



FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:
Resilient Environment
and Sustainable
Resource Management
for All

Presented at the FIG Working Week 2024,
19-24 May 2024 in Accra, Ghana

Basic Farmland Protection System in China

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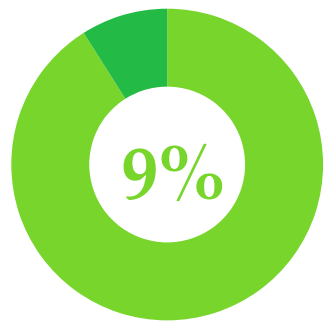


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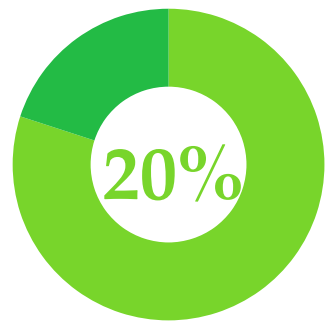
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Farmland



Population

Basic Farmland Protection System

- Changes
- Conflicts
- Prospects

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Changes in China's Basic Farmland Protection System

● Exploration of basic farmland protection (1963-1978)

To gradually establish basic farmland with a high capacity to resist drought and flooding and achieve high yields through water and soil conservation. (The Working Meeting of Water and Soil Conservation for the Lower Reaches of the Yellow River, 1963)

☑ Improving farmland quality



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● Delimitation of Basic Farmland Protection Zones (1979–2007)

- Delimited basic farmland protection zones in Jingzhou city, 1988
- Delimited basic farmland protection zones throughout the country, 1992
- *Regulations on the Protection of Basic Farmland*, 1994
- *Environmental Protection Regulations for Basic Farmland Protection Zone (Trial)*, *Environmental Protection Regulations for Basic Farmland Protection Zone (Trial)*, 1996
- Basic farmland was included in the Land Management Law of the PRC, 1998

Maintaining farmland area



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Basic farmland: Farmland that must not be occupied by nonagricultural land use in accordance with the demands of the population, the requirements of socioeconomic development for agricultural products in a certain period and general land-use planning policies. (Regulations on the Protection of Basic Farmland, 1998)

● Delimitation of Permanent Basic Farmland (since 2008)

Permanent basic farmland: basic farmland **could not be changed to other uses under any circumstances and could not be used for other purposes in any way.** (The Third Plenary Session of the 17th Central Committee of the Communist Party of China, 2008)



Permanent protection

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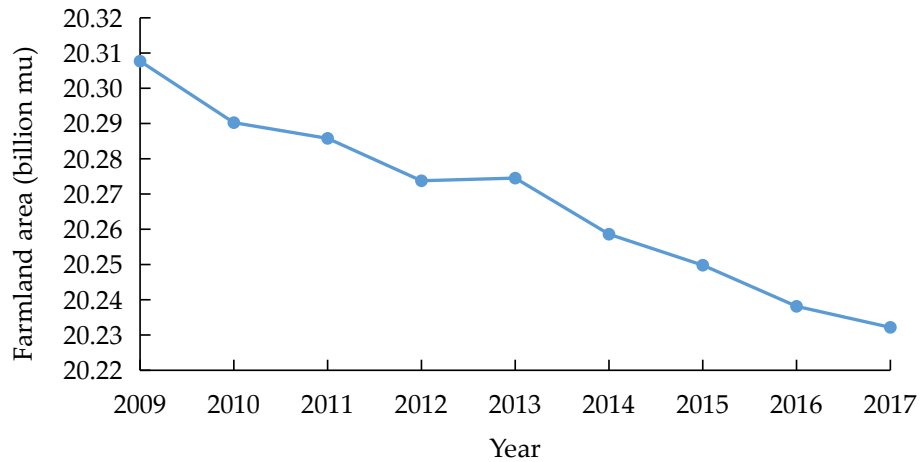
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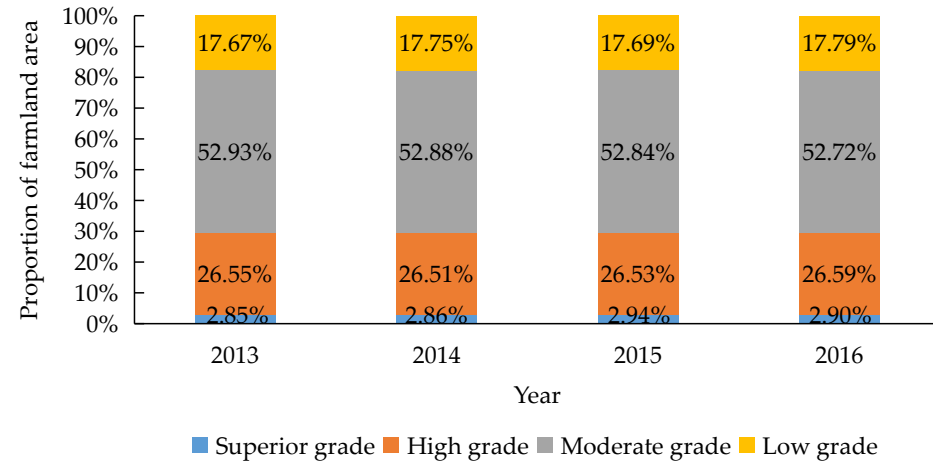
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Current Conflicts in Basic Farmland Protection

