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Reading China's agricultural roadmap to 2030

Targets, indicators, and business implications
of the 15th five-year plan

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DCZ Expert Study

Disclaimer

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Executive summary

China's 15th five-year plan (2026-2030) for agriculture and rural modernization sets out a security-focused, technology-driven roadmap for transforming agriculture by 2030 and laying the foundation for "basically completing" agricultural modernization by 2035.

This report provides a chapter-by-chapter analysis of the full document, highlighting key indicators and policy targets and assessing their implications for relevant stakeholders in China and abroad. Its aim is to support informed decision-making on future China-related agricultural business strategies and activities.

The 15th five-year plan prioritizes stronger food security, higher grain production capacity, improved rural incomes, green development, and the modernization of rural public services and infrastructure. A central theme is the shift from traditional production growth toward a more advanced agricultural system based on better land, improved seeds, smart machinery, biotechnology, artificial intelligence (AI), digital platforms, and stronger value chains. For agri-business, the plan creates opportunities in high-standard farmland, irrigation, seed innovation, biological inputs, animal health, dairy processing, cold chain logistics, smart machinery, agricultural AI, and data systems. At the same time, foreign companies will face stronger localization pressure, import-substitution policies, domestic champion-building, data localization requirements, and price competition from Chinese firms. Overall, the plan signals that China will pursue a more self-reliant, green, industrialized, and technology-intensive agricultural model, while still remaining selectively engaged in global agricultural trade.

I. Content of the 15th five-year plan for agriculture & rural modernization

On 2 June 2026, the Chinese State Council released the full text of *Acceleration of Agricultural and Rural Modernization under the 15th Five-Year Plan* (hereafter, The plan). The plan serves as China's national blueprint for agricultural and rural development during the 15th Five-Year Plan (2026–2030). It is one of a series of sectoral plans that will follow the release of the national 15th Five-Year Plan in March 2026 and translates the broad strategic priorities outlined there into detailed policy measures for the agricultural sector. It positions agricultural modernization as a cornerstone of China's broader modernization strategy and aims to substantially complete agricultural modernization by 2035. The plan focuses on four overarching objectives: food security; agricultural technology and productivity; rural revitalization and income growth; and green and sustainable development. The document consists of seven chapters, as described below.

Chapter 1: Overall requirements and development vision

The plan positions the 15th five-year period as a critical stage for basically achieving agricultural and rural modernization within China's broader modernization agenda. The strategy prioritizes rural revitalization, agricultural modernization, and integrated urban–rural development as a unified framework. It also stresses innovation-driven development, including science and technology in agriculture, green transformation, and quality-oriented growth. By 2030, China aims to significantly enhance food security capacity, stabilize grain supply foundations, and improve agricultural productivity and competitiveness, while increasing rural incomes and narrowing urban–rural gaps. According to the plan, by 2035, rural revitalization will achieve decisive progress, and agricultural modernization will be basically completed, forming the foundation of an agricultural powerhouse or, in other words, strong agricultural nation. The key indicators are listed in table 1 below.

Table 1: Key agricultural and rural modernization indicators in the 15th five-year plan

	Indicator	2025	2030 target
1	Total grain production	695 million tons	725 million tons
2	Total meat production	>95 million tons	>95 million tons
3	Contribution of agricultural science & technology	64%	67%
4	Self-sufficiency rate of core agricultural germplasm resources (%)	81%	85%
5	Comprehensive mechanization rate for major crops	76.7%	>80%
6	Agriculture & related sector gross domestic product	RMB 20.6 trillion	RMB 25.8 trillion
7	Agricultural labor productivity per worker (annual)	RMB 60,000	RMB 80,000
8	Green agricultural development index	79.5	83
9	Ratio of agricultural processing output value to primary agricultural output	2.65	3.0
10	Share of new agricultural business entities participating in industrial integration	53.5%	63%
11	Overall pass rate of routine monitoring for agricultural product quality and safety (%)	98%	>98%

12	Treatment rate of rural waste water (%)	55%	70%
13	Village clinics staffed by qualified doctors	47.4%	53%
14	Coverage rate of elderly care service centers in township / subdistrict areas (%)	60%	80%
15	Urban-rural disposable income ratio	2.31	Continue narrowing

