



Problems of Food Security in China: What are the Potential Solutions?

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Abstract. The paper explores the food security issues in China and gives some suggestions about how to solve the problem of food security in China. This phenomenon has been observed for many years and scholars have different interpretations about this topic. Through the case study method, this research is to discuss the problems of food security in China in the twenty-first century, which hopes to have broader lessons of knowing the status-quo of food security issues and call for more attention to the problems of food security and solutions in China. The result of the paper illustrates that it is difficult to tackle food security issues, but China always seeks to find effective ways to guarantee food security. In conclusion, the research deepens our understanding of the food security issues in China, the difficulties of achieving complete food security, and potential solutions of food security issues. To some extent, it will reveal that there are always more ways than difficulties in the problems of food security in China, which is also a Chinese principle to have more inspiration. Moreover, the paper can be useful to understand how to correctly treat food security issues in the future and demonstrate that food security issues can be resolved, if China is willing to follow correct guidance. Admittedly, the paper is limited because food security in China is a unique case, and it cannot represent other countries' food security circumstances. Further studies can investigate other countries' food security issues and make a comparison about the effectiveness of solving food security between China and these countries.

Keywords: China, Food Security, Solutions.

1 Introduction

With the deepening trend of globalization and the increasing impact of various uncertainties on national food security, China's food security situation has experienced a change from tight to loose since the twenty-first century, but in the medium to long term from 2010 to 2020, the basic factors to ensure China's food security are variable and weak, and the comprehensive food production capacity is still weak. Party and state leaders are highly concerned about and attach great importance to the issue of food security^[1]. Therefore, it is a realistic and urgent need to study the issue of food security in contemporary China.

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Food is the foundation of economic development and social stability, the basis of people's health and survival, and the necessary material for human survival. China is the world's most populous country, accounting for 21% of the world's population, but only 7% of the world's arable land [2]. Therefore, on the issue of food security, China's problems are not particularly obvious, and the UN's focus on food security is currently in Africa. Meanwhile, China's food security has the economic characteristics of a national economic system, the political characteristics of guaranteeing citizens' basic right to live, and the strategic characteristics of national economic security. The Party and the government have always placed the issue of ensuring food security in an important strategic position. The study of food security has both important theoretical and practical significance for national economic and social development.

Policy originates from practice, but guides practice, and grasps its laws so as to better guide our practice. The issue of food security in contemporary China is first and foremost an important theoretical issue, and we need to recognize its characteristics. Since the reform and opening up, both agriculture and the agricultural economy have developed rapidly, and economic theories about agriculture have been further enriched and improved. In the last century, China has used these theories to play a crucial role in ensuring the issue of food security. In the new century, under new historical conditions, China's food security faces new opportunities and challenges [3]. Therefore, theoretical guidance is needed to ensure China's food security. By further exploring the theoretical issues such as the background, current situation, influencing factors and solution countermeasures of food security in contemporary China, we can play a role in promoting the development of related sciences.

In reality, the issue of food and food security is more importantly a practical issue, and there are a series of food security-related problems that we need to study and solve.

The ultimate goal of policy research is to guide on the issue of China's food security. The study of food security is an urgent real-world problem that provides some realistic basis for research on issues including how to solve the contradiction between human and land, determine the goal of food security, guarantee food security in contemporary China by the most economical means, and further develop policies and measures to guarantee food security in China, providing a basis and reference for the government to formulate relevant policies [4]. Therefore, it is necessary to deepen the research on the issue of food security in contemporary China.

First, studying the issue of food security in contemporary China and strengthening the guarantee of food security in China is conducive to improving farmers' income. In China, food production is the main source of income for farmers, and the more comprehensive, preferential, and perfect policies and measures to ensure national food security are conducive to the full mobilization of agricultural production, which makes farmers' income guaranteed: at the same time, the mobilization of farmers' enthusiasm for food production plays a fundamental role in guaranteeing food security in contemporary China.

