



Policy Brief

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Overview

While globalization brings opportunities for economic growth, international trade creates opportunities for the globalization of unsafe food. As trade liberalization opens the territorial boundaries of nation-states for traded goods and services, frequent and recurring instances of food contamination threaten the health, trust and confidence of consumers. To guarantee sustainability and social responsibility, the implementation and enforcement of food safety standards should effectively involve multiple actors: states, international organizations, the food industry, consumer groups and civil society. This would create an opportunity to balance trade and food safety concerns, enabling consumers to make informed choices. Today, certainty over food safety may also prevent a downturn in the volume of traded food as a consequence of staggering energy prices that discourage expensive transport. Better and broader access to systematic food safety information may be part of an answer to the quest for optimised consumer choice.

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Food Safety and Trade Liberalization in an Age of Globalization

CONSUMER TRUST OF FOOD PRODUCERS AND THE governments that regulate them is in notable decline throughout the world, due to frequent and recurring instances of food contamination. Yet consumer trust is pivotal in order to sustain the increasingly globalized nature of food production, processing, and distribution in the international trading relations of states. With an increasing population, rapid urbanization and rise of the middle class, the demand for processed food is increasing significantly, and thus presents inherent risks for food safety and sustainability. The challenge of ensuring effective global food safety standards is inexorably linked to the progressive trade liberalization agenda of the World Trade Organization (WTO). In a globalized world, food-borne outbreaks, like air-borne infectious diseases, disregard the geopolitical boundaries of sovereign states. Food products grown in one part of the world, because of advancements in food production trends and burgeoning international trade between states, are now easily transported to other regions of the world. International trade norms and policies often focus predominantly on traded goods and services, especially "Northern" access to "Southern" markets. Founded on the free trade agenda of market access, and driven by the principles of "National Treatment" and "Most Favoured Nation", the international trading system—with nation-states as the dominant actors—is asymmetrical in nature. Very often, the international trading system does not effectively address the many fundamental and pressing issues related to environmental degradation, pesticide use and chemical dependency common in modern agricultural practices.

International consensus regarding global production methods and sustainability throughout the food chain are key requirements to improving global food safety standards. Existing food safety initiatives and policies focus primarily on hazards in food. There is a need for a broader conception and regulation of risk along the entire food production chain involving food production, processing, packaging, labelling, transport, and sale to consumers. The European Union's comprehensive "farm to fork" food safety approach, for example, highlights the imperative of the collective effort and responsibility of governments, industry and civil society to earn consumer trust, and build transparency at all levels of food production—a

segue to improved trade policies. Transparency in food production ultimately provides the consumer with choices between various production methods.

Food Safety: A Threat to Public Health

Food-borne disease, according to the World Health Organization (WHO), takes a major toll on population health.

name just a few. The emergence of new disease pathogens not previously associated with food also raises serious public health concern. In the burgeoning global food trade, how do states and relevant international organizations address the challenge of the transnational regulation of food safety concerns including new technologies such as genetic modification? Put another way, how can states protect

“Foodborne disease takes a major toll on health....Millions of people fall ill and many die as a result of eating unsafe food”—
World Health Organization

Every year, millions of people fall ill and many die as a result of eating unsafe food. The WHO estimated that about two million children in developing countries (excluding China) died from diarrhoea-related disease in 1998, caused by microbial agents mostly originating from unsafe food and water. In the United States, there are some 76 million cases of food-borne illness annually, resulting in thousands of hospitalizations and deaths. In the mid 1990s, studies published in the United States estimated that the annual cost of food-borne illness ran into billions of dollars. In 1996, the direct medical and associated costs during five food-borne outbreaks in England and Wales were estimated at 300–700 million British Pounds Sterling. The globalization of food trade has raised serious questions for the national and international regulation of emerging and re-emerging food safety concerns: bovine spongiform encephalopathy (BSE), commonly known as “Mad Cow Disease”, salmonella, *E. coli*, *Enterobacter sakazakii*, avian flu H5N1 in poultry, the use of hormones in livestock, to

and promote the health of their citizens without restricting international trade?

