Religion, Violence, and Agency in South and Southeast Asia (Notre Dame: University of Notre Dame, 2007): 167.
93 The CIA World Factbook estimates the populations of these groups to be as follows: Burma 68 per cent, Shan 9 per cent, Karen 7 per cent, Rakhine 4 per cent, Chinese 3 per cent, Indian 2 per cent, Mon 2 per cent, other 5 per cent.
94 Human Security Centre (HSC), *Human Security Report 2005: War and Peace in the 21st Century* (New York: Oxford University Press, 2005): 27.
95 Ibid., 26.
96 Ibid., 27.
97 International Crisis Group (ICG), *Myanmar: Towards the Elections* (Brussels: ICG, August 2009).
98 Kramer, *Neither War Nor Peace*, 32–36.
99 Robert Kaplan, 'Lifting the Bamboo Curtain', *The Atlantic* (September 2008): 87.
100 Kevin Malseed, 'Networks of Noncompliance: Grassroots Resistance and Sovereignty in Militarised Burma', *Journal of Peasant Studies* 36, no. 2 (April 2009): 370.
101 Ibid., 370.
102 Katrina Winters, 'Post-election Threats to Ethnic Areas', *The Irrawaddy*, 18 May 2010.
103 ICG, *China's Myanmar Dilemma*, 23.
104 Ibid.; ICG, *Burma/Myanmar: After the Crackdown*, Asia Report no. 144 (Yangon, Jakarta and Brussels: ICG, January 2008); Jayshree Bajoria, 'Understanding Myanmar', *Council on Foreign Relations*, 29 September 2009.
105 ICG, *China's Myanmar Dilemma*, 22, 26.
106 Transnational Institute (TNI), *Burma Policy Briefing Nr 5* (Amsterdam: TNI, February 2011).
107 Ibid.
108 Saw Yan Naing, 'Chinese Dam Incurs KIO Wrath', *The Irrawaddy*, 1 October 2008.
109 Naw Noreen, 'Karen Army takes Blame for Grenade Attack', *Democratic Voice of Burma*, 28 April 2010.
110 'Kachin Dam Bombing Kills Four', *Democratic Voice of Burma*, 19 April 2010.
111 SSEO, *Roots and Resilience: Tasang Dam Threatens War-torn Shan Communities* (Chiang Mai: SSEO, July 2009).
112 Mungpi, 'Dam Construction Endangers Lives of Locals: Report', *Mizzima*, 5 August 2009.
113 Hseng Khio Fah, 'Number of Checkpoints between Kengtung-Tachilek Increases', *Shan Herald*, 1 March 2011.
114 IDMC estimates of internally displaced persons in Myanmar (November 2009), 26 January 2010, IDMC website.
115 Thailand Burma Border Consortium (TBBC), *Protracted Displacement and Militarisation in Eastern Burma* (Chiang Mai: TBBC, 2009): 3.
116 Ibid., 42.
117 US Committee for Refugees and Immigrants (USCRI), *World Refugee Survey 2009* (Washington, DC: USCRI, 2009): 32–33.
118 TBBC, *Programme Report: July to December 2008* (Bangkok: TBBC, 2009); Human Rights Watch (HRW), *Crackdown: Repression of the 2007 Popular Protests in Burma* (New York: HRW, December 2009); Donald M. Seekins, 'Myanmar in 2008: Hardship Compounded', *Asian Survey* 49, no. 1 (2009): 166–173.
119 TBBC, *Protracted Displacement and Militarisation in Eastern Burma*, 30.
120 Christina Fink, *Living Silence in Burma: Surviving Under Military Rule*, 2nd Edition (London and New York: Zed Books, 2009): 145.
121 TBBC, *Protracted Displacement and Militarisation in Eastern Burma*, 32.
122 ICG, *China's Myanmar Dilemma*, 10.

10 Food security and food safety in China's foreign policy

Elizabeth Wishnick

Fifteen years ago, US environmentalist Lester Brown stirred up controversy with his book *Who Will Feed China?*, which made dire predictions about increasing Chinese demographic pressures threatening the global food supply. In recent years, however, the attention of the international community has shifted to "what is China feeding us?" and has become concerned about the continual food safety problems plaguing China, now an important exporter in an increasingly globalized food supply system.

Although all governments have a responsibility to ensure the public health of their population as well as the security of the state, for China, food security has entailed a focus on security of supply due to concern for state stability. This chapter uses concepts of biopower, biosecurity and human security to highlight the conflicting interests at stake in Chinese food security priorities. After explaining how food security encompasses food safety, the chapter then examines food security in China as a human security issue and the consequences of food security issues in China for other countries, particularly the United States and Japan. Finally, the chapter explores the vulnerability of the global food supply and identifies specific implications for the United States and Japan.

Biopower Chinese style, biosecurity and human security

One of the challenges in addressing how food security and food safety affect human security in China is that the Chinese government treats these issues largely as state security issues. For the Chinese leadership, ensuring food security has meant, above all, security of grain supplies for fear of domestic instability in the event of high food prices. Thus, despite its population of 1.3 billion, the Chinese government considers maintaining 95 percent self-sufficiency in grains a strategic priority.[1] China also maintains grain reserves accounting for 35–40 percent of its annual grain consumption of 500 million tons, approximately double the amount suggested by the UN Food and Agriculture Organization.[2] This enables China to limit its dependence on food imports and its vulnerability to external shocks, such as market fluctuations and natural disasters like the severe drought afflicting eastern China in early 2011.

The priority the Chinese government places domestically on grain production and reserves has some unintended consequences, however. These practices may increase the price of grains at home and overseas. As the Chinese diet has become more diverse, security of grain supplies will not translate into food security in that access to a wider range of food products will be important for adequate nutrition. Consequently, the focus on grain production inside China will increase its demand for imports of other foodstuffs, with implications for global prices.[3]

Chinese officials have raised the priority of food safety since the spate of scandals in the 2000s and the passage of the 2009 food safety law. Nonetheless, as with food security, food safety also has been viewed typically in terms of maintaining the integrity of the China brand, and of preventing social protest over contaminated food. French theorist Michel Foucault's conception of biopower captures this duality: on the one hand, the government has the power to discipline society but, on the other hand, it is responsible for its welfare.[4] More recently, Andrew Lakoff and Stephen Collier, two US academics, elaborated on the latter function of government within the concept of biosecurity, or the technical and state interventions used to secure the public health, including safety from food-borne pathogens.[5] In the case of the contamination of Chinese milk by melamine, the safety of the food supply from contamination can also be viewed as a biosecurity concern.

