



# Current Status and Development Trends of China's Agricultural Machinery Industry

**Wei Fang, China**

**FOTON LOVOL**

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**1 Overview of China's Agricultural Machinery Industry**

**2 Current Status of China's Agricultural Machinery Market**

**3 Imports and Exports of China's Agricultural Machinery**

**4 Development Trends Analysis of China's Agricultural Machinery Industry**

**5 Opportunity in Cooperation with Developing Countries on Agricultural Machinery**

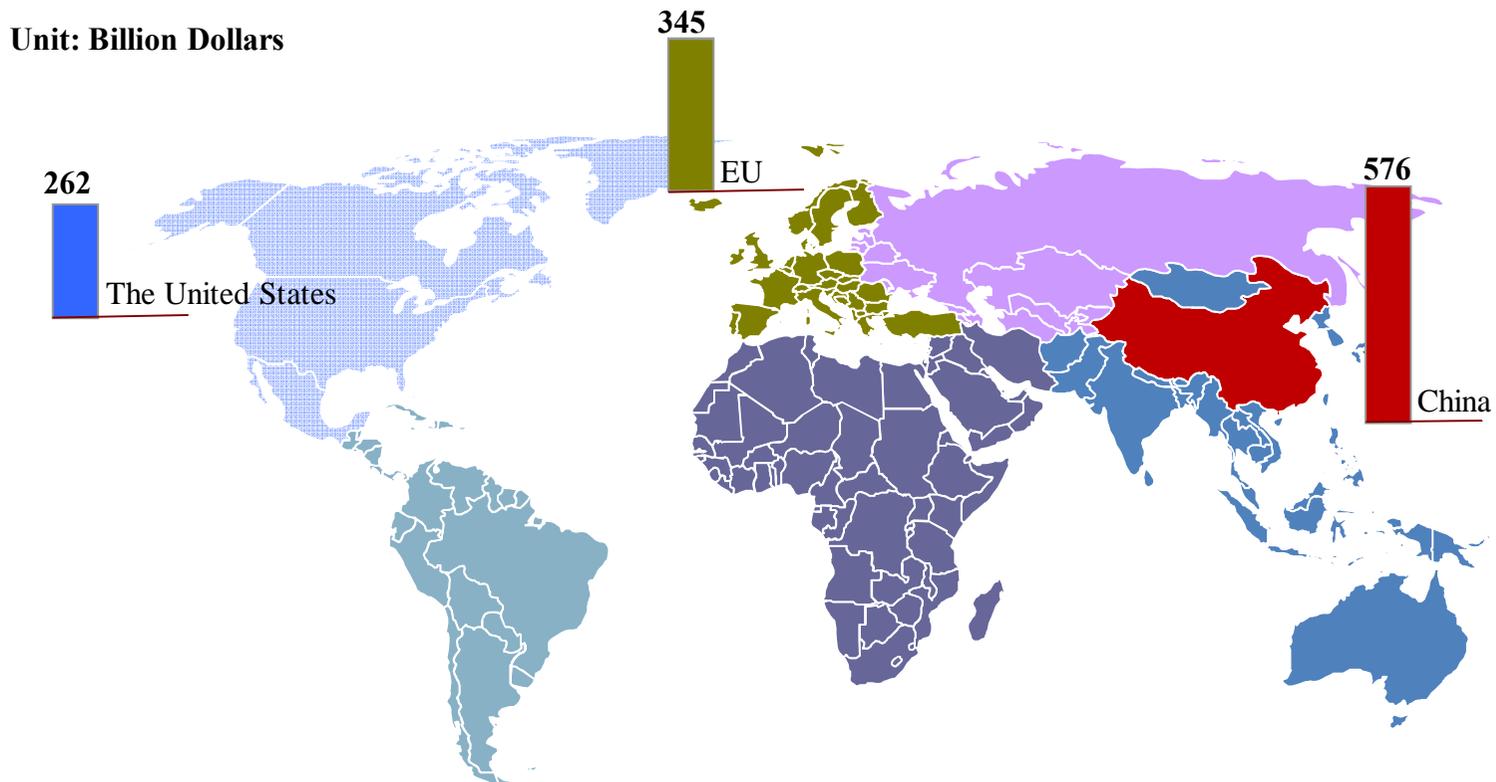
# 1. Overview of China's Agricultural Machinery Industry

- Globally, China has developed into the largest agricultural machinery manufacturing country and the largest agricultural machinery market.

É In 2013, the total industrial output value of China's agricultural machinery reached RMB357.1 billion (about \$57.6 billion).

