ha
2 nd plan	1.9667 million ha	
3 rd plan		1 million ha

Increase of arable land

Period	1997-2010	2006-2010
Actual	3.71 million ha	1.44 million ha
2 nd plan	4.41 million ha	
3 rd plan		114 million ha

Assessment of Plan Implementation

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Assessment of Plan Implementation

❖ ***Fulfillment of the contain construction land expansion***

Area of newly increased construction

An important indicator in the 2nd plan and 3rd plan, **No** corresponding statistical

Relation:

the amount of agricultural land conversion approved by government

<"area of newly increased construction">

total amount of construction land approved in each year

Result: it failed to meet the goal of newly increased construction land for the period during 1997 to 2010 in 2nd plan.

it cannot be determined whether or not the amount of newly increased construction land exceeded the goal of 1.95 million ha in the 3rd plan during 2006 to 2010.



Assessment of Plan Implementation

❖ ***Fulfillment of containing construction land expansion***

Total amount of construction land containment

*The system of land use classification was replaced by a new system in **August 2001**, difference concerning construction land*

The goals of total construction land were 35.98 million ha and 37.07 million ha for 2000 and 2010 respectively in 2nd plan. There 36.21 million ha of construction land in 2000([Ministry of Land and Resources 2001](#)), it *failed to meet 2000 goal* for total construction land in 2nd plan. The net increase of total construction land was 2.334 million ha during. The total amount of construction land was 36.413 million ha in 2001([Ministry of Land and Resources 2002](#)), the total amount of construction land was expected to be more than 38.747 million ha(36.413 plus 2.334The 2001).

It can be inferred that it also *failed to meet 2010 goal* for total construction land in 2nd plan.



Assessment of Plan Implementation

❖ ***Fulfillment of containing construction land expansion***

Total amount of construction land containment

Goal in 3rd plan: 33.74 million ha for 2010

Although the data regarding the total amount of construction land has been not available since 2009, It is also expected that the possibility of failure outweigh the possibility of success, compared with the goal of construction land in 3rd plan. Net annual increase of construction land was 389 thousand ha during 2002 to 2008(379 thousand ha during 2006 to 2008) and there was 33.058 million ha of construction land in 2008.

The amount of agricultural land conversion were 413.8 thousand ha and 374.9 thousand ha in 2009 and 2010 respectively.



Assessment of Plan Implementation

❖ *Fulfillment of goals regarding ecological conservation of land*

For 2nd plan: (A) During 2001 to 2008, there were 6.91 million ha of arable land converted to ecological use, for implementing the policy of Grain for Green, which is more than the target amount in the 2nd plan and National Eco-environmental Construction Plan.

(B) there were no statistical data available for other indicators.

For 3rd plan: The goals regarding land ecological preservation were qualitative rather than quantitative. So, it is impossible to quantify the achievement for these qualitative goals.

Discussions

❖ *Impact of uncertainty on plan implementation*

Item	Predicted			Actual		Departure		
	2nd Plan		3rd Plan			2nd plan		3rd plan
	2000	2010	2010	2000	2010	2000	2010	2010
	Total population	1.3 billion	1.4 billion	1.36 billion	1267.43 million	1339.72 million	-2.51	-4.31
Urbanization level		42-45%	48%		49.68%		10.22	3.5
Urban population		600 million			665.57 million		10.93	
Length of Highways		1.35 million km			4.0082 million km		196.90	
Length of Expressways		40,000 km			74,100 km		85.25	

Population, Urbanization, Transportation, Grain for Green



Discussions

❖ *Impact of coordination on plan implementation*

❖ *Horizontal coordination*

- ◆ The Ministry of Land and Resources is the government agency responsible for making national land plan and its implementation.
- ◆ The planning period of national land use plan is 15 years, however, there are usually five-years plan for construction, agriculture, forest, transportation development.
- ◆ It has been believed that the conflicts between land use planning and urban planning have been an obstacle for China's arable land protection.