Chapter 2: Strengthening agricultural production capacity and improving quality and efficiency

The document sets a key target of increasing grain production capacity from about 695 million tons in 2025 to around 725 million tons by 2030. Meat production is expected to exceed 95 million tons, while grain and oil crop productivity will significantly improve through large-scale yield enhancement programs. The mechanization rate of major crops is targeted to reach 85%, and comprehensive grain production capacity in major regions will be further strengthened. Policy emphasis is placed on protecting cultivated land, upgrading high-standard farmland, improving irrigation systems, and strengthening disaster prevention capacity. The chapter also highlights diversified food supply systems, including fisheries, forestry, facility agriculture, and non-grain food resources, to ensure resilient and balanced food security as shown in table 2.

The plan also aims to enhance the quality of China's outward agricultural investment and international trade cooperation. According to the document, China will promote the diversification of agricultural imports, cultivate internationally competitive agricultural enterprises, and better coordinate trade with domestic agricultural production. It will support the expansion of exports of competitive and specialty agricultural products, vigorously develop trade in agricultural services, and broaden agricultural cooperation with countries participating in the Belt and Road Initiative (BRI). China will also play a more active role in global governance on food security and agriculture.

Table 2: Food security and agricultural supply targets and projects under the 15th five-year plan

1. New Round of Grain Production Capacity Enhancement Program (additional 50 million tons from 2022-23 level)	Continue implementing the national program to increase grain production capacity by 50 million tons; consolidate production in major grain-producing regions and about 720 key grain-producing counties; prioritize high-standard farmland, irrigation, improved varieties, machinery, and integrated technologies to raise yields.
2. Green and High Quality Agricultural Product Supply Project	The plan will revise 500 food safety standards and 1,500 agricultural standards, certify over 40,000 green, organic, and premium agricultural products, strengthen nationwide quality monitoring, develop stronger agricultural brands, and promote value-added dairy products such as cheese and whey products.
3. 'Big Food' Development Project	Develop diversified food resources including marine fisheries, freshwater aquaculture, rice-fish systems, offshore aquaculture, distant-water fishing, protected agriculture, under-forest economy, edible fungi, medicinal plants, and new food resources to broaden China's food supply. Key geographic areas of focus will be Songnen Plain – Northeast China (Heilongjiang & Jilin); Sanjiang Plain – Eastern Heilongjiang; Liao River Plain – Liaoning Province; Yellow-Huai-Hai Plain – Covering parts of Hebei, Henan, Shandong, Anhui, and Jiangsu; Jiangnan Plain – Hubei Province; Dongting Lake –

	Hunan Province; Poyang Lake – Jiangxi Province; The Middle Reaches of the Yangtze River – The Yangtze River corridor in central Anhui; Chengdu Plain – Sichuan Province; Guanzhong Plain – Shaanxi Province; Hetao Plain – Inner Mongolia and Ningxia.
4. High-Standard Farmland Construction Project	Accelerate construction of high-standard farmland in major grain-producing regions and 720 key counties; improve irrigation, soil fertility, field infrastructure, and mechanization compatibility so eligible farmland meets national standards.
5. Modern Irrigation System Construction	The plan will strengthen agricultural water security by constructing a new group of major irrigation projects and modernizing existing irrigation systems across the country. New irrigation schemes will be developed in Jiayan (Guizhou), the Leizhou Peninsula (Guangdong), Western Guangxi, and Yutan (Chongqing). At the same time, major irrigation districts in Shihuhang (Anhui), Dujiangyan (Sichuan), Hetao (Inner Mongolia), the Yarkant River (Xinjiang), and Weishan (Shandong) will undergo comprehensive modernization and rehabilitation.
6. Animal Disease Prevention and Crop Pest Control	Strengthen animal disease surveillance, biosecurity, disease-free zones, emergency response, crop pest monitoring, biological control, integrated pest management, and pesticide risk monitoring.
7. National Food Loss and Waste Reduction Initiative	Reduce food losses throughout production, harvesting, storage, transport, processing, and consumption; modernize grain storage and logistics; continue the 'Clean Plate Campaign' and establish scientific food-loss measurement systems.

