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Reposition Chinese Agricultural Support Policy for Transforming Agrifood System: Triple Wins

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Reposition Agricultural Support Policies for Multiple Goals



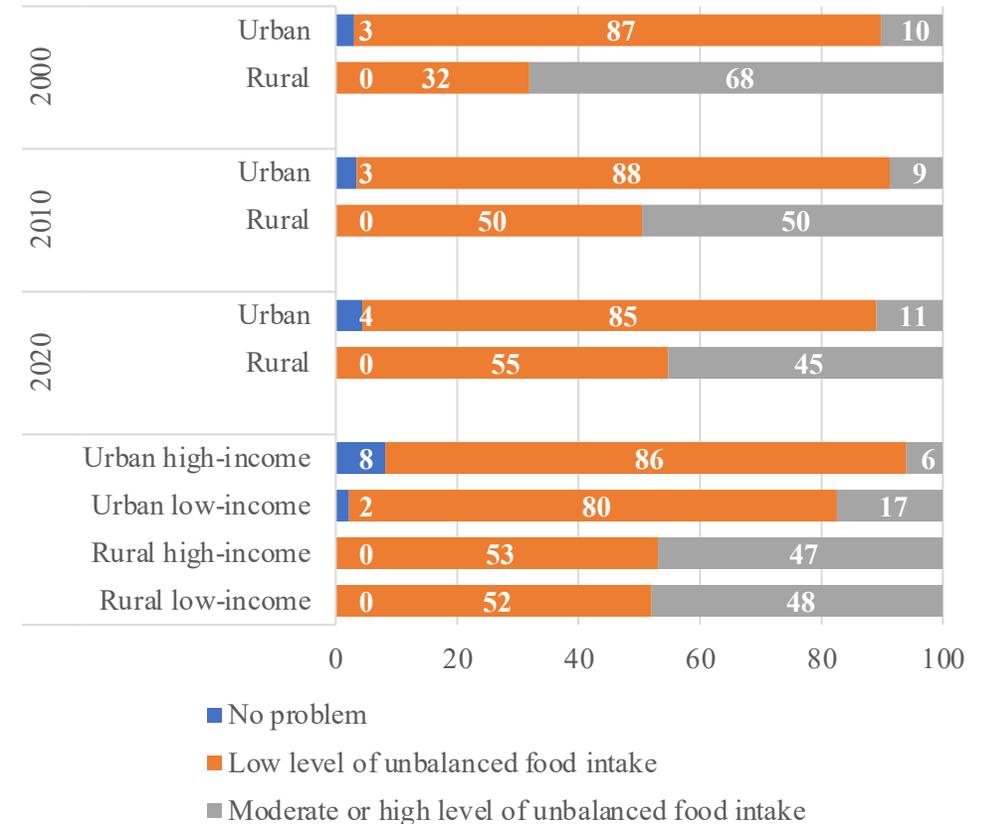
CHINA
AND GLOBAL
FOOD POLICY
REPORT

2022

REFORMING
AGRICULTURAL
SUPPORT POLICY
FOR TRANSFORMING
AGRIFOOD SYSTEMS

- **Multiple national development goals**
 - ✓ Food Security, Health China 2030, Carbon Neutrality in 2060, Common Prosperity
- **Challenge: Focus on staples, with inadequate support for healthy foods, sustainable development, and inclusiveness**
 - ✓ Unbalanced diets, particular for rural residents
 - ✓ Public spending on agricultural green development was less than 5 percent in 2020
 - ✓ Urban-rural income ratio was as high as 2.5 in 2021
- **Agricultural support policies need to be repositioned**

Distribution of balanced dietary structure of Chinese people by rural and urban and by income



Effects of Full and Partial Removal of Grain Subsidies

■ Full removal of grain subsidies. In 2030, compared to the baseline:

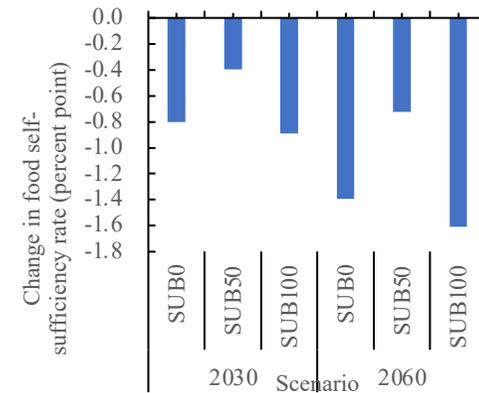
- ✓ **Food security** : cereal prices ↑ 18-22%, production ↓ 2%, imports ↑ 38-46%, livestock production ↓ 0.5%-1.2%
- ✓ **Income**: rural household ↓ 0.1% , low-income group ↓ 0.2%
- ✓ **Nutrition**: 3% residents' dietary quality ↑
- ✓ **Emissions**: agrifood system ↓ 0.6%

