



Land Reallocation in Land Consolidation: A Chinese Mode and Its Future Direction

By Xiaobin Zhang



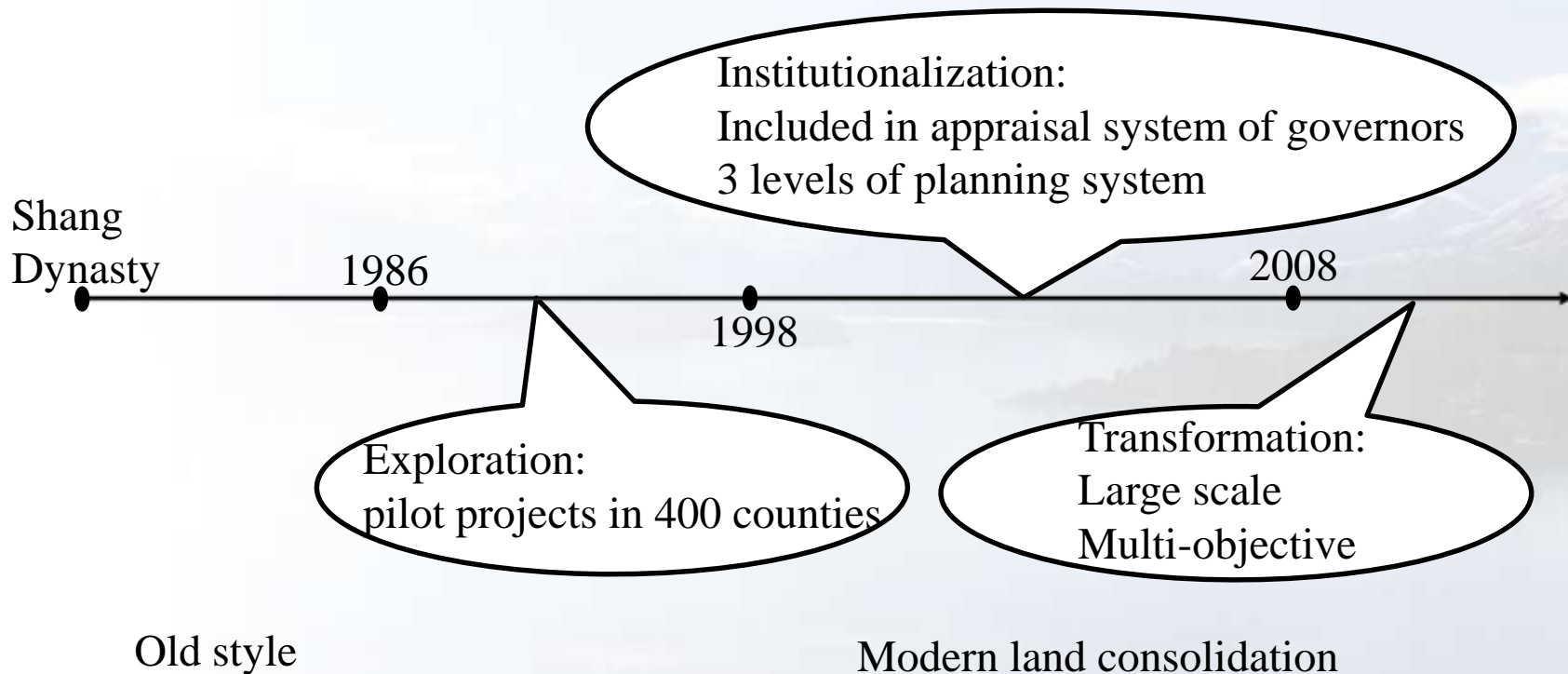
Objectives:

- To introduce land reallocation system in China
- To reveal challenges
- To show what are taking place through a land consolidation project in Jiangxi
- To give some suggestions on what should be done