É In 2013, the industrial value of the agricultural machinery in EU and the United States reached \$34.5 billion and \$26.2 billion, respectively.

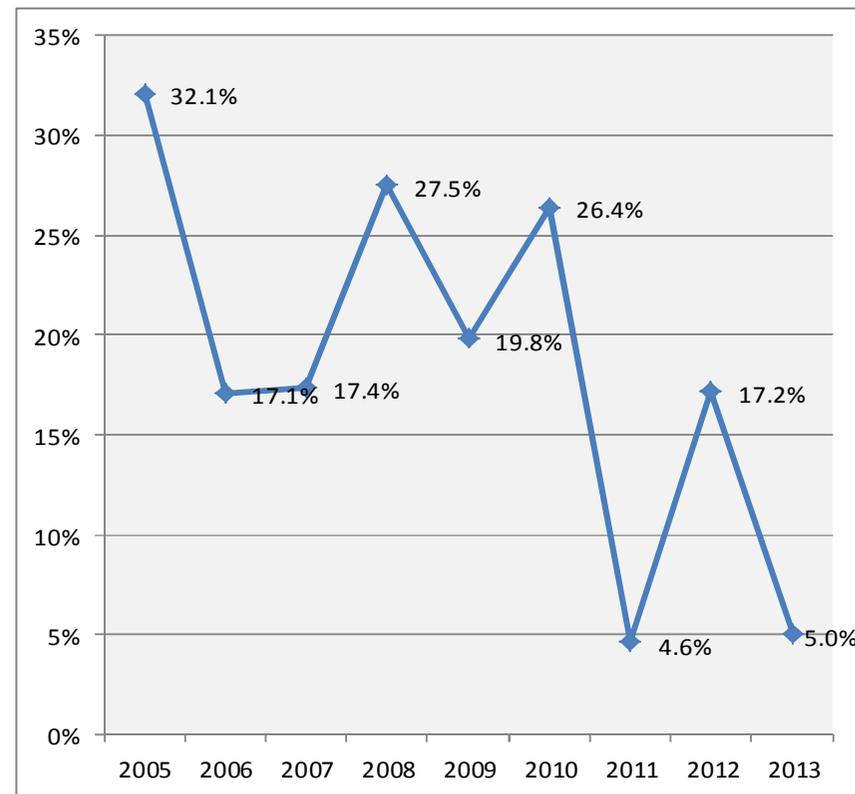
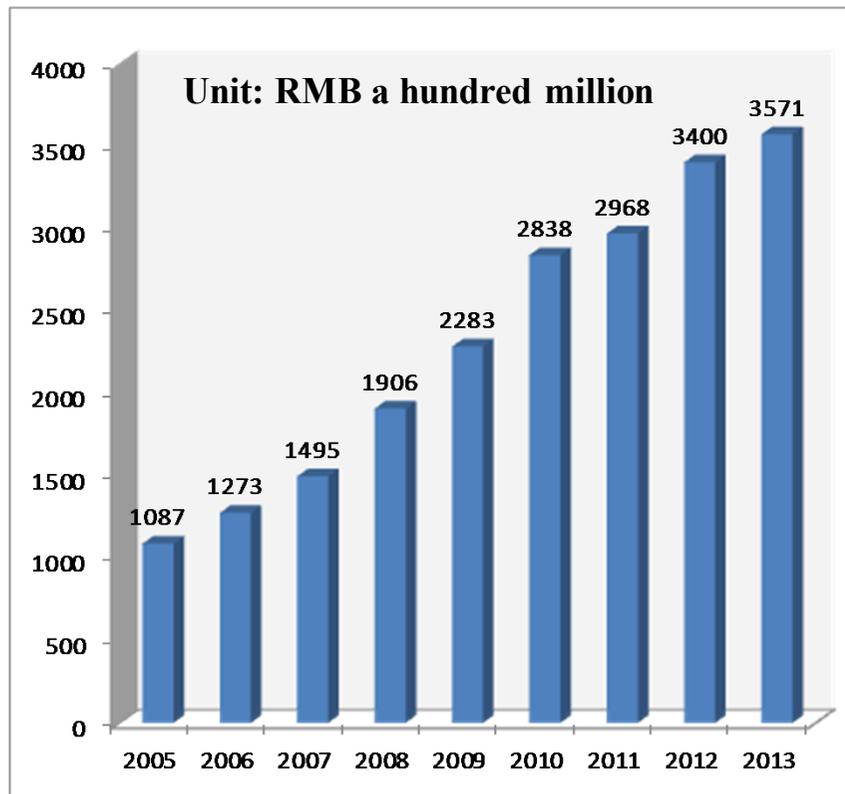
É Japan and South Korea, India, Brazil and the CIS are also important agricultural machinery production bases.



