1 Introduction

In October 2019, China released a white paper on food security, outlining its food policies whilst also summarizing its achievements on agriculture and food. This was the second time that China released such a report. The first white paper was issued in 1996, in response to the publication of Lester Brown’s “Who will feed China?” in 1994 (Brown, 1994). While the two white papers share a common theme in showcasing China’s ability to feed its huge population, the contexts of the two reports are rather different. In 1996, China was a country self-sufficient in food. Only 2 percent of staple and feed grain that China consumed were imported, and the country exported more food than it imported. In 2019, however, China had become one of the largest food importers in the world, and a net importer of a variety of food products, including grain, meat, seafood, milk, edible oil, and fruits. The value of food imports to China amounted to US$138 billion in 2019, accounting for 8.8 percent of all food imports in the global market (World Bank, 2021).

The growing food imports to China have revived the question of “who will feed China,” stirring up anxiety over the possibility that high food demand in China might lead to global food shortages. During the 2007/2008 food crisis, China’s growing food consumption was cited as a contributing factor, even though there was no sudden increase in food imports to the country right before or during the crisis. Lester Brown, the originator of the question, found again a growing interest in his thesis. In 2011 and 2014, he contributed the commentaries titled “Can the United States feed China?” and Can the World Feed China?, in which he renewed his analysis of how China’s resource constraints, such as water scarcity and farmland loss, and dietary transition would lead to massive food imports to the country and thus starve the world (Brown, 2011, 2014). Brown’s doomsday predictions are subject to debate. Some scholars contend that China will be able to increase domestic production to meet most of its food demands. The import of key food commodities to China, such as soybeans, beef, mutton, milk, and sugar, will continue to grow, but the scale of growth will be within the production capacity of the exporting countries (Gong, 2011; Huang, 2013; Huang et al., 2017).

1 The research for this Element is supported by a Singapore Ministry of Education Tier 1 Grant (2020-T1-001-142). According to the data from the World Bank, China still ranked behind the United States in 2019 in terms of the value of food imports; the latter’s total food imports amounted to US$159 billion. The US Department of Agriculture, however, ranked China the largest agricultural importer in the world, with an estimated import value of US$133 billion in 2019 (USDA, 2020).

2 The import of cereals to China declined from 6.3 million tonnes in 2005 to 1.5 million tonnes in 2008, while the import of soybeans had experienced steady growth before and after the food crisis; the volume of soybean imports increased from 27 million tonnes to 37 million tonnes between 2005 and 2008 (National Bureau of Statistics [NBS], 2021a).
There are at least two limitations with the debate over who will feed China. First, both sides focus only on food supply and demand and overlook the very important role of the profit-oriented capitalist agri-food system in affecting food security. The 2007/2008 food crisis, in large part, was not caused by the shortage of global food supply but resulted from the pursuit of higher profits by agribusiness capital, which led to the diversion of resources from food to biofuel production (Chakrabortty, 2008: 7; Bello, 2009). The prediction models of food supply and demand cannot capture the situation of food security without taking into account capitalist dynamics in agricultural and food sectors. In a capitalist system, access to food depends on whether consumers can afford the prices sufficient for capital to maintain profitability. The growing food demand of affluent Chinese consumers has increased profitability of capital in the agri-food sector and stimulated food production in other countries. A decrease in food imports to China, however, may not increase food accessibility for others if capital withdraws from food production due to low profitability. Second, the debate takes the nation-state as the unit of analysis, but food security is a multiscalar phenomenon. To understand the dynamics of the global food system, one should not only examine food production, demand, and trade at the national level but also include global actors such as transnational agribusiness corporations and international organizations. The analysis of subnational actors and dynamics is also necessary. Food security cannot be taken for granted for all social groups, even when the national supply of food is sufficient. The movement of food sovereignty has demonstrated the importance of small food producers in meeting food needs, particularly for those in lower-income brackets (Patel, 2009; Edelman et al., 2014).