What of human security? Given that human security focuses on protecting human life from harm, the concept of human security overlaps with that of biopower. Some scholars argue further that a global level sovereign power (i.e. global governance) works to protect human security, just as Foucault envisaged the government of the state safeguarding biopower within its borders.[6]

As the discussion below will highlight, Chinese conceptions of food safety and security emphasize the sovereign power of the state and the state security dimension, to the detriment of biosecurity and human security. Moreover, this has led to difficulties in bilateral and global efforts to address food safety concerns.

Food security, food safety and human security

The elaboration of the concept of food security was one of the earlier steps to call attention to areas of overlap between security and development.[7] In 1974, the United Nations World Food Conference in Rome first outlined an international commitment to establishing a system of food security that "could ensure in future the availability of adequate food to all at reasonable prices."[8]

The discussion of food security tends to emphasize the availability of food supplies, the problem of hunger, and the protection of the food supply from accidental (industrial accidents) or intentional contamination (bioterrorism), but food safety increasingly is being viewed as an integral component of food security. Although the FAO's efforts in food safety began in 1962 with the establishment of the Codex Alimentarius Commission, which sets standards and establishes

best practices for food safety, it was not until the 1996 World Food Summit in Rome that the agency explicitly linked food security and food safety.

Coming two years after the United Nations 1994 Development Report included food security in its list of categories of threats to human security,[9] the FAO summit's final document, the Rome Declaration, reaffirmed "the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger."[10] The 2009 World Food Summit made a further commitment to supporting "national, regional and international programmes that contribute to improved food safety" and adopting "policies and programmes that promote effective food safety systems, covering all stages of the food chain and involving all actors."[11]

The 1994 Human Development Report defined human security as people-centered (not state-centered), and integrally linked to sustainable human development (rather than military power).[12] As Norwegian political scientist Astri Suhrke noted, at the root of this definition is the relationship between human insecurity and extreme vulnerability.[13] When discussing food safety, however, the definition of vulnerability needs to be expanded beyond standard definitions. This chapter examines the consequences of food security and food safety in China in terms of their impact on especially vulnerable groups, including those typically included under this label (the poor in China and developing countries) as well as the large numbers of people worldwide (including those in developed countries such as the United States and Japan) who depend on a global food supply.

China and food security

Concerns about food security in China have changed markedly over the past 30 years. At first, the international food aid to China was primarily concerned with poverty relief and sufficiency of supplies. In the mid-1990s, experts debated whether or not China had sufficient land to sustain its population. Now that China has made significant progress in poverty reduction and improvement of agricultural yields, current food security challenges in China center on urban–rural inequality in access to food, the availability of clean water and the implications of diversion of land to biofuel crops.

History of poverty relief

From 1979 to 2005 China was a major recipient of food aid from the international community. During this period China received $1 billion in food aid from the World Food Program (WFP), involving the delivery of four million tons of food, largely wheat. The parameters of food aid expanded as Chinese economic reforms improved the economic outlook for rural China. For example, WFP food aid evolved from providing technical assistance to improve agricultural yields in the 1980s to developing irrigation systems and promoting sustainable development in the early 1990s and, since the 1990s, to addressing the needs of the rural

poor.[14] In 2005, the year when WFP food aid to China stopped, China became the third largest donor of food aid worldwide, most of it destined for Africa and North Korea.[15] Nonetheless, as we will see below, rural poverty and rural–urban inequality continue to pose major challenges for food security and food safety in China.

Background on the debate on sufficiency of supply

In the mid-1990s, Western experts debated whether or not China had enough arable land to sustain sufficient agricultural production. Lester Brown's alarmist book, *Who Will Feed China?*, argued that China would need to import massive amounts of grain (200 million tons by 2030), which would endanger global security by provoking massive rises in food prices. According to Brown, grain production in China was stagnating and likely to decline, due to environmental problems and urbanization, at the same time that Chinese people were becoming wealthier and demanding more and increasingly diverse food products, especially meat (which increases demand for grain for feed).[16]

Other experts, such as Vaclav Smil, countered that Brown's pessimistic view was based on Chinese statistics which reflected the tendency to underreport arable land. In the Maoist era this occurred in order to claim higher yields per unit of land, while in the reform period peasants now reinstalled in household farms underreported their arable land to reduce quotas of grain required to be sold to the state at fixed prices and to pay less in taxes.[17] New scientific measurements such as remote sensing now show a range of arable land higher than official Chinese statistics (131–137 million hectares) compared to 121.8 million hectares by government sources, but both much higher than the 95 million hectare figure Brown used.[18] Smil further noted that China's enormous grain stocks have played a key role in preventing grain shortages.[19]

Current food security situation: achievements but new challenges

Human security and equal access to food

Although China has made significant progress in poverty reduction, the World Bank's Rural Development Program reports that 200 million Chinese continue to live on less than $1 per day, largely in rural areas, and that rural–urban income disparities are growing.[20] Human rights analysts point out, however, that there is a difference between poverty reduction and ensuring that individuals have equitable access to food.[21] Despite gains in poverty reduction and an average 10 percent economic growth, undernourishment has remained constant at approximately 10 percent for the past decade.[22]

Moreover, unequal access to food reflects evolving trends of income inequality in China. As Table 10.1 shows, the diet of rural people is still connected to consumption of grains produced on the family farm, while urban people enjoy a more diverse and protein-filled diet. Scholars note that, in part, this stems from