# 1. Overview of China's Agricultural Machinery Industry

## ■ Decade of Rapid Development of China's Agricultural Machinery Industry (2003-2013)

É In the past decade, the total industrial output value of China's agricultural machinery has grown consecutively, an increase of less than RMB100 billion (about \$10 billion) to RMB340 billion (about \$54.5 billion) in 2013.





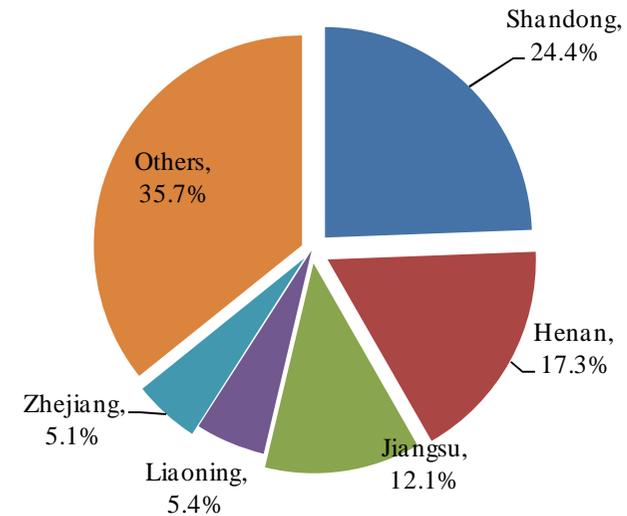
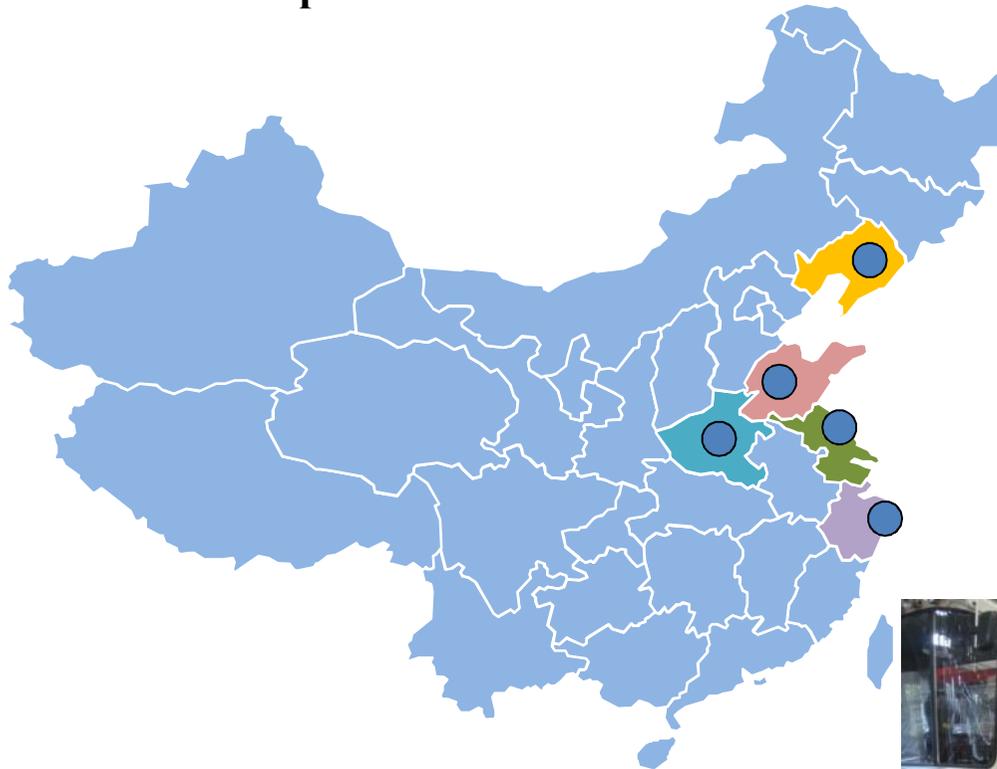
# 1. Overview of China's Agricultural Machinery Industry

- China's agricultural machinery products have been formed in 14 categories, including 61 subcategories, 222 items, more than 10,000 varieties, basically realizing the full mechanization of agricultural operations.



