



China's Experiences on SSC in Agriculture and Food Security

Chinese Academy of Agricultural Sciences (CAAS)

**Beijing
June 7, 2013**



China's Food Security

1

Achievement

2

Key Experiences

3

Challenges

4

Policies



I. Achievement-at a Glance

- **9% of the world's arable land feeding 20% of the world population**
- **Total GDP** in 2011: RMB 47.2 trillion Yuan;
Agriculture 4.8 trillion Yuan
- **Total population:** 1.36 billion vs. 133 million
hectare **arable land** (ranked 4th in total and
average 126th in per capita in the world)



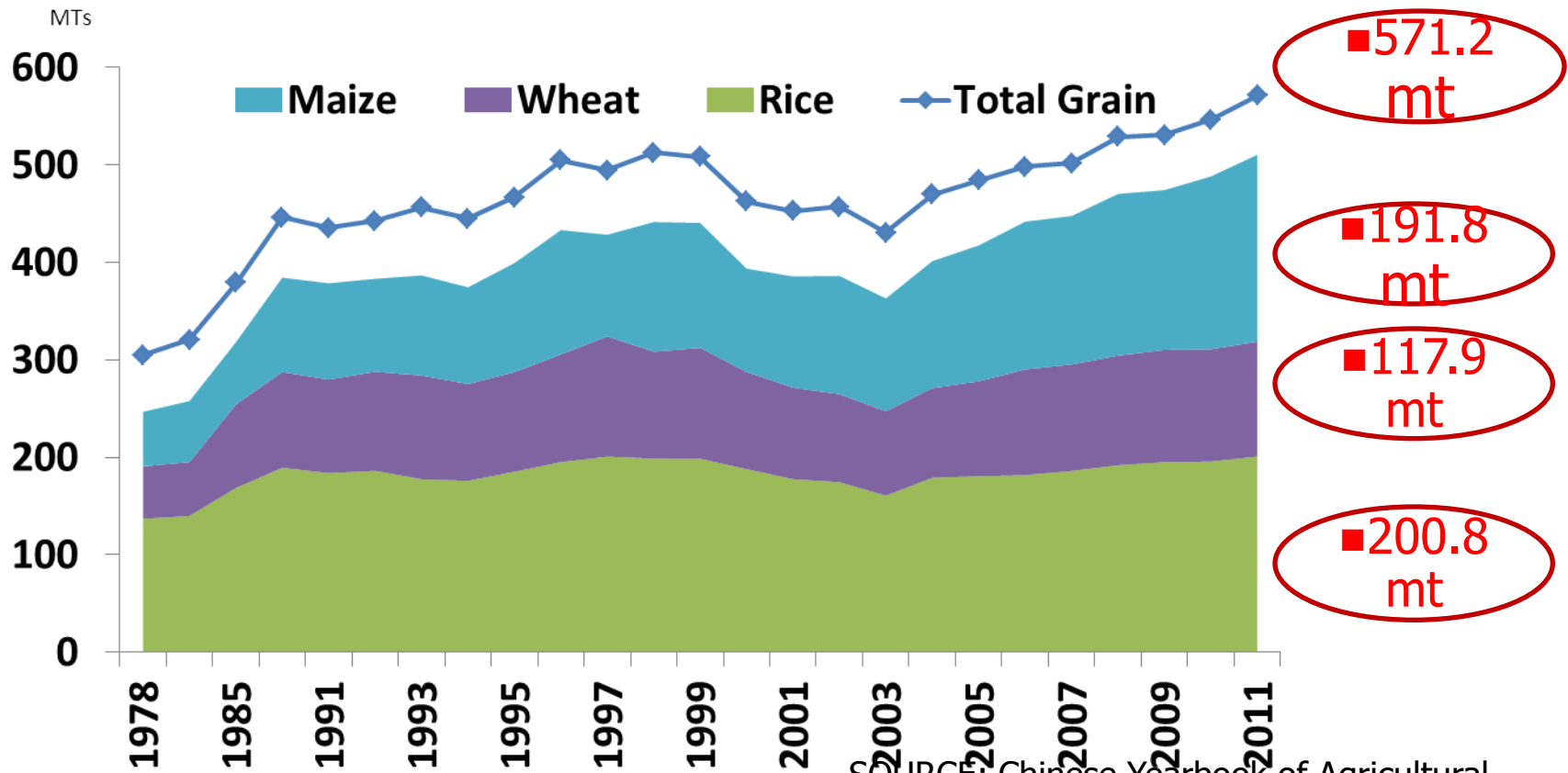
I. Achievement-at a Glance

- Among the lands, 59.4% mountains and plateaus, 9.9% hill, 18.8% basin and 12.0% plain;
- **Arable land per capita:** 1.36 mu (0.09 ha)
- Among all 2,856 counties, 664 counties has 0.05 ha. Per capita
- **Engel's coefficient in 2011:** Urban: 36.3%; Rural: 40.4%