Table 10.1 Comparing rural and urban diets

	Rural		*Urban*	
	1978	*2007*	*1978*	*2007*
Per capita grain consumption (kg)	248	199	205.3	77.6
Per capita pork consumption (kg)	5.2	13.4	13.7	18.2
Per capita poultry and egg consumption	0.8	4.7	1.97	10.3

Source: data from UNDP China based on statistics from the 2008 China Statistical Yearbook.

inadequate public education about nutrition among the poor and the priority placed on their achieving minimum subsistence, rather than a well-balanced diet.[23]

A study by Chinese scholars funded by the FAO, the International Fund for Food and Agricultural Development (IFAD) and the World Food Programme noted that food insecurity is particularly poor in eight of China's western provinces and regions which face fluctuations in food supplies due to difficult geographic and weather conditions, poor food distribution, inadequate sanitation and clean drinking water, inadequate nutrition and related health conditions. These areas represent 7.3 percent of China's total area, with a population of 90.5 million people.[24]

The environment and food security

China's agricultural sector faces a unique set of challenges: today China contains 20 percent of the world's population but just 7 percent of the world's arable land and only 6.6 percent of its freshwater resources. Moreover, only 12 percent of China's land is suitable for cultivation and those areas are increasingly prone to droughts. Nearly 75 percent of Chinese agricultural land must be irrigated.[25] Agriculture takes up 70–80 percent of China's water, but its availability is declining for this purpose as households and industries require more.[26] As Chinese diets change and include more meat, pressure on water resources will further increase. A kilogram of beef requires ten times the amount of water of a kilogram of wheat.[27]

Environmental problems increasingly are taking their toll on the productivity of the land and the safety of the food grown on it.[28] Certain problems such as deforestation and desertification result in reduced arable land, a problem exacerbated by urbanization and reclamation (legal and illegal) for commercial purposes. The World Resources Institute has identified the triple threat facing water usage in China: growing water shortages; pervasive water pollution; and flooding.[29] China's State Environmental Protection Ministry admits that 70 percent of China's rivers and lakes are polluted to some degree and nearly 30 percent are unfit even for irrigation or industrial use. Because water scarcity is a significant problem in certain parts of China, pressure to secure safe drinking supplies is

increasing. According to a Beijing environmental organization, one-quarter of the population – some 300,000 people – are drinking unsafe water.[30] As a result, an independent public poll by Circle of Blue, a US environmental NGO and Globescan, a polling firm, found that 67 percent of Chinese surveyed viewed water pollution as a very serious problem, more severe than climate change or air pollution. This is amply reflected by the rise in protests against water pollution throughout China.[31]

Moreover, pressures to expand food production lead to unsustainable practices that exacerbate pollution. Jennifer Turner, director of the China Environment Program at the Woodrow Wilson International Center for Scholars in Washington, DC, has noted that China is both the number one producer and user of pesticides, leading to a severe problem with water pollution from agricultural runoff.[32] China is now the only country that depends on aquaculture more than wild catch for its fishing industry, though farmed fishing exacerbates Chinese water pollution problems. Because of aquaculture's contribution to excessive algae blooms, it has been banned from China's three largest lakes (Taihu, Dianchi and Chaohu).[33] Considering that farmed fish from China accounts for 57 percent of the global catch, pollution in Chinese waters is a very serious concern for importers and the EU, Japan and the United States all have periodically banned fish found to have excessively high amounts of pollutants.[34]

Biofuels and food security

Although making sure that the population has a stable and affordable food supply is a key priority for the Chinese government, ensuring energy security is an equally significant goal. To diversify its energy supplies, China began developing a biofuel sector in 2002. Initially produced from maize, biofuel now is based on alternative non-food crops such as cassava, sweet sorghum and jatropha to avoid negative impacts on food security.[35] To meet the biofuel target for the Eleventh Five-Year Plan, 12 million metric tons would need to be produced by 2020, an amount that would consume an unacceptably high percentage of China's total arable land (5 to 10 percent of the total, depending on the crop), while drawing on scarce water resources.[36] In 2006 China produced three billion liters of bioethanol (made from grain), compared to more than 16 for the United States and Brazil.[37] Although rapidly developing countries in what has been called "the dynamic South" (countries such as Brazil and China) are moving forward with biofuel development and promoting it as a means of deepening South–South economic ties, experts warn of biofuel development driving up food prices and resulting in environmental damage.[38]

Implications for world food markets

Because China is both the largest consumer and producer of food worldwide, constraints on food production have worldwide ripple effects.[39] For example, in addition to the issues discussed above, another constraint on Chinese agricultural productivity is the availability of chemical fertilizer, which is critical to boost yields given limited availability of arable land.[40]

The changes in the world food market also affect food security inside and outside China. When food prices skyrocketed in the spring of 2008, several rice-exporting countries, including China, restricted exports to satisfy local demand.[41] This had a major impact on Asian states dependent on lower priced Chinese imports, such as North Korea.[42] In 2008, the Chinese government also reduced its grain imports to help cool world food prices and avoid inflationary pressures on food prices domestically.[43] Nonetheless, food prices in China have continued to climb, raising concerns within China about potential social instability. An official Chinese survey acknowledged that the 5 percent of the population (65 million people) in the lowest income group spend half their income on food, compared to 31 percent for the 10 percent in the highest income group (130 million people).[44] Chinese consumers and retailers complain that official Chinese statistics on prices understate the rise in key staples such as rice and vegetables. Officially, the Chinese inflation rate for consumer prices stands at 3.6 percent, out-stepping the interest rate on savings, now 2.5 percent.[45]

To increase their access to food supplies, Chinese companies have been expanding investments in foreign farmlands, particularly in Africa. China began investing in African agriculture as far back as 1995 and Chinese companies are now involved with more than 60 projects on the continent. The investments range from small-scale farms to large cattle ranches.[46] In 2008, for example, China made major investments in rice production in Zimbabwe and Mozambique, investing $800 million in the latter to boost its export capacity.[47] Such projects, if environmentally sustainable, may provide a boost for African agriculture. Rising Chinese demand for imports may also indirectly benefit African agriculture, by exerting upward pressure on prices, which would benefit exporters, though disadvantage other developing countries that depend on food imports and make local people unable to afford the higher prices.