The recent literature on China and global food security has started to move beyond the narrow focus of the debate on who will feed China. There have emerged two important strands of research. The first strand focuses on China’s overseas agricultural investment, particularly land investment. The earlier studies on this topic, however, suffered by eagerly labelling China as a leading land grabber that threatens food security in the Global South, particularly in Africa (Hofman and Ho, 2012). These studies speculated that China would control large tracts of lands in southern countries and export food products to China regardless of local needs. The problem with these studies was partly due to the politicization of the issue, as media reports and think tanks tended to exaggerate the scale of China’s overseas land investment. More recent studies have corrected this bias. It is found that the scale of China’s overseas land investment has been grossly overstated. For example, Deborah Bräutigam (2015) revealed that China’s land acquisitions in Africa were very limited, far less than what the discourse of a Chinese takeover suggested, and that China exported more food
China’s land deals faced extra scrutiny in host countries and that Chinese investors often had to make significant concessions due to local resistance (Oliveira, 2018; Lu and Schönweger, 2019). Nevertheless, the increasing volume of Chinese overseas agricultural investments suggest that China has adopted a very different food strategy than that in the 1990s: It now not only focuses on domestic production but also is interested in shaping global production and international trade. Furthermore, the issue of land grabbing is important as it reveals the dynamics of global capitalism. The growing literature on land grabbing suggests that global capitalism might have entered a new phase due to the serious constraints on energy and resources, and this will have significant implications for global food security (Borras et al., 2011; McMichael, 2012; Oliveira et al., 2021). Therefore, China’s role in the global land rush should be further investigated.

The other strand of research looks at the role of China in reshaping the global food system. This scholarship has been influenced by the literature on the global food regime. Drawing on the world-systems theory and the French regulation school, Harriet Friedmann and Philip McMichael (1989) coined the concept of a global food regime to examine how the international food order had been shaped by world politics and cycles of capital accumulation. The food regime literature focuses on the dynamics of capital accumulation in agri-food sectors, international rules, and formations and transitions of agri-food commodity complexes at and across historical conjectures (Magnan, 2012). Friedmann and McMichael suggest that the global food system has been regulated by successive food regimes. The first regime, in existence from 1870 to 1914 and centered on the British Empire, operated through the colonial extraction of food resources from the periphery in order to feed the European center. The second regime emerged after World War II and was characterized by national agriculture and the food-aid system under US hegemony. There have been debates over whether the global food system has transitioned into a third regime, and if so, how to characterize this third regime (Jakobsen, 2021). Philip McMichael argues that since the 1980s, a corporate food regime has taken hold that subordinates states, producers, and consumers to the interests of corporate capital (McMichael, 2009). Other scholars defined the third regime as “an emergent corporate-environmental food regime” (Friedmann, 2005: 227) or “a neoliberal food regime” (Pechlaner and Otero, 2008: 367). Some scholars disagree on the existence of a third regime, and instead argue that the global food system has been in a period of instability and transition since the breakdown of the second regime in the 1970s (Pritchard, 2009; Belesky and Lawrence, 2019). There are also criticisms of the food regime analysis and
the question of whether a global food regime has ever existed (Bernstein, 2016). The debates show that there is no consensus among scholars on whether or how the current global food system has been regulated by a unified food regime. Nevertheless, the literature on a global food regime has highlighted the critical importance of capitalist dynamics, the rise of neoliberal rules and corporate power, and international politics in the global food system.

How will China’s increasing food imports and overseas agricultural expansion reshape the global food system? Recent events have elevated the salience of this inquiry. Since 2013, China has been promoting the Belt and Road Initiative (BRI), which aims to build infrastructural and commercial connections between Asia, Europe, and Africa. Although the BRI is not specifically focused on food, it may have significant implications for the global food system as it opens new spaces of agricultural investment and reorganizes agri-food supply chains and trade routes (Tortajada and Zhang, 2021). The trade war and geopolitical rivalry between the United States and China have also signalled the importance of agriculture and food. The agri-food trade has been a key issue in the negotiations between the two countries (Zhang, 2020).

The food regime literature remains ambiguous on the question of whether and how China will transform the global food regime. McMichael (2020) notes that China’s agri-food neomercantilism and state capitalism appear to diverge from the free market rules under the corporate food regime, but he is uncertain whether this will lead to the emergence of a new regime. Other observers have noted that China’s current involvement in the global food market does not undermine but strengthens corporate power and neoliberal norms (Belesky and Lawrence, 2019). McMichael further draws the analogy between a possible China-centered food system and the first food regime under British hegemony, given that, like the British Empire, China must rely on overseas food resources. He also suggests that the participation of China in the global food market will deepen the East Asian import complex, a phenomenon that emerged during the second food regime but continued to evolve and strengthen in recent decades (Friedmann, 1982; McMichael, 2000, 2020).

