

Helen Liu  
Newton South High School  
Newton, Massachusetts, United States  
China, International Trade

## **China: Food Security through International Trade and Sustainable Practices**

China had long been the most populous country in the world, encompassing 17.7% of the world's total population. Though recently surpassed by India, China's population of 1.4 billion people is still much larger than that of Europe (744 million) and the Americas (1.04 billion) (United Nations, 2022; Silver and Huang, 2022). Situated in East Asia and covering over 9.6 million square kilometers, China's geography is diverse. Its topography includes deep river valleys, vast plains, sandy dunes, and the world's tallest peaks. Its climate ranges from dry, desert-like conditions in the north and west to hot, tropical monsoon heat in the south and southeast, but despite the variation most of the country lies in the temperate zone and experiences four seasons (CIA, 2024; "Geography of China"). Though historically an agrarian society, in recent decades China has witnessed one of the largest human migrations from rural to urban areas, with 66.2% of the total population in China now living in cities (Textor, 2024).

In tandem with the rise in the urban population, China's middle class has experienced exponential growth. The past decades of rapid economic development, with an average GDP increase of more than 9% a year, have transformed China into the world's second-largest economy and lifted hundreds of millions of people out of poverty (World Bank, 2024). Compared to the year 2000 when the middle class was only 3% of the total population, today China's middle class contains over 50% of its population – the largest in the world at over 700 million people (NBC News, 2024).

The typical Chinese family size is three people and the average household income is around RMB 39,200, or USD 5,527 (GlobalData, 2022; National Bureau of Statistics of China, 2024; Textor, 2024). This simplified estimation by no means captures the socioeconomic diversity of China, especially the gap between urban and rural areas. According to the National Bureau of Statistics of China, the per capita disposable income for urban residents in 2023 was RMB 51,821, compared with that of rural residents RMB 21,691 (National Bureau of Statistics of China, 2024). This income gap can be seen in the unequal healthcare resources for rural areas, even though primary healthcare coverage has improved in China in recent years (Jakovljevic et al., 2023). In terms of education, while the Chinese government's nine-year compulsory education policy makes all students eligible for free education for grades 1 through 9, there remains a significant gap between urban and rural areas. A study of 59 rural counties across five provinces in China shows that the educational, health, and nutrition outcomes of rural students are low, especially for boarding students after the national rural primary school Merger Program in the early 2000s reduced those schools by half and led to a dramatic increase of boarders (Wang and Shi, 2016; Wu et al., 2021).

Despite social and economic differences, the Chinese are united by their love for food. As a well-known Chinese saying goes, "Mín yǐ shí wéi tiān" (民以食为天), which means that "to the people, food is heaven." The typical Chinese family eats three meals a day, with some snacks in between. Diets emphasize whole, fresh food cooked from scratch. Vegetables such as bok choy are cooked, and the main carbohydrate staples for most meals include tofu/soy products, broth soup, eggs, and white rice commonly in the form of steamed rice, rice porridge, or noodles. Dishes are placed in the center of the table and

shared by all, family style. Food brings families and the country together, for food culture is profoundly interwoven with what it means to be Chinese (Food Insight, 2021).

The importance of food is not just an intrinsic understanding of the Chinese people, it is also an explicit belief of the Chinese government. Acutely aware of the implications of food insecurity on social stability from historical precedents, food security has been and still is a critical national priority for China (Donnellon-May, 2024). A March 2023 publication by the Chinese Central Literature Publishing House, titled “Excerpts of Xi Jinping’s Discussions on National Food Security,” highlighted Chinese President Xi’s stance that food security is a matter of economic and political importance. *The People’s Daily*, the most influential national newspaper and the ruling Chinese Communist Party (CCP)’s mouthpiece has similarly asserted that the Chinese government’s ability to ensure food security for the common people is “a major test” of its ability to govern (Dong et al., 2024).

