Japan’s Food Security Challenges Considered From Domestic and Global Perspectives

The protracted crisis in Ukraine has affected the world's food supply. This should act as a spur that prompts us to once again discuss the necessary direction for food security in Japan and the world.

About This Issue

The Ukraine Crisis as a Spur to Discussion of Food Security - What Are the Issues That We Should Focus On?

Kazuhiro Higashi
Executive Vice President, NIRA/ Senior Advisor, Resona Holdings, Inc.

Russia’s ongoing invasion of Ukraine has affected the global food supply. Japan depends on imports for much of its food, and its food self-sufficiency rate is the lowest among the developed nations. At the same time, there are people on the brink of starvation, in the main in the developing nations. The current crisis is a spur to fresh discussion of the necessary direction for food security in Japan and the rest of the world. What challenges are Japan and the world's food supply currently facing? What should Japan do to ensure food security?

In this issue of My Vision, we put these questions to policymakers, researchers, and businesspeople based in Japan and overseas.

Keywords...Strengthening the food production base, free trade, finance

Expert Opinions

Japan’s Food Security Challenges Considered From Domestic and Global Perspectives

What challenges are Japan's and the world's food supply facing? What should Japan do to ensure food security?

Strengthening of Food Supply Chains

Hiroko Kuno
Director, Food Security Office, Policy Planning Division, Minister's Secretariat, Ministry of Agriculture, Forestry and Fisheries (*)

Keywords...Risk, domestic production base, multi-layered supply chains

To Ensure Food Security, Subsidies Should Be Increased to Allow Farmland to Be Maintained

Akihiko Hirasawa
Executive Officer/Senior Chief Economist, Basic Research Division, Norinchukin Research Institute Co., Ltd.

Keywords...Food supply to third countries, agriculture that requires extensive land use, income compensation for farmers

Capture Overseas Demand and Expand Japanese Rice Production and Consumption

Mitsuo Fujio
President and Representative Director, Shinmei Holdings Co., Ltd.

Keywords...Products that make the most of rice, profitable agriculture, support for farmers

Prepare for Emergencies Before We Face Them – Improving the World’s Food Situation Will Also Help to Ensure Food Security in Japan

Nobuyuki Kikuchi
Director, Resource Security Division, Economic Affairs Bureau, Ministry of Foreign Affairs

Keywords...Humanitarian food passage, free trade system, food security diplomacy

Food Policy into the Future

Akiko Suwa-Eisenmann
Professor, Paris School of Economics

Keywords...Vulnerability of the global food supply chain, competition over food, feed, and fuel, international public goods

Interview period : June, 2022
Interviewer : Sosuke Suzuki (Research Coordinator & Research Fellow, NIRA)

(*) Title at time of interview
The Ukraine Crisis as a Spur to Discussion of Food Security
- What Are the Issues That We Should Focus On?

Russia's invasion of Ukraine has become protracted, and there are concerns regarding its impact on people's access to food. The food price index released by the United Nations' Food and Agriculture Organization (FAO) has remained high for the past several months. Food supply chains had already been thrown into turmoil globally due to logistics delays resulting from the pandemic, and the chaos caused by the invasion of Ukraine has only added to this situation.

It behooves us to view the Ukrainian crisis as a spur that prompts us to rethink the state of food security in Japan and the world. Japan imports much of its food from around the world. The nation's food self-sufficiency rate on a calorie basis is approximately 40%, the lowest level among the developed nations. It is surely the case that the current situation has caused many people to feel fresh anxiety regarding the disruption of Japan’s food supply in the event of an emergency.

At the same time, when we turn our attention to the rest of the world we see that there are people, especially in the developing nations, who are unable, on a daily basis, to consume even the minimum amount of calories needed to maintain their body weight and a normal level of activity. Hunger is one of the challenges humanity faces that we have as yet been unable to eradicate. In the future, as the world's population increases and climate change progresses, there is a possibility that the number of people who have difficulty accessing food will further increase. Together with Japan's own food security, the food security of people throughout the world is an important focus.

What are the challenges that Japan's and the world's food supply are currently facing? What issues should we be discussing, and how should we frame them, in order to ensure food security? In this issue of *My Vision*, we interviewed five experts in this field from Japan and abroad, comprising policymakers, researchers, and businesspeople.