This Element critically engages the literature on China and global food security. While addressing the debate over who will feed China and drawing on the studies on China’s role in the global food system, the Element distinguishes itself by analytically connecting and integrating China’s domestic food dynamics and global food strategy. The main arguments are as follows: China’s

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3 According to the United Nations (UN), “a food system is defined as a system that embraces all the elements . . . and activities that relate to the production, processing, distribution and marketing, preparation and consumption of food and the outputs of these activities, including socio-economic and environmental outcomes” (UN, 2015: 1).
food strategy has gone global, characterized by utilizing food imports to alleviate severe internal resource constraints and by efforts to seek an advantageous position in the global food system, but the success of this global food strategy hinges on whether the country can maintain domestic food supply at a high level. With sufficient domestic supply, China will have leeway to adjust categories and levels of food imports in bargaining with food exporters, and this in turn will enhance its control and utilization of overseas resources. Existing studies often suggest that declining domestic food supply forces China to seek overseas food resources, and that the two constitute a negative correlation—that is, the less food China produces domestically, the more food it will source from overseas. While admitting that the constraints on domestic production is a major factor behind China’s global food strategy, this Element argues that the success of China’s strategy depends on more, not less, domestic production. I introduce the concept of “national–global food duality” to capture this paradoxical relationship between national food supply and global food strategy. The goal of China’s food strategy is to optimize this duality rather than either maximizing food imports or domestic production.

The pursuit of an optimal national–global food duality distinguishes China from the British Empire of the late nineteenth century as well as other East Asian nations in the regional food import complex. Due to their common role as a food importer, McMichael (2020: 120) suggests, “China may emerge as a commanding pole in a food regime of the future, analogous to the British-centered food regime and its re-ordering of an offshore tropical food empire to source (temperate) wage-foods for late-nineteenth century British and European industrial workforces.” While China will be a major importer of food, the conditions that underpinned the British-centered food system are absent from China. These conditions were: (1) that European colonial settlements in the New World exploited virgin soil frontiers; (2) that diasporic European farmers and settler states exported farm produce to feed industrial workers in Britain and the European continent; and (3) British hegemony, in which the British Empire exercised both economic and military dominance in the world system (McMichael, 2009). By contrast, China must face an uncertain global food market beyond its control. During the 2007/2008 food crisis, it was domestic production and grain stockpiles that insulated the country from much of the impact. The COVID-19 pandemic had also affected food imports to China in

4 Giovanni Arrighi and Beverly Silver (1999) argued that the unprecedented bifurcation of the leading military power (the United States) and economic power (East Asia, including China) during hegemonic transitions in the capitalist world system would lead to a long period of instability and chaos in global governance. Such instability and chaos will have a strong impact on China’s food strategy.
early 2020, and the country again resorted to the harvest of summer wheat and grain stockpiles to ensure sufficient food supply (CCTV, 2020). Thus, different from Britain, China as a food importer has a strong motivation to protect its agriculture and maintain a high level of domestic production.

China’s global food strategy will deepen the East Asian import complex, but the country is unlikely to rival other East Asian nations for food-import dependence. The food self-sufficiency rates of Japan, South Korea, and Taiwan (JKT) have all fallen below 40 percent (Lee and Müller, 2012; Niehaus and Walravens, 2017). The East Asian food-import complex emerged during the second food regime, under which the United States dispensed surplus grain to allies and developing countries in the form of food aid (McMichael, 2009: 141). Japan, South Korea, and Taiwan were the US allies and bridgeheads to contain communism. Although they have diversified food-import sources since the 1980s, the geopolitical environment has continued to favor their food-import dependence. Another difference between China and its East Asian neighbors lies in population size. China’s population of 1.4 billion is seven times the combined populations of JKT. Were China to follow the East Asian food-dependency model, it must quadruple its already enormous food imports, and this would significantly undermine its bargaining power in the global food system.

This Element does not suggest that a China-centered food regime is emerging on the horizon. This is because China’s pursuit of an optimal national–global food duality is less aimed at playing a leadership role in the global food system than at mitigating the risks of a volatile global food market, and increasing the country’s bargaining power in food trade and overseas agricultural investment. This is evidenced by its subdued response to the debates in the recent UN Food Systems Summit (Montenegro de Wit et al., 2021; Zhang, 2021). However, China’s global food strategy may profoundly transform the international food order in the long term. First, China will become a major pole in the global food system in terms of food trade and agricultural technological innovation, which will erode the dominance of northern countries in these areas. Second, China will not undermine but actively support corporate rules in the global food system, as it relies on them to secure overseas food resources. It also has the ambition to build its own global agribusinesses, and this may intensify corporate competition, leading to the further penetration of corporate capital into food commodity frontiers. Third, as a food importer, China is interested in increasing the overall global food supply to create a food surplus situation. This will have both positive and negative effects on the food system. On the one hand, China may assist southern countries in reducing their food-import dependence through agricultural cooperation. On the other hand, this would exhaust food resources at a faster pace and exacerbate the vulnerability of the global food system.
China’s global food strategy is fraught with limits and contradictions. To increase global food supply and maintain a high level of domestic production, the Chinese state seeks to build alliance with corporate capital, including state, private, and foreign capital. However, the long-term goal of food security runs in direct contradiction with the latter’s short-term orientation for profit, contributing to speculations and crises in the food market. The influx of food imports and the expansion of domestic and foreign corporate capital will also disrupt the household mode of agricultural production in China, leading to exploitation and dispossession in the countryside and underemployment and precarity in the city, which in turn undermine food security at subnational and household levels. To maintain a high level of domestic production also means that China will continue to face great pressure from environmental degradation and resource constraints, which can easily disrupt the delicate balance between domestic food production and sourcing food beyond borders.