Unfortunately for China, the extreme pressure on food production is exacerbated by the fact that it is home to nearly one-fifth of the world’s population but is only equipped with 9% of the world’s arable land (Zhang and Lu, 2022). And if that is not enough, the quantity and quality demanded for food are rising. As incomes rise, dietary preferences change, reflecting the economic concept of income elasticity of demand. This phenomenon has been amplified by the widespread demographic shift in China, particularly the expansion of the urban middle class and the increased exposure to global cultures due to globalization. These factors have caused a significant shift in consumption habits nationwide. For the typical Chinese family, there is an increased appetite for more varied, higher quality food options such as meat, oils, sugars, and more refined grain, moving away from the traditional Chinese diet based on staple grain, vegetables, and relatively little animal products (Dong et al., 2024). Such consumption patterns are shown in China’s astronomical increase in meat consumption, soaring from 7 million tons in 1975 to 86.5 million tons by 2018 (China Power Team, 2020).

With food demand outpacing domestic supply, China relies on international trade to accommodate the needs of its people. Today, China is the world’s biggest agricultural importer, importing more soybeans, corn, wheat, rice, beef, pork, dairy, and other products than any other country does. Industry reports by the China Chamber of Commerce found that China’s food imports have increased steadily at an annual growth rate of 12.3%. Imports grew from \$49 billion in 2013 to \$139.62 billion in 2022 (*People’s Daily*, 2023). By necessity, if not by choice, China will continue to depend on imports to meet the food demands of its population. As a result, China’s self-sufficiency ratio has dropped from 93.6% to 65.8% between 2000 and 2020 (Liu, 2023).

With lower self-sufficiency, the risk of food insecurity rises. A country becomes increasingly vulnerable to global supply chain disruptions. Unforeseen global developments, such as the pandemic and the Russian invasion of Ukraine, have heightened China’s awareness and concern about their dependence (Anand, 2023). China might become tempted to turn away from the volatile international market and instead focus inward on increasing agricultural productivity. Some of China’s recent maneuvers have showcased such an impulse. Compared to the past decade of increasing integration with global markets, China’s published agricultural policy since 2023 seems to be reversing course and pursuing a high degree of self-sufficiency with an emphasis on domestic food production. Manifestos of Chinese agricultural

policies such as the 2023 “No. 1 Central Document” established the state’s goal of becoming an agricultural power. Experts and scholars believe China intends to do so through the pursuit of grain self-sufficiency, which may mean a reversal of the “return farmland to forest” policy. Indeed, today Chinese authorities have reclaimed over 170,000 hectares of land for grain production (Zhang, 2023).

Despite China’s desire for self-sufficiency, pure self-reliance is neither feasible nor efficient. First, feasibility is challenged by the sheer size of China’s population in contrast to its limited arable land. The lack of domestic production potential makes independently sustaining the country’s food supply an impossible feat. Despite commendable efforts to increase technological capability and productivity, the natural limits to how much food can be produced remain. Second, in terms of efficiency, isolating itself from trade relations would cost both China and the world the mutual benefits of international trade. International trade increases consumer surplus by enabling more people to buy goods at a lower price and allows for increased productive efficiency for both parties. The concept of comparative advantage, where one country can produce a certain good at a lower opportunity cost than another country, explains why imports tend to be cheaper than domestic options. Should China attempt to decrease supply dependency through isolation of international trade, the consequent loss of economic efficiency has negative connotations. Such disruptions to the global food supply chain would result in increased costs and inefficiencies, a lose-lose situation for China and the rest of the world (Dong et al., 2024).

This paper suggests that self-reliance does not mean self-isolation, and self-sufficiency is not incompatible with international trade. First, international trade includes not just the flow of goods but also the exchange of technology and ideas. According to a study on the EU-China agricultural trade and its impacts on food security, “China would be better off if it increasingly engaged in international food trade and if it enhanced cooperation with the European Union (EU) in research & innovation (R&I) to tackle the problem of food security.” By learning from international models of sustainable agriculture and food safety China can increase its competitiveness in agricultural production and trade (Marinelli, 2020).

Second, China can reduce the risks associated with global disruptions through the diversification of its import suppliers. China has paid increasing attention to this strategy, expanding cooperation and mutually beneficial economic ties with developing countries in food trade. In the last decade, China’s food trade with BRI partners has surged by 162% (GRAIN, 2024). Recently, China has diversified its beef imports away from the United States by importing more from countries such as Australia and Russia (*Global Times*, 2024). It has also reduced its soybean imports from the United States to only around 31% of all imported soybeans, down from 49% in 2009. Overall, total agricultural imports from the United States have fallen to 18% in 2022, down from 27% in 2009 (Bown and Wang, 2023). Today, China has established bilateral e-commerce cooperation mechanisms with over 30 countries, prioritizing Southeast Asian countries such as Thailand, Malaysia, and Cambodia due to their proximity and large Chinese diaspora. For China, diversification means more import stability and fewer market fluctuations from over-reliance on any single market. For resource-rich developing countries and the world, China’s opening up may also mean more opportunities for trade and global food security (*Global Times*, 2024).