❑ Farmland Quality Cannot Meet the Quality Demand for Supplementary Delimitation of Basic Farmland



Changes in China's farmland area from 2009 to 2017.



Changes in China's farmland quality from 2013 to 2016.



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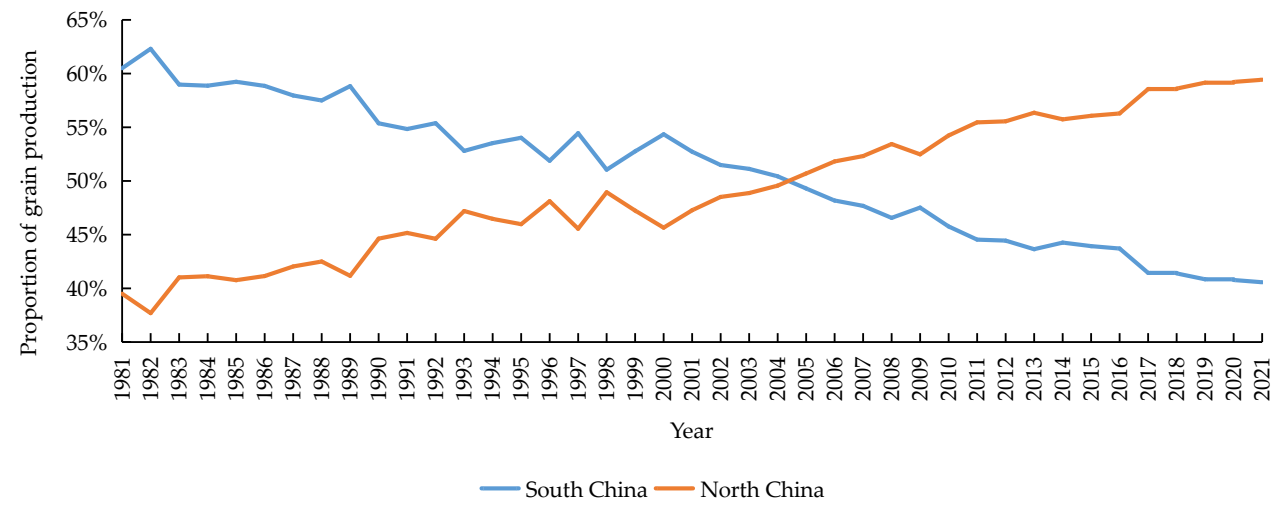
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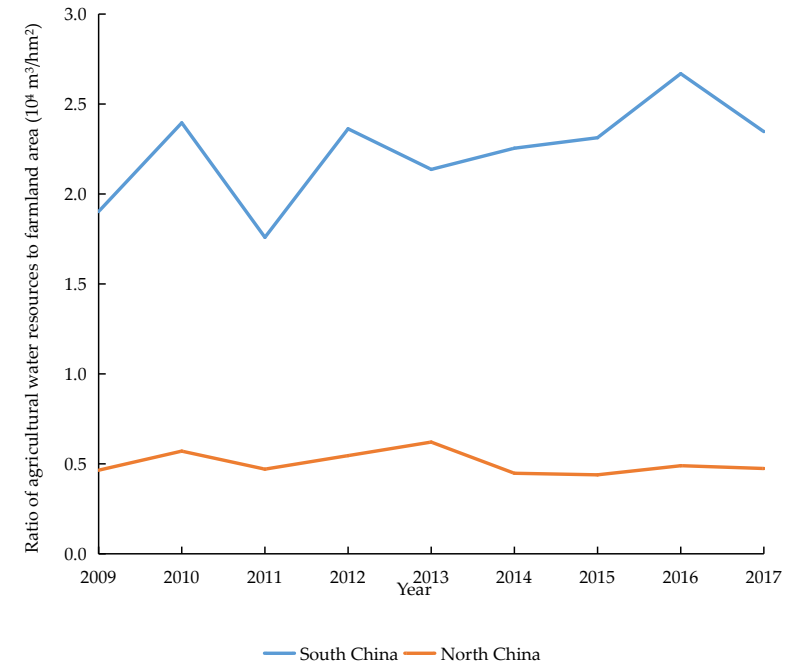
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❑ The Production Pattern Is Inconsistent with the Distribution of Basic Farmland Quality