The following sections will unpack China’s global food strategy and examine the various dimensions of the pursuit of an optimal national–global food duality. Section 2 examines the historical and contemporary contexts for the emergence of China’s global food strategy. Section 3 analyzes China’s food imports and agricultural trade. Section 4 focuses on China’s overseas agricultural investment. Section 5 examines China’s efforts to build global agribusiness corporations and the domestic origin of the state–capital alliance. Section 6 examines the impacts of the global food strategy on the agri-food system in China and the countermovements at the grassroots level, and Section 7 concludes this Element.

2 China’s Global Food Strategy

2.1 Food Self-Sufficiency and Insufficiency (1949–1990)

Securing sufficient food for the population has been a top concern for the Chinese Communist Party (CCP). During the socialist period (1949–1976), the CCP was grappling with the problem of food shortages; a huge famine in 1959–1961, which resulted in millions of deaths, revealed how serious the problem was. As Chris Bramall noted, “the history of Chinese development during this period is, in many respects, a history of the search for solutions to this overriding problem (of food insecurity)” (2009: 213). Postwar geopolitics also played a role in shaping China’s food policy as the United States and its allies imposed a total embargo on China. The breakup with the Soviet Union in 1959 had only made China’s geopolitical environment worse. The international isolation forced the country to rely on domestic production for food. To increase domestic production, the CCP mobilized millions of peasants each year to
construct irrigation facilities, expanding the irrigated area from 16 to 48 million hectares between 1949 and 1978 (Zhan, 2019a: 53). The party-state also made efforts to introduce agricultural technologies such as new farming methods, hybrid seeds, and chemical fertilizers to increase production (Schmalzer, 2016). As a result, the production of staple grain, the major food source, grew from 164 to 305 million tonnes between 1952 and 1978. However, the growth was largely neutralized by the doubling of the population. The annual consumption of cereals, beans, and tuber roots, which are classified as staple foods in Chinese official statistics, was 318 kilograms per capita in 1978, only slightly higher than 288 kilograms in 1952, but barely sufficient for the population of nearly 1 billion (Ministry of Agriculture [MOA], 2009: 14; National Bureau of Statistics [NBS], 2009: 37).

In 1978, China launched rural reform, replacing collective farming with the Household Responsibility System (HRS) and introducing the market to the rural economy. Before, Chinese agriculture was based on a collective system, which consisted of three levels of collective units: the People’s Communes, brigades, and production teams. The production team, each comprising twenty to thirty households, was the basic unit of production and distribution in the 1960s–1970s. The land was collectively owned and farmed, and individual peasant households could not cultivate land on their own. The collective system enabled rural communities to work together on public projects including irrigation; it also meant that under the system, rural surplus was transferred to urban industry through the sale of grain and other agricultural products to the state at fixed procurement prices (Bramall, 2009; Zhan, 2019a: 38–41). This reduced the incentive for peasants, particularly when procurement prices were low. Following rural reform, farmland was contracted to peasant households, which then held the use right of land, while the ownership still belonged to the village collective (the former brigade). Under the HRS, peasant households have the autonomy to farm the land on their own and engage in nonfarm activities.

Rural reform was followed by a surge in grain production, which increased by a third to 407 million tonnes in 1984, turning China into a net food exporter for the first time since the famine. The increase also lifted the annual consumption of grain to 392 kilograms per capita (Zhan, 2021). From then on, the figure has rarely fallen below 350 kilograms, which is sufficient to prevent another famine. The per capita consumption of 318 kilograms of grain a year was sufficient to keep the Chinese population from starvation. But the structure of food consumption was dominated by grain, and the access to other food stuffs was quite limited, with only 11 kilograms of meat per person a year, 25 kilograms of sugar, 1 kilogram of milk, and 5 kilograms of aquatic products in 1978 (Ministry of Agriculture [MOA], 2009: 14).
nationwide food shortage or famine. Although the shift from collective farming to household production appeared to be a major factor behind the surge, researchers find that it was a result of multiple factors, including the use of chemical fertilizers, infrastructural improvement (irrigation in particular) in the socialist period, and the increase of grain procurement prices (Bramall, 2004; Schmalzer, 2016).

