

## China's Agricultural Transition in 2017 - Policies, Actions and Progress

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China is determined to green its agriculture and boost rural prosperity in coming decades. 2017 has been an important year in China's agricultural transition, not only for the progress has been made, but also for the roadmap laid out for the future. This issue of SAIN Information Sheet gives a snapshot of the key policies, actions and progress have been made in 2017.

### A Greener Harvest

- According to the [National Bureau of Statistics \(NBS\)](#), China's grain output stood at 617.9 million tonnes in 2017, up by 1.66 million tonnes, or 0.3 percent, compared with 2016. This was the second highest output on record. China's grain output peaked in 2015 at 621.4 million ton.
- This harvest was achieved with higher productivity and less input of fertilizer and pesticides. The data of NBS shows that grain planting area in 2017 shrank by 815,000 hectares, while the per unit yield was up by 54 kilograms per hectare, or 1 percent compared with 2016.
- According to the Ministry of Agriculture (MoA), the [fertilizer use efficiency](#) for three major crops, rice, wheat and maize was 37.8% in 2017, an increase of 2.6 percentage points compared with 2015; the [pesticides use efficiency](#) for the three major crops in 2017 was 38.8%, an increase of 2.2 percentage points compared with 2015. So it appears that the goal of zero growth in fertilizers and pesticides use by 2020 set by the 13<sup>th</sup> Five Year Plan has been realised three years ahead of schedule.

### Rural Revitalization Strategy

- In his report to the 19th CPC National Congress, held in October in Beijing, Chinese president Xi Jinping outlined the [Rural Revitalization Strategy](#). The key components of the Strategy include:
  - Building rural areas with thriving businesses, pleasant living environments, good social etiquette and civility, effective governance, and prosperity.

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- Consolidate and improve the basic rural operation system, advance reform of the rural land system, and improve the system for separating the ownership rights, contract rights, and management rights for contracted rural land.
- Establish industrial, production, and business operation systems for modern agriculture, and improve the systems for supporting and protecting agriculture.
- Develop appropriately scaled agricultural operations of various forms (including family farms, cooperatives, agricultural enterprises etc.), cultivate new types of agribusiness, improve specialized agricultural services, and encourage small household farmers to become involved in modern agriculture.
- Promote the integrated development of the primary, secondary, and tertiary industries in rural areas, support and encourage employment and business startups there, and open up more channels to increase rural incomes.
- Train professional rural service personnel who have a good knowledge of agriculture, love our rural areas, and care about rural people.
- The [Central Rural Work Conference](#), convened in December, further outlined tasks, targets and timelines for the rural vitalization strategy:
  - By 2020 establish the institutional framework and policy system for rural revitalization;
  - By 2035 complete basic modernization of agriculture and rural areas;
  - By 2050 rural areas should have strong agriculture, a beautiful countryside and well-off farmers.
- The Rural Revitalization Strategy will be the theme of 2018 No 1 Central Document which will guide the government's agricultural and rural work on deepening supply side reform.

## Supply-side Reform

- As outlined in the “[No 1 Central Document](#)” 2017, supply side reform was the central theme of China's agricultural development in the year.
- As part of the supply side reform, China reduced the sown area of grain maize by 20 million mu (1.3 million ha); increased soybean planting area by 8.7 million mu (0.6 million ha). The planting area for coarse grains and pulses increased by 6 million mu (0.4 million ha), silage maize and high quality forage planting area increased by 5 million mu (0.33 million ha);
- Since 2016 the pig herd in southern China has been reduced by 16 million, whilst pig production increased in northeast provinces, where feed grain production potential and the environmental carrying capacity is higher.
- In April 2017, the State Council published the “[Guidelines on the Establishment of Functional zones for Grain Production and Protective Zones for the Production of Major Agricultural Products](#).” According to the document, within 5 years, the government aims to establish 900 million mu (60 million ha) functional zones for grain production, 238 million mu (16 million ha) the production of major agricultural products.

## Agricultural Green Development

- In April, the State Council released the new [Pesticide Administration Regulation](#). The Regulation, which is only the second amendment since the first one in 1997. It was

adopted by the Chinese State Council in February, released on 1<sup>st</sup> April 1st, and came into force on 1<sup>st</sup> June 2017.

The new regulation clarifies that only the MoA will have sole responsibility for pesticide management along the whole chain, including production permit, risk assessment and registration, permission to sell, monitoring and evaluation of registered products. All pesticide producers and importers now have to register and will only gain approval certificates from the agricultural authority if they meet certain criteria. Local authorities have to enhance technical training for farmers to better utilize pesticides.