North China VS South China



Changes in the proportions of grain production in South and North China from 1981 to 2021.



Changes in the ratios of agricultural water resources to farmland area in South and North China from 2009 to 2017.

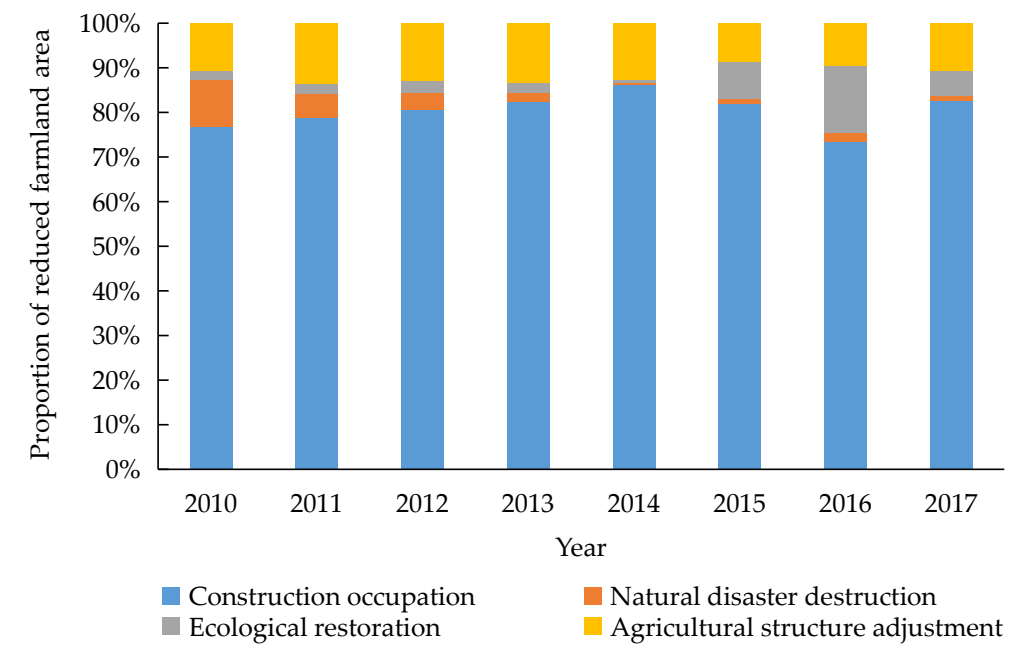
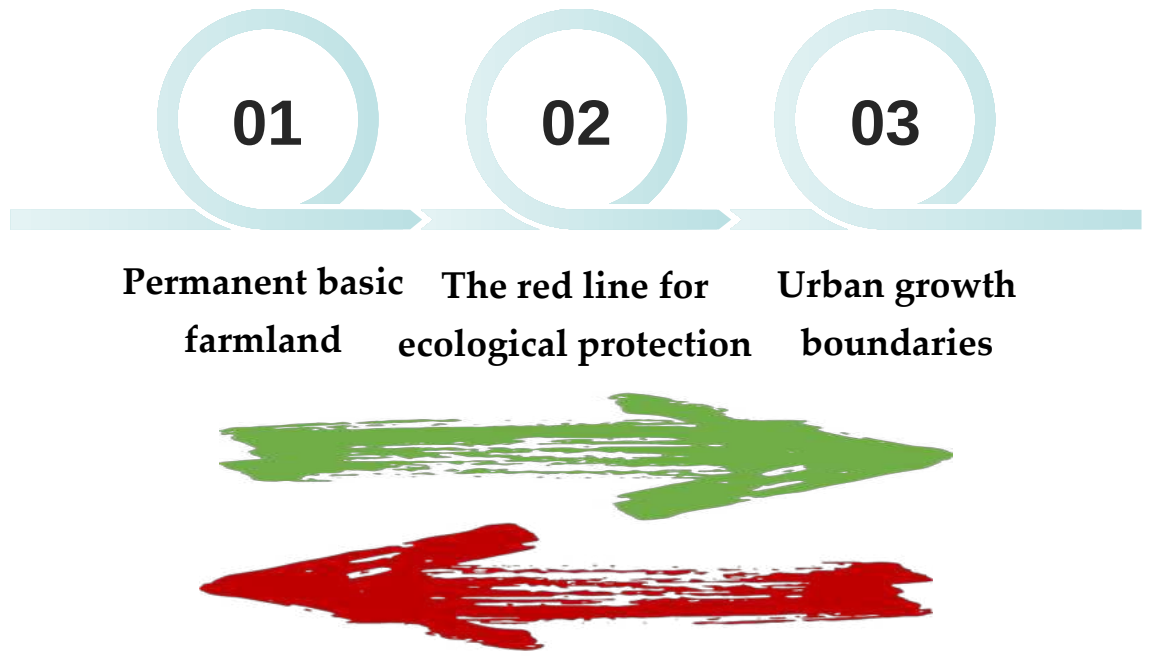


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Urban Development Threatens the Quantity of Basic Farmland



Changes in China's farmland reduction from 2010 to 2017



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❑ The Requirement of Basic Farmland Quantity Does Not Match the Demand for Food Security

Per capita consumption of major foods by Chinese residents from 2013 to 2021 . Unit: kg.

Year	Grains	Edible Oils and Fats	Vegetables and Edible Mushrooms	Meat and Meat Products	Poultry	Seafood	Eggs	Milk and Dairy Products	Dried and Fresh Melons and Fruit	Sugar
2013	148.7	10.6	97.5	25.6	7.2	10.4	8.2	11.7	40.7	1.2
2014	141	10.4	96.9	25.6	8	10.8	8.6	12.6	42.2	1.3
2015	134.5	10.6	97.8	26.2	8.4	11.2	9.5	12.1	44.5	1.3
2016	132.8	10.6	100.1	26.1	9.1	11.4	9.7	12	48.3	1.3
2017	130.1	10.4	99.2	26.7	8.9	11.5	10	12.1	50.1	1.3
2018	127.2	9.6	96.1	29.5	9	11.4	9.7	12.2	52.1	1.3
2019	130.1	9.5	98.6	26.9	10.8	13.6	10.7	12.5	56.4	1.3
2020	141.2	10.4	103.7	24.8	12.7	13.9	12.8	13.0	56.3	1.3
2021	144.6	10.8	109.8	32.9	12.3	14.2	13.2	14.4	61.0	1.3