The Challenge of Global Regulation of Food Safety

Food safety raises transnational concerns within the mandates of a number of inter-governmental organizations: the World Health Organization (WHO), Food and Agriculture Organization of the United Nations (FAO), World Organization for Animal Health (formerly, the International Office of Epizootics), International Organization for Standardization (ISO), and the World Trade Organization (WTO). Food safety was included in the Uruguay Round of trade negotiations that led to the Agreement on Sanitary and Phytosanitary Measures (SPS), one of the treaties within the mandate of the WTO when it was established in 1995. The SPS Agreement requires WTO member-states to base their sanitary and phyto-sanitary measures on relevant international standards, guidelines and recommendations. Additionally,

Examples of International Regulatory and Other Bodies on Food Safety

- World Health Organization (WHO) and Food and Agriculture Organization (FAO) jointly administered Codex Alimentarius Commission (Codex)
- World Organization for Animal Health (Formerly, International Office of Epizootics)
- World Trade Organization (WTO)
- International Organization for Standardization (ISO)
- European Union (EU), and other international and regional organizations operating within the framework of the International Plant Protection Convention

WTO member-states, where there is scientific justification, may introduce national sanitary and phyto-sanitary measures which result in a higher level of sanitary and phyto-sanitary protection than would be achieved by SPS measures based on the relevant international standards, guidelines, and recommendations. The Codex Alimentarius Commission, jointly administered by WHO and FAO, was established by World Health Assembly Resolution 16.42 of May 1963. The Codex develops standards for food in order to protect the health of consumers and ensure fair practices in the international food trade.

Despite concerted efforts by these international agencies, world food sources continue to suffer contamination. Production standards vary widely between nations. Existing food safety enforcement measures are often inconsistent within and between countries, regions and continents. Hardly preventive or precautionary, these measures are often remedial following food safety crises. As the food industry is driven in complex ways by international trade, developing countries are under pressure to adopt and meet relevant international food safety standards. In the past decade, serious incidents of food-borne disease have been reported in every region of the world. Examples abound of unsafe food produced in both developing and developed countries not being discovered until the product has left the country of origin and has been consumed in another country. This illustrates the fact that contamination in the food chain is relatively universal, irrespective of a nation's level of development, industrialization, and food production processes.

The increasingly interdependent nature of global food production and distribution, especially in countries

where imports constitute a large percentage of food sourcing, exacerbates the challenge of universal food safety standards, regulation and enforcement. Scholars and food policy experts searching for effective and sustainable solutions to food chain contaminations have advocated national and international policies that consider each stage of the food chain as a vital and interconnected part of the whole. They have advocated a preventive and proactive regulatory framework in which each stage in the food chain faces scrutiny instead of safeguards that are remedial and reactive to the harm caused by food contamination. Remedial measures, as experience has shown, are ineffective in preventing contaminated food from reaching the consumer.

Food Chain Approach

The food chain approach, known in the European Union as the “farm to fork” programme, is a significant paradigm shift that goes beyond the current agricultural standard. It focuses on controls throughout the food chain, from producer to vendor, to prevent contaminated products from reaching the consumer. The FAO's Strategy for a Food Chain Approach to Food Safety and Quality focuses on the food chain in its entirety and recommends dispersing responsibility for food safety along the chain with particular emphasis on the vital role of food producers and the food sector as a whole. The FAO strategy has been widely supported at the international level, especially in the complementary works of the ISO, Codex, and the World Organization for Animal Health. FAO has long recognized the highly interdependent nature of food safety with that of animal and plant health, and asserts that such a holistic view of food safety highlights the need for close collaboration between international organizations

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Japan's Food Culture, Safety and Security Concerns