Nonetheless, other experts caution that Chinese industries also are buying up farmland in developing countries for industrial purposes, leading to reduced cropland in these countries. For example, in 2008 two major Chinese oil companies (Sinopec and CNOOC) invested $5 billion each in projects in Indonesia to process corn into biofuel. As China is expected to consume 30 percent of the world's rubber by 2020, Chinese rubber companies have been clearing rice fields in Laos to make way for rubber plantations that would export to China. In Burma, farmers have complained of being forcibly evicted from their land, which has been handed over to rubber plantations leased by Chinese companies.[48]

Consequences for the United States and Japan

The degree to which China will depend on imports of food, due to rising demand or declining productivity or availability of land, will affect other major players in world food markets, such as the United States and Japan. In 2008, China

became a net global food importer and is now the world's largest soybean importer. Of the $13 billion in agricultural products the United States exported to China in 2009, soybeans accounted for $9.2 billion.[49] Global agribusinesses such ADM, Carghill and Bunge now heavily invest in China's soybean industry, which supplies other Asian countries, including Japan.[50]

Although the United States and Japan are bigger players in world food markets than China, as China increasingly becomes involved in purchasing land in other developing countries, this enhances competition among other food importing states, including Japan.[51] Japan has relatively low food self-sufficiency and must depend on imports for approximately 70 percent of its cereals, 60 percent of its fruit, 50 percent of its meat and 40 percent of its vegetables.[52] As we will see below, Japanese concerns about the safety of Chinese food products have limited Japan's imports from China.

Human security and food safety in China

Food safety as a human security issue: unequal access to safe food in China

One of the problems revealed by China's recent spate of food safety scandals is the inequality in access to safe food. Thus, inadequate attention to the human security of poorer rural residents in general exacerbates China's food safety problems. For example, in April 2004 the Chinese media revealed that in Fuyang in Anhui province, 12 babies had died and hundreds more were treated for malnutrition after consuming fake or substandard milk powder. The incident disproportionately affected poorer rural residents and highlighted the weakness of China's food safety regulation in rural areas.[53] According to Waikeung Tam of the National University of Singapore and Dali Yang at the University of Chicago, unlike urban areas which have a wider choice of food products, "villages have, in recent years, become the dumping grounds of fake and substandard products."[54]

Moreover, regulatory agencies typically only operate at the township level, leaving villages in a food safety regulatory vacuum. Admittedly, food safety is more difficult to regulate in villages where products are sold in small-scale stores than in urban areas with large supermarket chains, but analysts suggest that another reason for the unequal regulatory attention to rural areas is that major food safety scandals in cities are more likely to attract media attention.[55]

As the 2008 melamine scandal revealed, however, this a short-sighted view, since Chinese food is produced in rural areas. In the 2008 incident nearly 300,000 children developed kidney ailments and six died from drinking milk laced with melamine (a compound found in plastics) to mask its low-protein content. China's dairy industry is much decentralized and includes a wide variety of companies, ranging from well-known, large, state-owned companies to unregistered and largely unregulated small companies.

Because inspection facilities tend to be located in cities, small-scale producers in rural areas have to face additional transportation costs to inspect their products. According to a quality control inspector in Hebei province, a dairy farming region, these producers typically lack training in food safety and need to be made aware that food safety problems would also increase their costs by suppressing sales.[56]

Moreover, China lacks a comprehensive "farm to table" approach to food safety – food safety inspection typically is concerned only with the final product, not the conditions on the farm.[57] Considering that in the dairy industry alone, more than two-thirds of milk producers are small-scale household farms with no more than five cows,[58] ensuring food safety at the farm level would pose considerable logistical and budgetary challenges.

China and the vulnerability of the global food chain

The series of food safety scandals and product recalls from China in the past decade highlight the vulnerability of foreign consumers due to China's growing role in the global food chain and changes in the global food industry. According to the World Trade Organization, China exported only $7.5 billion in food products in 1980, but by 2006 these exports had reached $53 billion.[59] Today China is now the world's largest exporter of food products, including most cereals, with the exception of soybeans.[60] China exports food to more than 200 countries, and Japan, the United States, the Republic of Korea, Hong Kong, Russia, Germany, Malaysia, the Netherlands, Indonesia and Britain are the top ten import destinations.[61] The United States increasingly imports food ingredients from China such as wheat gluten and preservatives like ascorbic acid and lactic acid,[62] as well as processed vegetables and fruit juice. From 2005 to 2010, Chinese food exports to the United States doubled, reaching $3.23 billion in 2010. During that year, for example, China accounted for 72 percent of US apple juice imports.[63]

As the food supply chain has become more globalized and major food processors have turned to outsourcing in order to lower costs, it has become more difficult to trace the country of origin of ingredients in processed foods. For example, the average multigrain bar contains ingredients from eight countries, including honey and vitamin and mineral supplements from China. Consumers only recently have become aware of this problem in the wake of the 2007–2008 scandals in the United States over melamine in pet food and milk products with Chinese ingredients.[64]

Because many countries (including the United States) are not required to list the country of origin of the ingredients in processed food (nor would this be possible given that even food processors themselves have trouble keeping track of the origins of different batches of ingredients), analysts argue that it is up to the food processing industries to play a more active role in controlling the quality of raw materials at the beginning of the supply chain. This may involve avoiding bulk purchases on Chinese wholesale markets, training and monitoring Chinese suppliers, and where the risks of contaminated products are especially great, to purchase the raw materials elsewhere. The French company, Danone, for example, even purchases milk from Australia and New Zealand for its China-based baby food operations.[65]

Human security and foreign policy implications for the United States and Japan

In response to recent food safety scandals, China has taken a series of legislative and administrative steps to improve regulation, as the December 2007 State Council White Paper on Food Safety documents.[66] Two years later, after years of discussion and 11,000 comments on the drafts, China's National People's Congress finally passed a new food safety law, which increased penalties for food safety violations and banned unsafe additives. New national standards are to be established for food quality, food additives, and acceptable levels of contaminants.