- In May, MoA launched [Five Actions](#) to foster green agricultural production. These actions include (i) livestock and poultry manure recycling and utilization; (ii) substituting chemical fertilizers with organic fertilizers in fruit, vegetables and tea plantations; (iii) increasing crop straw treatment in the North East provinces (Heilongjiang, Jilin, Liaoning, Inner Mongolia); (iv) greater plastic film collection and recycling; and (v) aquatic biota protection, particularly in Yangtze River.
- In September, the CPC Central Committee and the State Council jointly released the [“Guidelines on Innovating Institutional Mechanism to Promote Green Development of Agriculture”](#). The document outlined the roadmap of China’s agricultural green development by setting out four tasks and milestones:
  - More efficient use and saving of land and water resources. Total arable land area should be no less than 124 million hectares and farmland quality should be improved by 0.5 grade on average by 2020 (China grades its cultivated land quality on a scale of one to ten compared with the five grades in the UK covering both arable and permanent pastures). This task includes prevention of excessive exploitation of groundwater and improved irrigation efficiency.
  - Cleaner production environment – zero growth in the amount of chemical fertilizers and pesticides used in major crops by 2020; straw, animal waste and agricultural plastic film should be fully utilized;
  - By 2020 forest cover should increase to over 23 percent, and the wetland area should not fall below 53 million ha;
  - The comprehensive production capacity of grains should be stabilized at or above 550 million tonnes by 2020, with the quality of farm produce markedly improved.
- In December the MoA together with the National Development and Reform Commission (NDRC), Ministry of Science and Technology (MOST), Ministry of Finance (MoF) and the other 4 Ministries jointly launched the first 40 [National Sustainable Agricultural Development Experiment and Demonstration Zones](#). The aim is to formulate a set of agricultural green development models and integrated technology packages which are suited to local conditions; refine a set of agricultural green development regimes and establish green production and green consumption as routine procedures.

## **Improving Land Quality and Ecosystem**

- In January, the CPC Central Committee and the State Council released the document [“Guidelines on Strengthen Arable Land Protection and Balance between Land Loss and Land Supplementation”](#). China will strictly control construction land use; improve the balance between arable land loss to urban and industrial development and land restoration for agriculture; maintain and improve land quality (including the greater use of fallows -and converting slop-land of >25° into grassland or forestland by expanding

the successful grain for green programme), establish the land protection compensation scheme.

- Also in January, MoA announced the “[Agricultural Resources and Eco-environment Protection Plan](#)”, with key tasks of strengthening arable land quality protection, reducing agrichemical inputs, recycling agricultural wastes, promoting water-saving production models, restoring degraded grassland ecosystems, protecting fishery resources, controlling invasive species, and restoring and improving agricultural wetland.
- In May, the Ministry of Agriculture established the [Arable Land Quality Monitoring and Protection Centre](#). The Centre is responsible for the establishment of a nationwide network to monitor the quality of arable land and treat degradation and soil pollution. It will create a nationwide arable land quality data platform and a national arable land soil supervision system.
- In 2017, China expanded the trial of [crop rotation and land fallow schemes](#). The area covered by crop rotation and land fallow pilot scheme reached 12 million mu (0.8 million ha), 5.8 million mu (0.39 million ha) more than 2016. The pilot scheme covered 192 counties 19 provinces. China will expand trials of crop rotation and fallow systems to cover 24 million mu (1.6 million hectares) of land in 2018.

### **Fostering New Agricultural Business Entities**

- In May, the CPC Committee and the State Council jointly released the “[Guidelines on Speeding up the Construction of Policy System for Culturing New Types of Agricultural Business Entities](#)”. The new agricultural operating entities to be cultivated include professional farmers, family farms, rural cooperatives and agricultural industrialized leading enterprises.

A series of preferential policies were outlined, including fiscal support, preferential tax rates, infrastructure development, financial credit, insurance, and marketing. In addition, training programs will also be launched to nurture professional farmers, and promote rural and agricultural innovation and start-ups.

- China plans to maintain long-term stability in rural land leasing by extending existing contracts by 30 years upon their expiration. In October, a draft of the revised Rural Land Contracting Law was submitted to the Standing Committee of the National People's Congress. In his report presented at the 19th National Congress of the CPC on 18 October, Xi Jinping also said rural land leasing would remain stable, and that existing contracts would be extended by 30 years.