Japan currently imports roughly 60% of its food and food ingredients, and therefore is vulnerable to food chain contaminants. The number of farmers and fishermen is significantly declining, leaving a country already dependent on imported food with few choices. Experts predict that there might be an acute shortage of domestic fishermen in Japan in twenty years, which will likely intensify Japanese reliance on imported food items. Japan exemplifies the dilemma facing countries heavily reliant on food imports. Instances of food contamination can severely impact the food security of such nations, and make them vulnerable to food safety and food security concerns. Japan's government has responded to recent food contamination scares by implementing stricter inspections and standards at the borders to protect public health. A recent opinion poll suggested that Japanese consumers are willing to pay more for food produced in compliance with improved safety standards although market forces indicate that quantity and price are still persuasive factors at the point-of-sale. The case of Japan reinforces the pressing need for international cooperation on joint inspection and certification to improve food production and processing standards. It also demonstrates consumers' demand for early and reliable information on the risks involved with food.

and regulatory bodies whose mandates overlap on food safety.

Although the food chain approach sounds promising, there are some serious challenges to its effective implementation. What is the best way to implement food chain approaches to ensure truly sustainable production methods and adequate safety checks throughout the entire manufacturing and distribution processes? Cheap production methods pose contamination risks regardless of whether formally established food specifications are met, especially in developing countries that utilize a variety of production, processing and regulatory methods. Transparency and traceability are integral to an effective and sustainable food chain approach, and they both pose the greatest obstacle to food safety improvement in developing countries due to the financial costs of establishing modern, integrated methods of food production, processing and oversight. Partnerships between developed and developing countries that include the exchange of information, knowledge and technology are examples of the potential for international collaboration to meet global food safety objectives. The success of the food chain approach relies on the ability of each food-producing nation to effectively legislate, implement and enforce regulatory mechanisms throughout the food chain.

The food chain approach demands a significant paradigm shift, and not all components of the food chain may welcome the added responsibilities it entails. Most consumer groups and their governments may be ready and willing to improve global food chain policies. Will the food industry conform to these initiatives? International collaborative efforts necessary to actualize global food safety are heavily dependent on the support and action of

the entire food industry, from farmer to processor to vendor.

Food Safety and the Food Industry

Recent food safety incidents and the resulting damage to consumer trust highlight the importance of consumer trust and confidence. Profit is always the primary motive of any business, including the food industry. Since consumer trust is essential to sustain economic profitability through brand popularity and reputation, the food industry must take the necessary steps to ensure that the level of safety for their products satisfies consumers.

The food industry is making tangible efforts to comply with existing and emerging regulations regarding food safety, although improved safety standards also increase costs to government, industry and consumers. Certainly, not all consumers are able to pay higher prices for food produced under stricter safety standards, especially in the current global climate of soaring commodity prices and increasing food insecurity. Further, some consumers may initially demonstrate a willingness to pay more following a serious or widespread food safety incident but could gradually revert to previous spending patterns in order to maximize their food budget. Additionally, efforts to revise standards along the food chain necessitate addressing procedures in countries of origin, a topic of special concern to nations highly reliant on imports. While government, industry and consumers may all endorse and willingly finance the adoption of stricter safety regulations at home, the incorporation of such regulations in exporting countries, especially developing nations, will likely be beyond the reach of many small farmers or small-scale processors. Food safety regulations between food producers and



markets may ultimately raise production or market barriers for small farmers operating in developing nations and risk violation of some of the trade agreements enforced by the WTO.

Industry advocates in Europe and the United States, such as the Confederation of the Food and Drink Industries of the European Union and the Grocery Manufacturers Association (GMA) in the United States, recognize the key role played by industry in sustaining consumer confidence through food safety and their recent policies reflect this trend. While industry clearly acknowledges its role in improving food safety as a means to preserve consumer trust and confidence, reforms with a view to improving food safety throughout the food chain must include the world's leading food producers and exporters, especially China.

