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## MAIN TRENDS IN SUSTAINABLE AGRICULTURAL DEVELOPMENT IN CHINA<sup>1</sup>

*The aim of research is to develop theoretical foundations for the implementation of the concept of sustainable development in Chinese agriculture.*

*Materials and methods:* The theoretical basis for the research was the works of scientists in the field of sustainable agricultural development. The system approach, abstract-logical analysis, comparative analysis, and monographic methods were applied.

*Results.* The article presents the development opportunities and impacts of agricultural economy in China and trade under sustainable development. It concludes that the flow of rural population, land utilization, quality and safety of agricultural products are the main factors affecting sustainable development of agriculture in China.

*Conclusions.* There is presented the analysis of the current status and development trend of agricultural economy in China. Despite the vast Chinese agricultural trade and good development dynamics, continuous supports from government and innovation promotion are still needed.

*Keywords:* concept, agriculture, trade, economy, agricultural production.

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## ОСНОВНЫЕ ТЕНДЕНЦИИ УСТОЙЧИВОГО РАЗВИТИЯ СЕЛЬСКОГО ХОЗЯЙСТВА В КИТАЕ

*Цель исследования – разработка теоретических основ реализации концепции устойчивого развития в китайском сельском хозяйстве.*

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**Материалы и методы:** Теоретической основой для исследований послужили труды ученых в области устойчивого развития сельского хозяйства. Применены системный подход, абстрактно-логический, сравнительного анализа, монографический методы.

**Результаты.** В статье представлены возможности развития и влияние сельскохозяйственной экономики и торговли Китая в условиях устойчивого развития, а также сделан вывод, что поток сельского населения, использование земельных ресурсов, качество и безопасность сельскохозяйственной продукции являются основными факторами, влияющими на устойчивое развитие сельского хозяйства в Китае.

**Заключение.** Представлен анализ текущего состояния и тенденции развития сельскохозяйственной экономики Китая, который позволяет заключить, что масштабы торговли сельскохозяйственной продукцией Китая огромны, динамика развития хорошая, но вместе с тем необходима постоянная политическая поддержка и продвижение инноваций.

**Ключевые слова:** концепция, сельское хозяйство, торговля, экономика, сельскохозяйственное производство.

**Introduction.** In general, Chinese agricultural trade has been growing, but it also faces some challenges, such as flow of rural population, land resource utilization, and the quality and safety of agricultural products. Economic transformation is to achieve the strategic goal of rural revitalization.

**Main part.** China's agricultural economy includes agricultural production, agricultural product circulation, rural economy, etc. The relevant situation and related data of China's agricultural economy is as follows:

1. Agricultural production: China is one of the world's largest agricultural producers, with abundant agricultural resources, and a wide range of agricultural industries. Its main agricultural products are food, cotton, oil, vegetables, fruits and so on.

2. Rural population: China has hundreds of millions of people living in rural areas, and they make up the majority of China's total population. Along with the progress of urbanization, there are two emerging problems: the flow of rural population and the adjustment of employment.

3. Rural economy: The Chinese government attaches importance to rural economic development, and takes various measures and policies to support rural economic development and improve farmers' life, such as construction of rural infrastructure, rural finance, and land system reform of rural areas.

4. Circulation of agricultural products: Chinese agricultural product circulation market has been improving the whole time, and an industrial chain from production to sale has also been formed. All the products have many ways

of sales channels to provide choice for consumers.

5. Rural finance: Rural finance is important material support for the development of rural economy in China. The main carriers of rural finance are rural credit cooperatives, agricultural development banks, rural small loan companies etc., providing various services such as loan savings, currency operations and insurance for the farmers.

6. Modern agriculture: The Chinese government is promoting the development of modern agriculture. The key factors are improvement of the quality and safety of agricultural product and promotion of agricultural industrialization.

The level of agricultural mechanization continues to upgrade, and the efficiency and output of agricultural production have gradually improved.

Specific data supports the above view:

1. Agricultural production data:

– China is the world's largest food producer, and the annual food production ranks first in the world. In 2023, China's total grain output reached approximately 641 million tons.

– China is the largest rice, wheat and corn producer in the world, accounting for about 30 %, 25 % and 22 % of the world's total output [1].

2. Rural population data:

– In 2023, China's rural population was about 477 million, accounting for about 34.07 % of China's total population [2].

3. Cycle data of agricultural products:

– The size of China's agricultural e-commerce market has been increasing year by year, and the transaction volume of agricultural e-commerce in 2023 reached about 2.5 trillion yuan.

– China has the world's largest rural market network which spreads throughout the country, providing important sales channels of agricultural products [3].

4. Rural financial data:

– As for the end of 2022, the total assets of China's rural financial institutions reached approximately 4.762 trillion yuan [4].

5. Modern agricultural development data:

– As of 2023, China's crop farming had a comprehensive mechanization rate of more than 73%, the national agricultural scientific and technological progress contribution rate reached 62.4%, the total power of agricultural machinery exceeded 1.078 billion kilowatts, and the total number of agricultural machinery equipment was close to 200 million units (sets). At 230 million kilowatts, the level of agricultural mechanization is still increasing [5].

Sustainable agriculture under the United Nations Sustainable Development Strategy refers to the agricultural development policy and practice (SDG2) adopted by the United Nations member states to achieve the United Nations Sustainable Development Objective (SDGS). The following statements are some key measures and practices that promote sustainable agriculture under the strategic framework of the United Nations Sustainable Development:

1. The United Nations stresses promoting cooperation and coordination between government, farmers NGOs, international organizations and private sector in order to jointly develop sustainable agricultural policies and projects. This enhances resource integration, best practice sharing and sustainable agriculture that is widely recognized through more inclusive participation. Such cooperation is more conducive to resource integration, sharing technology progress and problems, so as to achieve more organizations to participate in the sustainable development of agriculture [6].