■ Shift half of grain subsidies to nutritious and low-carbon foods will have little negative impact on food security, can improve dietary quality and reduce emissions

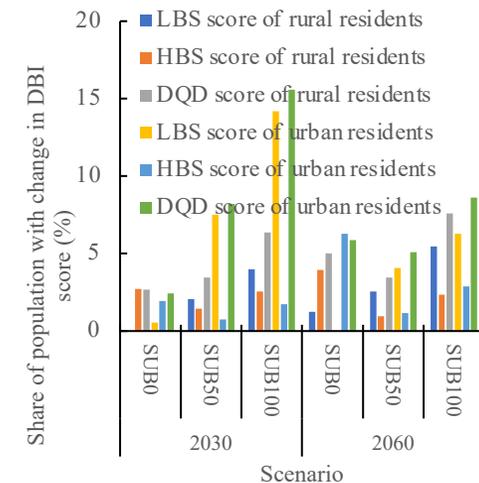
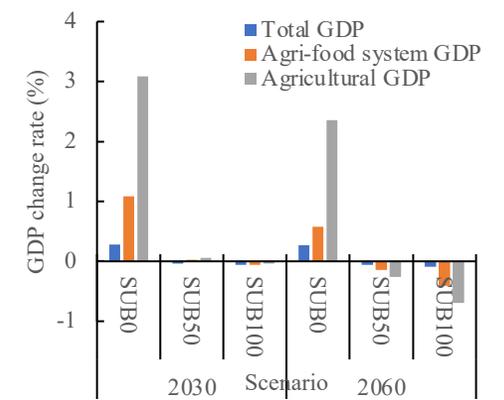
- ✓ **Food security**: price of cereals ↑ 9-10%, production ↓ 0.8%, fruit and fish production ↑ 1.9% and 1.6%, price ↓ 4.5%
- ✓ **Nutrition**: residents' dietary quality ↑ 3%-8%
- ✓ **Emission**: agrifood system ↓ 0.3% ~ 0.4%

Impacts of repositioning grain subsidies

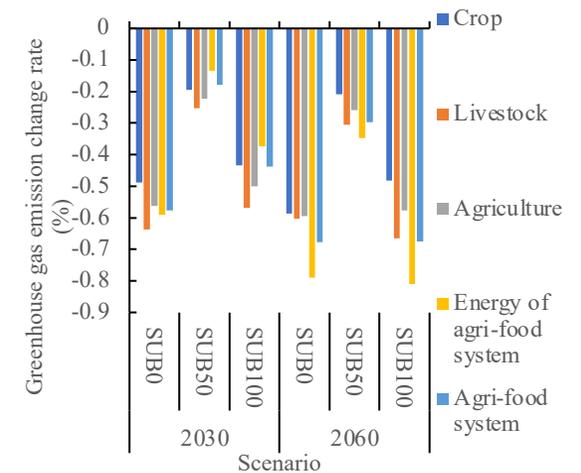
Food security - Change of self-sufficiency rate



Economic efficiency - Rate of return on investment



Nutrition - Change of dietary quality score



Environment - Change of carbon emission

Effects of Increasing Investment in High-Standard Farmland

- Increasing high-standard farmland by 20 million ha; total investment of about 900 billion CNY; gradual completion by 2030. Yield 15% ↑; Fertilizer utilization efficiency 10% ↑

The National High-Standard Farmland Construction Plan (2021-2030) proposes to be 80 million ha by 2030

2060 compared with the baseline

- ✓ **Food security:** Grain production 3% ↑; imports 23% ↓, price 13% ↓; Meat, Milk and aquatic products production 1% ~ 2% ↑
- ✓ **Returns on investment:** For every 1 yuan invested, agricultural GDP 2.2 CNY, AFS GDP 4.7 CNY and national GDP 10.8 CNY
- ✓ **Nutrition:** Rural and urban residents with nutritious food intake deficiency, 4% ↓ and 5.7% ↓, respectively
- ✓ **Emission:** Crop 3.7% ↓, Livestock 1.7% ↑, Agriculture 0.8% ↓

Agri public investment effects on grain market--contrast with baseline (2060)



Agri public investment effects on other agri-product market -- Contrast with baseline (2060)