While the new legislation is an improvement over past practices, questions remain about how effectively it will be enforced because few details are provided about resources, timelines and benchmarks for implementation.[67] In its press release announcing the new law, even the Ministry of Health acknowledged that "China's food safety situation remains grim, with high risks and contradictions," and that it requires continuing efforts at supervision.[68] Administrative changes already are in process. In 2009, a National Food Safety Rectification Office, headed by Health Minister Chen Zhu, was established. A Food Safety Commission, chaired by Vice Premier Li Keqiang, also was created under the State Council in February 2010.[69] Some Chinese experts argue that the government needs to do more to inform consumers, for example, by setting up an early warning system,[70] while others point to the already large number of government ministries involved in food safety which leads to overlapping responsibilities and conflicts of interest.[71]

Despite such efforts, food safety scandals in China have raised concern among the US and Japanese publics and have been a source of tension in both US–China and Japan–China relations. Bilateral agreements have been signed to address some of these issues, but analysts, inside and outside China, continue to see a number of outstanding problems.

Food safety and US–China relations

In December 2007, after a spate of safety scandals concerning Chinese products, then Secretary of the Treasury Henry Paulson called food safety "the No. 1 issue" as he approached an upcoming meeting of the US–China Strategic Economic Dialogue where the issue would figure prominently.[72] After Canada and Mexico, China is now the third largest source of agricultural and seafood imports.[73] The Food and Drug Administration (FDA) is responsible for monitoring 80 percent of US food imports, though just 1 percent is inspected.[74] According to a June 2008 study by the US General Accountability Office (GAO), from 2001 to 2007, just 33 Chinese food producers were inspected in that period, out of a total of 1,034 inspections worldwide.[75] Expanding the number of inspections would be very costly. The FDA estimates that more than $3 billion (approximately $16,700 per inspection) would be necessary for the agency to inspect the

189,900 overseas facilities that produce and process foods destined for the US market.[76] This would far exceed the agency's budget of $620 million for food protection in FY 2008.

On November 13, 2008, the FDA took action to halt all imports of Chinese products containing milk pending documentation certifying that they are free from melamine contamination.[77] The FDA has the right to refuse foreign shipments of foods that violate American safety standards. In the Chinese case, the refusal rate for FY 2006 was just 0.15 percent. Seafood products constituted half of the 700 refused shipments during that time period. Refusals occurred because of contamination with veterinary drug residues (used to control disease in fish ponds with poor water quality), pathogens such as *Salmonella* and *Listeria*, and general "filth."[78] The relatively low refusal rate has enabled Chinese authorities to claim that 99 percent of their products are safe, though this does not take into account the extremely small proportion of inspected goods.[79]

Congressional oversight committees and the GAO have been critical of the FDA's performance domestically and overseas. In response to such criticism, in December 2008, the FDA issued a food protection plan to improve food safety and food defense.[80] As a part of this effort, the FDA opened three new offices in China staffed by 13 employees. The agency also is exploring a program to allow accredited third parties to certify food safety on a voluntary basis. Adding staff on the ground and introducing voluntary inspections will help, but the scale of the challenge in China is great, considering that the country has more than 400,000 food producing companies (compared to 150,000 in the United States), only two-thirds of which are officially registered.[81]

For importers who seek out low-priced Chinese food products for purchase, a more intrusive inspection system would increase safety but also raise costs. Consumers in the United States, though much better informed and organized than Chinese citizens, have little opportunity to balance safety with price, since the 2008 US Farm Bill only requires country-of-origin labeling for meat, seafood, produce, ginseng and certain nuts.

Recent food safety crises have created momentum for US–China bilateral cooperation in food safety, as Jennifer Turner and Linden Ellis of the Woodrow Wilson International Center for Scholars documented in their September 2008 study, *Sowing the Seeds*.[82] Dialogue on food safety has proceeded through the Strategic and Economic Dialogue framework as well as through bilateral initiatives by the FDA and the Department of Agriculture.

According to a memorandum of understanding signed between China and the United States on December 11, 2007, Chinese companies that export products with a high refusal rate (seafood, wheat gluten, rice protein, low-acid canned goods, and pet foods) must register with the Chinese quality control agency and undergo annual inspections. While a promising start, only a limited number of products are covered and implementation depends on the Chinese central government's ability to achieve local compliance with regulations, an especially weak link in China's food safety chain.

Food safety and Japan–China relations

Japan is the largest importer of Chinese food products, especially frozen and fresh vegetables and some fruits, but also of some traditionally "Japanese products" such as soba noodles. Japan depends on the Chinese imports because of lower costs, proximity and opportunities for Japanese investments in the Chinese food processing industry. In the past decade, trade frictions have emerged over food safety issues such as pesticides found in frozen spinach and frozen dumplings imported from China.

Although food safety was not included on the Japan–China bilateral agenda until 2007, the Japanese food safety system is one of the most stringent. Indeed, Japan has had a proactive and extensive inspection system for imported foods for some years. Typically Japan inspects about 10 percent of imported food products, about ten times the US average. However, after a 2002 incident with pesticide-contaminated spinach from China, the Japanese Ministry of Health, Labour and Welfare required that every shipment of imported frozen spinach be inspected. A Food Sanitation Law passed in July 2002 called for comprehensive restrictions to be imposed on the sale and imports of food from any country found in violation.[83] For example, after pesticides were found in frozen spinach exported to Japan in 2002, China and Japan agreed to specify 27 firms to be used for this export and a stringent inspection regime, all of which have increased the cost of the export, which has yet to return to its pre-2002 volume.[84] In 2006 Japan's Ministry of Health, Labour and Welfare elaborated a Positive List System for Agricultural Chemical Residues in Foods, setting strict standards which led to bans on many Chinese products, but also prompted Japanese technical aid in food safety to Chinese food processing firms to enable them to comply with Japanese standards prior to export.[85]

Conclusion

Both food security and food safety have important consequences for human security inside and outside China. Advances in agriculture over the past 30 years of economic reform have not only enabled China to be self-sufficient in food, but also to be a major global exporter of food products. Today Chinese policymakers face new constraints on agriculture due to water shortages, water pollution and biofuel crops, with important consequences for the availability of arable land and food prices. Despite improved regulatory efforts, food safety scandals continue to plague China. A 2010 poll by *Xiaokang* [Moderately Well Off] Magazine and Tsinghua University in 12 Chinese cities found that food safety ranked number one of all social concerns among those surveyed, reflecting mounting anxiety after the 2008 melamine crisis.[86] However, it is the half of China's population living in rural areas, already eating a less nutritious diet than urban residents, who are most vulnerable to unsafe food.