Chapter 3: Consolidating and expanding poverty alleviation achievements

This chapter establishes a long-term mechanism to prevent a return to poverty through dynamic monitoring and targeted assistance systems. A unified identification and monitoring framework is proposed to track households at risk of falling back into poverty, with differentiated support measures applied in real time. The plan emphasizes maintaining the “three guarantees” (education, healthcare, housing and drinking water security) and strengthening social assistance systems for vulnerable populations. Industrial development support, employment assistance, and asset management of poverty alleviation projects are key policy tools. The document also promotes East–West regional cooperation, central government pairing assistance, and “village revitalization through enterprises” initiatives (see table 3). Special support is maintained for underdeveloped counties and relocated populations to ensure long-term income stability and prevent large-scale relapse into poverty.

Table 3: Targets related to poverty alleviation and rural assistance in the 15th five-year plan

Improvement of monitoring mechanisms on prevention of returning to poverty	Further improve the role of the national system for preventing households from falling back into poverty by making full use of the Rural Revitalization Big Data Information System. Accelerate the establishment of a fully digital management system covering risk early warning, beneficiary identification, targeted assistance, dynamic adjustment, monitoring, evaluation and other key functions. Build a permanent, data-driven monitoring system to prevent large-scale return to poverty.
Development of agriculture value chains	In areas that have comparative advantages, identify the development direction and priority sectors for each industry. Extend and strengthen agricultural value chains where conditions permit, cultivate county-level leading industries with distinctive characteristics and strong

	employment capacity, and improve industrial resilience and competitiveness. Shift poverty alleviation from short-term support toward sustainable industrial development.
Regional coordination of poverty alleviation efforts	Promote coordinated assistance among eastern and western regions. Deepen cooperation in industrial development, labor mobility, consumption assistance, and talent exchange. Support rural revitalization through technology, education, and healthcare partnerships. Improve cross-regional cooperation mechanisms and encourage scientific research institutes, enterprises, and social organizations to participate in long-term rural revitalization. Transform poverty alleviation partnerships into long-term regional development cooperation.

Chapter 4: Strengthening agricultural science, technology, and equipment

This chapter emphasizes technological self-reliance and breakthroughs in core agricultural technologies. It calls for a national innovation system integrating research institutions, enterprises, and universities to achieve breakthroughs in key agricultural technologies. Major priorities include seed industry revitalization, high-end agricultural machinery development, and intelligent agriculture powered by artificial intelligence (AI) and digital systems. The seed industry strategy includes genetic resource innovation, commercial breeding systems, and stricter intellectual property protection. Agricultural machinery development focuses on smart, green, and terrain-adapted equipment, including robotics and new energy machinery. The plan also promotes digital agriculture infrastructure, including data platforms, satellite-ground integrated monitoring systems, and agricultural AI applications to enhance productivity and decision-making (see table 4).

Table 4: Targets related to science and technology in the 15th five-year plan

1. Breakthroughs in core agriculture technologies	Develop new gene-editing tools and accelerate breakthroughs in multi-gene precision editing, single-cell precision editing, and other frontier breeding technologies. Promote synthetic biology, biological manufacturing, and other disruptive technologies to strengthen China's independent innovation capacity in agricultural science and technology. Build indigenous agricultural innovation capacity in strategic frontier technologies.
2. Seed and breeding sector development	Improve the national agricultural science and technology innovation system; establish national breeding innovation platforms; strengthen protection and utilization of germplasm resources; build national seed breeding bases; promote commercial breeding; support major innovation platforms in key production regions such as Gansu– maize breeding base (key dryland seed production zone); Xinjiang– maize and rice breeding + large-scale seed production base; Sichuan– hybrid rice breeding and seed production system; Fujian– hybrid rice and improved crop seed production; Henan (northern plains) – wheat breeding and seed industry hub; Heilongjiang – soybean and large-scale grain seed resources; Hainan– tropical seed breeding base (off-season breeding platform). Establish pilot platforms for biological breeding safety evaluation and commercialization. Strengthen seed security and innovation as the foundation of food security.
3. Ag tech enterprise research & development	Develop world-class agricultural technology enterprises, national key laboratories, new research and development (R&D) institutions, innovation consortia, and enterprise postdoctoral stations. Support enterprises to lead national scientific research projects and accelerate commercialization of research results. Make enterprises the primary driver of agricultural innovation.