Second, studying the issue of food security in contemporary China and strengthening the guarantee of food security is conducive to ensuring the continued healthy and rapid development of the national economy. Food production is the basis of agriculture, which in turn is the basis of the national economy. If a country's food production is

developed and there is an adequate supply of food, not only can people have enough food to ensure that they have sufficient energy to engage in other production activities: but also can ensure the stability of market prices, making the economy develop smoothly; furthermore, it can also adequately supply raw materials needed by other related industries and promote the coordinated development of all parts of the national economy.

Third, studying the issue of food security in contemporary China and strengthening the guarantee of food security is conducive to social stability and the construction of a harmonious socialist society. Food is an important strategic material, and only when food security is fully guaranteed and everyone has food to eat can we live and work in peace and happiness, and society can be stable, and then society can develop. Therefore, food is an important material basis for the stable development of society^[5]. Therefore, in order to ensure people's basic livelihood, ensure social stability, and build a socially harmonious society, it is necessary to ensure food security.

To sum up, it is very important to study the issue of food security in contemporary China and to guarantee food security in contemporary China for the development of rural areas and agriculture, for social stability, and for the development of the national economy. Thus, it is of theoretical and practical significance to study food security in contemporary China.

The paper is divided into several sections. After the introduction, the essay will discuss the problems of food security in China in the twenty-first century. The paper will then give potential solutions regarding food security issues. The conclusion will summarize all sections, emphasize the significance of this research and discuss potential limitations.

2 Section 1. Definition of Chinese Food Security

Lester Brown states that food is the biggest threat to world security, which makes the issue of food security became a hot topic of research worldwide^[6]. In all of them, China starts to pay more attention to the issue of food security and many Chinese scholars have expressed their views and opinions on the issue of food security in China.

In 1992, the Chinese government defined food security in China in the light of the world's food security problems and the views of foreign food scholars, stating that food and food of reasonable quality, reasonable structure and sufficient quantity can be supplied to the whole population in a reasonable and effective manner. This concept not only emphasises the balance between food supply and demand, but also the quality and reasonable structure of food, which is close to the definition of the scholar Saouma. The difference between the two is that the Chinese government defines food security from a national perspective as the responsibility to provide food to its citizens, whereas in Saouma's definition, it emphasises that the citizens should not only wait for the government to provide food security, but also take the initiative to maintain their own food security^[7].

Hu Jing gave his own understanding of the concept of food security in 1995, arguing that food security refers to the political implications beyond agriculture caused by food,

such as the threat to social security and stability when there is a shortage of food, and the resulting political disasters such as calamities, flight, economic disorder, and shaken prestige of political parties ^[1]. This understanding, although partial, highlights the political significance of food security.

In 1998, Zhu Ze published his own understanding of the issue of food security, arguing that China's national situation is different from any other country in the world, that there is no reference point, and that it is different from both developing and developed countries in general, and therefore, the concept of food security in China cannot be fully quoted from the FAO, and Zhu Ze summarised that 'food security' refers to a country's ability to withstand the various contingencies arising from changes in the food economy and to meet the growing and changing food structure of its people in the course of its industrial development ^[8]. His definition of food security has three dimensions: firstly, a country's food production capacity must be commensurate with its level of economic development, i.e. it must meet the food consumption capacity of the country's economy at that time; secondly, food security is ultimately about resilience to unpredictable food emergencies; and finally, food security is the basis and guarantee of a country's industrialisation process, without which there can be no industrialisation. Lastly, food security is the basis and guarantee of a country's industrialisation process, without which the industrialisation of the country cannot be discussed, and the ultimate aim of food security is to promote the industrialisation process. Although this definition is biased towards the status of industrialisation, it emphasises that food security is closely linked to the process of industrialisation.

Xie Yang expressed his views on food security in the global sphere in 2001, pointing out that there are two main contradictions in food security on a global scale: firstly, although the world's total food production and total food demand are generally in balance, there are still close to 800 million people in a state of hunger, and the uneven distribution of food worldwide is a major problem; secondly, the sustainability needs to be improved, and the health and safety of food products and the biodiversity of food crops should be the meaning of food security, not only limited to solving hunger. In the same year, scholar Ding Shengjun published his understanding of the rich meaning of food security based on the origin and evolution of the concept of food security, arguing that food security includes six elements: any source of food supply, any consumer of food demand, any time of transaction, any variety of food, the quality of the food grain itself and the purchasing power of the demander ^[9].