# 1. Overview of China's Agricultural Machinery Industry

- At present, China's agricultural equipment manufacture enterprises amounts to more than 2,500 and the agricultural machinery industries are mainly concentrated in Shandong, Henan, Jiangsu, Liaoning, and Zhejiang provinces;
- John Deere, Agco, CNH and other global agricultural machinery giants, and Kubota, and other agricultural machinery enterprises in Japan and South Korea also invest in China to establish production bases.



# 1. Overview of China's Agricultural Machinery Industry

- **The manufacturing technology of China's agricultural machinery has improved continuously, depending on the technology innovation and technology import.**
  - É Large-scale multi-functional tractors more than 100 horsepower are in mass production
  - É Rice transplanter, combine-harvester and corn combine have been popularized.
  - É New generation of power-shift tractor prototype with high horsepower has been developed successfully.





# 1. Overview of China's Agricultural Machinery Industry

- However, there is still a certain gap between the level of China's agricultural machinery industry and that of the developed countries in Europe and America. The technical level of the agricultural machinery products is roughly equivalent to that of Europe and America in the 1990s.

		Internation In 1990s	Contemporary Internation	Contemporary China
Small model	Tractor with maximum horsepower	More than 200 HP	600 HP	220 HP
	Largest combine-harvester	200 HP	600 HP	240 HP
	Green fodder harvester	260 HP	960 HP	260 HP
Pool intelligent control and comfort	Tractor	Synchronizer shifting Independent control	Power shift CVT Electronic control system of bus Navigation system	Shift sleeve shifting Synchronizer shifting Independent control
	Combine-harvester	Hydraulic control Closed boosted air-conditioned cab	Electro-hydraulic control Information system Navigation system Closed boosted air-conditioned cab	Mechanical control Partial hydraulic control Common cab

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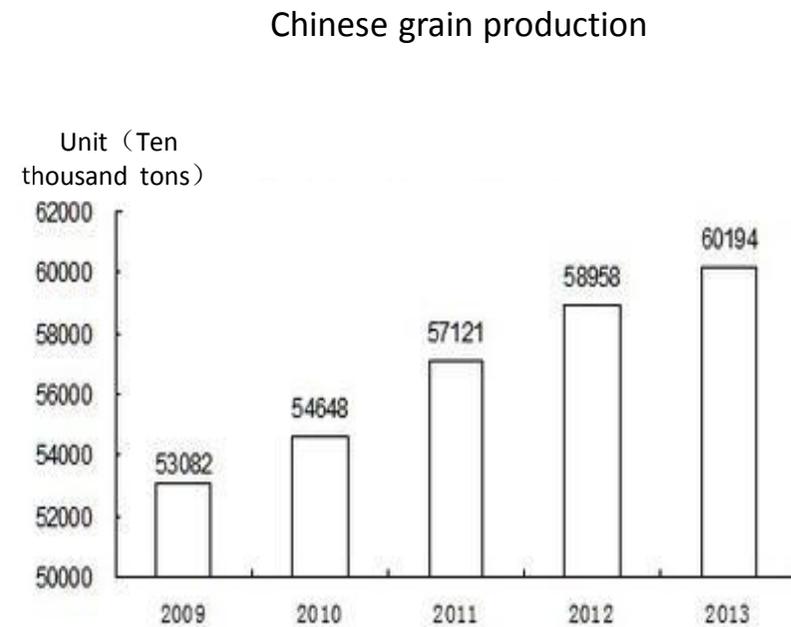
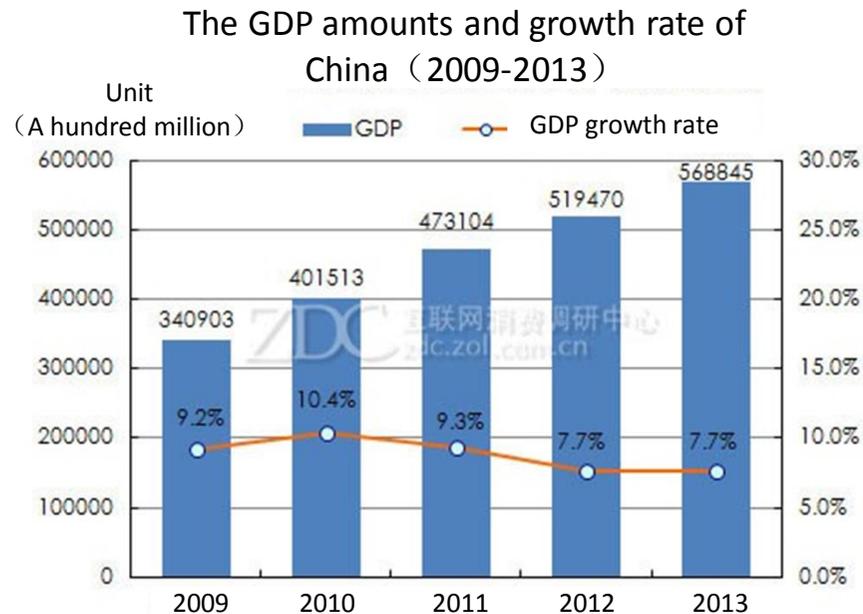
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■ **The rapid development of China's agricultural machinery industry is firstly due to that of China's economy and agriculture.**