It Is Necessary to Strengthen the Domestic Food Production Base

First, what are the risks to Japan's food security? According to Hiroko Kuno, Director of the Ministry of Agriculture, Forestry and Fisheries’ Food Security Office (at the time of the interview), it is not only man-made problems such as wars and pandemics, but also natural disasters such as forest fires,
that pose risks to the food supply. Ms. Kuno indicates that the experience of the current crises has made Japan keenly aware of the importance of maintaining its domestic food production base. She explains that in order to strengthen the nation's food production base, it will be important to ensure a sufficient number of agricultural workers, attempt to develop technologies that allow us to achieve sustainable agriculture, and deepen consumers' understanding of agriculture and farming villages.

Akihiko Hirasawa, an Executive Officer of the Norinchukin Research Institute Co., Ltd., warns that dependence on imports is weakening Japan’s food production base. The number of large buyers – including China – has increased, and Japan's global food purchasing power is declining. Dr. Hirasawa indicates the possibility that the stability of Japan's food imports may be undermined in the future. From the perspective of food security, Dr. Hirasawa argues that it will be essential for Japan to secure a sufficient amount of agricultural land for the production of crops such as rice that contribute a high calorific value.

Mitsuo Fujio, President and Representative Director of Shinmei Holdings Co., Ltd., a rice wholesaling company, is working to strengthen the agricultural industry from the perspective of a businessperson. As he tells us, his company has developed a business that spans the full gamut of operations from procurement, through processing and sales, to the restaurant industry and the operation of fruit and vegetable wholesale markets, and has successfully expanded its business via the marketing of a range of goods including processed products such as rice flour. In order to provide farmers with access to the expertise that his Group has cultivated over many years of working with rice, Mr. Fujio has created a department dedicated to providing support to farmers, and it is providing valuable advice.

Based on my own extensive experience of involvement in the financial industry, I had felt that unique expertise would be essential in the case of agricultural financing, where harvests depend on natural conditions. However, if the stability and added value of the industry increase as a result of efforts to promote “sixth industrialization,” such as those being developed by Mr. Fujio, the flexibility of agricultural finance will increase. Private financial institutions possess the knowledge to develop businesses without being bound by the framework of a specific industry. The introduction of this perspective to primary industry can be expected to play a role in strengthening Japan’s agricultural production base.

**It Will Be Essential to Ensure the Maintenance of a Free Trade System**

The disruption of grain exports from Ukraine poses a serious threat to global food security. In this *My Vision*, Nobuyuki Kikuchi, Director of the Ministry of Foreign Affairs’ Resource Security Division, discusses the rapid assistance provided by the international community to developing countries, in addition to Japan's involvement in calls for such measures as the realization of a “humanitarian food passage.” At the same time, he indicates that because Japan imports most of its food, stabilizing the world's food situation and realizing a free trade system would be beneficial to
Japan also.

Professor Akiko Suwa-Eisenmann of the Paris School of Economics, who studies agriculture and trade, tells us that the pandemic and the crisis in Ukraine have highlighted structural problems in the world's food supply chains. She points out the vulnerability resulting from the concentration of supply in the hands of major producing regions and a small number of shipping companies, and speculation in grains in relation to three uses: food, feed, and fuel. Professor Suwa-Eisenmann tells us that in the future, climate change and population growth will create areas of excess demand and areas of excess supply of agricultural products. She emphasizes the fact that as trade in agricultural products becomes increasingly important, fertilizers and seeds must come to be considered international public goods.

Furthermore, Akihiko Hirasawa stresses that the international community should agree on a rule that the provision of food to third countries should not be stopped for reasons other than securing food for one's own country, even during times of war, and that this should be stipulated in writing.