Gain Production in China, 1978-2012

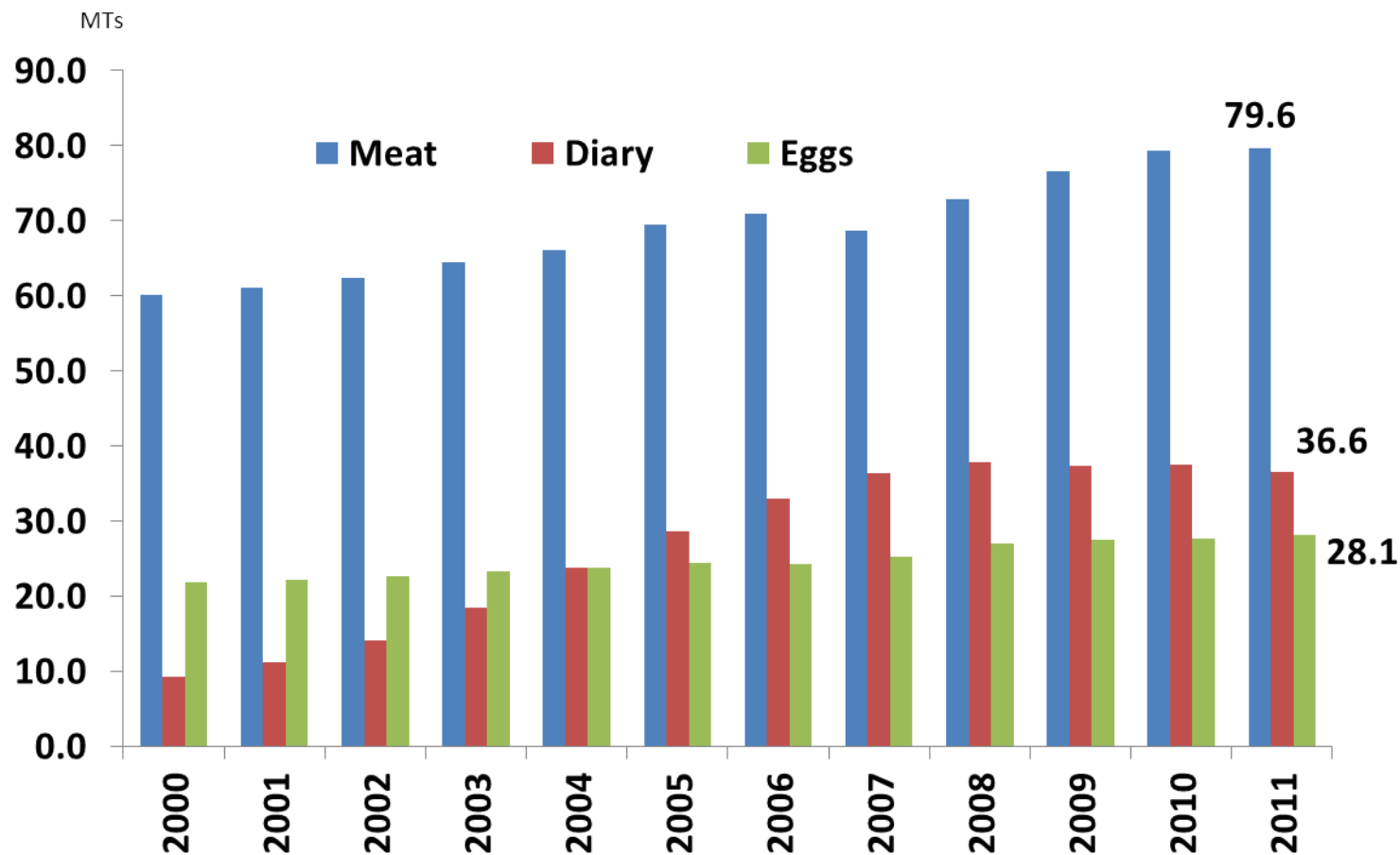


- **Eight consecutive years of increase, at 3.6% annually (2004-2011).**



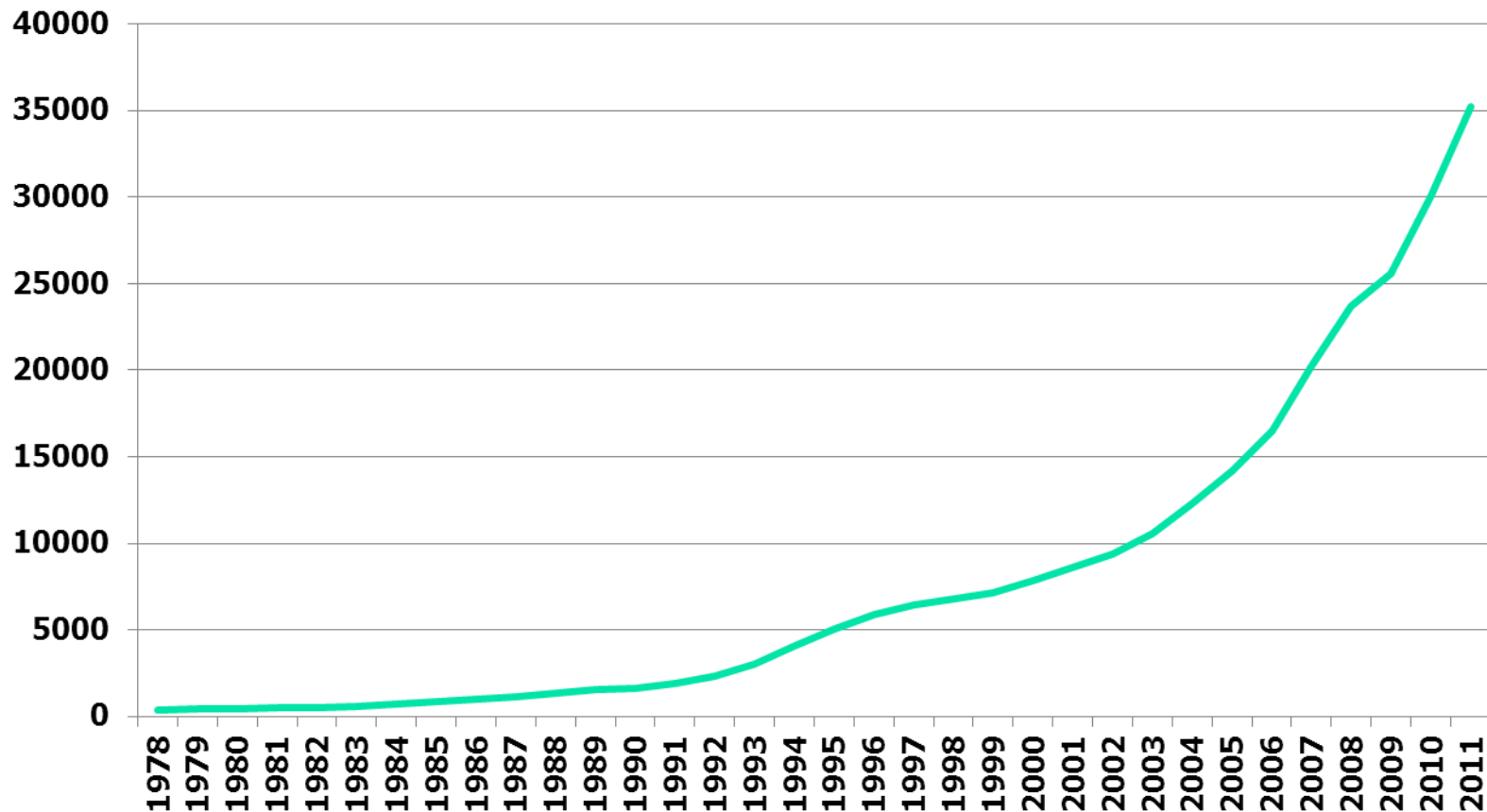
SOURCE: Chinese Yearbook of Agricultural Statistics, 2011

- Annual increase of livestock, poultry and diary production during 2004-2011: Meat 2.6%, Diary 13.4%, Eggs 2.3%