Food Safety: China as the Emergent Food Exporting Giant

China is both a leading exporter of food products worldwide, and a developing nation. Like other developing nations, it faces many of the common challenges of improving food safety. Recently, Chinese agriculture and food production have received renewed attention from both internal and external officials in efforts to eliminate vulnerabilities and contamination within the food chain and to improve food manufacturing conditions. Specifically, these efforts have involved legislative and institutional reform, including the mechanisms for effective enforcement of food safety laws and regulations. Current regulatory reform in China covers all stages of food production, processing and distribution in order to improve transparency and traceability throughout the food chain. Chinese authorities, like officials in

other countries, as well as regional and international agencies recognize the advantages of a food chain approach to food safety. Nevertheless, major challenges still exist in the ongoing food safety improvements in China. Akin to other developing nations, many of its producers are small farms, that lack the resources, technology and training to satisfy the increasingly stringent international food safety standards. A growing number of Chinese food production companies are satisfying international safety standards; nonetheless, additional assistance from, and partnerships with, developed countries and international bodies will significantly improve food safety standards in China. These efforts will ultimately benefit the Chinese food industry irrespective of whether the destination of their products is the domestic or international market.

China's proposed food sector improvements focus on such key areas as efficient and streamlined oversight, monitoring and enforcement of food safety standards, and the inclusion of scientific advice to enable transparency and traceability throughout China's food chain. Yet, the imperative of food safety is not the only by-product of strict compliance with international standards. Destructive practices are innate to current farming operations worldwide and highlight the immediate requirement for improved food production methods in order to safeguard the environment and enable consistent delivery of reliably safe food to consumers. Just as in the other parts of the world, China needs to find adequate answers to tensions between the penetration of foreign markets through competition in price and more costly safeguard procedures throughout the food chain that promise a continued presence in those markets.

Sustainability

One of the most oft-cited definitions of sustainability or sustainable development was provided by the Brundtland Commission in 1987. Led by the former Norwegian Prime Minister, Gro Harlem Brundtland, *Our Common Future*, the report of the World Commission on Environment and Development defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Concepts such as sustainable production, climate neutrality and carbon footprinting have evolved from this notion over time and have gained awareness and importance with Governments, industry and consumers on a global level. Air, water and soil pollution by industry is not only to the detriment of the environment, it also creates an unequal global-level playing field vis-à-vis companies that apply high standards of sustainable production. Internationally recognized standards on sustainability are therefore needed to rightfully facilitate a globalized world moving to more environmentally friendly production.

Food Safety and the Environment

Food safety standards based on the food chain approach would likely help to eliminate contamination of food along food production and distribution channels. The deleterious effects of current agricultural practices present a potentially greater challenge to the safety of long-term food production. A contributing factor to current environmental degradation is the proliferation of farming methods which are heavily dependent upon water for irrigation, chemical fertilizers to increase crop yields and pesticides to reduce crop damage from pests. These methods became widespread in recent decades, and constitute the basic components of the “Green Revolution” in modern agriculture.

While environmental damage from agriculture is present in both developed and developing countries, the most serious forms result from the large industrialized agricultural operations common in the United States and gaining market dominance in Europe and various parts of the developing world. Industrialized agriculture is based on Green Revolution technology, the by-products of which contribute to air, land and water pollution, in addition to chemical residues in food from fertilizers, herbicides and pesticides. The Green Revolution helped feed a growing global population through increased agricultural output but in terms of food safety and compliance with emerging standards, large-scale industrialized agriculture has contributed to environmental degradation and the marginalization of small farmers who struggle to meet the same expensive standards easily achieved by the largest producers.

The yield-oriented practices of large industrialized agricultural operations—and, of course, the existence of

chemical and heavy industries producing substantial carbon footprints and pollutants—degrade the natural environment required to produce safe and nutritious food. This often leads to an increased incidence of food contamination, regardless of whether safety standards and inspection points are incorporated throughout the food chain. The dilemma posed by such contamination of the natural environment requires immediate attention, especially in developing nations where basic regulatory measures may not be fully incorporated or supported. Moreover, internationally-agreed regulatory measures aimed at reducing food production-related environmental damage may prove highly contentious in light of the recent WTO-adjudicated food safety disputes involving sanitary and phyto-sanitary measures, the existing trade asymmetries between developed and developing countries and the increasingly inseparable inter-linkages of food safety and trade disputes in international forums, especially the WTO.