É Due to industrialization and urbanization, the rural labor transfers to urban areas, needing to improve agricultural productivity. As a result, the demand for agricultural machinery is continuously increased.

É The income of the farmers continuously increased from 2003 to 2013, China's grain output increased for eight consecutive years, and the total output increased from 430 billion kg to 600 billion kg.





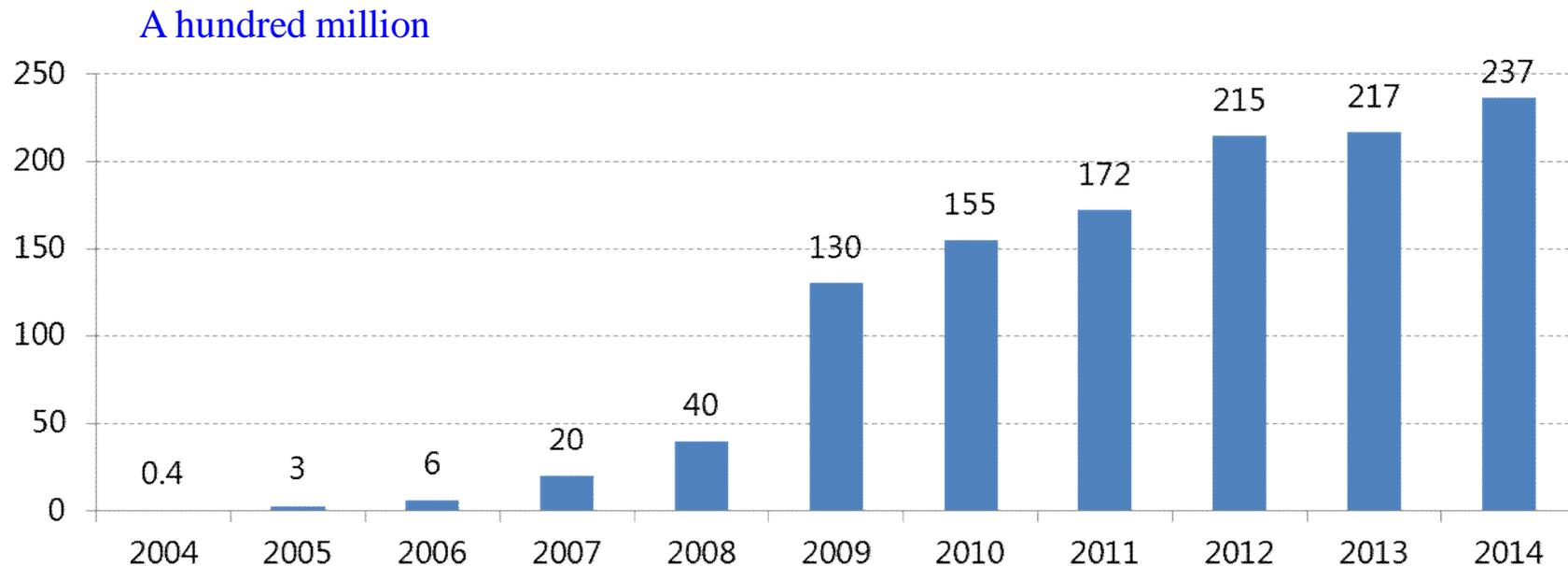
## 2. Current Status of China's Agricultural Machinery Market

- **The support and investment in agriculture by Chinese government play a crucial role in the development of the agricultural market.**

É The central authorities input the subsidies of the agricultural machinery procurement, with a total of 119.5 billion Yuan from 2004 to 2014.

É Generally driving the local governments and customer to input 159.67 billion Yuan.

É Subsidizing the procurement of a total of 16.72 million sets of various types of agricultural machineries.