4. Upgrade modernization of high-tech greenhouses and controlled environment agriculture (CEA)	The plan will upgrade modern greenhouse equipment by improving the performance of complete sets of CEA systems. It will promote the application of new CEA structures, new materials, intelligent environmental control systems, and energy-saving and consumption-reducing technologies and equipment. The plan also supports the development of new agricultural production formats such as factory-style agriculture. In addition, it encourages the context-specific promotion of energy-efficient, automated, and high-performance facility-based crop cultivation systems, as well as intensive livestock farming models.
5. Agricultural machinery high quality development action plan	Promote high-end, intelligent, and hilly-area agricultural machinery; improve domestic manufacturing capability; support large tractors, harvesters, precision seeders, unmanned agricultural machinery, and low-altitude agricultural equipment; establish national manufacturing centers for advanced agricultural machinery. Increase self-reliance in agricultural machinery and smart equipment. The plan intends to upgrade machinery systems toward high-end, intelligent, and low-carbon technologies. Large-scale flatland agriculture will increasingly rely on high-power tractors of 400 horsepower and above , while mountainous and hilly regions will use tractors adapted to slopes of 6–25 degrees . Large rotary tillage and precision farming equipment will be widely deployed, supported by electro-hydraulic control systems and improved core component technologies such as vacuum-assisted systems. China will also develop next-generation equipment such as 300-horsepower hybrid tractors and hybrid combine harvesters , along with integrated intelligent agricultural machines. In addition, China will expand the use of smart agricultural machinery and robotics, including autonomous transport robots, laser weeding systems, facility agriculture inspection robots, and automated fruit and vegetable harvesting machines. Agricultural drones will be deployed at large scale, with a national fleet exceeding 350,000 units, supporting operations that cover more than 233 million hectare-times annually.
6. Agriculture & bio-manufacturing development	Develop bio-manufacturing of microbial proteins, engineered enzymes and feed additives, insect proteins, oils, amino acids, and other bio-based raw materials; develop microbial fertilizers, bio-pesticides, veterinary vaccines, ribonucleic acid (RNA) pesticides, and innovative veterinary medicines; promote commercialization of agricultural biological products. Expand the agricultural bioeconomy and next-generation biological industries. These innovations aim to strengthen animal health management and biological manufacturing capacity in agriculture.
7. AI + Agriculture	Implement the 'AI + Agriculture' initiative by promoting artificial intelligence in breeding, production management, pest and disease monitoring, agricultural machinery, processing, logistics, and rural governance. Build national agricultural AI labs, data platforms, and smart farms. Accelerate digital transformation and intelligent agriculture using AI and big data. These technologies are integrated with agricultural robotics and data platforms to form a fully digitalized agricultural production system.

Chapter 5: Increase rural income

This chapter focuses on increasing farmers' income through diversified rural industries and employment. It promotes the development of specialty agriculture, rural tourism, cultural industries, and rural e-commerce as integrated value chains. Agricultural product processing is upgraded through “full-chain value addition,” including grain-to-food, livestock-to-meat, and agricultural-to-industrial transformation. Cold chain logistics and rural commercial systems are strengthened to improve market access and reduce post-harvest losses. Employment policies emphasize skills training, migrant worker support, and rural entrepreneurship, especially in services such as elderly care, logistics, and domestic services. The plan also encourages new

consumption models in rural areas, including green products, e-commerce platforms, and experiential rural tourism to stimulate domestic demand, as shown in table 5.