Lei Yutao analysed the particularities of food security in China in 2003, arguing that China's food security should not only emphasise the goal of absolute grain production, but the balanced overall development of grain production, variety, quality, nutrition and crop structure, with multiple goals, and that the priority in the current historical period is to improve and protect grain productivity. In the same year, the scholar Lou Yuan Gong also broke down the concept of national food security into four elements: firstly, food and processed products made from food must be reasonably priced and reasonably priced in relation to other consumer goods in people's daily lives, which is the primary condition for achieving food security; secondly, people's direct consumption of food must be met: secondly, people's indirect consumption of food, i.e. people's consump-

tion of processed food products, should also be met; and finally, the national food security concept must be met. Finally, a national food security strategy should be able to withstand unexpected risks such as natural disasters, international trade embargoes, and imbalances in the proportion of varieties of food cultivation affected by economic leverage^[9].

Wu Zhihua questioned the concept of food security proposed by the FAO in 2003, arguing that the traditional concept of food security was in essential conflict with the market economy itself and could not be used to guide specific strategies for national food security in a market economy, and that it should be revised and innovated. He understood food security as a dynamic and balanced political and economic activity of the state in the production, trade and consumption of food and foodstuffs, with the aim of ensuring that the people of the country have access at all times to sufficient food to sustain life and health. This view encompasses five main aspects: food security, guided by a food security strategy, should be a balancing act between the various links in the food chain; food security is based on the national unit, which covers a country or a region; the supply of foodstuffs related to survival and health must be sufficient and the purchasing power of the population must be ensured the at all times and in all circumstances condition places higher demands on food security; food security is now a political and economic art that seeks to keep the food economy in balance at low cost. The art of political economy^[9].

In 2004, Wen Haiyan proposed a perfect system structure to ensure food security, which consists of three aspects: production, distribution and consumers. Production is the primary link, and the total amount of food produced should be sufficient to meet the total national demand, which is the prerequisite and guarantee for the latter two aspects to reach their goals. Secondly, the food produced can only be distributed in a rational way if it is distributed efficiently, i.e. distribution is the specific means by which the results of production are systematically achieved. Finally, the consumer is the ultimate goal of food security, i.e. to ensure that the population has access to enough food at any given time to meet its needs. All three aspects are indispensable, and only if they are met simultaneously can food security be guaranteed^[10].

In the same year, scholars such as Zhong Funing split the issue of food security into four areas of analysis. Firstly, the prerequisite for food security is that the supply should be sufficient to meet the total basic needs of all citizens; secondly, the balanced geographical distribution of food, i.e. the reasonable distribution of food production according to the number of local inhabitants; secondly, the ease of access to food, which should ensure relatively easy access to the food needed by the population; and finally, the quality of food. Finally, there are specific requirements for the quality of food, i.e. to ensure that it meets hygiene, nutrition and health standards^[11]. Analysing these four aspects, it is clear that food security consists mainly of security of production, security of trade, security of access and security of quality. In addition, official explanations of food security are given.

In 2004, the Department of Regulation and Control of the National Grain Bureau stated that food security should be understood in three ways: material security, level of purchasing power and supply mechanisms. Firstly, material security refers to the level of a country's food production capacity, the level of storage and the ratio of import and

export strategies, which determine the material basis of a country's food. If the concept of material basis is advanced, the structure of food types for different levels of nutritional needs should also fall under the category of material basis of food. Secondly, the requirement of the level of purchasing power means that the level of food purchasing power of the people of a country should be able to adapt to the basic and preferred needs of people for food brought about by the economic development of that country. Thirdly, the supply mechanism mainly includes the way food is supplied and the distribution system, which is the lever and means to regulate the contradictions between food supply and demand, and is the main object of macro-control. From the above three points, it can be seen that food security is essentially a country's ability to meet its own food needs and to withstand unexpected food events, which is closely related to the country's level of economic development and trade status ^[12].