1. Land reallocation in China

1.1 land consolidation





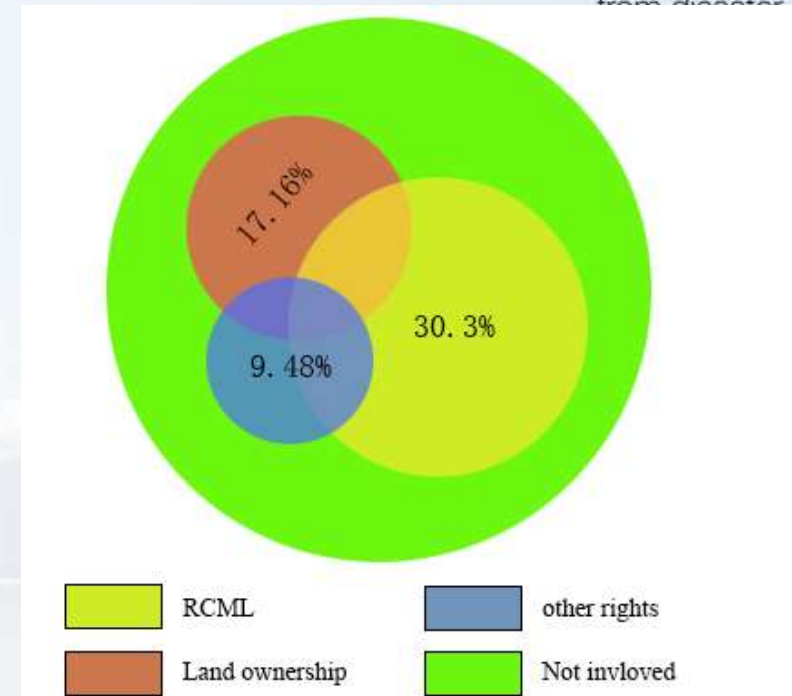
1.2 land reallocation

different types :

- Ownership
- Other rights

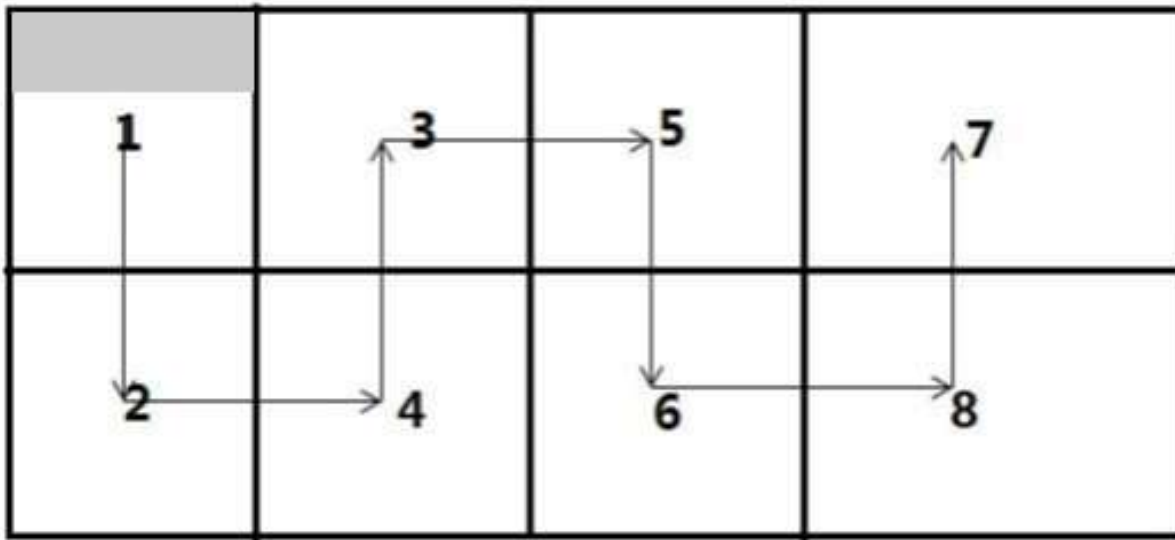
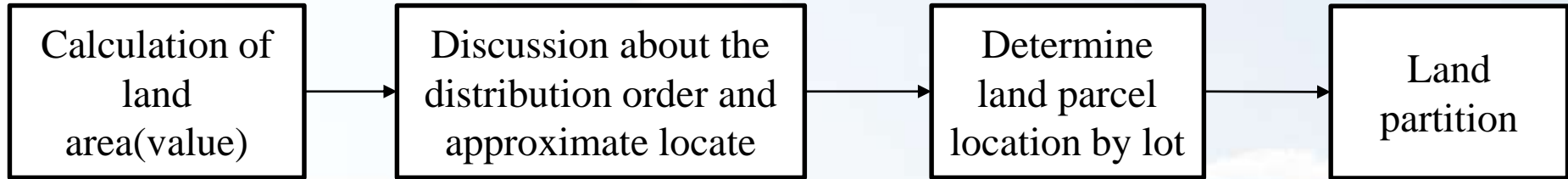
(lien, easement.....)