Table 5: Targets related to raising farmers' income in the 15th five-year plan

1. Develop rural specialty industry clusters	The plan will build a group of national modern agricultural demonstration zones and construct a number of modern agricultural industrial parks, specialized characteristic industry clusters, and integrated agricultural industry development zones. The plan also supports the development of leading agricultural enterprises and aims to cultivate around 3,000 key national agricultural industrialization enterprises, including flagship "chain-leading" enterprises that anchor industrial value chains.
2. Agricultural product processing and value-added manufacturing	China will build modern agricultural product processing parks and strengthen R&D integration in processing technologies. It will develop advanced processing equipment featuring precision control, intelligent operation, and clean production technologies. The goal is to expand product variety, improve nutrition and health attributes, and enhance the overall quality of processed agricultural products.
3. Cold chain logistics and storage system for agricultural products	China will develop around 500 local cold-chain distribution centers and improve the agricultural product circulation backbone network. It will integrate county-level logistics resources into coordinated delivery systems. The plan also calls for building 50 provincial and regional wholesale markets for agricultural products and training around 30,000 agricultural product brokers and intermediaries to improve market connectivity and distribution efficiency.
4. Employment-driven income growth for farmers	China will promote rural household-based and workshop-style family businesses and expand farmers' participation in industrial value chains. It will establish regional labor cooperation platforms and develop strong labor service brands with local characteristics. The plan also strengthens small and medium rural public welfare infrastructure and promotes labor-based income generation. It will improve rural collective income distribution mechanisms, increase farmers' share in land value appreciation, and explore diversified channels for increasing farmers' property and wage income.

Chapter 6: Accelerating green transformation of agricultural development

This chapter promotes integrated ecological protection of mountains, rivers, forests, farmland, lakes, and grasslands, alongside strict resource conservation policies such as water-saving agriculture and soil protection. Chemical fertilizer and pesticide reduction policies will be strengthened, along with expanded adoption of green pest control and organic farming practices. The plan introduces agricultural carbon reduction and carbon sequestration initiatives, including carbon footprint management for agricultural products. It also promotes ecological value realization through mechanisms such as ecosystem asset accounting and carbon trading in agriculture. The development of green industrial chains is encouraged to reduce emissions while improving efficiency in production, processing, and logistics systems (see table 6).

Table 6: Targets related to ecological and green agriculture in the 15th five-year plan

1. New round of agricultural resource survey and zoning	China will carry out a new round of comprehensive agricultural resource surveys to clarify the baseline of agricultural resources and improve the national agricultural resource accounting system. It will advance agricultural regional zoning and guide the rational allocation and efficient use of resources to optimize agricultural production layout. Regions with strong foundations, good conditions, and high development potential will be selected as pilot areas for early implementation. The plan also promotes the application of digital management systems for agricultural resources to improve governance efficiency and precision.
2. Conservation and efficient use of agricultural resources	China will improve the cultivated land fallow and rotation system and develop high-efficiency water-saving irrigation facilities tailored to local conditions. The utilization efficiency of irrigation water in farmland will be raised to 0.6 . The plan strengthens the protection and restoration of aquatic ecosystems and important ecological refuges, and promotes scientific and regulated release of aquatic biological resources. It will also implement the Yangtze River biodiversity conservation project to protect and restore aquatic biodiversity and ecosystem stability.
3. Comprehensive treatment of agricultural non-point source pollution	Focusing on the Yangtze River Basin and Yellow River Basin as key regions , along with other major river basins, China will systematically control agricultural non-point source pollution. Measures include promoting the treatment and recycling of agricultural film and livestock manure, and strengthening the resource utilization of agricultural waste. It will advance ecological renovation of ponds and water-based aquaculture tailwater treatment, and comprehensively address environmental issues in marine aquaculture. The plan also improves soil testing and fertilizer application systems and strengthens the evaluation and application of innovative agricultural technologies.

Chapter 7: Building livable beautiful villages and governance

This chapter integrates rural infrastructure development, public services, governance modernization, and policy support mechanisms. It prioritizes upgrading rural infrastructure such as roads, water supply systems, energy networks, logistics, and digital connectivity. Rural housing improvement, environmental sanitation, and waste and wastewater treatment are emphasized to improve living conditions. Public services in education, healthcare, elderly care, and social welfare are expanded to reduce urban-rural disparities. The final section emphasizes fiscal investment, financial support, land reform, and evaluation systems, ensuring coordinated implementation through monitoring, assessment, and performance accountability across all levels of government as shown in Table-7.