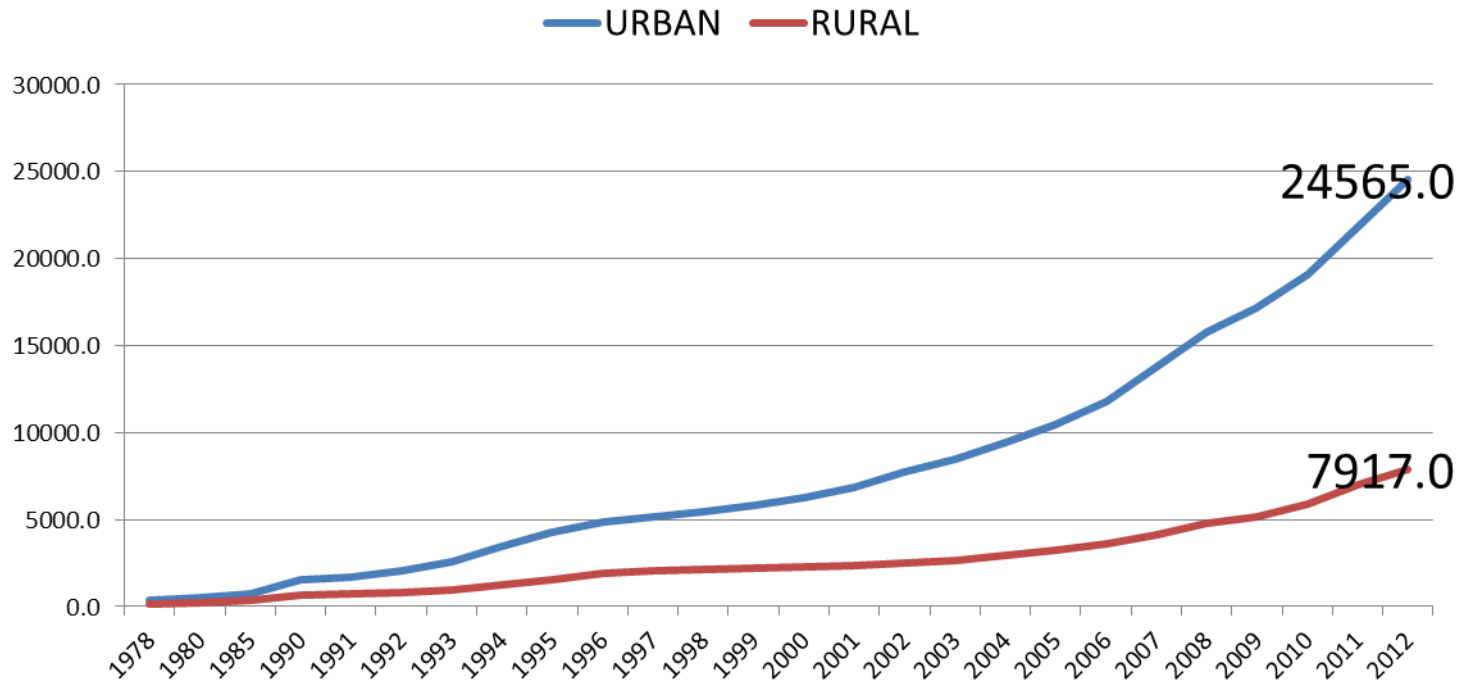
Per capita GDP of China 1978-2011

■ Increased: 381 → 35181 RMB



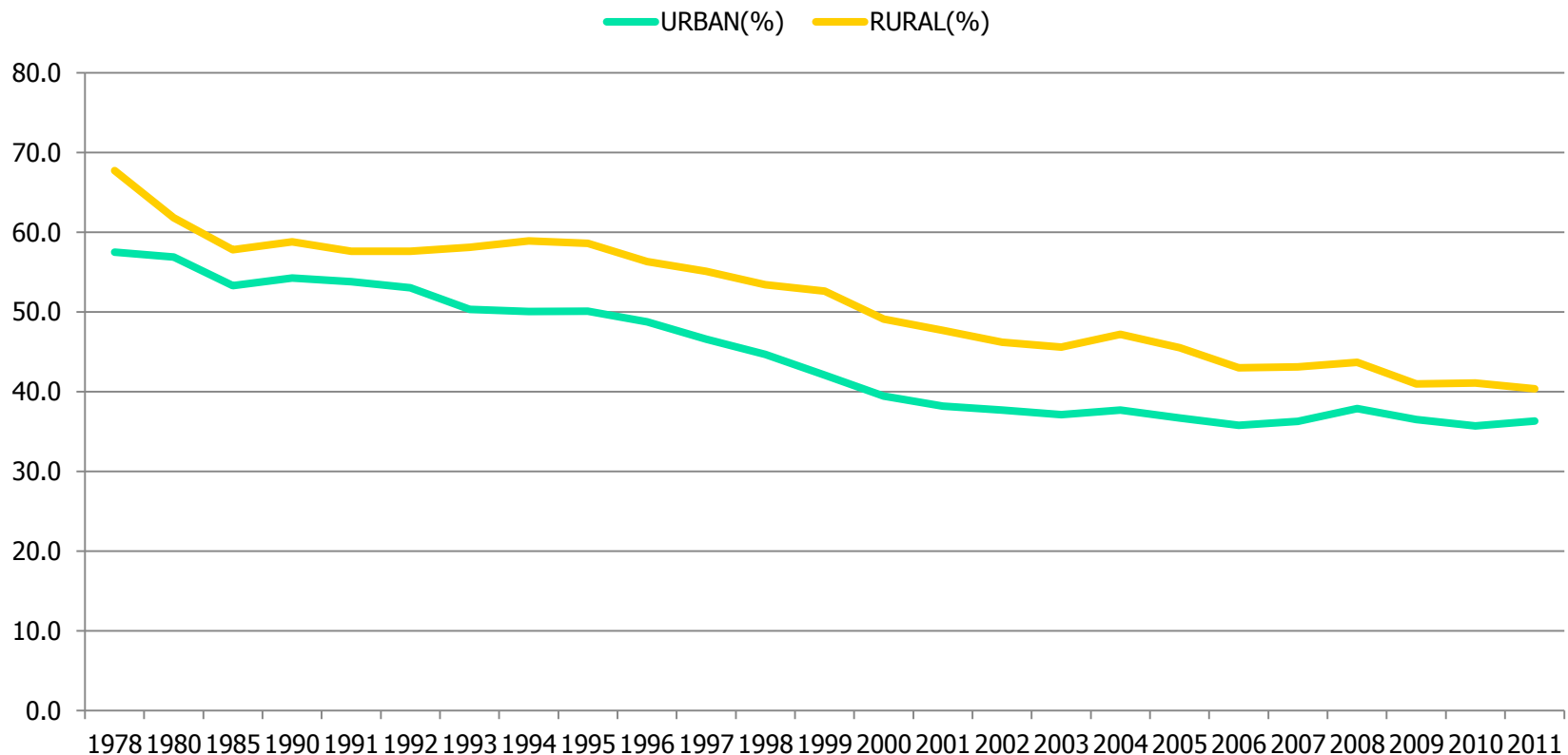
Per capita income

- Increased both in rural and urban
- Urban 343.4 → 24565 RMB
- Rural 133.6 → 7917 RMB