2. Governmental support and regulations: The United Nations encourages governments and member states to adopt policies that promote sustainable agricultural development; this also helps in friendly environmental production of crops. Policies may deal with land-use patterns, water resources management, agricultural subsidies, ecological conservation or other factors [7].

3. Technology innovation and knowledge sharing: The United Nations supports agricultural technological innovation and knowledge sharing that effect the way agricultural production is

done. This includes such initiatives as adoption of climate smart agriculture, promotion of agrotechnology, or protection of bio-diversity to reduce waste or resource misuse and pollution [8].

4. Promotion of farmers' participation and protection of their rights and interests: The major emphasis for United Nations is on the protection of farmers' rights and promoting their participation in decision making process. This includes training and skills improvement to farmers, enhancing their working conditions and livelihoods as well as strengthening the construction of farmer organizations and cooperatives [9].

5. Promote sustainable agricultural investment: The United Nations also encourages governments as well as international institutions to increase investment in agriculture that will be sustainable such as infrastructural development, research on new farm technologies, granting subsidies to farmers, financial support. All the above can improve rural livelihoods through increasing efficiency in agricultural production leading to reducing poverty levels and inequality among rural dwellers [10].

Sustainable agriculture in UN Sustainable Development Goals (SDGs) will make a significant contribution to achieving “zero hunger”, rural development, environmental protection and food security.

United Nation's SDG 2 aims to achieve “zero hunger” which includes ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture. However, the specific situation varies from region to region, but globally there are still challenges. Some of the progress made includes: improved agricultural production technology, optimization of the food supply chain. Nonetheless, still hundreds of millions of people suffer from hunger and malnutrition particularly in fragile areas affected by conflict and climate change (Agriculture: Food Security for All). The key to attaining SDG2 is intensifying cooperation; investing in agriculture; enhancing rural infrastructure as well as improvement of farmer's living standards.

The actual situation for this specific matter regarding SDG2 is as follows:

1. Number of hungry people: Number of hungry people across the globe has declined over the last few decades but still hundreds of millions suffer from hunger and malnutrition. Especially in some conflict and economic poverty areas, this problem is very serious [11].

2. Grain safety: Even though the total food production in the world is enough to meet the global population demand, yet issues such as uneven distribution of grains, wastage of grains and climate change have continually threatened food security; some developing nations still suffer from the menace of hunger [12].

3. Nutrition: Most regions have adequate supply of food but they face the problem of malnutrition, especially children and women. Poor physical and mental development caused by lack of sufficient nutrition affects the health as well as progress of an entire society [13].

4. Sustainable agriculture: To achieve food security there has to be promotion for sustainable agricultural practice which includes science and technologies in agriculture, better agricultural infrastructure, improving farmers' skills and knowledge, protecting ecosystems [14].

5. Political support and investment: SDG2 can only be implemented with political support from governments and international communities, capital investments including rural infrastructure, smallholder farmer support systems, provision of agricultural technologies with training programs and development of agromarketing [15].

The implementation of SDG2 is still far away. Under normal circumstances, all the stakeholders are provided with fair, safe, and nutritious food in order to summarize their efforts, policies, and actions to solve the problems of hunger and malnutrition.

The location of SDG2 and the situation of China's agricultural trade in 2023:

1. On the one hand, it promotes modern agriculture to improve the level of agricultural mechanization and optimize the agricultural production structure to balance the supply and demand of food and demand under the condition of growing population [16].

2. The development and operation of agricultural products will accelerate the pace of rural e-commerce to achieve the integration and offline of agricultural special products to improve the competitiveness of the agricultural product market to achieve added value of agricultural products [17].

3. Protecting farmers to increase farmers' income is one aspect. On the other hand, the opening of the loan system for the peasants of the shareholders provides a number of financial support funds (such as loans, insurance, savings, etc.) for rural families. At the same time, the

reform of the existing farmers' loan system is supposed to protect the rights and interests of farmers and to promote the stable income of farmers [18].

4. Promote the sustainable agricultural development: my country can promote the sustainable agricultural development by strengthening the construction of ecological agriculture, the promotion of green agricultural production methods, reducing the amount of pesticide fertilizers, protecting soil and hydroponic resources, and improving the quality and safety of agricultural products [19].

5. Strengthen international cooperation and exchange of experience: China can carry out cooperation with other countries and international organizations and jointly promote the realization of sustainable development goals. The society shares successful experience and technology jointly solve global food security and nutrition problems. China can establish a reasonable policy that is beneficial to the development of agriculture and the interests of the peasants. Cooperation between law enforcement enterprises and the society can help to achieve the above-mentioned development direction. At the same time, it can make greater contribution to the achievement of development goals and strengthen innovative scientific research, use agricultural production technology projects to achieve industrialization and progressive agriculture [20].

**Conclusion.** The direction of this study is mainly based on the UN sustainable development strategy. The actual situation of China's agriculture and agricultural trade was described, focusing on the established facts of China's agricultural economy and its development and trade industry. The direction of development is to use beneficial development strategies and future concepts in China's agricultural economy and trade.

As the volume of agricultural products and consumers grows, it has a pivotal position in the context of the United Nations Sustainable Development Strategic Background and Graduation, and it has an essential position in the sustainable development strategic framework. The development of agricultural economy and agricultural trade and new opportunities will further promote the reform and development of China's green agriculture.

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