Table 7: Targets related to rural development in the 15th five-year plan

1. Rural road infrastructure upgrading	China will improve rural road systems by expanding and upgrading village road networks, improving access to paved roads in natural villages, and renovating old, narrow, or unsafe roads and bridges. Safety protection infrastructure will also be strengthened to improve rural mobility and connectivity.
2. Rural water supply and drainage improvement	The plan will enhance rural water security by building and upgrading small reservoirs, hillside water storage facilities, and rural water supply projects. It aims to ensure safe, stable, and high-quality drinking water in rural areas.

3. Digital rural development	China will advance digital village construction by expanding 5G and fiber-optic networks and upgrading rural infrastructure. Digital technologies will be applied in education, healthcare, culture, and governance, while improving rural data integration and management systems.
4. Balanced development of compulsory education	Rural schools will be upgraded to standardized levels and integrated into national smart education platforms. Teacher capacity, structure, and quality will be improved to meet rural education needs more effectively.
5. County-level healthcare service capacity	China will strengthen rural healthcare systems by improving township health centers and village clinics and expanding telemedicine. Integrated county medical networks will be developed, including shared diagnostic services such as imaging and laboratory testing.
6. Three-tier rural elderly care system	A county–township–village elderly care network will be built and improved. New and upgraded elderly care facilities will be developed, with a target of raising nursing-bed coverage to 73%. Services for disabled and vulnerable groups will also be expanded.
7. Rural environmental improvement	China will continue improving rural living environments through upgraded sanitation systems, wastewater treatment, and waste management. It will strengthen garbage collection and recycling systems and improve sewage treatment integration, especially in cold and arid regions.
8. Rural culture and governance development	The plan promotes rural cultural revitalization by strengthening cultural heritage protection, promoting traditional rural culture, and improving public cultural services. It supports rural arts programs, cultural outreach activities, and governance initiatives that strengthen community cohesion and rural cultural identity.

II. Assessment and implications

1. Overall assessment

China's 15th five-year plan for agriculture and rural development is a food-security, technology self-reliance, and rural modernization plan. The overall direction is: raise domestic production capacity, reduce strategic vulnerabilities, upgrade rural infrastructure, industrialize agriculture, and use science, machinery, AI, seed innovation, and biotechnology to close productivity gaps. The plan moves China toward a model of "high-capacity, high-tech, green, and industrialized agriculture." The priority is no longer only producing more grain; it is producing more with better land, better seeds, better machines, better disease control, better logistics, and stronger rural value chains.

First, food security remains the political anchor. The plan emphasizes grain production capacity, high-standard farmland, irrigation modernization, yield improvement, soybean support, pig production capacity regulation, dairy competitiveness, and animal disease prevention. It also stresses import diversification and coordination between trade and domestic production.

Second, China wants to turn agriculture into a modern industrial system, not just a primary production sector. The plan promotes agricultural processing parks, cold-chain logistics, rural e-commerce, provincial wholesale markets, agricultural brokers, and "chain-leading" enterprises.

Third, the plan is strongly technology oriented. It calls for original innovation, core technology breakthroughs, seed industry revitalization, biological breeding commercialization, smart machinery, AI in agriculture, rural data infrastructure, and domestic intellectual property in software and hardware.

Fourth, the plan links agriculture with rural revitalization and social stability. It embeds rural income growth, public services, elderly care, healthcare, education, digital villages, and poverty-prevention monitoring into the modernization agenda.

Fifth, the green transition is becoming a business requirement. The plan calls for fertilizer and pesticide reduction, green pest control, livestock manure utilization, agricultural carbon footprint management, carbon trading, and agricultural ecosystem service accounting.

2. Implications for agricultural commodities

Soybeans: China will remain structurally dependent on soybean imports, but the plan aims to slow the growth of dependence. The document explicitly calls for a long-term mechanism to support the soybean industry and for higher corn and soybean production capacity. This does not mean China can replace imports at scale, because its land and water constraints remain severe, but it does mean the government will continue supporting domestic soybean production, higher-oil/high-yield varieties, soybean-corn intercropping, and reduced feed-protein dependence. The Organisation for Economic Co-operation and Development and the Food and Agriculture Organization (OECD-FAO) 2026-2035 outlook supports this interpretation: China accounts for around one-quarter of global protein meal demand, but growth in China's compound feed demand is expected to be much slower than in the previous decade because animal production growth, especially pork, is slowing. Soybean exporters will still find China indispensable, but future growth will be less automatic. The biggest risk for exporters is not a sudden collapse in Chinese demand; it is policy-driven moderation through domestic soybean support, lower protein-meal ratios, synthetic/microbial proteins, feed enzymes, and animal production efficiency. The soybean trade would also be highly susceptible to geo-political dynamics, i.e., developments in US-China relations.