In 2006, the scholar Gao Fan defined the issue of food security as a multi-chain interaction process. This multi-chain interaction refers to a dynamic equilibrium in which food production, purchase and distribution are involved in the food trade, with the ideal situation being that people in a given region have access to food that matches their income ^[13]. This view still breaks down the issue of food security into three components: adequate supply, distribution and affordability. In essence, it still places demands on the resource base of food sellers, the level of purchasing power of food buyers, and the channels through which food is traded.

Both domestic and foreign scholars have conducted in-depth and extensive research and analysis of the concept of food security in different domains of application over the last half century, with similar findings. In general, they have summarised food security in three areas: firstly, the quantitative and qualitative supply of food; secondly, the level of purchasing power of food buyers in relation to their needs and the level of economic development of society; and finally, stable trading channels and a stable market environment. The concept of food security is thus, in general, a guarantee of these three conditions.

3 Section 2. Summary of Food Security issues in China in the twenty-First century

According to the China International Engineering Consulting Corporation (CIECC) Safeguarding Food Security group (2003), there are eight problems with China's food security: The foundation of grain production is relatively fragile. Farmers' incomes in the main grain-producing areas have fallen, affecting the incentive to grow grain. Arable land and sown areas have declined. Production is small, with low technological content and high costs, and is not competitive in domestic and international grain markets. Shortage of water resources, frequent disasters and damage to agro-ecology. Poor grain distribution system and uncoordinated relationship between main production areas and main marketing areas. Inadequate state macro-control mechanism for grain reserves and imperfect management system. Insufficient state financial support for grain production ^[14].

According to Zeng Hongli (2003), the problems of China's food security are: Insufficient amount of arable land and shortage of water resources. Backward small-scale production and operation methods, which systematically hinder China's grain production. Increased cost of grain production affects the income of grain farmers, thus affecting their motivation to grow grain. Poor quality of grain products, with product prices higher than international prices and lack of international competitiveness. Weak agricultural infrastructure, poor ability to withstand natural disasters and weak comprehensive grain production capacity. China's large and rapidly growing population base and growing demand for grain. Limited grain purchasing power of poor people. Regional imbalance in grain production, with grain shortage still a serious problem in the western region [15].

According to Zhu Ze (2004), there are six insecurity factors in China's food economy at present and for a considerable period in the future: Indiscriminate occupation and abuse of arable land. By the end of 2003, there were 3,500 development zones of all sizes, covering 36,000 square kilometers, more than the combined area of 666 cities since the founding of New China. Frequent natural disasters and a weak agricultural base. The annual loss of grain caused by natural disasters nationwide is about 55 billion kilograms, accounting for more than 10% of the country's grain. Poor grain circulation and serious market segmentation. Prominent conflicts between grain producing and marketing areas, and uncoordinated production and marketing relationships. An imperfect grain reserve system. Declining grain self-sufficiency and increasing import dependence [15].

According to Chen Bo et al. (2004), there are six hidden dangers to China's food security: Total grain production is declining year by year, and the sown area continues to decrease. Food production resources, such as arable land and water resources, are not only limited in quantity, but are still inertially decreasing. From the perspective of arable land, the problems are: firstly, the absolute amount of arable land resources is large and the per capita amount is small, and it is difficult to reverse the momentum of the continuous decline in total and per capita amounts within a certain period of time; secondly, the overall quality of land resources is poor, with high-quality and high-yielding fields decreasing and low-quality and low-yielding fields increasing; thirdly, the reserve arable land resources are small and of poor quality, making development more difficult; fourthly, the regional distribution of arable land resources is uneven, and the matching of water and soil resources is misaligned. In terms of water resources, the problems are as follows: Firstly, there is a shortage of total water for agriculture; secondly, water resources are unevenly distributed; thirdly, there is a limited capacity to increase water for agriculture, and water shortage has increased. Farmers are not highly motivated to grow food, and abandonment of cultivation and abandonment of land exists. Some food data is unconvincing, and information asymmetry is evident. Agricultural technology reserves are insufficient and the direction of technology development deviates from the needs of agriculture. Agricultural policy deviation and impropriety [5].