Engel's Coefficient, 1978-2011

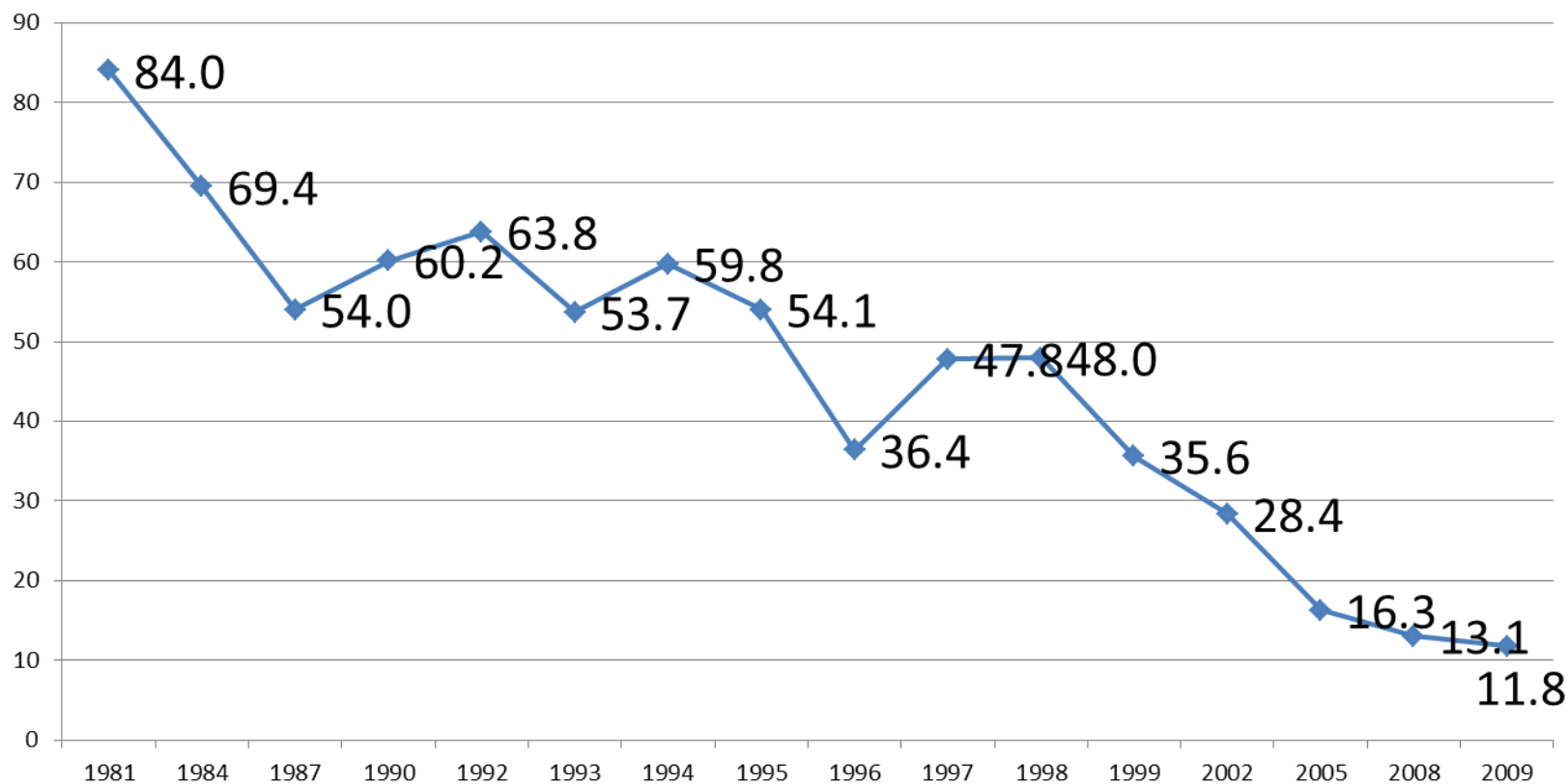
- **Decreased both in rural and urban**



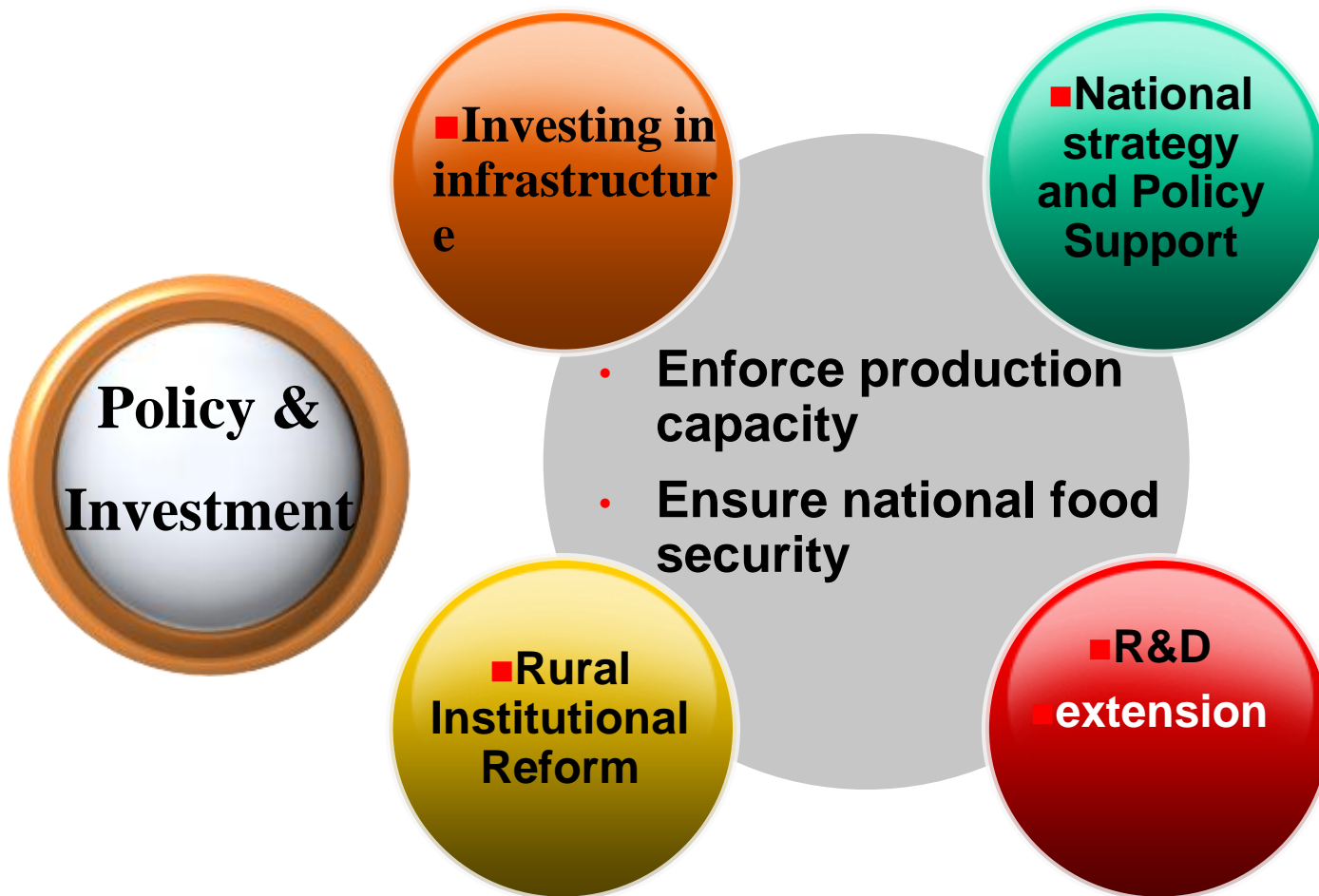
Poverty reduction

- **Poverty headcount ratio: sharply decreased.**

World Bank-China's Poverty headcount ratio at \$1.25 a day (PPP) (% of population)



II. Key Experiences





II. Key Experiences

- ***Put food security as the national strategy***
- National goal of food security (2008-2020): 95% self –sufficiency by 2020
- 12th five-year Plan of China National Economic and social development: agricultural productivity for food security