As China becomes an increasingly important player in global food markets and the global food chain, the challenges faced by the country in food production and processing have wide-ranging ripple effects, particularly for key partners

such as the United States and Japan. Despite China's growing importance to global food security, the priority placed by the Chinese government on the security component of biopower at the expense of biosecurity and human security will create new challenges for bilateral partnerships and global governance.

Notes

1 Robert Fairbanks Ash, "Population Change and Food Security in China," in Czeslaw Tubilewicz, ed., *Critical Issues in Contemporary China* (London: Routledge, 2006), p. 163; Xiao Yunlai and Nie Fengying, *A Report on the Status of China's Food Security* (Beijing: China Agricultural Science and Technology Press, 2009), p. 44.
2 "How Much Grain Does China Really Have in Reserve?" *The People's Daily*, April 14, 2009, http://english.peopledaily.com.cn/90001/90776/90884/6636784.html#. In 2009, the Chinese leadership began auditing Chinese grain reserves, out of concern that some provinces may have been fabricating figures.
3 Zhang Hongzhou, "China and Global Food Security: Conflicting Notions," *RSIS Commentaries*, No. 7, 2011, www.rsis.edu.sg/publications/commentaries.html.
4 Michel Foucault, *Histoire de la Sexualité I: La Volonté du Pouvoir* (Paris: Gallimard, 196), p. 183. On the importance of the security component in biopolitics, see Michael Dillon and Luis Lobo-Guerrero, "Biopolitics of Security in the 21st Century: An Introduction," *Review of International Studies*, Vol. 34, 2008, p. 266.
5 Stephen J. Collier and Andrew Lakoff, "The Problem of Securing Health," in *Biosecurity Interventions* (New York: Columbia University Press, 2008), pp. 7–8. As Frédéric Keck noted, however, the concept of "biosecurity" remains controversial depending on the nature of the threat and who its primary victims are. He notes that there are three domains to biosecurity: the farming practices that result in animal-borne diseases, the border controls meant to prevent the spread of pathogens, and the problem of bioterrism. See Keck, "From Mad Cow Disease to Bird Flu: Transformations of Food Safety in France," in Collier and Lakoff, *Biosecurity Interventions*, p. 197.
6 Miguel de Larrinaga and Marc G. Doucet, "Sovereign Power and the Biopolitics of Human Security," *Security Dialogue*, Vol. 39, No. 5, 2008, p. 519.
7 Shahrbanou Tadjbakhsh and Anuradha M. Chenoy, *Human Security: Concepts and Implications* (London: Routledge, 2007), p. 145.
8 Report of the World Food Conference, Rome, November 5–16, 1974, FAORLC 41001, p. 9, www.un.org/en/development/devagenda/food.shtml.
9 Tadjbakhsh and Chenoy, *Human Security*, pp. 14–15. 1994 Human Development Report, http://hdr.undp.org/en/media/hdr_1994_en_chap2.pdf.
10 Rome Declaration on World Food Security, Rome, November 13–17, 1996, www.fao.org/docrep/003/w3613e/w3613e00.HTM.
11 Declaration of the World Summit on Food Security, November 16–18, 2009, WSFS 2009/2, www.fao.org.
12 United Nations Development Program, Human *Development Report 1994*, Chapter 2 New Dimensions of Human Security, p. 24, http://hdr.undp.org/en/media/hdr_1994_en_chap2.pdf.
13 Astri Suhrke, "Human Security and the Interests of States," *Security Dialogue*, Vol. 30 No. 3, 1999, p. 273.
14 World Food Programme, *A Report from the Office of Evaluation: Evaluation of WFP's Assistance to China (1979–2005)*, Rome, December 2005, Ref. OEDE/2006/3, p. 2.
15 "World's Largest Humanitarian Agency Wants Stronger Partnership with China," *Xinhua*, January 19, 2007 (www.lexisnexis.com).