### **Nurturing New Types of Professional Farmers**

In 2017, the MoA continued to make the nurturing of a new generation of professional farmers one of its priorities.

- In January, MoA released the [13<sup>th</sup> FYP for Training New Types of Professional Farmers](#) (those take agriculture as major profession, have appropriate qualifications and skills, with incomes mainly generated from agricultural activities. They are referred by President Xi Jinping as those who love agriculture, have technical skills and good at management). It aims to increase new type of professional farmers to 20 million by 2020. In 2015, the number of new type of professional farmers was 12.72 million.
- In May, MoA announced first round 100 training base for new type of professional farmers. These bases included universities, research organisation, extension organisations, as well as farmers' associations.

- In July, MoA announced the [work-plan](#) for training new type of professional farmers, with the aim of training 1 million professional farmers in 2017. The central government [allocated 1.5 billion RMB \(\\$220 million\)](#) for the initiative.
- Online training platforms are booming. Some examples are national farmers' [mobile phone applied skill training platform](#), China rural [distance education network](#), [agricultural science education cloud platform](#).

## Brand Building of Agricultural Products

The Ministry of Agriculture designated 2017 as agricultural product brand promotion year. A number of actions were launched to accelerate the brand promotion.

- **Exhibitions for brand promotion**
  - In May, MoA organised the first China International Tea Expo, which was held in Hangzhou, Zhejiang province.
  - In September, the 15<sup>th</sup> China International Agricultural Trade Fair was held in National Agricultural Exhibition Center, Beijing
- **Promotion of speciality agricultural products**
  - In October, NDRC), MoA and the State Forestry Administration (SFA) published the [guideline](#) for the development of areas with unique advantages for speciality agricultural products. The government aims to establish 300 areas with unique advantages for speciality agricultural products, which include grain products, horticulture products, livestock products, aquaculture products, and forest products.
  - In December, MoA and other nine ministries jointly awarded grants for the first round of [62 areas](#) with unique advantages for speciality agricultural products;
- **Agricultural Brand Innovation Alliance**

In November, the [Agricultural Brand Innovation Alliance](#) was launched. The Alliance aims to provide a platform for communication and resource sharing, as well as carrying out training, consultation and research in agricultural brand development.

## Enhancing Safety and Quality of Agricultural Products

- In October, MoA set up the [Pesticide Administration Bureau](#) as one of the measures to support the Agricultural Green Development actions given earlier. It will have sole responsibility for the administration of the pesticide industry. Its scope of work includes pesticide industry planning, the provision for industry guidance, administrative licensing, supervision and penalization.
- Following the ban on use of Lomefloxacin, Pefloxacin, Ofloxacin, and Norfloxacin on food-producing animals in 2015, [MoA extended the ban in 2017 to include Fipronil](#).
- In December, MoA launched a consultation on banning the use of Olaquinox, Arsanilic acid and Roxarsone on food-producing animals ([MoA](#) announced in January 2018 that the production of these three drugs should be stopped by 1 May 2018, and selling of these three drugs should be stopped by 30 April 2019).

## Science and Technology Innovation

- Science and technology progress remained the major driver for China's agricultural development in 2017. According to [MoA](#), the contribution of science and technology progress to China's agriculture rose to 57.5% in 2017, 3 percentage points higher than 5 years earlier.

- In January, MoA released the “[13<sup>th</sup> Five-Year Plan for Agricultural Science Development](#)”. The Plan outlined the priorities and task for agricultural technology innovation, actions for enhancing agricultural technology dissemination, capacity building for research, extension and rural innovation, consolidation of agricultural technology facilities, and the measures to improve the institutional mechanism of agricultural technology innovation. The priorities of research and innovation include modernisation of the seed industry, agricultural mechanisation, agricultural information, high efficiency of agricultural resource use, agricultural eco-environment, tillage and crop cultivation, livestock and aquaculture, disaster control and prevention, animal diseases control and prevention, agricultural products processing, quality and safety of farm products.
- E-commerce in agricultural and food supply industries has boomed. According to the [China Rural E-Commerce Development Report \(2017\)](#), the value of rural internet retailing reached 894.54 billion Yuan, and generated more than 20 million jobs. In the first 8 month of 2017, the value reached 729 billion Yuan, a 38% increase year on year.
- In September, the National “Internet+” Agriculture and Farmers Innovation Conference was held in Suzhou, Jiangsu Province. Development of “Internet+” agriculture is regarded as a major measure to increase rural income and raise farm efficiency.

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