

## China

# PRC Agricultural Mechanization Saw a Leap-Forward Development

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Mr. Liu Hengxin graduated from Northwest Agriculture & Forestry University in 1985, majoring in Agricultural Machinery Design. Since the same year, he started to work at Chinese Agricultural Machinery Testing Centre, Ministry of Agriculture (CAMTC, MoA). He had taken up positions including technician, engineer, senior engineer, office dean. In July 2003, he started to work as Deputy Director-General, Department of Agricultural Mechanization, MoA. Mr. Liu has extensive experience in agricultural mechanization management. In recent years, he has actively participating in policy making and policy implementation guidance in the areas of agricultural machinery purchase subsidy, agricultural machinery safety supervision, and conservation tillage.

China's agricultural mechanization has seen a leap-forward development. The presentation focuses on the status of China's agricultural mechanization and its development prospects.

The development of agricultural mechanization has leaped forward to intermediate stage from primary stage. In 2012, the national integrated farming mechanization level reached 57.17%, keeping an annual increasing rate of more than 2% in the past 7 years. The following key achievements reflect the development status of China's agricultural mechanization:

1 \ The system of laws, regulations and policies of agricultural mechanization has gradually matured. Law of the People's Republic of China on Promotion of Agricultural Mechanization was issued in 2004; while Regulations on Agricultural Machinery Safety

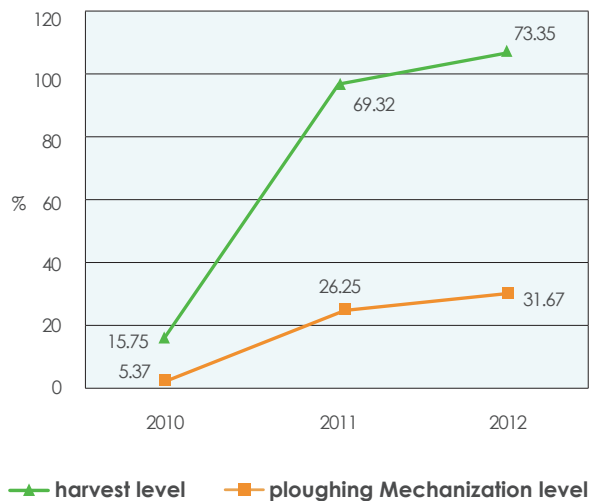
Supervision and Management was issued in 2009. And in 2010, the State Council released Opinions on Promoting Sound and Rapid Development of Agricultural Mechanization and Farm Machinery Industry. The system of agricultural mechanization policy, laws and regulations of Chinese characteristics has been formulated.

2 \ Input for agricultural machinery purchase subsidy has been increasing substantially in recent years. It has increased from RMB 70 million in 2004 to RMB 21.75 billion in 2013. From 2004 to 2013, the Central government has allocated a total of RMB 96.2 billion to agricultural machinery purchase subsidy.

3 \ The development of agricultural mechanization has accelerated. In 2012, the national wheat ploughing, sowing and harvest mechanization levels have reached 98.9%, 86.52% and 92.32%, respectively. Whole

process mechanization has almost been achieved of wheat production in China. Mechanization of rice production has become the highlight of the agricultural mechanization progress.

**Rice production mechanization level**



4 \ The quality of agricultural mechanization development has improved. Significant progress has been made in scientific and technological innovation. R&D of large horsepower tractor has made substantive progress. R&D and production of rice planting and harvesting machinery has entered mature stage. The intellectuality level and automation level of agricultural machinery has improved. The leading enterprises are playing more and more crucial roles in technology innovation. The R&D strength of major agricultural mechanization research institutes has increased substantially.

5 \ The structure of agricultural mechanization has been optimized constantly. In 2012, the national total power of agricultural machinery has reached 1,02 billion kilowatts, and the proportion of large- and medium-sized tractor and small tractor has increased from 1:15 to 1:3.7.

6 \ The range of agricultural mechanization services has broadened. Use of agricultural machinery is extending from the mid-stage of production to pre and post-production stages. The scale of trans-regional operations of farm machinery has been expanded. By the end of 2012, the country has 167,000 agricultural machinery service organizations. The organization level of organization has improved. The number of agricultural co-ops has increased from zero to 34,000 with up to 817,000 members.

7 \ Agricultural machinery industry thrives. In 2012, total industrial output value of agricultural machinery manufacturing enterprises has reached RMB 338,24 billion, which is 7 times of 2002's total. The average annual growth rate is 22%. This growth rate ranks first among the 13 engineering industries in China. The main agricultural products total index has taken up the leading position in the world. China has become the world leading manufacturing country. The production of main agricultural machinery has been able to meet 90% of the domestic needs, which has provided strong basis for the sustainable development of agricultural mechanization.

The prospects and outlook of PRC's agricultural mechanization is analyzed from six perspectives: 1) goal of development: by 2015, the comprehensive mechanization rate of ploughing, sowing and harvest is expected to reach over 60%, and over 70% by 2020; 2) key measures to achieve the goal: to carry out and improve the supporting policies; to support the development of stakeholders; to promote the scientific and technological progress; and to advance the integrated development of farm machinery and agronomy; to strengthen the building of talent team; and to upgrade the capability of public service of agricultural mechanization.