According to Tian Yongqiang (2004), there are four factors affecting China's food security: The sharp increase in the occupation of arable land by various types of construction has led to a sharp decrease in the area of arable land, which has exacerbated

food tension. The self-sufficiency rate of the main grain marketing areas has decreased. At present, the eight main grain marketing areas, including Beijing, Shanghai, Tianjin and Guangdong, have seen a significant reduction in arable land since the marketisation of grain purchase and sales, resulting in a serious shortage of grain self-sufficiency. According to statistics, the sown area of grain in the eight main marketing regions in 2002 decreased by 24.1% compared to 1998, and the degree of grain shortage also doubled. Local reserves are seriously insufficient. The market-oriented reform of state-owned grain purchasing, and marketing enterprises has been slow, and the role of the main channel cannot be effectively played [16].

The Department of Regulation and Control of the State Grain Bureau (2004) identified five main factors affecting China's food security: Arable land resources. As China's population grows, industrialisation and urbanisation progress, China will continue to face greater pressure to occupy arable land for a long time to come, and a reduction in arable land is inevitable. Water resources. China's agricultural water consumption accounts for more than 60% of the total water consumption. The absolute amount of water resources in the country is large, but the per capita possession is only 1/4 of the world average, and the annual distribution, seasonal distribution and regional distribution are uneven. The conflict between water supply and demand will become even more acute in the future and will become an important constraint on grain production. Climate resources. China has frequent droughts and floods, and the loss of grain due to natural disasters in recent years has been around 30 billion kilograms per year. Factors of scientific and technological progress. At present, the contribution of scientific and technological progress in China's grain yield growth is 41%, compared to 60% to 80% in developed countries. Other socio-economic factors, including production management system, distribution system, price policy, market demand and other directions [17].

Overall, it can be seen that food security issues in China always focus on the aspects of production, consumption, and sustainability, which reveals that these issues are difficult to be resolved swiftly, and there is a long way for China to find solutions based on these problems of food security.

4 Section 3. Potential Solutions of Food Security Issues

4.1 Consolidate Agricultural Infrastructure Construction

The level of agricultural infrastructure construction is a key factor affecting food security and plays an active role in ensuring food security.

First, strengthening the construction of agricultural infrastructure can effectively reduce the cost of food production, and the efficiency of food production can be significantly improved []. Food production requires advanced technology, scientific methods, convenient transportation channels, and safe and good storage conditions, all of which need to be provided by agricultural infrastructure. In the process of food production, good agricultural infrastructure construction plays a positive role in reducing waste and risk, which is conducive to improving food production efficiency.

Second, strengthening agricultural infrastructure construction can effectively reduce natural and market risks in food production, improve production conditions for food security, and enhance agricultural disaster resilience and mitigation capacity. An excellent food market system can reduce the market risk of food production; perfect water conservancy facilities can improve the ability of food production to resist natural disasters: a sound agricultural insurance system can further disperse the risk.

Third, promote the development of specialization, scale, industrialization and marketization of grain production. Relatively perfect and developed agricultural infrastructure construction can provide the necessary expertise and infrastructure for the development of specialization, scale, industrialization and marketization of food production.

Fourth, agricultural infrastructure is the premise and foundation for establishing a national unified grain market^[18].

In short, agricultural infrastructure is a necessary foundation and support condition for the development of modern agriculture. If China wants to steadily improve its comprehensive grain production capacity and enhance the ability of grain production to withstand natural disasters, it must strengthen the construction of agricultural infrastructure.

4.2 Implement Strict Land Protection Policies

Under the conditions of market economy, legal and administrative means must be brought into play to put quality land under good protection. To improve comprehensive food production capacity, strict implementation of arable land protection is a major focus to ensure food security in China.

