



# China's Experience in Developing Capacity

## to Increase Productivity through the Adoption of Agricultural Technologies

Liu Zhongwei

FAO-China SSC Programme Coordinator

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# 1. Overview

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- Chinese government has always put the issue of feeding 1.3 billion people as the top priority.
- China feeds 20% of the world population with less than 9% of the world arable land, delivers abundant and diversified agricultural products.
- In 2014, agricultural production has now increased for 11 straight years in the country.
- 13 consecutive years of farmers' income growth, rapid development in rural areas, and prominent improvement in farmers' living and working conditions.
- “Bring-in” and “Go-global” initiatives.



## 2. Major achievements

### 2.1 Role and Function of Agriculture in the National Economy

China's agriculture, as the base and staunch pillar of the national economy, has managed to not only self-reliantly meet the national, but also provide raw materials, labors and a huge consumer market for industries, services and other sectors.

Table 1 Role of Agriculture in the National Economy (%)

Year	1980	1985	1990	1995	2000	2005	2010	2011
Proportion of agricultural added value in GDP	30.2	29.8	28.4	19.9	15.1	12.1	10.2	10.1
Proportion of employment in the primary industry in total employment	68.7	62.4	60.2	52.2	50.0	44.7	36.7	34.8
Proportion of rural labors in total employment	—	—	—	72.0	67.9	64.0	54.4	53.0
Proportion of retail sales of consumer goods in rural areas in total retail sales of consumer goods	65.7	53.0	48.5	43.2	38.2	32.8	13.3	13.2
Proportion of agricultural expenditure in total fiscal expenditure	12.2	8.3	10.0	8.4	7.8	7.2	9.0	9.1
Proportion of agricultural import in total imports	—	12.1	16.1	9.3	5.0	4.3	5.2	5.4
Proportion of agricultural export in total exports	—	24.5	17.2	9.4	6.3	3.6	3.1	3.2
Engel Coefficient of urban residents	56.9	53.3	54.2	50.1	39.4	36.7	35.7	36.3
Engel Coefficient of rural residents	61.8	57.8	58.8	58.6	49.1	45.5	41.1	40.4

Source: China Agricultural Development Report, China Statistical Yearbook.

## 2. Major achievements

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### 2.2 Agricultural Productivity

With sustained growth and strengthened productivity in agriculture, the output and per capita availability of major products have witnessed substantial increase.

- Level of agricultural mechanization is steadily increasing.
- Agricultural infrastructure has been steadily improving.
- Agro-processing industry maintains fast development.
- Rapid development has been seen in the growth of recreational agriculture.



## 2. Major achievements

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### 2.3 Farmers' Income and Living Standards

Farmers' income has realized a steadily rapid growth - the family operation income of rural households keeps increasing with its proportion in the total income dropping. The wage income increases at a fast speed.

The government has constantly increased poverty relief input with a rising standard. New poverty line of 2,300 yuan (USD 356) was adopted in 2011.

Farmers' living standards and consumption level has realized a steady improvement. In 2012, the Engel coefficient of rural residents dropped to 39.3% from 61.8% of 1980. The proportion of basic consumption and the consumption structure is gradually changing with more expenditure on recreation and development.





## 2. Major achievements

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### 2.4 Agri-Product Quality and Safety

Significant improvements have been achieved in perfecting regulations, setting standards, supervising and management.

The goals of standardization are changing from increasing agricultural products output and ensuring safe consumption to “high yield, good quality, high efficiency, ecological and safe” agricultural development.

Besides the Law on Agricultural Products Quality and Safety and Food Safety Law enacted by the national government, local governments are gradually stepping up management.

In recent years, the average pass rate of major agricultural products remained above 96%. All in all, agricultural products are safe and reliable.



## 2. Major achievements

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### 2.5 Agri-Product Quality and Safety

- **RURAL INFRASTRUCTURE** - Construction of rural infrastructure such as water, electricity, roads, natural gas and housing are constantly strengthened and farmers' production and living conditions are significantly improved.
- **INSURANCE** - The new type of rural cooperative medical scheme covers 97% of farmers, with the central government, local government and the farmers jointly contributing into the medical plan.
- **EDUCATION** - Funding for rural compulsory education is now fully provided by national budget. There're 130 million rural students benefiting from these measures.
- **CULTURE** - Rural public cultural service capacity are improved.



## 2. Major achievements

### 2.6 Agricultural Technology and Extension

Technology has become a major force supporting the development of agriculture in China. In 2011, technological advances contributed to 53.5% of the total growth in agriculture.

- Mechanism of Agricultural R&D
- Agricultural Laboratories
- Seed Industry
- Soil and Fertilizer
- Livestock Production Technology
- Agricultural Technology Extension System







## 3. Policies applied to the achievements

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### Introduction

From 2004 onwards, the central government has issued the "No.1 Document" on agriculture, rural areas and farmers for 12 consecutive years, which contains strategic arrangements in many aspects, including:

- increase of farmers' income;
- comprehensive agricultural productivity;
- development of the new countryside;
- modern agriculture;
- agricultural base;
- steady development of agriculture and sustained increase of farmers' income;
- overall planning of urban and rural development;
- farmland water system;
- agricultural science and technology.