**Viewing This Crisis as a Spur Towards the Discussion of Food Security**

The opinions of the experts interviewed here make me keenly aware of the importance of implementing multiple layers of measures to ensure food security while balancing both domestic and global interests. From the domestic perspective, we should strengthen our domestic production base in preparation for emergencies. We should also maintain a free trade system prior to the occurrence of emergencies, and deepen cooperation with the international community to ensure that we are able to procure food from overseas in times of emergency. In addition, from a global perspective, we should define agricultural products, which are essential to human existence, as "public goods" for humanity, and strengthen the world's food supply networks. Many call for Japan's food self-sufficiency rate to be increased, but increasing the self-sufficiency rate itself is not essential. We must re-examine our policy goals in relation to food security with strengthening international cooperation as our starting premise.
Strengthening of Food Supply Chains

Crises occur when a number of risks become a reality and overlap. The situation in Ukraine has been critical since February 2022, and the outlook remains unforeseeable. Looking further back, since 2020, the global spread of COVID-19 has disrupted global supply chains. In addition, due to high temperatures and dry conditions in the northern part of North America, international prices of grains have risen since 2021. Russia’s invasion of Ukraine occurred amid this set of circumstances. Combined with the fact that both countries are major exporters of wheat, this has pushed international prices of grains to even higher levels. Japan imports grains mainly from North America and Australia, and securing a sufficient quantity has not been a specific concern. Due to the prolonged current situation, the effect of the price hike in grains and currency fluctuations cannot be avoided. This experience has made the nation keenly aware of the importance of maintaining a robust food production base in Japan.

Natural disasters have disrupted food supply chains in many parts of the world. For example, in the summer of 2021, a powerful hurricane made landfall in the southern United States, causing extensive damage to grain export facilities along the coast, and their restoration took some time. Massive forest fires also raged in western Canada, severely damaging land transportation infrastructure. Japan imports significant amounts of the raw materials for canola oil and durum wheat for pasta from western Canada, and this was therefore a situation which the Food Security Office monitored vigilantly.

In order to strengthen the food supply chain and ensure a stable supply of food, it will be necessary to create and maintain a multi-layered supply chain both globally and locally, improve the nation’s food self-sufficiency rate, and promote sustainable food production. To achieve this goal, we need to robustly protect Japan’s existing agricultural land as important food production infrastructure. In addition, it will be important, while securing workers engaged in food production, to develop a variety of technologies that will enable us to achieve sustainable agricultural production, to ensure that all agricultural workers become familiar with these technologies, and to encourage understanding among consumers of the importance of agriculture and the farming communities that support food production and maintain the environment. Japan is facing a period of declining population, but globally, populations continue to grow, and economic development has led to a strong demand for food. Given this situation, capturing demand not only from the domestic market but also from overseas and increasing exports are very important agendas. The good news is that exports of Japanese agricultural products and food continue to grow even during the pandemic.

(+) Title at time of interview

After joining the Ministry of Agriculture, Forestry and Fisheries, Ms. Kuno was engaged in supporting the reconstruction of the fishery processing industry in the area affected by the Great East Japan Earthquake at the Fisheries Agency, promoting open innovation in the fields of agriculture and food at the Industry-Academia Collaboration Office, and establishing a ‘moonshot’-type agriculture, forestry and fisheries research and development project. From 2020, as the Director of the Food Security Office, she was engaged in efforts including the revision of emergency food security guidelines, the application of pre-warning stages, and risk analysis related to food supply. Ms. Kuno promotes the national movement “Nippon Food Shift,” which seeks to deepen understanding concerning agriculture and farming communities among the public. Since June 2022, she has resided in France as Counselor of the Permanent Delegation of Japan to the Organization for Economic Cooperation and Development (OECD). She is an attorney admitted in New York State.
To Ensure Food Security, Subsidies Should Be Increased to Allow Farmland to Be Maintained

We are witnessing the first war between two major food-exporting nations, in this case Russia and Ukraine, since the end of World War II. If this situation continues unchecked, the global population that faces starvation, a population which has increased rapidly due to the pandemic, will further expand due to the human-caused factor of war. The problem we face is that export from both of these grain-producing nations will become difficult, and the food supplies of third countries that are not parties to the war will be significantly affected. Low- and middle-income countries, mainly in Africa and the Middle East, import low-priced wheat from both Russia and Ukraine. In the future, it will be necessary to ensure that such harm to third countries does not become normalized. Even Iraq, which is subject to economic sanctions, has been allowed to be supplied with humanitarian goods, food, and medicines; it is unacceptable that harm should extend to third countries. The international community must agree on a rule that the provision of food to third countries must not be stopped for reasons other than securing food for one's own country, even during times of war, and this should be stipulated in writing.