right to contracted management of land(RCML)





□ Specific procedure of land reallocation



Schematic diagram of land distribution order



Dominant doctrine: speed

some farmers disagree to reallocate their land?

so many factors make it hard to tradeoff ?

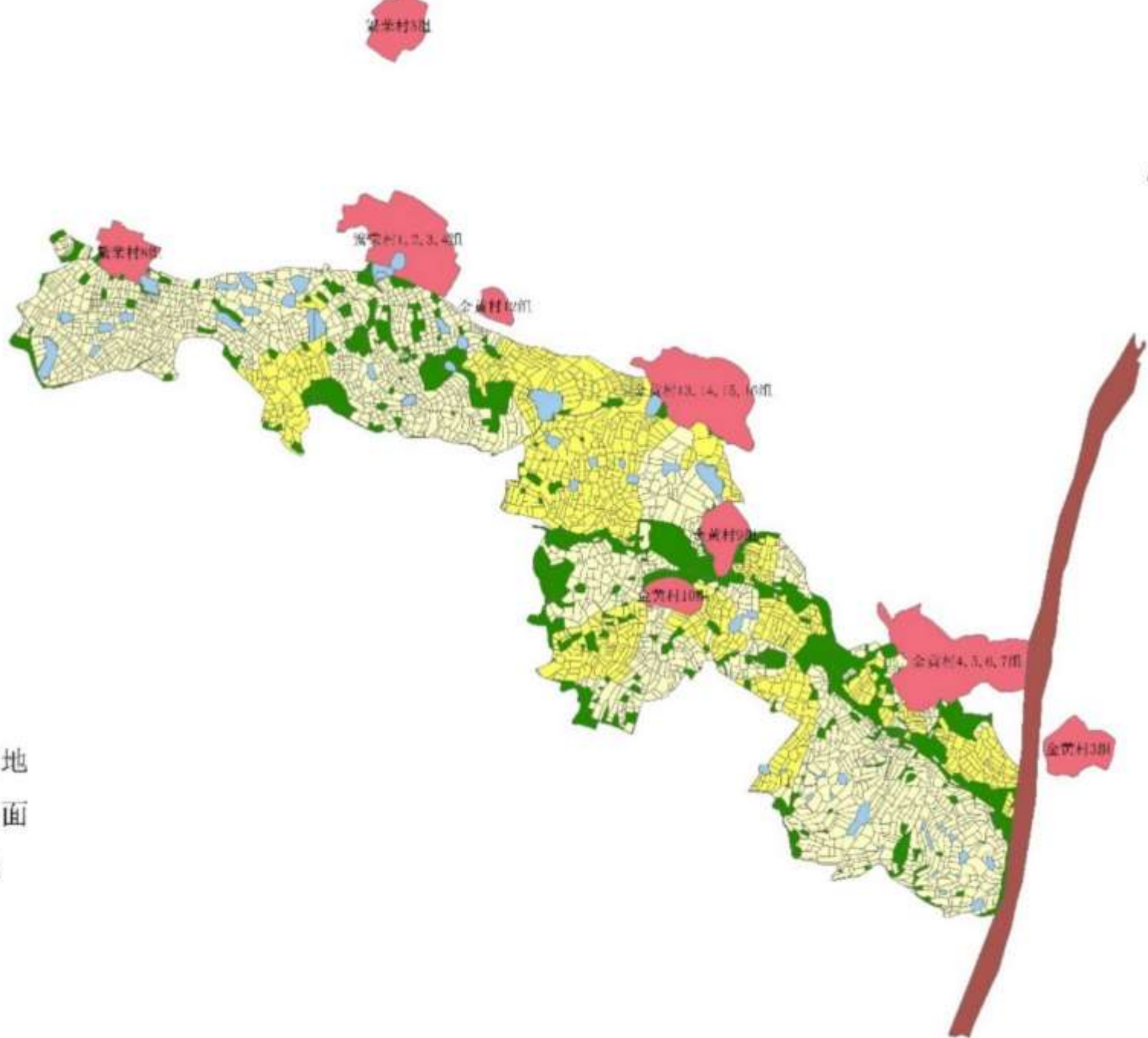
most people are not satisfied with the result?