Protecting basic farmland and implementing strict land management are directly related to national food security, which is closely related to all aspects of society, and its implementation requires the support and participation of all systems in society and is a long-term task. In order to make the sustainable use of arable land resources, attention should be paid to: on the one hand, to fully ensure the efficient and reasonable sustainable use of land resources: on the other hand, to simultaneously take into account the reasonable use with other social resources and jointly support the sustainable and healthy development of the national economy^[11].

It is a basic state policy of China to cherish and reasonably utilize every inch of land and effectively protect arable land. Strictly implemented arable land protection policy, can take corresponding measures from multiple angles, multi-level.

First, it is necessary to establish the concept of arable land protection. At this stage, accelerating economic development is always the central task. In order to get rapid economic development, we must promote the process of industrialization and urbanization, and arable land will inevitably be occupied. Therefore, we must correctly handle the relationship between the protection of arable land and construction land, take comprehensive, coordinated and sustainable economic and social development as the basic foothold, and further improve and implement policies for the protection of arable land. This requires governments at all levels to consider industrial and agricultural land needs comprehensively and formulate long-term economic development plans, so that industrial land and agricultural land can be developed in a balanced manner.

On the other hand, when protecting arable land, we should not only focus on the quantity of arable land, but also on the quality of arable land, and expand the scale of the fertile land project to continuously improve the quality of arable land. The quantity and quality should be given equal importance, emphasizing the dynamic total balance of arable land. The protection of the quantity of arable land is the most basic requirement and the primary condition to ensure food security in contemporary China; however, as people's living standards continue to improve, it is necessary to maintain a certain quality of arable land to ensure the health and safety of people's diet; as a semi-natural ecosystem, arable land has an important ecological function, so it should be protected from the perspective of the whole ecology.

Second, the institutional level. First, protect arable land with a strict policy system. The standardized formulation and legal implementation of arable land policy is the basic guarantee to alleviate the tension of arable land resources. Secondly, establish the system of arable land target responsibility system, take full responsibility for arable land protection, clarify responsibilities, strictly manage, make every effort to protect arable land area and arable land environment, innovate incentive mechanism, stimulate arable land protection behavior through market mechanism, and prevent arable land loss. Finally, strengthen the administrative management tools, the implementation of the protection of arable land leadership term responsibility system. The hand of government at all levels should be responsible for the protection of arable land in general, improve the performance assessment mechanism for members of the leadership team, make it an important part of the assessment of political performance, and implement strict appraisal. The protection of arable land as an indicator to measure whether a cadre is an official, to benefit a party, directly linked to promotions, bonuses. It is directly linked to promotion and bonus.

Third, the legal level. First, in the legislation, further strengthen the construction of basic farmland protection law. The protection of farmland should be elevated to the level of law and made mandatory. As soon as possible, we should make laws and regulations on arable land protection, regulate the responsibility right of basic arable land protection, and coordinate the relationship between arable land protection planning and other planning, so that the work of arable land protection can be carried out smoothly. Secondly, in law enforcement, strengthen the implementation and supervision of laws and regulations. To achieve the law must be complied with, illegal must be investigated, strict law enforcement. Adhering to the principle of equality before the law, we will firmly investigate and punish all those responsible for destroying farmland and the perpetrators, so as to maintain the solemnity and authority of the law and show to the society the seriousness of protecting farmland according to the law.

Fourth, the level of social education. Arable land protection involves all aspects of society and requires the joint efforts and active participation of the whole society. On the one hand, policies and regulations related to the protection of arable land should be vigorously publicized. The protection of arable land needs the support and participation of the whole society, which needs to draw the attention of the whole society and make the concept of protecting arable land deeply rooted in people's hearts by making them understand the relevant knowledge and value the land they depend on for survival. On the other hand, control the population growth and improve the quality of the population.

China is facing a large population base and large population growth, which is one of the main factors leading to the tension between people and land. People are the decisive factor in the relationship between people and land. In order to enhance the rational use of arable land, we must strictly control population growth and improve the quality of population [19].