The increase in grain production boosted the legitimacy of the reformers within the CCP, but paradoxically it also tied their job performance to the sufficient supply of grain. Although agriculture accounted for a declining share in the economy in the 1980s–1990s, producing enough grain for the nation remained a key policy goal. Besides grain, other food products also experienced substantial growth in the 1980s. Between 1984 and 1990, the production of meat grew from 15.4 to 28.6 million tonnes, cow milk from 2.2 to 4.2 million tonnes, aquatic products from 6.2 to 12.4 million tonnes, sugar from 47.8 to 72.1 million tonnes, and fruits from 9.8 to 18.4 million tonnes (National Bureau of Statistics [NBS], 2009: 37–38). That is, within only six years, the supply of these foods had almost doubled. The rapid growth in these food products suggests that the dietary transition had begun in China as early as the 1980s as the population consumed more resource-intensive foods. The transition, however, was uneven across social classes and between rural and urban areas. For example, while the meat consumption of the rural population had increased, it lagged significantly behind that of urban consumers. In 1990, the consumption of meat per capita among urban residents was 25.2 kilograms, but an average rural resident consumed only half of this amount, 12.6 kilograms (National Bureau of Statistics [NBS], 1991: 289–303).

2.2 “Who Will Feed China” and the WTO Accession

The dietary transition captured Lester Brown’s attention. He remarked, “Never in history have so many people moved up the food chain so fast” (Brown, 1995, 44). He was closely following China’s food trade. An import of 6 million tonnes of grain to China in 1994, a negligible amount by China’s food imports today, prompted him to write the sensational report Who Will Feed China? (Brown, 1995). Ironically, China was a food self-sufficient country and a food exporter at the time. In 1994, China exported 3 million tonnes more grain than it imported, and the value of total food exports also ran consistently higher than that of food imports throughout the 1990s (National Bureau of Statistics [NBS], 1999). Nevertheless, not only did the report bring global attention to China’s food supply, but it also struck the nerve of the Chinese reformers who were highly concerned about grain production. In 1996, Chinese policy makers voluntarily
pledged a 95 percent grain self-sufficiency ratio, that is, China would produce 95 percent of the staples (including cereals, beans, and tuber roots) that it consumes. The central government subsequently ramped up the efforts to boost grain production. One of the key measures was to increase grain procurement prices by 82 percent. As a result, grain production jumped to a new height, reaching 505 million tonnes in 1996 (National Bureau of Statistics [NBS], 2009: 37). Despite underestimating China’s domestic production, Brown was prescient about its food problems. In addition to the dietary transition, he identified multiple factors that would undermine the capacity of China to feed itself, including environmental degradation, cropland loss, and water scarcity, which have been emphasized in subsequent studies on China’s food security.

Brown limited his analysis to food supply and demand when predicting the devastating impact of massive grain imports to China on the global food system. He was silent, however, on how China could import such large quantities of grain. To address this question, one must examine the international political economy of food. In the same year when Brown published his report, the negotiations of the General Agreement on Tariffs and Trade (GATT) Uruguay Round (1986–1994) reached an agreement on agriculture. The agreement, called the “World Trade Organization (WTO) Agreement on Agriculture” after 1994, set the most important rules on international food trade. The agreement was to further liberalize agricultural trade and establish a free market for agricultural goods. Member nations were obliged to reduce tariffs on imports and cut export subsidies and other agricultural supports. It is argued that the agreement served the interests of corporate capital and developed countries while putting small farmers and developing countries at a disadvantage (McMichael, 2009; Patel, 2012). For example, the reduction of tariffs and the removal of trade and investment barriers opened the market in developing countries for global agribusiness corporations. The agreement also allows developed countries to maintain substantial subsidies and other domestic agricultural supports. As a result, the United States and European Union (EU) can sell agricultural commodities below the cost of production, which depresses global prices and hurts the agricultural exports of developing countries (Gonzalez, 2002; Clapp, 2006). The group who bears the brunt of the agreement may be small farmers in developing countries, many of whom are at risk of bankruptcy due to the low-priced imports and the high costs of agricultural inputs whose markets are controlled by agribusiness corporations (Shiva, 2001; Patel, 2012).

China was not a member nation of the WTO in the 1990s, but it was actively seeking to join it. The country applied for entry to the trade organization as early as 1986 (GATT at the time), and it was finally accepted as a WTO member in October 2001. To facilitate its acceptance to the WTO, China made more