Pork: The plan reinforces China's goal of stabilizing and controlling domestic pig production capacity. It calls for improving the comprehensive regulation mechanism for pig production capacity and raising efficiency in livestock and poultry production. This means China wants pork to be primarily a domestic supply-security sector, not an import-dependent sector. The OECD-FAO outlook also states that China's strategy to strengthen domestic animal protein production is increasing pig-meat self-sufficiency and reducing reliance on imports. The current overcapacity in domestic pork supply and price cratering would mean fewer opportunities for foreign suppliers in the near future, unless new disease outbreaks reduce domestic supply.

Beef: China can expand domestic beef and grass-fed livestock production, but the plan's emphasis on forage, grassland livestock upgrading, and diversified food supply suggests that domestic production will improve gradually rather than fully replace imports. The OECD-FAO outlook expects China's beef import demand to remain structurally significant even as China raises domestic animal protein production. Beef remains one of the better long-term animal-protein opportunities for foreign suppliers. But exporters will face tougher competition from domestic beef upgrading, stricter disease controls, traceability requirements, and possible diversification away from over-reliance on any single supplier.

Dairy: The plan explicitly calls for improving dairy competitiveness and promoting value-added dairy products such as cheese and whey products. This points to a dual strategy: upgrade domestic milk production and processing, while still importing products where China has structural gaps. The OECD-FAO outlook expects China to remain the world's major dairy importer, although growth in domestic milk production will limit growth in whole milk powder (WMP) imports; China's WMP imports are projected to represent 15% of global imports in 2035, down from the base period share. Basic milk powder import growth may slow, but opportunities remain in cheese, whey, infant nutrition ingredients, functional dairy, genetics, feed, processing technology, quality systems, and cold chain. The dairy sector in China also experiences oversupply and price depression at the moment as in the pork sector.

3. Role of science, AI, digitalization, seeds, and biotechnology

Science and technology are the central delivery mechanisms, as shown in table 8. The plan's indicators explicitly raise the contribution rate of agricultural science and technology from 64% to 67% and core germplasm self-sufficiency from 81% to 85%.

Table 8: Implications of the 15th five-year plan for agribusiness and related tech companies

Area	Plan direction	Business meaning
Seed and genetic breeding	Germplasm identification, gene mining, commercial breeding systems, national seed bases, stricter intellectual property (IP) protection, biological breeding industrialization	Strong demand for breeding platforms, molecular breeding, gene-editing tools, seed testing, germplasm databases, and licensing models
AI + agriculture	AI in breeding, production management, pest monitoring, machinery, processing, logistics and rural governance	Demand for decision-support platforms, machine vision, crop models, livestock monitoring, traceability, and data infrastructure
Digital agriculture	Multimodal datasets, data standards, rural data infrastructure, satellite-ground observation networks	Opportunities in sensors, remote sensing, farm management platforms, digital agronomy, weather-risk tools, and compliance systems
Bio-manufacturing	Microbial proteins, engineered enzymes, feed additives, insect proteins, amino acids, microbial fertilizers, biopesticides, RNA pesticides, veterinary vaccines	Strong opening for biological inputs, feed efficiency, animal health, and lower-chemical farming systems
Smart machinery	High-end intelligent machinery, hilly-area machinery, new-energy (electric) machinery, unmanned machines, and low-altitude agricultural equipment	Demand for precision machinery, autonomous systems, robotics, hybrid powertrains, and digital-machine integration

The plan specifically mentions high-end intelligent machinery, large tractors, harvesters, precision seeders, unmanned agricultural machinery, drones, 300-horsepower hybrid tractors, hybrid combine harvesters, and large-scale use of agricultural drones.