In Japan, our current situation is that the nation’s agriculture is on the verge of running out of production capacity to ensure supply of the minimum necessary amount of food to the people if imports were to stop due to an emergency. Under the former Cold War structure, Japan was able to purchase as much of the food surplus produced by the United States as it needed: at that time the United States produced more than enough food. However, the situation has changed in the last 20 years. As the number of large buyers such as China increases and competition intensifies, there are concerns that Japan's purchasing power will see a relative decline, and the stability of the nation's food imports will be undermined.

At the same time, Japan’s domestic production base has become extremely fragile as a result of its dependence on imports. In response to the trend toward liberalization of imports of agricultural products, the Ministry of Agriculture, Forestry and Fisheries recommended the production of high-value-added items and placed emphasis on micro-policies that would "boost strong farm management. "This had its positive aspects, but at the same time, many agricultural producers involved dropped out, and the production base as a whole shrank. From the viewpoint of Japan’s food security, it will be important to secure farmland area, making it necessary to support agriculture that necessitates extensive use of land, which can produce items such as rice and stock feed that contribute a large amount of calories.

The way to prevent Japan’s agriculture from falling into even more serious trouble will be to increase subsidies to ensure that the type of farming described above can be sufficiently profitable. At the same time, it will be necessary to consider whether it is possible to lower the domestic price of rice and therefore promote consumption. Because agriculture has inherent limitations with regard to improving productivity in comparison to other industries, developed nations generally provide income compensation to farmers through subsidies. The security environment is undergoing drastic changes, and the public may therefore agree to the use of tax revenue to secure a stable food supply in case of unforeseen circumstances.

*The interview was conducted on June 2, 2022.

Dr. Hirasawa specializes in research on the structure of supply and demand of food in countries throughout the world and the agricultural policies of the developed nations. In response to dramatic changes in the international situation, including the COVID-19 pandemic and the Ukraine crisis, he has been sounding warnings regarding the direction for Japan’s food security. His main research areas include EU, US and Swiss agricultural policy and food security policy. Dr. Hirasawa joined Norinchukin Research Institute in 1992, and took his current position in 2021. He also serves as an advisor to the Food Security Advisory Board of the Ministry of Agriculture, Forestry and Fisheries. He holds a doctorate in agriculture from The University of Tokyo.
Capture Overseas Demand and Expand Japanese Rice Production and Consumption

Rice is the staple food of the Japanese people, but per capita consumption of the grain has declined significantly over the past half century. Instead, we rely on imports for much of our food. In the future, as the world's population increases and climate change affects crop production, there are concerns that the food supply and demand situation will become tighter.

In order for Japan to maintain and improve its food self-sufficiency rate and attempt to achieve a stable food supply, it will be important, in addition to strengthening the production base for rice and vegetables, to expand rice consumption.

Japan's rice industry has in the past appeared to neglect efforts to expand consumption. We must increase consumption by developing and supplying products that make the most of the functions, characteristics, and appeal of rice as a food in response to demand. Our Group manufactures processed products such as packaged rice and rice flour. We have also succeeded in developing a cheese substitute made from rice flour. With the price of wheat soaring, the use of rice is attracting renewed attention. Looking outside Japan, there are numerous countries in the Asian region that consume rice, representing a huge market of approximately 500 million tons. By actively exporting high-quality rice that could not be consumed domestically, it would be possible to expand rice production and consumption.

If the value of domestic rice can be correctly reflected in its price, the scope of manufacturing and product creation in both the rice processing industry and the food service industry could be significantly expanded. However, reducing the amount of rice planting in order to maintain prices while compensating producers for lost income, which is the policy that Japan’s government is implementing, cannot strengthen the production base. Our Group is working to increase exports of polished rice and packaged rice to make it possible for rice growers to produce with peace of mind. In order to produce high-quality rice, it is important for growers to be able to focus on both productivity and creativity, which are in a trade-off relationship. Our Group has developed a business that encompasses a full range of aspects, from procurement, through processing and sales, to the restaurant industry and operation of a fruit and vegetable markets. In order to realize "profitable agriculture," we have created a department that specializes in supporting farmers by providing them with the expertise that we have cultivated over many years of working with rice.