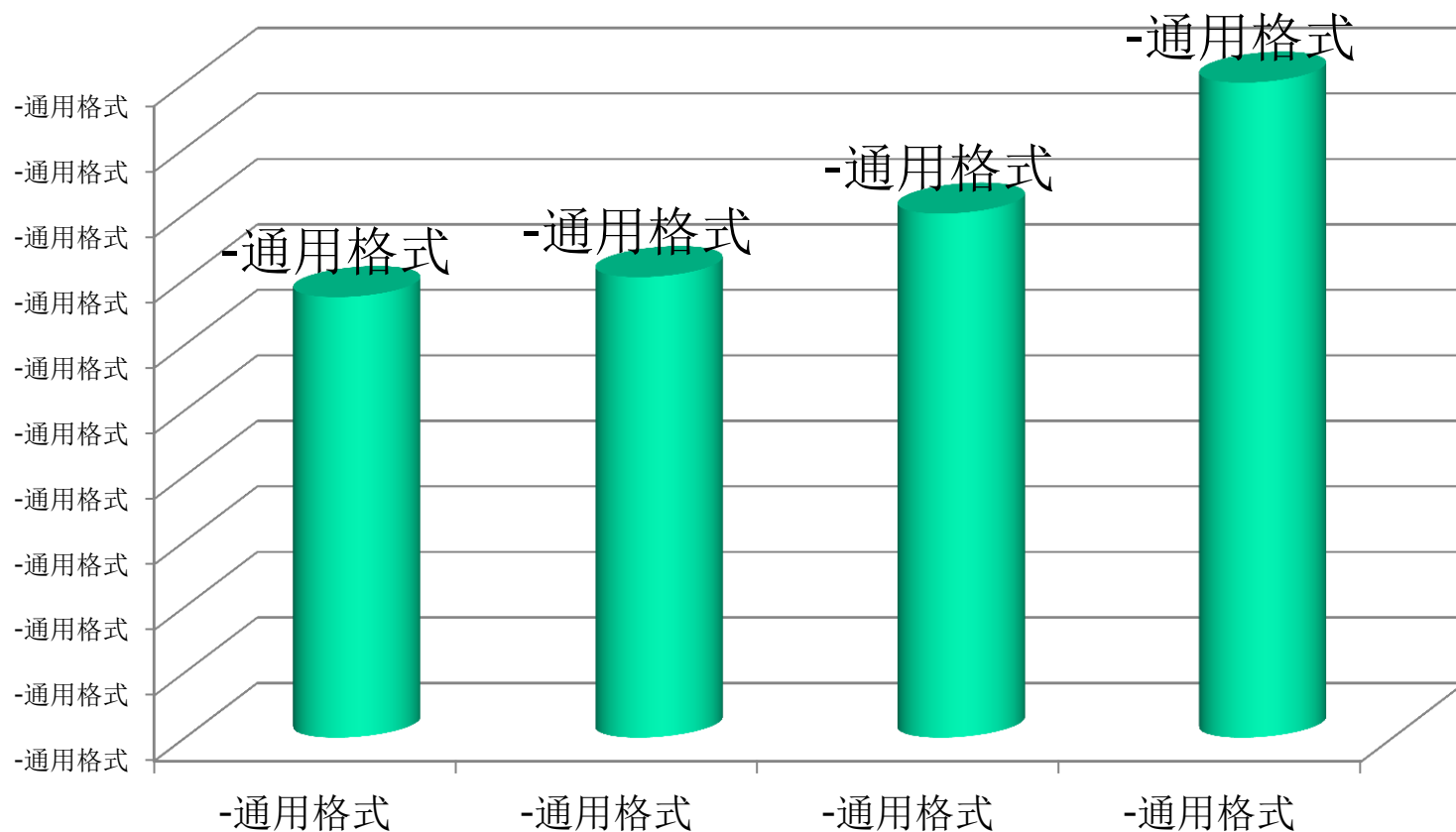


Policy Support and Reform

- Removal of all agricultural taxes in 2006
- **Four major government subsidies to farmers**
 1. Direct Payment
 2. New varieties
 3. Agricultural machinery purchase
 4. Integrated inputs (fertilizers and oil)
