



南京農業大學
(NanJing Agricultural University)

Research overview at College of Public Administration

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Research topics

■ Sustainable land use

- ✓ Sustainable land use in Jiangxi province (rice field) and Qinghai province (grassland) (SERENA project and KNAW-MOST project)
- ✓ Cotton production, resource use and small farm household livelihood strategies in Southwest Xinjiang (CEP project by KNAW)

■ Peri-urban development, land use, environment and horticulture production (SEARUSYN project)

- ✓ Integrated development in peri-urban area

■ Water issues

- ✓ Agricultural non-point source pollution in Taihu lake (LUPIS project)
- ✓ Water shortage and land use in Gansu province (KNAW-MOST project)



Research topics

- Farmland conversion (NSFC project)
 - ✓ At national and provincial (regional) level

- Land use planning and land resource management (other projects from NSFC and local government)
 - ✓ At Jiangsu provincial and national level



- From north to south:
1. Southwest of Xinjiang province
 2. Gansu province
 3. Qinghai (lake area)
 4. Northeast of Jiangxi province
 5. Nanjing (Jiangsu province)
 6. Taihu lake (Jiangsu province)
 7. Hebei & Beijing (Miyun Reservoir)
 8. Ningxia (south)
 9. Yunnan (Dianchi)



Cotton production, resource use and small farm household livelihood strategies in Southwest Xinjiang

■ Research questions

- ✓ How livelihood strategies of small farmers in Southwest Xinjiang are changing in the wake of institutional transformations



Cotton production, resource use and small farm household livelihood strategies in Southwest Xinjiang

- ✓ What will be the effect of further development of input and output markets on small farm households' income generation, poverty reduction and (un)-sustainable resource use
 - Cotton production and poverty alleviation
 - Impact of cotton production on land resource and water resource use
 - Impact of cotton production and water allocation system on water use and eco-system in the downstream of Talimu River



Cotton production, resource use and small farm household livelihood strategies in Southwest Xinjiang

■ Research activities

- ✓ Household and village level survey on August and Nov. 2008
- ✓ Water Property Rights and Land Property Rights: Which matters?
- ✓ Shifting Livelihood Strategies of Small Cotton Farmers in Southern Xinjiang



Peri-urban development, land use, environment and horticulture production (SEARUSYN project, 2003-2006)

■ Research questions

- ✓ How to integrate peri-urban land use, environmental protection and horticulture production
 - Stakeholder platform building
 - Running the stakeholder platform
 - Impact survey about urban development on rural household's livelihood strategies, land use and environment
 - Scenarios for the synergy of urban development, land use and horticulture development



Sustainable land use in Jiangxi and Qinghai province

■ Research questions in Jiangxi province

- ✓ Impact of off-farm employment on farm production, factor market development and sustainable land use
- ✓ Land fragmentation, land tenure and rice production
- ✓ Land rental market and off-farm employment
- ✓ Village economics



Sustainable land use in Jiangxi province and Qinghai province

- Research in Jiangxi province has collected
 - ✓ Plot level data (around 280) for 2002, household level data (340) and village level data (three villages) for 2000 and 2005

- Further research in Jiangxi province
 - ✓ Rural biomass energy use
 - ✓ Forestland management and tenure reform
 - ✓ Trust and resource management



Sustainable land use in Jiangxi province and Qinghai province

■ Research questions in Qinghai province

- ✓ Grassland degradation (Tan Shuhao)
- ✓ New technology for protecting grassland
- ✓ Grassland tenure reform and grassland protection
- ✓ Household level data (250/2006) collected



Research topics and findings on farmland conversion (Jiangxi province & national)

Research topics:

- Farmland conversion processes and their impact on cultivated land, social welfare (food security, livelihood), and environment

Major findings:

- Estimated over-loss of farmland is around 1/4 of total converted farmland
- Improvement of land market structure will improve the social welfare



Research topics in Gansu province

Research topics

- How do institutions (water allocation, contract farming, land tenure) change in response to potato market development?
- Impact of potato growing on crop choice & crop yield
- How can the water stress in potato growing be reduced?
- Determinants of water-saving investments & technologies

Baseline survey

- villages (21)
- water user associations (21)
- farm households (310)
(collected in early May, 2008)



Research topics in Jiangsu province (Taihu Lake)

Research topics

- Factors affecting household use of fertilizers and pesticides
- Factors affecting households' adoption of environment-friendly technologies
- Potential downstream – upstream compensation mechanisms

Survey

- Villages (32)
- Households (320)
- Animal production industries (around 45)
- In collection process (mid of July, 2008)



Research topics about land use planning and land resource management

- Farmland evaluation and assessment
 - ✓ In Jintan area of Jiangsu province
- Land use planning system
 - ✓ Involved in the reform of land use planning system at national level
- Land use planning in practice
 - ✓ Mainly in Jiangsu province
- GIS application and land use planning
 - ✓ Mainly in Jiangsu province



Thank you!
(谢谢!)