Grain ration security



Grain security



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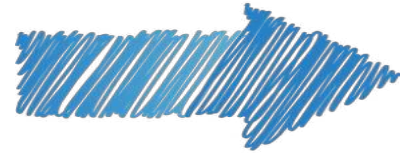
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□ The Use Conditions of Basic Farmland Cannot Meet the Needs of Modern Agriculture

Traditional agriculture



Modern agriculture

Eastern China's rural areas, 2015



The average farmland area per household, **0.27 ha**

The average number of farmland plots per household, **2.38**

The average size of each farmland plot, **0.11 ha**

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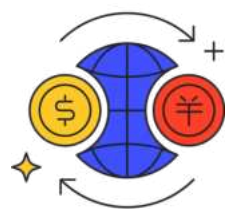
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❑ Restrictions on Basic Farmland Conversion Do Not Conform to Market Mechanisms



A use-control system
for basic farmland



Grain imports (2020)
 1.43×10^{11} kg



Farmers' interests



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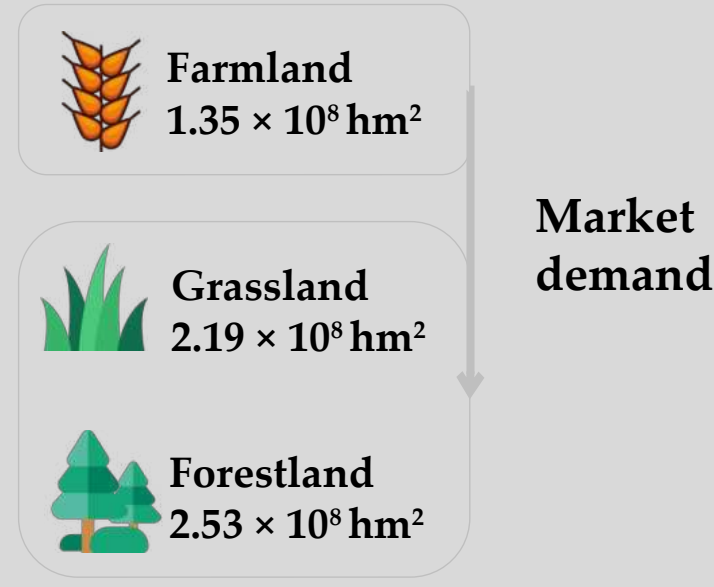
Improvements in China's Basic Farmland Protection System

Improving the Basic Farmland Delimitation System

Water and land

- North China
water conservation
large-scale management
- South China
land conservation
brand-based management

Supply and demand



Functions

- grain production
- microclimate regulation
- entertainment for residents

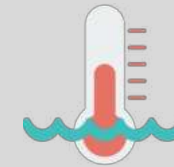




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Establishing a Classified Protection System for Basic Farmland