Discussions

❖ *Impact of coordination on plan implementation*

❖ *Vertical coordination*

- ◆ **“Coordination” with its host planning:** national economic and social development planning is the superior planning of national land use planning, whose planning period usually is 5 year.
- ◆ **“Coordination” with local planning:** local governments have opted to oversupply arable land conversion to construction use and ignore the overall land use plan.
- ◆ **Asymmetric information** has given rise to local governments' ignorance of land use plan.



Discussions

❖ *Impact of coordination on plan implementation*

❖ *Vertical coordination*

- ◆ Many local governments ignored their own general land use plan. For most of provinces(18 province unit), the amount of arable land converted to construction use during 1999 to 2008 exceed the planned amount for the period 1997 to 2010 in the 2nd plan.
- ◆ In 2008, all provinces' arable land were below the minimum for 2010 required by 2nd plan.
- ◆ There were still 5 provincial regions whose total arable land were below the minimum for 2010 in the 3rd plan.
- ◆ Only 6 provinces met the minimum requirement about the amount of basic arable land in 2nd plan.
- ◆ There were still 11 provincial regions' arable land that were less than the minimum lines



Discussions

❖ *Impact of coordination on plan implementation*

❖ *Adaptive planning or planning failure*

- ◆ ‘new plan syndrome’: repeating the planning process to create a new plan.
- ◆ The planning period of the 1st, 2nd and 3rd plan were from 1986 to 2000, 1997 to 2010 and 2006 to 2020 respectively, and they were authorized in 1993, 1999 and 2008 respectively.
- ◆ In 2010, **total population** was about **4.3** percent less than the predicted number. The **arable land** was about **5.9** percent less than the object for 2010 in 2nd plan, 128.01 million ha of arable land.
- ◆ The obvious changes includes significant decrease of grain and the remarkable increase of fruit, meat and milk.
- ◆ “Hidden” arable land: Arable land were intentionally not reported by local governments.
- ❖ As far as arable land and garden land retaining, it is more adaptive planning than planning failure for the implementation and the 3rd plan lowering the amount of arable land retaining, in consideration those factors mentioned above.



Discussions

❖ *Impact of coordination on plan implementation*

❖ *Adaptive planning or planning failure*

- Unfortunately, the grass land experienced an decrease during 1996 to 2008, despite planed increase in 2nd plan. Furthermore, the 3rd plan gave way to the decrease trend of grass land and set a lower object regarding grass land than that in 2nd plan.
- The **pollution of arable** land is intractable issue for national land use planning's goal of food security
- Two popular sayings about the amount of contaminated cultivated land: **20 million ha,**
10 million ha.
- The **hidden loss** of farmland has exceeded the **explicit loss** of farmland due to conversion to other uses during 1996 to 2008, which was **8.3 million hectare.**
- The 3rd plan listed strengthening the prevention of arable land pollution as one of its major goals, it is only a qualitative goal and being faced with many challenges.

❖ *planning failure with adaption*

Summary

The fulfillment of goals in the 2nd and 3rd national land use plans

		The 2nd Plan		The 3rd Plan
		For 2000	For 2010	For 2010
Arable land protection	Total amount of arable land	×	×	√
	Amount of basic arable land	Without goals	×	√
	Amount of arable land converted to construction use	Without goals	×	×
	Increase of arable land by land consolidation & rehabilitation	Without goals	×	√
Containing construction land expansion	Total amount of construction land	×	×	×(Failure with high possibility)
	Area of newly increased construction land	Indeterminate	×	Indeterminate
	The annual growth rate of production of secondary industry & tertiary-industry per unit of construction land	Without goals	Without goals	Indeterminate
Ecological conservation of land	Arable land conversion to ecological use	Without goals	√	No quantitative goal
	Newly increased area of water and soil conversation	Without goals	√	No quantitative goal
	Land pollution prevention and control	Without goals	Without goals	No quantitative goal
	Others	Without goals	Indeterminate	No quantitative goal

Uncertainty, difficulties in coordination, etc has affected the success of plan implementation.

There has been also passive adaptation in planning.

Thank You !