# 3. Policies applied to the achievements

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## 1) Measures for Food Security

With a high level of self-sufficiency, the country has successfully solved the problem of feeding 1.3 billion people by relying on its own strength.

- enhance productivity.
- improve the grain market mechanism.
- strengthen the macro-control of food supply.
- carry out the accountability system for food security.

## 2) Administration of Rural Farmland

China follows the most stringent farmland protection system to ensure that the area of basic farmland will not decrease, their usage will not change and their quality will be improved.



## 3) Agricultural Subsidies

A basic framework of agricultural subsidy policies that conforms to WTO rules and the reality of China.

- direct subsidy for grain producers.
- subsidy for using improved varieties/breeds.
- subsidy for purchase farming tools and machines.
- subsidy for agricultural inputs .



### 3. Policies applied to the achievements

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#### 4) Rural Finance and Insurance Policies

China's rural financial reform has been deepening, which makes the financial sector increasingly supportive for agriculture.

- Financial services have covered most of rural areas.
- New-type rural financial institutions keep increasing.
- Agricultural insurance is an important means to protect and support the development of agriculture.

#### 5) Agricultural Cooperatives

The Law on Specialized Farmers' Cooperatives grants the cooperatives independent legal status, providing legal guarantee for their development.

Legal documents provide more specific norms for guiding standard-based development of specialized cooperatives.

Efforts are also made to encourage the matchmaking between cooperatives and distribution enterprises including supermarkets.



### 3. Policies applied to the achievements

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#### 6) Agri-product Prices

A series of policies have been implemented to promote the market-oriented reform for major agricultural products such as grain, liberalize agri-product market and pricing, and establish the system of minimum purchase price for grain and temporary collection and reserve of major agricultural products.

#### 7) Farmer Training and Flow of Rural Labors

Government funded projects such as the “sunshine project” have been carried out to strengthen the employment training of the rural labor force.

The Circular on Actively and Properly Advancing the Reform of the Household Registration Administration System was unveiled in 2011.

The compulsory education system has been improved to gradually cover the children of migrant workers in the urban programs.

## 4. International Cooperation

### 4.1 Multilateral Cooperation Mechanisms

China plays an active and constructive role in major agricultural multilateral forums, such as:



- FAO
- WFP
- OIE
- CGIAR
- G20
- APEC
- ASEAN
- ASEAN + 3
- SCO
- etc.

By being a major player in international conferences and activities, China made great contributions to the global food and agriculture management system.



## 4. International Cooperation

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### 4.2 Agricultural Trade Promotion

China's WTO accession in 2001 marks a milestone in the opening-up of China's agriculture, and substantially opened its agricultural product market to the whole world.

China plays a leading role in cooperation with neighboring countries and other emerging economies, while free trade areas become the main form of regional economic cooperation.

*As of December, 2011, China has signed trade agreements successively with ASEAN, Pakistan, Singapore, Chile, Peru, Costa Rica, New Zealand, Hong Kong SAR, Macao SAR and Taiwan, China; and is negotiating free trade areas with Australia, Switzerland, the Gulf Cooperation Council, Iceland, Norway, Southern Africa Customs Union.*





## 4. International Cooperation

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### 4.3 Foreign Investment and Advanced Technology

#### **a) China has enjoyed a steady increase in foreign investment in agriculture recently**

China has established stable long-term relationship with more than 90 countries around the world. Direct foreign investment in agriculture reached 2.01 billion USD in 2011, which contributed a lot to agricultural modernization and rural economic development.

*Areas that attract foreign investment include: rural policy development, irrigation and agricultural processing etc.*

#### **b) The introduction of advanced agricultural technology is growing steadily as well**

By the end of 2011, China has introduced around 2000 advanced agricultural technologies, more than 76 thousand accessions of germplasm and nearly 2000 instruments and equipment.



## 4. International Cooperation

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### 4.4 China's Foreign Aid for agriculture

#### a) China's aid projects to other countries have been further deepened in agriculture

- Since 2002, China has trained 10,000 agricultural management and technical personnel from more than 100 countries.
- 14 agricultural technology demonstration centers were established in the African continent.
- China also provided in-kind and technical assistance on animal disease prevention and control.

#### b) FAO-China SSC Programme

- 1996: FAO'S SSC Initiative launched.
- 2006: A Letter of Intent on forming Strategic Alliance signed between the Government of China and FAO.
- 2008 : A donation of USD30 million Trust Fund to FAO announced by the Government of China.
- 2014: A donation of USD50 million Trust Fund to FAO announced by the Government of China.

## 5. Agricultural Development Outlook

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- China will experience rapid development in industrialization, urbanization, information technology application and globalization in the foreseeable future.
- China will continue to prioritize agriculture, rural areas and farmers.
- China's agricultural development cannot be isolated from the world, and the world agricultural progress also needs an all-round involvement of China.



Thank you