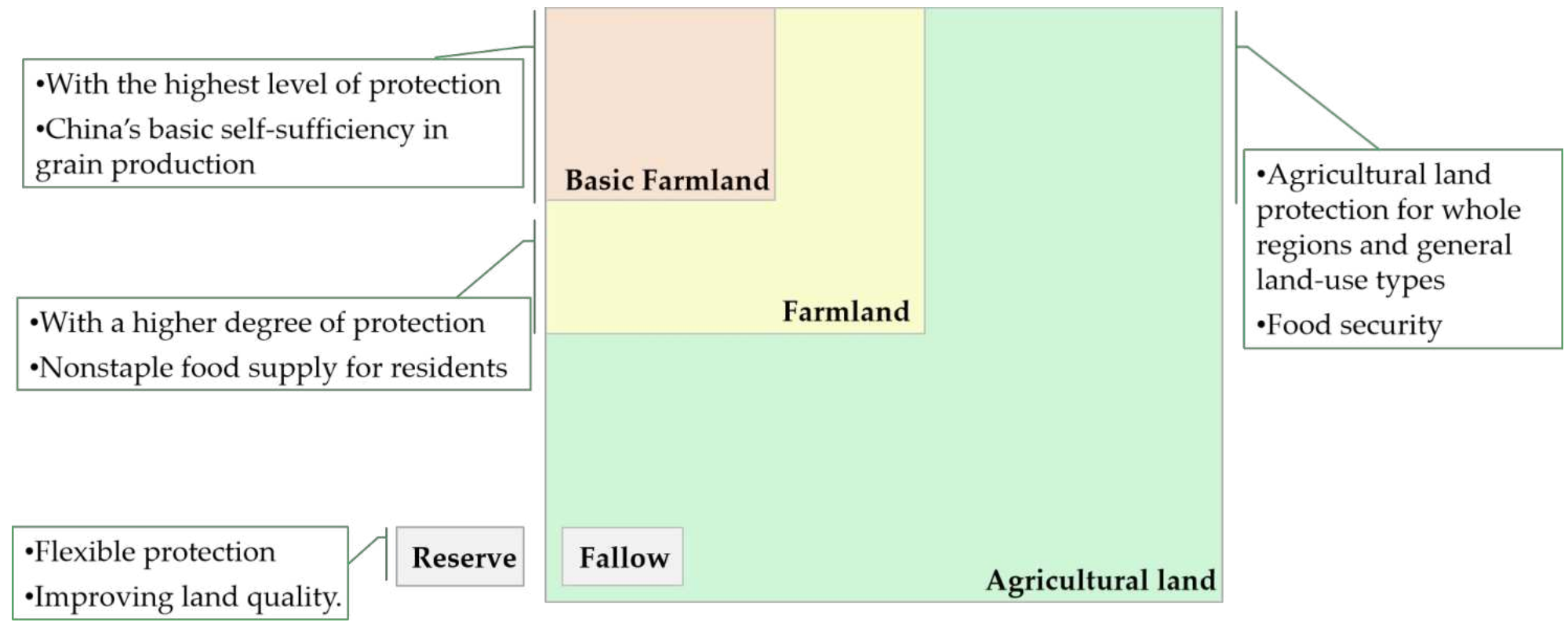




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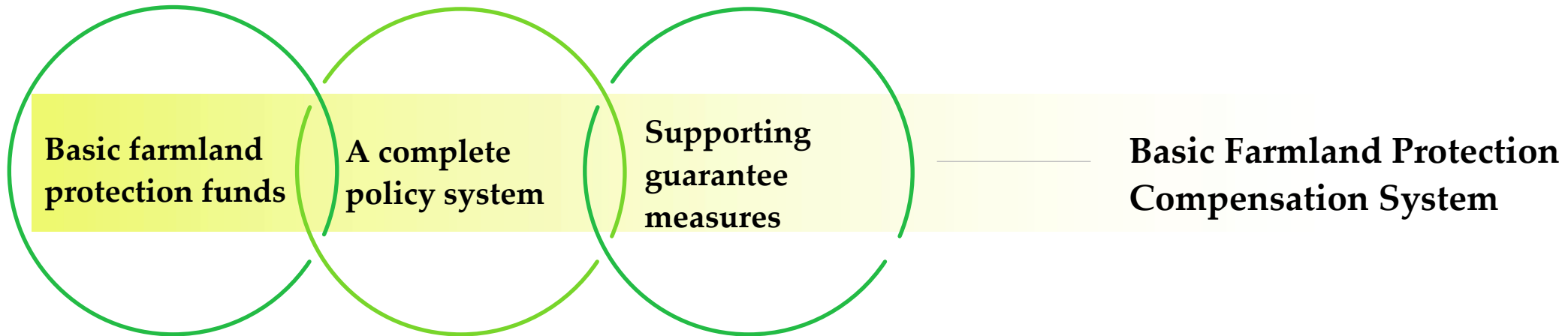
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Strengthening the Basic Farmland Protection Compensation System

Basic farmland use regulation **VS** Development rights of farmers



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GEOSA
Geographic Information
System





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Commission 8

Spatial Planning and Development

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