- Protected price, guarantee by the government for purchasing grain from farmers

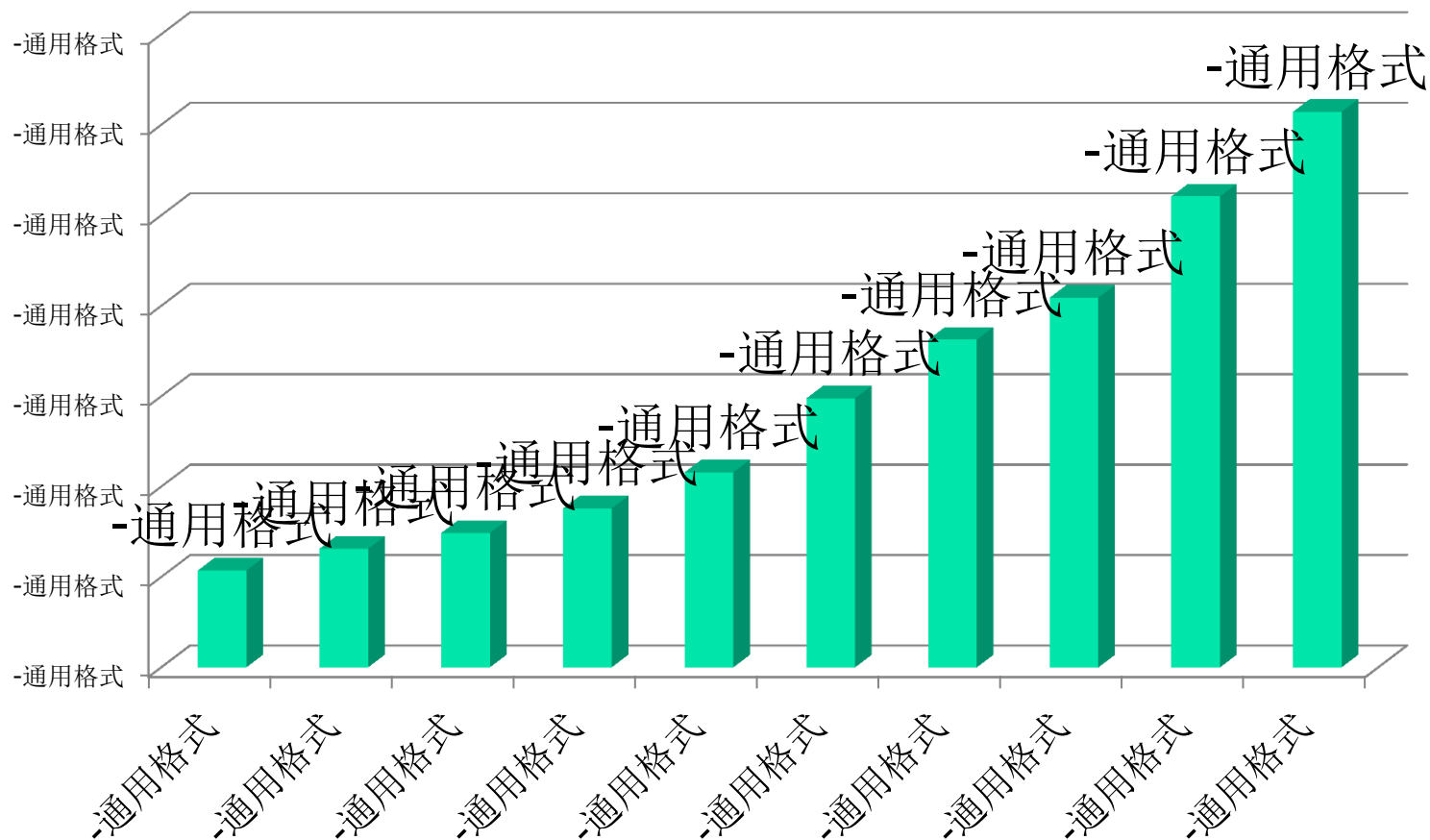
Investment on 4 major subsidies(billion RMB)

2013 (estimated)



Keep increasing investment in agriculture

Public investment in agriculture(billion RMB)