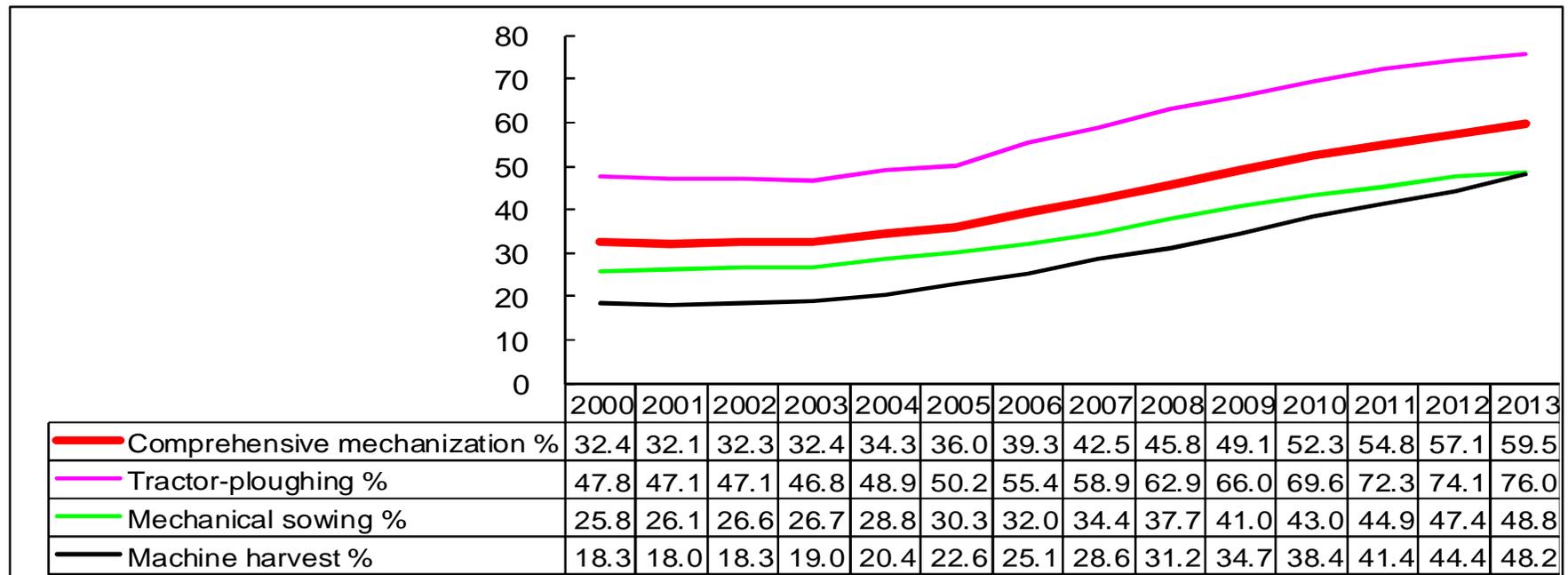




## 2. Current Status of China's Agricultural Machinery Market

- By 2013, the mechanization level of comprehensive Chinese agricultural operations, such as cultivating, planting, harvesting and the like has reached 59.5%, greatly improving the efficiency of agricultural production.

Agricultural Mechanization Level in China (2000-2013)



## 2. Current Status of China's Agricultural Machinery Market

- At present, the total power of China's agricultural machinery has reached 1076 million kilowatts. The holding volume of main agricultural machinery: the medium and large tractors with more than 25 horsepower have reached 5.72 million sets, with annual sales of 320,000 sets; and the combine harvesters for wheat, rice and corn have reached 1,500,000 sets, with annual sales of more than 150,000 sets.

Agricultural Machinery	Holding Volume	Sales Volume in 2014
Medium and large tractor	5.72 million	320 thousand
Small tractor	17.5 million	1.67 million
Rice transplanter	665 thousand	70 thousand
Combine-harvester	1.5 million	150 thousand