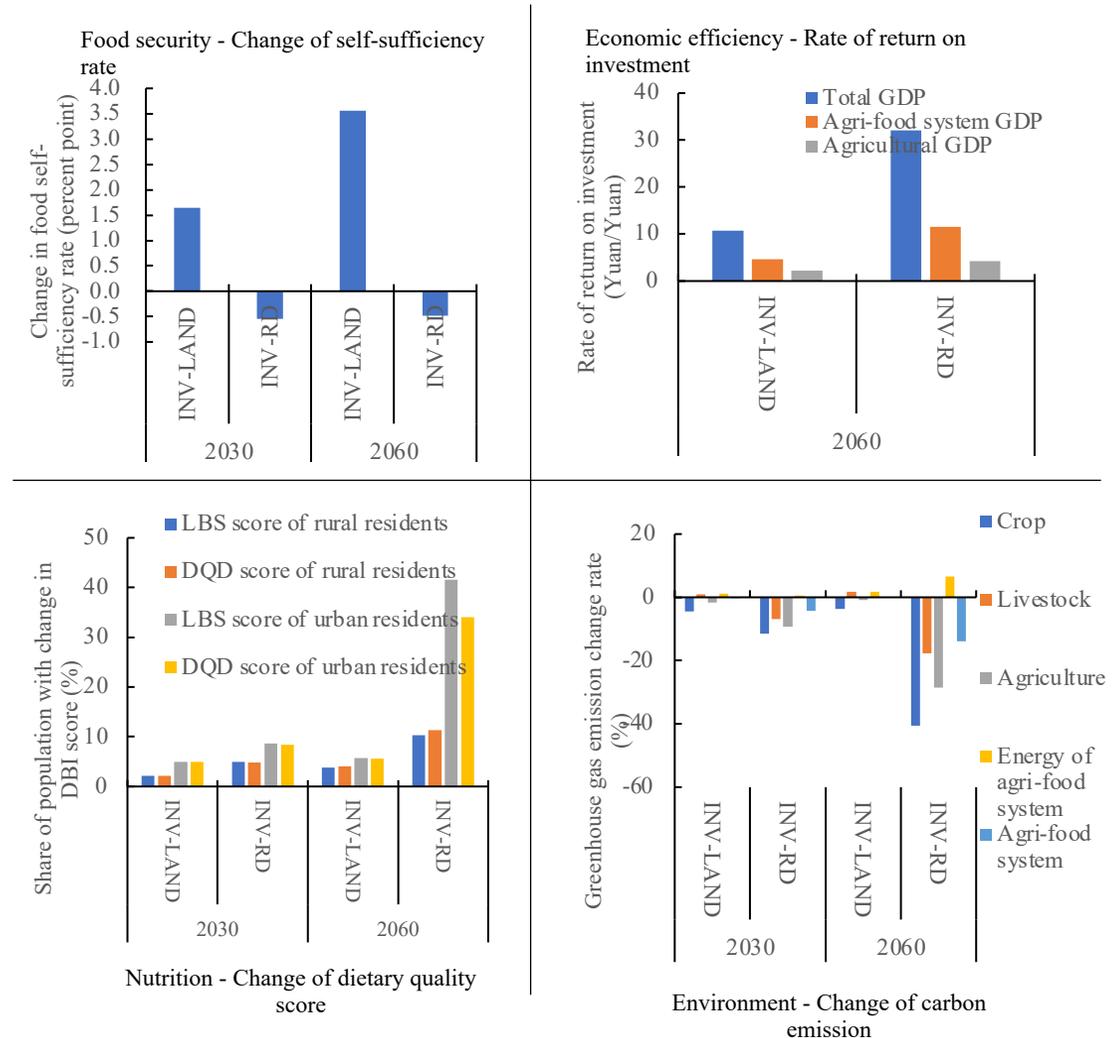
Effects of Increasing Investment in Green Agricultural R&D

■ Double the investment = 70 billion CNY/year;
 Productivity 1% ↑ per year; carbon emission factors ↓
 and feed conversion rates 25% ↑ by 2060

■ 2060 compared with the baseline

- ✓ **Food security:** Production: Fruit 7% ↑, vegetable 4% ↑; Consumption: Fruit 6% ↑, vegetable 4% ↑
- ✓ **Returns on investment:** For every 1 yuan invested, agricultural GDP 4.2, AFS GDP 11.6 and total GDP 32.1
- ✓ **Nutrition:** Rural and urban residents with nutritious food intake deficiency, 10% and 33% ↓, respectively
- ✓ **Emission:** crop 41% ↓, livestock 7% ↓, agrifood system 14% ↓ = 136 million ton CO₂eq