Through these efforts, a virtuous industry cycle combining product development capacity and a strong production system will be created for rice. I have a strong sense of foreboding that there will be a global food crisis in the near future. I want to continue striving to achieve our goals with the determination that it is we who will protect Japan's agriculture and Japan's food supply.

Mitsuo Fujio
President and Representative Director, Shinmei Holdings Co., Ltd.

Mr. Fujio heads Shinmei Holdings Co., Ltd., which has celebrated the 120th anniversary of its founding as a rice wholesaler. He joined the company in 1989, following his graduation from university. He has been in his current position since 2007, after serving as the company's Managing Director and Senior Managing Director. Mr. Fujio is working to promote the Group's expansion from its core rice wholesale business to other market segments including the restaurant industry and fruit and vegetable wholesale markets, in addition to advancing industry reorganization and the creation of group synergy. He also serves as a Director of Group companies including Genki Sushi Co., Ltd., Shokubun Co., Ltd., and Yukiguni Maitake Co., Ltd.
Prepare for Emergencies Before We Face Them – Improving the World’s Food Situation Will Also Help to Ensure Food Security in Japan

Nobuyuki Kikuchi
Director, Resource Security Division, Economic Affairs Bureau, Ministry of Foreign Affairs

Russia and Ukraine are breadbaskets, accounting for approximately 30% of world wheat exports and approximately 20% of corn exports. As of June 2022, Russia’s invasion of Ukraine had led to a decline in domestic productivity in Ukraine and the disruption of exports through the Black Sea, threatening the world's food security. Ukraine’s main export destinations are vulnerable countries in the Middle East and Africa. If this situation is left unchecked, it could result in a humanitarian crisis for vulnerable people and destabilize political systems and societies. In addition, the disruption of exports from Ukraine and restrictions on exports of fertilizers by Russia, a major fertilizer exporter, are contributing factors to soaring world food prices. For countries and people with low purchasing power, spiraling grain prices mean a further decline in access to food, making the crisis even more severe.

The ideal solution to the crisis is for Russia to cease its aggression immediately. But first, we must address the current crisis. The international community, including Japan, is providing humanitarian food assistance to affected developing nations. In addition, Japan regards the resumption of food exports as a humanitarian issue, and has called on relevant countries, including Russia, to implement a “humanitarian food passage.” This idea perhaps gained traction, as discussions were held at the G7 summit in late-June towards the restoration of Ukraine’s ability to export. Practical efforts by the United Nations and entities possessing the same goals as Japan, such as the G7, are also progressing. Japan is also making efforts towards the construction of basic warehouses to enable grains that remain in Ukraine and cannot be exported to be appropriately stockpiled. These efforts are linked to the EU-led 'solidarity lanes' initiative, which transports Ukrainian goods overland to EU ports for export.

With regard to food security, in most cases the focus in Japan is on how to secure food for the country. On the other hand, the main focus of the efforts of the international community is access to food, i.e., how to ensure that food reaches people who do not have enough. This is the theme of the Sustainable Development Goals “No Poverty” and “Zero Hunger.” This difference in approaches between Japan and the rest of the world converges to a significant degree in times of crisis such as the present. Countries such as Japan that depend on imports for a significant amount of their food will contribute to their own food security by supporting the improvement of access to food around the world and stabilizing the world food situation. This is also a responsibility that Japan should fulfill in the international community.

At the same time, food security for Japan is often regarded as synonymous with increasing the domestic food self-sufficiency rate, but this is a somewhat superficial approach. As people become richer, they develop more refined tastes and seek greater diversity in food, and the self-sufficiency rate naturally declines. The self-sufficiency rate which is related to true security refers to the possession of a level of production capacity that allows the maintenance of self-sufficient provision of domestic products to ensure that the people have access to the minimum food necessary to avoid starvation in the event of an emergency. In normal times, it is more important to stably maintain conditions in which people are able to purchase food using money. To that end also, it will be necessary to robustly maintain a free trade system and stabilize the world food situation. At the same time, it will be essential to avoid falling into protectionism.