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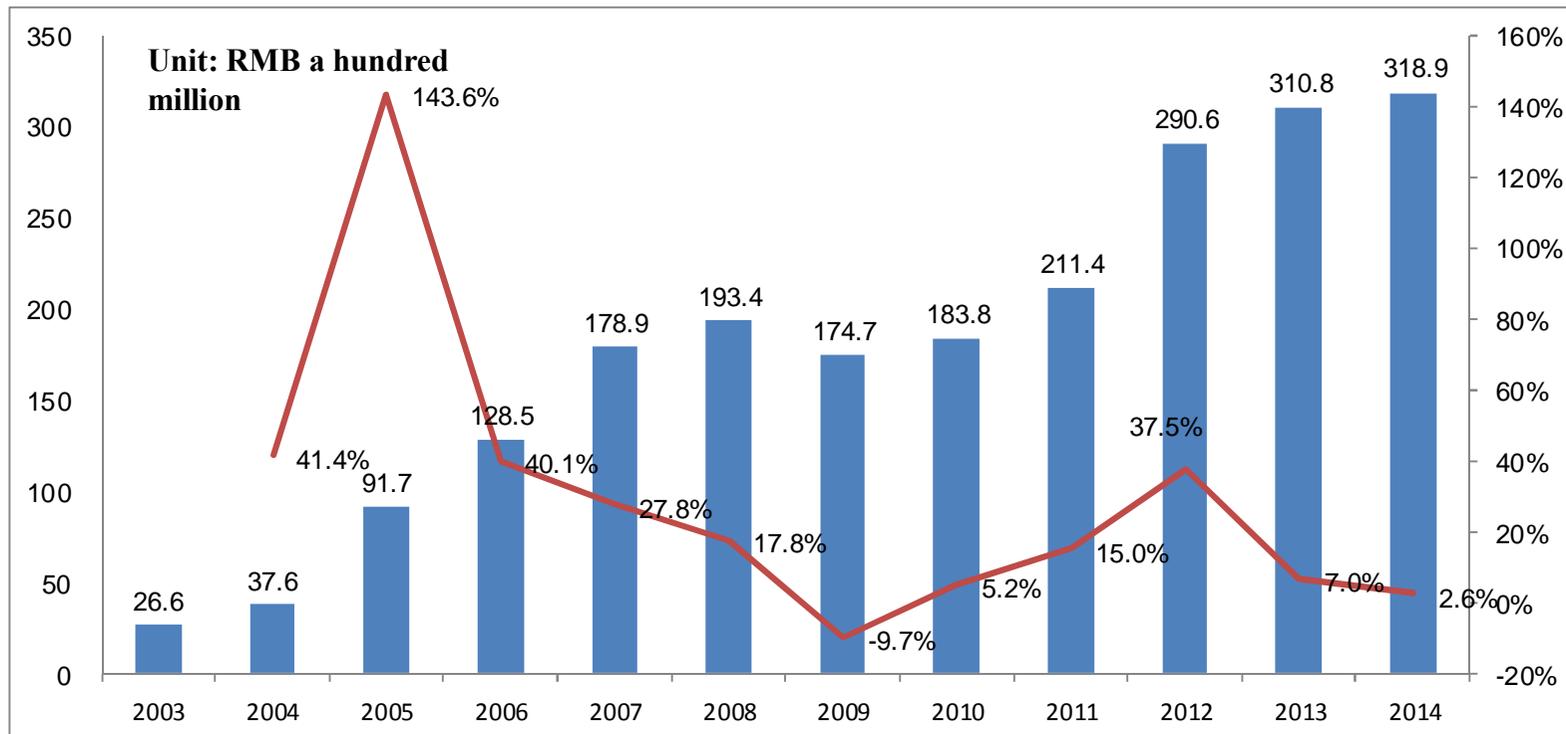
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### 3. Imports and Exports of China's Agricultural Machinery

- With the matured development of China's agricultural machinery industry, China's agricultural machinery exports also increases year by year, in addition to descend in 2009 due to the financial crisis, the agricultural machinery export in 2014 had grown to nearly 32 billion (approximately \$5.16 billion).

Value of Export Delivery of China's Agricultural Machinery (2003-2014)





### 3. Imports and Exports of China's Agricultural Machinery

- **Export area mainly covers Asia, Africa and other developing countries, the export products mainly cover wheeled tractors, walking tractors and rice harvesters. Meanwhile, the Chinese products, with good performance and price competitiveness, export to Europe and America in batch.**

	Export Volume (Sets)				Export Distribution Rate			
	Wheeled tractor	Walking tractor	Harvester	Machines and tools	Wheeled tractor	Walking tractor	Harvester	Machines and tools
Asia	7724	99456	9138	27126	16.1%	81.7%	91.7%	28.6%
Africa	10757	8590	202	36303	22.4%	7.1%	2.0%	38.3%
Europe and the CIS	23409	9786	161	20252	48.7%	8.0%	1.6%	21.4%
South America	3737	3675	454	915	7.8%	3.0%	4.6%	1.0%
North America	665	221	7	9893	1.4%	0.2%	0.1%	10.4%
Oceania	1729	13	4	314	3.6%	0.0%	0.0%	0.3%

### 3. Imports and Exports of China's Agricultural Machinery

- The agricultural machineries imported in China are mainly suitable for the operational requirements in large fields in Xinjiang, Heilongjiang and other regions.
  - É Large tractor and harvesting machinery products with large horsepower, high technology and degree of automation
  - É Compound units, cotton picker with lower throughput in China, and other high-tech products



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## 4. Development Trends Analysis of China's Agricultural Machinery Industry

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### ■ The development goal of China's Agricultural Machinery Industry by 2015:

#### Industry Scale

- É The total industrial output value will reach more than 400 billion yuan (about \$65 billion as per the current exchange rate) by 2015.
- É The value of export trade will reach \$12 billion.