Comprehensive impacts of public investment in agriculture



Effects of Agricultural Fiscal Supports on Urban-Rural Income Gap



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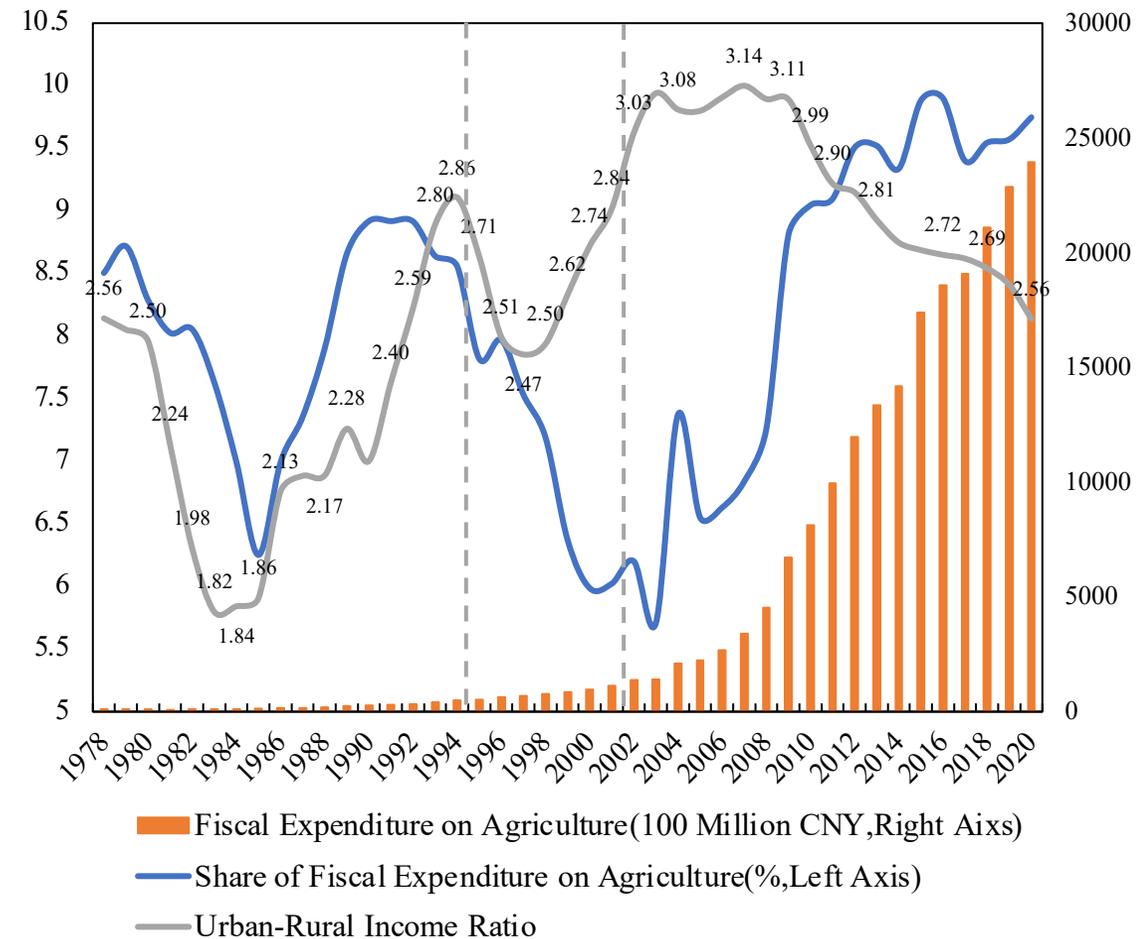
■ Agricultural fiscal supports have narrowed the urban-rural income gap in China

- ✓ Rising agricultural fiscal supports alone narrowed the urban-rural income gap by 0.2 during the period from 1994-2020
- ✓ Larger gap reduction effects were found
 - After 2012
 - In less-developed regions
 - With relatively more agricultural fiscal expenses on production support

■ Mechanism to narrow urban-rural income gap

- ✓ Agricultural fiscal supports accelerated the rural income growth relative to the urban sector, facilitated the labor allocation out of agriculture, and increased the food system GDP

Stronger fiscal support associated with smaller urban-rural income gap



Key Findings and Recommendations



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Key Findings

Repositioning agricultural support to subsidize the foods with high nutritional value and low-carbon emissions can improve dietary quality and reduce carbon emissions



Investment on high-standard farmland development and agricultural R&D for green technologies has high returns and can also achieve a win-win for health and low-carbon



Fiscal expenditure on agriculture can help reduce the urban-rural income gap, while fiscal expenditure on promoting agriculture industrial development and poverty reduction exhibit larger effects on narrowing urban-rural income gap

Recommendations

Increase agricultural subsidies to support the food with high nutritional value and low carbon emissions



Increase fiscal supports in less-developed regions and to agricultural production in particular



Leverage multiple funding sources to build the capacity of a sustainable rural growth and inter-sectoral integration



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