Food Safety and International Trade

The General Agreement on Tariffs and Trade (GATT) established in 1947 was the guiding framework for international trade for half a century preceding the establishment of the WTO in January 1995. GATT was principally concerned with the reduction of trade barriers and reciprocal negotiation of tariffs between trading partners. GATT did not significantly or comprehensively address food safety except in Article XX (b), which mentions the necessity “to protect human, animal or plant life or health.”

In contrast to the GATT, the Uruguay Round of Trade Negotiations that led to the establishment of the WTO

This brief is based on the international conference “*Food Safety: International Trade, Sustainable Production, Social Responsibility*”, held at the United Nations University, Tokyo, Japan, in March 2008. The conference was jointly organized and co-sponsored by the United Nations University, The Tokyo Foundation and the Public Advice International Foundation. Over 200 participants took part in the conference, including top officials of the governments of Japan and China, and representatives of diplomatic and consular missions, science, academic and research institutions, industry, trade, retailers, consumer groups, and some 20 journalists.

Speakers included:

Martijn Adorf
Obijiofor Aginam
Carla Boonstra
Werner Christie
Wakako Hironaka
Toyoshige Ido
Takeshi Kimura
Hidehisa Otsuji
Vesselin Popovski
Rio D. Praaning
Miran Čupkovič Skender
Roger Skinner
Misako Yasui
Tomio Yuki
Masae Wada
Qin Zhenkui

produced a rules-based international trading system with a compulsory and enforceable dispute settlement mechanism that covers trade-related food safety disputes. The globalization of food safety concerns reflects some of the inherent tensions within the architecture of the international trading system, in which the WTO now plays the central role in the adjudication of disputes resulting from the SPS Agreement. Most, if not all SPS disputes at the WTO focus on the interpretive controversies of scientific principles, scientific evidence, population health and safety, and risk assessment in the trading relations of WTO member-states. The difficulty arises when risk assessments have to be weighed against precaution and other uncertainties.

While the SPS agreement may be useful for the protection of global public health, it remains extremely difficult to strike the required delicate balance between protectionism and market access commitments. Trade agreements possess great potential to regulate and guarantee food safety, and the SPS agreement plays a crucial role in this endeavour. The ability of the international community to curtail protectionist behaviour while adhering to food safety regulations, standards and provisions that safeguard differential trade treatment for developing and least-developed countries, compels a socially responsible approach to food safety as one of the key steps to sustain consumer trust in the long term. In this endeavour, the WTO dispute settlement bodies should consider the relevance of the precautionary approach/principle in food safety disputes fraught with uncertainties, and where scientific evidence is neither certain nor conclusive.

Conclusion

The globalization of food markets has resulted in the globalization of each country's food chain; every nation's food chain is now interdependent with the others. According to the WHO's Global Strategy for Food Safety, "the integration and consolidation of agricultural and food industries and the globalization of the food trade are changing the patterns of food production and distribution". An effective and sustainable global regulatory framework that guarantees safe food, protects population health and boosts consumer trust must address a variety of factors within countries at various stages of development. Despite a number of food safety strategies and regulatory frameworks adopted, promoted and sometimes enforced by international and regional organizations, food contamination remains not just a recurrent phenomenon around the world; it persistently threatens human health leading to deaths, hospitalizations and enormous financial costs. Globally, a holistic norm setting agenda is needed to set reachable standards bearing in mind the disparities between nations. Local, national, regional and global implementation of more stringent international measures must guarantee sustainability, social responsibility and transparency throughout the rapidly integrating global food chain. Relevant to all of this is an opportunity for consumers to make informed choices about how their food is produced, processed and handled, thereby increasing incentives for a balanced approach to food safety, international trade and the promotion of population health within nations. The question is how to avoid a long waiting time while nations converge and

integrate their food safety policies and regulations. The answer may well be to equip consumers globally with easy access to essential food safety/food industry data. Consumer choice can thus be based on optimised risk management in the consumers' dilemma between quality and price.



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INSIDE:

Policy Brief

Food Safety and Trade Liberalization in an Age of Globalization

International food safety standards and regulatory norms must converge to provide consumers informed and sustainable choices.

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