#### Innovation Ability

- É Establish independent innovation platform with effective coordination.
- É The key technology and generic technology have realized the major breakthrough.
- É Part of new products has achieved the international advanced level.

#### Industry Competence

- É Promote the industrial upgrading with modern technology.
- É Form 3-5 large business groups with stronger international competitiveness.
- É Meet the demands for modern agricultural development.

## 4. Development Trends Analysis of China's Agricultural Machinery Industry

### ■ Development trend of China's agricultural machinery market:

É Food security and urbanization would still be two major driving forces to the development of the China's agriculture and the agricultural machinery market.

Food Security



China needs to support 20% of global population with 9% of global farmland.

Urbanization Development



From 2005 to 2011, the proportion of China's urban and rural population reached to 1:1 from 0.75:1 and rural population decreased by 70 million.



## 4. Development Trends Analysis of China's Agricultural Machinery Industry

### ■ Development trend of China's agricultural machinery market:

É Two dominant forces will inevitably lead to the integration of rural land, advanced agricultural technology needs, improvement of the quality of rural life, increased employment opportunities, and a series of development trends in new city center establishment;

É Thus promoting the agricultural operation to intensive direction, and further enhancing the size of the agricultural market and the technical level.

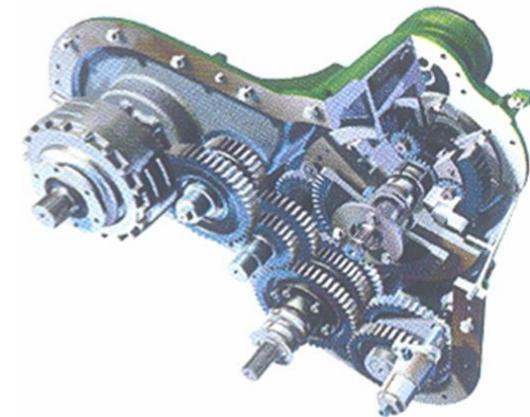
**Intensive Management**



**Larger Market Size**



**More Advanced Technology of Agricultural Machinery**



**2015**

É **The general market size of the medium and large tractors is expected to about 1.6 million sets, with an average of more than 300,000 sets per year, reaching about 40 million sets by 2015;**

É **The annual market size of the small tractors is stabilized between 2-2.3 million sets;**

É **The general market size of the combine-harvester is about 800,000 sets, an annual average of more than 150,000 sets.**

## 4. Development Trends Analysis of China's Agricultural Machinery Industry

- Development trend of China's agricultural machinery technology:
  - É **The agricultural equipment technology with sustainable development for advanced and applicable, intelligent, precise, multi-functional, efficient of conservation tillage, compound operation, precision agriculture, agricultural equipment and technology;**
  - É Agricultural machinery technology extends from in-production to pre-production and post-production;
  - É The agricultural machinery technology has been developed from the main food crops to the advanced cash crops;
  - É The agricultural machinery technology has been developed from the planting industry to cultivation and processing industry.



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## 5. Opportunity in Cooperation with Developing Countries on Agricultural Machinery

- **China has a wide variety of agricultural machinery products, which can be adapted to the needs of the developing countries:**
  - É Due to diverse plants of China's agriculture from cold temperate zone to tropical zone, from the plains to the hills, from the upland to the paddy fields, agricultural products to adapt to a variety of conditions, there are many agricultural machinery products adapting to a variety of working conditions;
  - É China agricultural machinery enterprises may provide a complete set of agricultural machinery solution with a variety of grades from cultivation to harvest.



## 5. Opportunity in Cooperation with Developing Countries on Agricultural Machinery

- **China agricultural machinery enterprises in overseas markets continue to develop and grow, China enterprises can provide the other cooperation on deeper agricultural services and agricultural machinery field for developing countries:**

É Foton Lovol has the annual export volume of the medium and large tractors and harvesting machinery of more than 20,000 sets, possesses experience on sales and service in more than 120 countries around the world and trains agricultural machinery maintenance personnel and technician for dozens of countries every year.

É Be capable of providing a complete set of agricultural machinery operation solution for the customer;

É Be capable of assisting on establishing basic capability in product assembly and maintenance service for the customer.