16 Lester Brown, *Who Will Feed China? Wake-Up for a Small Planet* (New York: W.W. Norton & Company, 1995), Chapters 2–5.
17 Vaclav Smil, "Research Note: China's Arable Land," *China Quarterly*, Issue 158, June 1999, pp. 414–429.
18 Jerry McBeath and Jennifer Huang McBeath, "Environmental Stressors and Food Safety in China," *Journal of Chinese Political Science*, Vol. 14, 2009, p. 51.
19 Vaclav Smil, "Feeding China: From Wanting to Wasting," *Current History*, No. 102, September 2003, pp. 270–273.
20 World Bank, *People's Republic of China: The World Bank's Rural Sector Strategy for China*, November 1, 2006.
21 Human Rights in China, "The Right to Food in China: What (and Who) Is at Stake?" *China Rights Forum*, No. 3, 2005.
22 FAO, *The State of Food Insecurity in the World 2010*, p. 52.
23 Zhu Ling, "Food Security of Low Income Groups in Rural China," in Carl Riskin, Zhao Renwei and Li Shi, eds., *China's Retreat from Equality* (Armonk: M.E. Sharpe, 2001), p. 230.
24 Xiao Yunlai and Nie Fengyin, *A Report on the Status of China's Food Security* (Beijing: China Agricultural Science and Technology Press, 2009), p. 11.
25 Henrick J. Bruins and Fengxian Bu, "Food Security in China and Contingency Planning: The Significance of Grain Reserves," *Journal of Contingencies and Crisis Management*, Vol. 14, No. 3, 2006, p. 115.
26 McBeath and McBeath, "Environmental Stressors and Food Safety in China," p. 61.
27 United Nations Development Program, *China Human Development Report 2009/2010: Towards a Low Carbon Economy and Society* (Beijing: China Translation and Publication Corporation, 2010), *China and a Sustainable Future*, p. 48, http://content.undp.org/go/cms-service/stream/asset/?asset_id=2471266.
28 McBeath and McBeath, "Environmental Stressors and Food Safety in China," pp. 54–67.
29 "The Environment and China: Water and Air Pollution: Water and Health," World Resources Institute, www.wri.org.
30 Xiaoqing Lu and Bates Gill, "Assessing China's Response to the Challenge of Environmental Health," *China Enviornment* No. 9, 2007, p. 4.
31 Nadya Ivanova, "China's Dirty Water Leads to Protests, Some Reform," September 9, 2009, www.circleofblue.org/waternews/2009/world/chinas-dirty-water-leads-to-protests-some-reform/.
32 Comments at the Environmental Change Institute Workshop on "Environment and Health in China," Old India Institute, Oxford University, November 29, 2007, p. 2.
33 Linden J. Ellis and Jennifer L. Turner, "Environmental and Food Safety Concerns of China's Aquaculture and Animal Husbandry," *China Environment*, No. 9, 2007, p. 22.
34 Ibid., p. 20.
35 Hong Yang, Yuan Zhou and Junguo Liu, "Land and Water Requirements of Biofuel and Implications for Food Supply and the Environment in China," *Energy Policy*, No. 37, 2009, pp. 1876–1877.
36 Ibid., p. 1885.
37 Peter Duvergne and Kate J. Neville, "The Changing North-South and South-South Political Economy of Biofuels," *Third World Quarterly*, Vol. 30, No. 6, p. 10.
38 Carlisle Ford Runge, "Against the Grain," *Foreign Affairs*, Vol. 89, Issue 1, January/February 2010; Duvergne and Neville, "The Changing North-South and South-South Political Economy of Biofuels," p. 15.
39 Bruins and Bu, "Food Security in China and Contingency Planning," p. 115.
40 Ibid., p. 121.
41 William Kramer, "Turning the Tables: Sustainable Solutions to the Global Food Crisis," *New Labor Forum*, Vol. 18, Issue 1, winter 2009 (Proquest).

42 Consortium of Non-Traditional Security Studies in Asia, "Paying the Price of Food Insecurity (II)," *NTS Alert*, No. 1, April 2008, p. 3.
43 US Department of Agriculture, "Briefing Rooms: China: Trade," www.ers.usda.gov/briefing/china/trade.htm.
44 Human Rights in China, "The Right to Food in China: What (and Who) Is at Stake?" p. 61.
45 David Barboza, "Food and Property Prices Drive China's Concern over Inflation," *New York Times*, October 22, 2010, p. B3.
46 Loro Horta, "Food Security in Africa: Chin's New Rice Bowl," *China Brief*, The Jamestown Foundation, May 27, 2009.
47 Ibid.
48 Shephard Daniel with Anuradha Mittal, *The Great Land Grab: Rush for World's Farmland Threatens Food Security for the Poor* (Oakland: The Oakland Institute, 2009), p. 9.
49 US Department of Agriculture, "Briefing Rooms: China: Trade," www.ers.usda.gov/briefing/china/trade.htm.
50 John Wilkinson, "The Globalization of Agribusiness and Developing World Food Systems," *Monthly Review*, September 2009, p. 46.
51 Daniel with Mittal, *The Great Land Grab*, p. 3.
52 Hyun-Kyung Moon, "Review: Food in Health Security in Northeast Asia," *Asia-Pacific Journal of Clinical Nutrition*, Vol. 18, No. 4, 2009, p. 489.
53 Waikeung Tam and Dali L. Yang, "Food Safety and the Development of Regulatory Institutions in China," in Dali L. Yang, ed., *Discontented Miracle: Growth, Conflict and Institutional Adaptations in China* (Singapore: World Scientific Publishing, Co., 2007), p. 163.
54 Ibid., pp. 177–178.
55 Ibid., p. 179.
56 Zhu Xiumin, "Zhiliang guandian: Cong jianyan zhushou tigao xiaozuofang de shipin anquan" [Quality Viewpoint: Beginning with Inspection Increase Food Safety of Small Producers], *Zhongguo zhiliang jishu jiandu* [China Quality Technology Control] No. 5, 2010, p. 60.
57 Li Yang, Shipin anquan huanjingzhe shiji [The Design of Food Safety Indicators], *Anyang gongxueyuan xuebao* [Journal of Anyang Institute of Technology], Vol. 9, No. 2, April 2010, p. 19; Yu Liyan, Ren Yan and Wang Dianhua, "Food Safety Regulatory System of Developed Countries and the Implication for China," *Management Science and Engineering*, Vol. 4, No. 1, 2010, p. 37.
58 Kong Xiangzhi, Zhong Zhen and Tan Zhixin, "Lun fazhan nongmin zhuanye hezuoshe yu nongchangpin zhiliang anquan wenti—yinaiyeweili" [On Development of Farmers' Professional Cooperative and Quality and Safety of Agricultural Products—Case Study of Dairy Industry], *Tianjin shangye daxue xuebao* [Journal of Tianjin University of Commerce], Vol. 30, No. 4, p. 10.
59 Cited in Drew Thompson and Hu Ying, "Food Safety in China: New Strategies," *Global Health Governance*, Vol. 1, No. 2, Fall 2007, p. 2.
60 Xiao Yunlai and Nie Fengyin, *A Report on the Status of China's Food Security* (Beijing: China Agricultural Science and Technology Press, 2009), p. 30.
61 Embassy of the People's Republic of China in the United States of America, "Chinese Food Exports Are Safe," June 26, 2007, www.china-embassy.org/eng/xw/t334047.htm.
62 Linden J. Ellis and Jennfer L. Turner, *Sowing the Seeds: Opportunities for U.S.-China Cooperation on Food Safety* (Washington, DC: Woodrow Wilson International Center for Scholars, September 2008), p. 22.
63 Laurie Burkitt, "FDA Seeks Beijing's Help over Food Safety," *The Wall Street Journal*, November 4, 2011, http://online.wsj.com/article/SB10001424052970204621904577015643330584090.html.