The protection of arable land cannot be achieved overnight, let alone overnight. The current situation of arable land resources and food security in China determines the importance, long-term and seriousness of protecting arable land.

4.3 Strengthening Early Warning of Food Security

Establishing an early warning system for food security, grasping the basic situation of food supply and demand in a timely and accurate manner, and making an advance judgment on the trend of food supply and demand, so as to take active measures to regulate and control, thus achieving the goal of guaranteeing China's food security.

First, establish a perfect food security monitoring system. The food security monitoring system mainly uses modern Internet tools to interconnect the national food information network points to form a fast and efficient information system to monitor the changes of important factors related to food security.

Second, a comprehensive food security emergency response system should be established. In times of food insecurity, the food security emergency response system plays an active role as an important part of food security early warning. The government can activate the food security emergency response system and take countermeasures to achieve food security.

The Chinese government should strengthen the prediction and monitoring of the food market, pay close attention to the market dynamics, and release information in a timely manner. Second, in the event of food insecurity, the amount of food put on the market should be increased in a timely manner. Once again, in the basic farmland protection zone, the agricultural department should guide farmers to resume food cultivation and implement planting area in order to should continue. Finally, the supervision of all kinds of grain markets should be strengthened, and the industry and commerce, price and grain departments should supervise and manage enterprises and individuals engaged in grain business, and resolutely crack down on illegal and unlawful acts that disrupt the market, such as taking the opportunity to bully the market, hoarding, price gouging, adulteration, etc., and impose severe penalties to ensure an orderly market supply [20].

The establishment of a scientific early warning system for food security is a prerequisite and basis for ensuring food security. China's food demand is on a steady growth trend, natural resources are deteriorating, and China's food production is fluctuating, so strengthening food security early warning is an urgent need for China's food production reality.

5 Conclusion

In summary, the paper firstly has demonstrated the definition of food security in China. Then has focused on the case study of food security issues in China. Following that, potential solutions of food security issues have revealed. By doing so, the essay managed to answer the research question from the aspects of problems and solutions.

The essay deepens our understanding of the situations of food security in China and helps us understand its future tendency. First, it is essential to reflect the reality of food security and how China responds to the problems of food security. Then, if the issues still exist in the future, China will consider whether their policies need to adjust and find new solutions.

Overall, studying the issue of food security in China is meaningful. It will be helpful to strengthen the guarantee of food security in China conducive to improving farmers' income. Food production is the main source of income for farmers, and the more comprehensive, preferential, and perfect policies and measures to ensure national food security are conducive to the full mobilization of agricultural production, which makes farmers' income guaranteed: at the same time, the mobilization of farmers' enthusiasm for food production plays a fundamental role in guaranteeing food security in contemporary China.

Second, it will ensure the continued healthy and rapid development of the national economy. Food production is the basis of agriculture, which in turn is the basis of the national economy. If a country's food production is developed and there is an adequate supply of food, not only can people have enough food to ensure that they have sufficient energy to engage in other production activities: but also can ensure the stability of market prices, making the economy develop smoothly; furthermore, it can also adequately supply raw materials needed by other related industries and promote the coordinated development of all parts of the national economy.

Third, it will be beneficial to social stability and the construction of a harmonious socialist society. Food is an important strategic material, and only when food security is fully guaranteed and everyone has food to eat can we live and work in peace and happiness, and society can be stable, and then society can develop. Therefore, food is an important material basis for the stable development of society. Therefore, in order to ensure people's basic livelihood, ensure social stability, and build a socially harmonious society, it is necessary to ensure food security.

The essay has several limitations. The analysis may be incomplete, and maybe there are other views. The single case provides limited explanations and may not fully interpret other cases.

Future studies can focus on other countries' food security situations, and then compare them with China to analyze who plays a crucial role in implementing effective ways to tackle food security issues. Also, to fully understand this phenomenon, it is necessary to investigate alternative views and causes in order to establish a clearer vision and gain a deeper understanding of the following topic.

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