Land reallocation: 2 weeks, land consolidation: 2 years



2. Challenges

- Scale farming
(Urbanization, industrial competition) → more demands
- Farmland registration →
 - more steps
 - higher precision
- The transformation of LC → more complex



- 公路用地
- 坑塘水面
- 有林地
- 村庄
- 水田



3.2 Different models of land reallocation

- Land reallocation by drawing lots
- Land reallocation based on linear programming

$$\text{Ob} = \sum_{i=1}^m \sum_{j=1}^n D_{ij} X_{ij} - \sum_{i=1}^m \sum_{j=1}^n F_{ij} X_{ij}$$

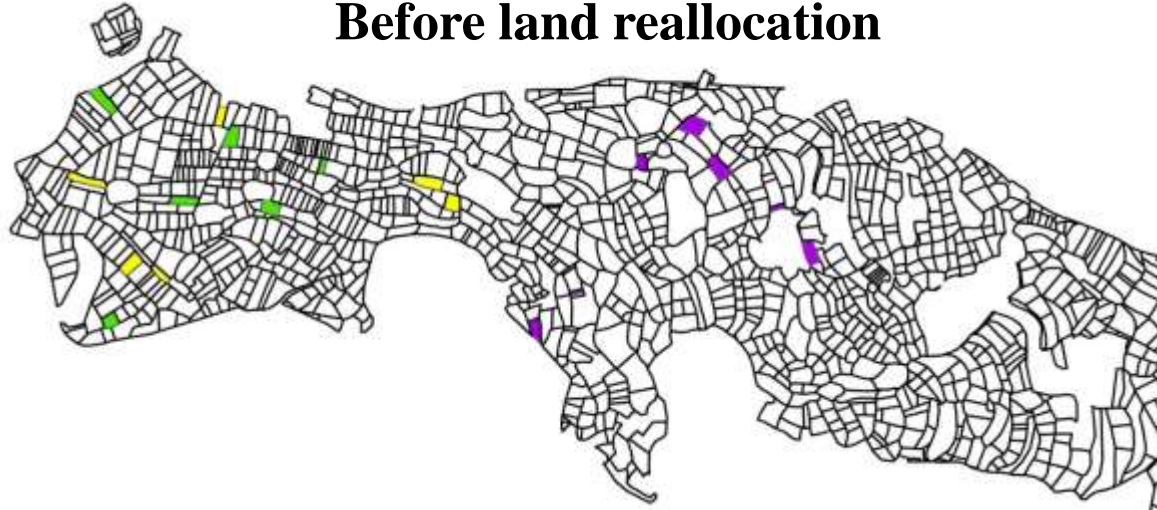
Subject to: $\sum_{i=1}^m X_{ij} = PA_j$

$$\sum_{j=1}^n X_{ij} = BA_i$$

Key factors:

- ❑ Original location of land parcels
- ❑ Settlements

Before land reallocation

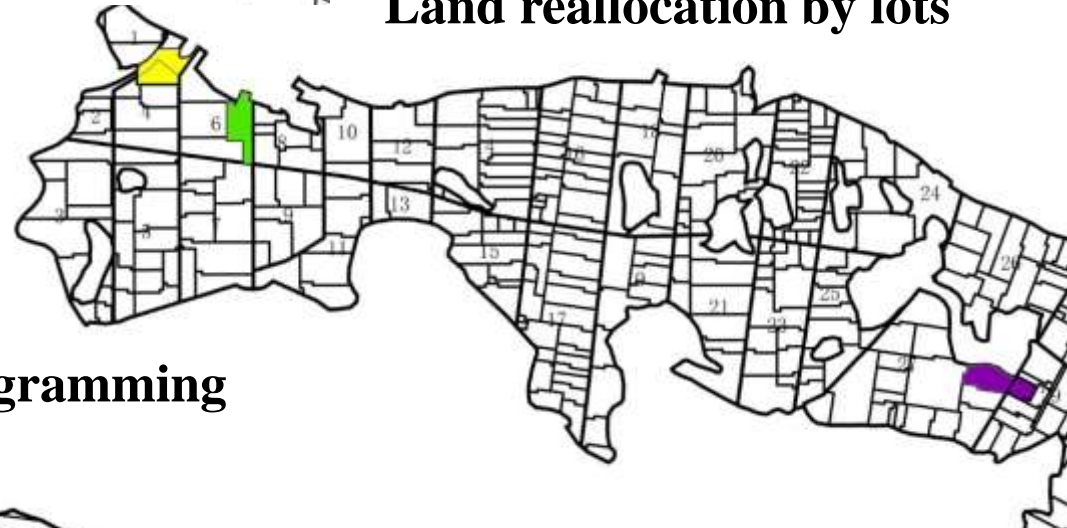


2016

Recovery

from disaster

Land reallocation by lots

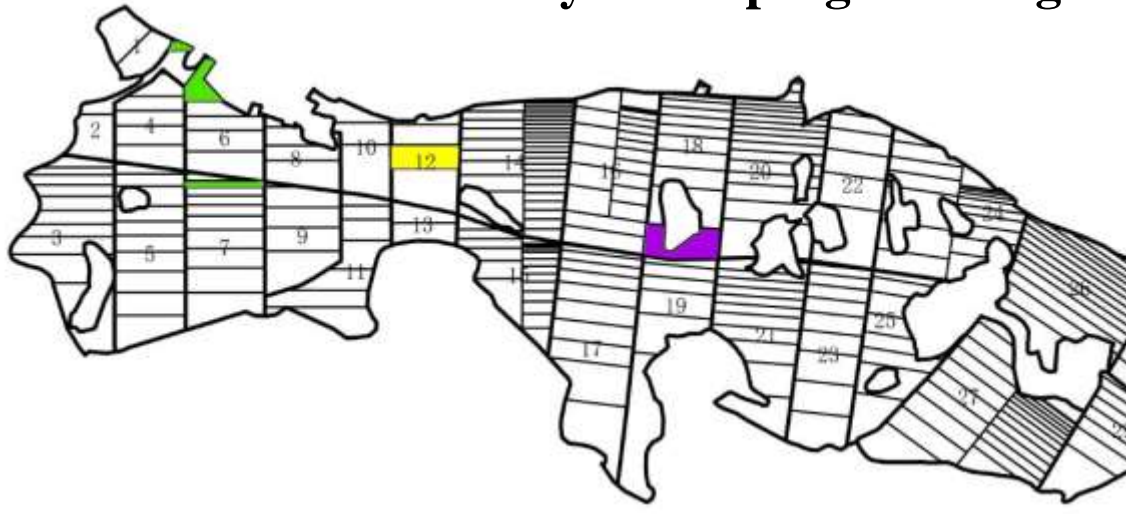


holding size: 0.24 ha

numbers of land parcels: 1.14

parcel size: 0.21

Land reallocation by linear programming



holding size: 0.23 ha

numbers of land parcels: 1.08

parcel size: 0.223

Platinum Partners:



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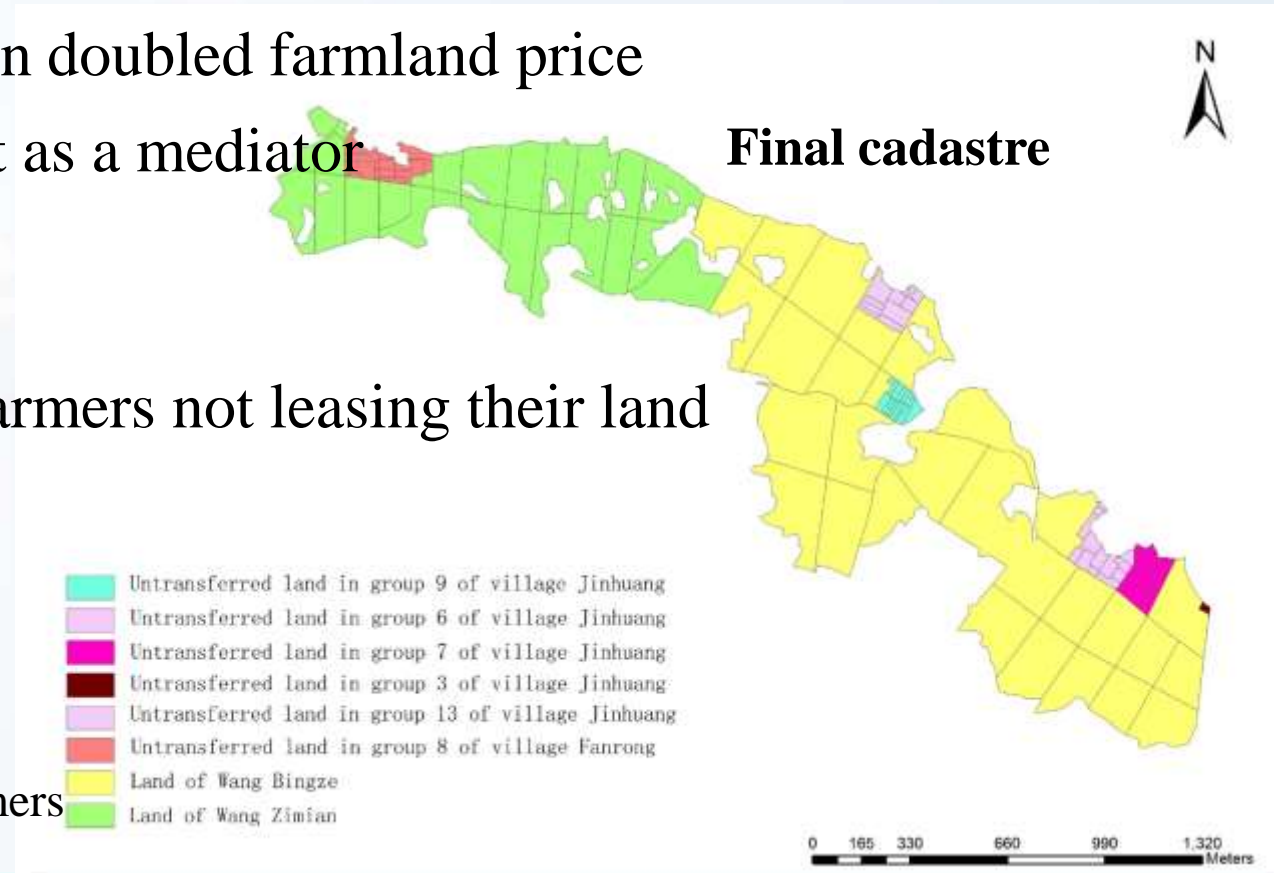


3.2 Land transfer based land reallocation

Key factors:

- Land consolidation doubled farmland price
- Local government as a mediator
 - Matchmaking
 - Mediation
- High priority of farmers not leasing their land
 - Best quality
 - Nearest location

↓
 638 out of 705 household
 transfer their land to 2 farmers





4. Future direction

- The administration aspect:

- Farmers behavior(participation)
- Legislation
- The initial of land consolidation



Farmers willingness

- The technical aspect:

- Farmland evaluation system
- Land location redistribution
- Land partitioning



Accuracy and efficiency



5. Conclusion

- Low ratio and traditional method of land reallocation in land consolidation can't adapt to new situation of China rural area
- new theory(Institutional Economics/ Game theory...) and new technology(GIS/SDSS...)
- A link between both technical and administrative improvement is necessary



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Recovery

from disaster

Thank you for your attention



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