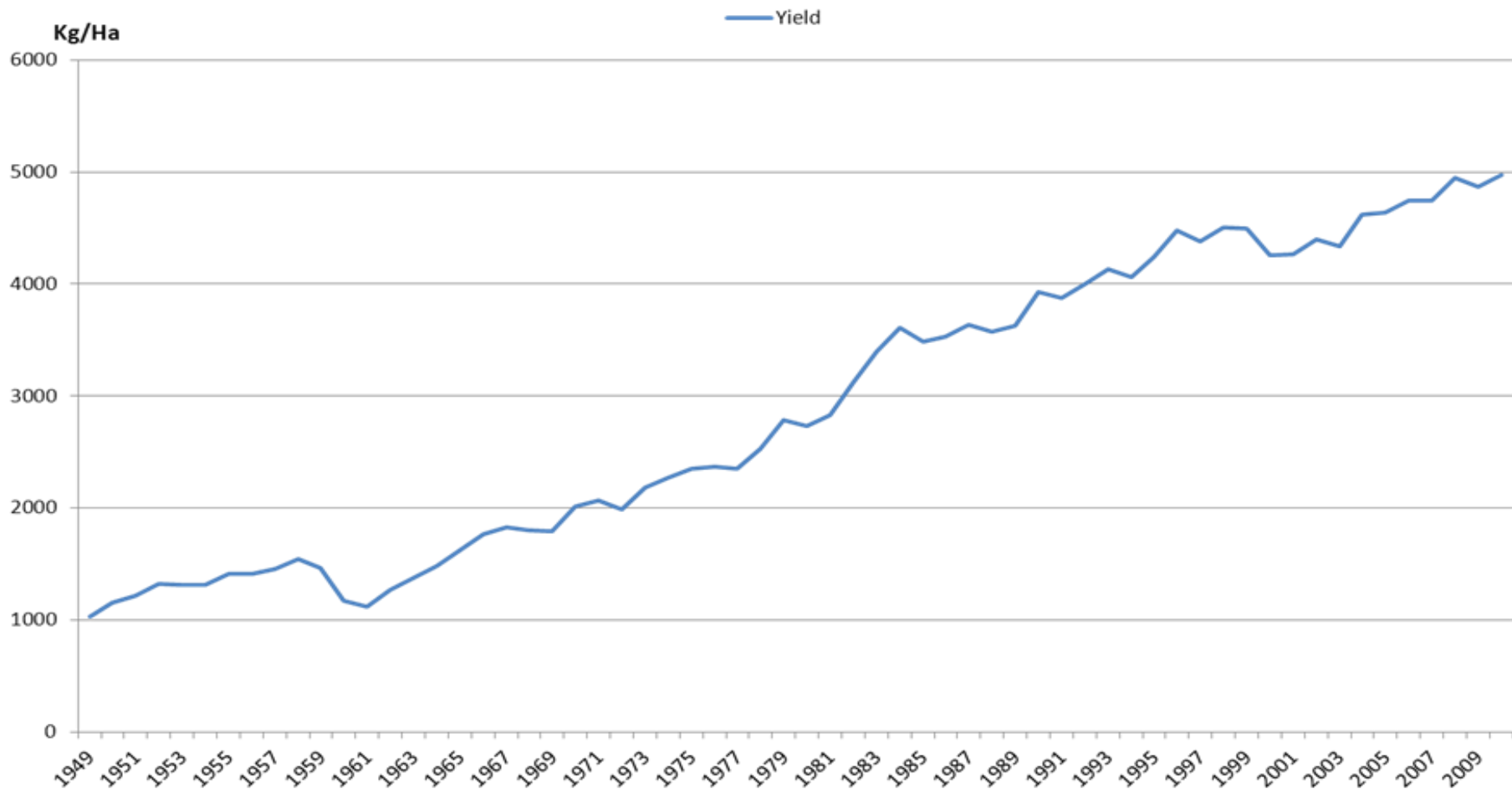


II. Key Experiences

- ***Improve rural infrastructure***
 - Road and transportation
 - Market system
 - Irrigation: key issue in 2011's State Council No.1 Document
 - Electricity
 - Arable land integrated improvement

II. Key Experiences

■ *Public investment in R&D&E*





Agricultural R &D Capacity Strengthened

- **Contribution rate of science and technology to increased agricultural production:**

1981-1985	1986-1990	1991-1995	1996-2000	2000-2005	2005-2010	2011
35%	28%	35%	42%	45%	50%	53%

- ✓ Over 6000 new varieties of major crops
- ✓ 4-5 times of nationwide replacement of crop varieties,
 - yield increased 10%-20% each time

rice fall-hybrid rice





II. Key Experiences

- ***Focus on education, training and extension***
- Sunshine Project
- Plans to support modern agricultural talents
- New farmers cultivation policy
- The rural practical talents cultivation policy

■ E-Agriculture and New Extension Systems

A system that can provide extension service any where in the field





III. Challenges



Food demand and production-economic risk

Vulnerability and climate change-natural risk

Prices rise and fluctuation- market risk

Food insecurity & Poverty population-social risk

Challenges



IV. Policies

- ***Policy*** to favorite agriculture (eg. red line of arable land , 1.8 billion mu)
- **Increase *investment*** in agriculture and rural
- **Promote *R&D* investment and *extension***
- ***Marketing* and Information** (early warning)
- **International *cooperation***



Thank you