4. Implications for domestic and foreign agribusiness

The plan creates large demand in several areas: high-standard farmland construction, irrigation, seed innovation, biological crop protection, feed additives, livestock health, dairy processing, smart machinery, drones, cold chain, rural logistics, agricultural AI, and data systems.

For foreign companies, the best opportunities are likely in technology licensing, joint R&D, local manufacturing, high-end components, precision systems, biologicals, livestock/dairy value-chain upgrading, and digital compliance tools, as shown in table 9.

The plan could create some challenges for foreign enterprises. The biggest challenge is import substitution and domestic champion-building. In seeds, machinery, AI, data infrastructure, and biotechnology, the language strongly favors self-reliance, domestic intellectual property and Chinese enterprise leadership. Foreign companies selling finished products into China may face growing pressure to localize production, share technology, build joint ventures, and comply with China-specific data, satellite navigation system, biosafety, and standards systems. For example, the Chinese government now requires that agricultural machinery, vehicles, and drones use the Chinese-developed BeiDou Navigation Satellite System for navigation and autonomous functions, rather than US-based Global Positioning System (GPS).

A second challenge is regulatory and data localization risk. AI in agriculture, digital farming, biological breeding, and rural data infrastructure are likely to be treated as strategic sectors. Foreign digital platforms may face restrictions around data ownership, cloud storage, algorithm transparency, satellite navigation system, and interoperability with government platforms. New Chinese supply chain regulations would subject companies to additional scrutiny and regulatory compliance.

A third challenge is price competition. In crop protection and biological inputs, foreign companies will face Chinese competitors that are improving quickly and often compete aggressively on price. Many foreign companies report strong competitive pressure in China contributing to lower prices in Asia. The plan is good news for foreign companies that bring hard-to-replace technology, but bad news for companies relying mainly on simple exports or legacy products.

Table 9: Implications of the 15th five-year plan for foreign agribusiness

Company type	Positive impact	Negative impact
High-end machinery firms	Demand for high-horsepower tractors, harvesters, precision seeders, smart equipment	Localization pressure, domestic substitutes, subsidy preference for Chinese equipment
Seed & breeding firms	Demand for germplasm, molecular breeding, commercial breeding systems, IP protection	Strategic self-sufficiency target limits foreign control of core seed systems
Crop protection firms	Demand for low-toxicity, low-residue, precision-use products	Chemical reduction, generics, price pressure, stricter regulation
Biological input firms	Strong demand for biopesticides, microbial fertilizers, RNA pesticides, feed enzymes	Biosafety approval, local registration, domestic biotech competition
Digital & AI firms	Demand for AI breeding, pest monitoring, smart farms, traceability	Data localization, cybersecurity, government-platform integration
Livestock & dairy firms	Demand for disease control, genetics, feed efficiency, dairy processing, quality systems	Import substitution in pork and milk powder; stronger domestic brands

China's 15th five-year plan creates a large technology market, but a more selective one. The winning foreign firms will be those that localize, co-develop, protect IP carefully, and position themselves as contributors to Chinese food security and productivity goals. The most exposed firms are those dependent on commodity exports, generic crop chemicals, or non-localized digital platforms. German companies in the agricultural machinery and input sectors could benefit from opportunities in advanced and smart agri-machinery, vegetable seeds, green crop protection, seed treatment, biologicals, rice systems, digital decision tools, smart spraying, soil/fertilizer efficiency, etc.

Overall, the plan suggests that China will pursue a technology-driven, resource-efficient, and security-focused model of agricultural development. The plan aims to build China into an "agricultural powerhouse" while narrowing the urban–rural gap and strengthening national food security. The coming five years are likely to see accelerated modernization of farming systems, deeper integration of digital and biological technologies, and continued efforts to balance domestic food production with strategic participation in global agricultural markets, including efforts to narrow the agricultural trade deficit.

The success of this approach will depend on how effectively China can reconcile its competing objectives of food security, rural revitalization, environmental sustainability, and international economic engagement. Given China's track record of meeting self-imposed targets through strong political commitment and nationwide resource mobilization, the global community is likely to closely watch the direction of its agricultural policies over the next five years.

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