There are also uncertainties and challenges with China’s expanding international businesses and engagement. A good example is China’s overseas farmland investment, part of China’s self-sufficiency

initiatives to ensure its food security. Looking outwards to resource-rich countries, Chinese companies (both state-owned and private) have bought land, grain elevators, and food processing plants throughout the world (Joles, 2022). This has generated serious concerns among its trading partners. One concern is the so-called “neocolonialism,” perceiving China’s farmland investment and business expansion in developing countries as a new form of colonialism exploiting local resources and seeking political and economic control. Another concern is the view of China and its overseas farmland investment as a grave national threat to Western nations (particularly the United States) in the new “Cold War.” China needs to address these concerns by becoming a more transparent and responsible trading partner and pursuing sustainable agricultural production and international trade.

China’s collaboration with developing countries in agricultural development holds massive potential. An example is its trade with Africa. With 60% of the world’s uncultivated land, Africa has not fully explored its resources (not even meeting 25% of their yield capacity) (Clark, 2021). China has expanded its trade with and aid to African countries. However, many projects that started strong often fail after the departure of Chinese partners (Siméon et al., 2022). To solve these challenges, the Chinese government should improve its transparency to ensure fair competition and negotiation and at the same time enhance the sharing of technology, knowledge, and experience. For the collaborative projects to be followed through, Chinese enterprises should establish effective evaluation and accountability mechanisms to ensure their relevance, efficiency, and impact (Ighobor, 2013; Siméon et al., 2022).

For better understanding and collaboration, China can also find many commonalities it shares with African countries, such as the past experience under colonialism and the agricultural system with small-scale farms dispersed throughout the country. Additionally, China can connect with African nations based on respect for traditional values and practices. While China’s national food guidelines in recent decades gravitate towards Western standards of high dairy and meat, China’s traditional greener diet has the potential to help achieve environmental goals and contribute to population health, food security, and improved animal welfare (Li and Jamieson, 2021). The Chinese government should foster the rediscovery of China’s many centuries of culinary richness through improved dietary guidelines as well as public outreach to shift public attitudes and habits. It should also pay more attention to the dietary needs and values of the rural areas. With this commitment to the agrarian root and traditional values, China can also better understand African countries and develop better trade opportunities.

In the United States, even though Chinese-owned farmland in the United States is a very small fraction (less than 1%) of all foreign-owned agricultural land, fear and hostility towards China have only grown (Ortega, 2024; Wang et al., 2024). As of 2023, over 33 states have introduced legislation that would prevent Chinese citizens and Chinese-based businesses from buying land and property. Such laws prohibiting land ownership based on nationality are similar in nature and implications to the alien land laws that discriminated against Asian American communities over 100 years ago (O’Dell and Caughey, 2024). It is important to challenge these discriminatory laws, and Asian Americans and other groups and organizations committed to civil rights can play an active role in this battle. At the same time, it is important for China and the United States to stay engaged with each other and to avoid a new “Cold War.” The mutual understanding of the importance of food security has the potential to bring China and the United States together in collaboration despite geopolitical tensions. Similar to other major global

challenges such as the climate crisis and proliferation of nuclear weapons, food security for each nation and for the world can be a common goal for China and the United States.

In conclusion, China's pursuit of food security as a highly populous but land-constrained country entails a delicate balancing act between domestic self-sufficiency and international trade. To prevent global disruptions and inefficiencies, China must defy its tendency to turn inward and isolate itself from the world, and instead adopt the strategy of diversification and become a more responsible trading partner. Through engagement with global markets, China and the world stand to gain the benefits of international trade: innovation with the share of technology and knowledge, maximization of global economic interests, and increased understanding and bonds between cultures and nations. Achieving food security is never a zero-sum game, and China has a distinctive role to play in developing sustainable agricultural practices and trade policies and contributing to global food security.

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