64 Aleda V. Roth, Andy A. Tsay, Madeleine E. Pullman and John V. Gray, "Unraveling the Food Supply Chain: Strategic Insights from China and the 2007 Recalls," *Journal of Supply Chain Management*, January 2008, pp. 22–39.
65 Barry Berman and Kunal Swani, "Managing Product Safety of Imported Chinese Goods," *Business Horizons*, Vol. 53, 2010, p. 44.
66 "Full Text: White Paper on Food Quality and Safety," *Xinhua*, August 17, 2007, www.china.daily.com.cn.
67 Steven Dickinson, "Food Fumble: China Can't Regulate Away Its Safety Problems," *The Wall Street Journal*, March 3, 2009, www.wsj.com.
68 "New Law Fights 'Grim' Situation in Food Safety," *Shanghai Daily*, March 3, 2009, www.site.securities.com.
69 "Food Safety Commission Established in China," February 12, 2010, www.chinacsr.com/en/2010/02/12/7162-food-safety-commission; "Chinese Vice-Premier Addresses State Council Food Safety Meeting," *Xinhua*, August 22, 2010 (lexisnexis).
70 Zhang Xicai and Zhang Lixiang, "Shipin anquan weiji guanliji zhiguo jian yu duice yanjiu" [Food Security Crisis Management Mechanism and Proposals] *Luce jingji* [Ecological Economy], Vol. 7, No. 227, 2010, pp. 60, 62.
71 Zhao Naiji, "Wo guo shipin anquan zhengu jianguan zhidu tantao" [An Investigation of My Country's Governmental Food Safety Oversight System], *Jiandai shangmao gongye* [Modern Business Trade Industry], No. 9, 2010, pp. 70–71.
72 Steve Suppan, *U.S.-China Agreement on Food Safety: Terms and Enforcement Capacity* (Minneapolis: Institute for Agriculture and Trade Policy, May 2008), p. 3.
73 The following discussion of US responses to concerns about Chinese food safety concerns is drawn from Elizabeth Wishnick, "Of Milk and Spacemen: The Paradox of Chinese Power in an Era of Risk," *Brown Journal of World Affairs*, Vol. XV, Issue 11, spring/summer 2009, pp. 218–220.
74 The Department of Agriculture is responsible for monitoring the remaining 20 percent of food imports, focusing on meats, poultry and eggs.
75 United States Government Accountability Office, "Federal Oversight of Food Safety," Testimony before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives, June 12, 2008, Appendix 1, 1.
76 Ibid., 8.
77 Gardiner Harris and Andrew Martin, "U.S. Blocks Products with Milk from China," *New York Times*, November 14, 2008, p. A18.
78 Fred Gale and Jean C. Buzby, *Imports from China and Food Safety Issues*, United States Department of Agriculture, Economic Information Bulletin No. 52, July 2009, p. 23.
79 Geoffrey S. Becker, Food and Agricultural Imports from China, *Congressional Research Service Report for Congress*, RL34080, September 26, 2008, p. 11.
80 US Food and Drug Administration, "Food Protection Plan: One-Year Progress Summary," December 2008, www.fda.gov.
81 Fred Gale and Jean C. Buzby, Imports from China and Food Safety Issues, United States Department of Agriculture, Economic Research Service, *Economic Information Bulletin*, No. 52, July 2009, p. 3.
82 Ellis and Turner, *Sowing the Seeds*, pp. 10–12.
83 "Eat Your Spinach, Japan," Research Institute of Economy, Trade & Industry, September 19, 2002, www.rieti.go.jp.
84 Linda Calvin, Fred Gale, Dinghuan Hu and Bryan Lohmar, "Food Safety Improvements Underway in China," *Amber Waves*, November 2006, pp. 16–21, www.ers.usda.gov.
85 Ellis and Turner, *Sowing the Seeds: Opportunities for U.S.-China Cooperation on Food Safety*, p. 40.
86 Zhang Zhiwei, "Food Safety Tops People's Concern in Survey," *The China Daily*, June 30, 2010, www.chinadaily.com.cn/china/2010-06/30/content_10042303.htm.

11 Pandemic responses in the Asia-Pacific

Risk and opportunity in the PRC's international relations

Jonathan Schwartz

Appearing at regular intervals, three to four times a century, globe-spanning pandemics have long existed as a threat to humanity. However, the rapid expansion of globalization has greatly enhanced that threat. Often described as "artificial disease force-multipliers," attributes of globalization – such as expanded global trade and tourism; the movement of goods, services and people across the planet in ever increasing numbers; and rapid urbanization – have exacerbated human vulnerability to pandemics.[1] It has become widely accepted in the public health community that a novel or re-emergent virus which is highly virulent and easily transmissible among humans is inevitable and long overdue.[2] Recognizing this threat, the World Economic Forum in its 2006 Global Risks Report ranked pandemics and natural disasters among the gravest risks confronting the international community.[3]

This chapter explores efforts to effectively respond to pandemic disease within the Asian-Pacific community. It argues that pandemics represent a significant threat to human life and well-being, while simultaneously providing a unique opportunity for international cooperation in the sphere of pandemic prevention and control that is essential to effective pandemic response. Such cooperation may also represent a point of departure for expanded trust and cooperation in other spheres of international relations. However, how we frame pandemics in political terms can have a significant effect on successful pandemic response. Does the movement toward framing pandemic threats as a form of high politics/non-traditional security increase or decrease the likelihood of successful global pandemic response?

The chapter opens by exploring the debate on how to frame pandemics in international politics. It then describes growing global awareness of the threat pandemics represent for the international community while focusing on the PRC's uniquely important role as a focal point of pandemic development, spread and, potentially, control. The chapter then explores the nature and development of international cooperation on pandemic response, with a focus on the PRC and its interaction with key actors in the Asia-Pacific, including the Association of Southeast Asian Nations (ASEAN), the World Health Organization (WHO) and

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