In addition, it will also be necessary to develop a stockpile system and promote agriculture, stabilizing the production base and ensuring workers for agricultural production in order to maintain the necessary self-sufficiency capacity. In that respect, it will also be important to increase exports and realize profitable agriculture. Furthermore, in the event of an emergency, the problem will be from which country to procure urgently necessary food supplies. Currently, Japan purchases food from friendly countries such as the United States and Australia, which are able to provide a stable supply. Nevertheless, in order to prepare for an interruption to supplies from these countries, we could consider deploying “food security diplomacy” prior to an emergency situation in order to build relationships that will prioritize food supplies to Japan.

After joining the Ministry of Foreign Affairs, Mr. Kikuchi worked at the Middle Eastern and African Affairs Bureau and the Japanese embassies in Saudi Arabia, Israel and Egypt. He has been in his current position since August 2020, following a term as an information research officer in the First Division of the Ministry’s Intelligence and Analysis Service. He oversees foreign policy related to resource security, including ensuring stable supplies of energy, mineral resources and food. He has also worked as an Arabic interpreter. As an expert on the Middle East, Mr. Kikuchi has given numerous lectures to groups including the Middle East Study Group of the Japan Society for the Promotion of Science and the occasional lecture meeting “Latest Information from the Middle East” organized by the Dogin Regional Research Institute.

Editor: Reiko Kanda, Maiko Sakaki and Tatsuya Yamaji. This is a translation of a paper originally published in Japanese. NIRA bears full responsibility for the translation presented here. Translated by Michael Faul.

Copyright © 2022 by Nippon Institute for Research Advancement
The Covid-19 pandemic and the war in Ukraine have put at the frontline two major issues regarding food: the vulnerability of global supply chains and the interlinkage between food, feed and fuel. First, global food supply chains are concentrated in the hands of major producers (for crops and for inputs, such as fertilizers) as well as in the hands of a few maritime companies. Second, food, feed and fuel compete for land use: in the US, where biofuel is subsidized, wheat has yielded to corn and half of that corn goes to ethanol, a gasoline additive; 40% of soy oil, a staple ingredient in the food industry, goes to biodiesel. Market forces reinforce the competition, as investors find huge arbitrage opportunities between the three uses of their harvests.

Meanwhile, global warming and demographic growth lead to structural changes in food production and demand. The rise in temperatures and water scarcity will reshape land availability and the local suitability of a given crop. Demographic change will increase demand in African countries while decreasing it in Europe and Japan. As a result, the map of available cultivated area will show deficits in some areas and excess supply in others.

In the current policy debate, there is a tendency to distinguish between short-term and long-term issues. In Europe, some policymakers are willing to put on hold the Green Deal for agriculture, which relies on fallows and a decreased use of pesticides, in order to avert the current food crisis. However, some decisions can be made without jeopardizing the future, such as eliminating the subsidies on biofuel, which will make more land available for food.

In fact, short-term and long-term issues go hand-in-hand: trade will be even more crucial, between areas with excess demand and areas with excess agricultural supply. Among these traded goods, two products are key: fertilizers and seeds. Both should be regarded as global public goods. Their exchange should be guaranteed by an international initiative, a public-private partnership in the line of what was done for Covid-19.

With increased reliance on trade, food self-sufficiency is not a viable objective. We also need to move beyond traditional views about food security (which focus on availability, access, utilization and stability) and integrate two other dimensions: sustainability and agency (HLPE, 2020). Agency is the capacity for people to engage with food systems on their own terms, in a way that preserves their cultural values. Japan, whose traditional cuisine has been recognized as World Cultural Heritage, can play a leading role in advocating for this new perspective on food. Such a perspective will also call for more cooperation between the CFS, the WTO, the WHO and UNESCO.

Reference

Professor Suwa-Eisenmann studies the impact of trade liberalization on developing countries and trade in agricultural goods, in addition to the distribution of wealth in France in the 19th and 20th centuries. She specializes in the areas of agriculture, international trade and the economics of development. Professor Suwa-Eisenmann is Senior Researcher at INRAE, France’s National Research Institute for Agriculture, Food and Environment. Since 2021, she has also been a member of the Steering Committee of the High Level Panel of Experts on Food Security and Nutrition (HLPE-FSN) of the UN Committee on World Food Security (CFS). She has contributed papers to numerous academic journals, including "World Development" and the "European Review of Agricultural Economics." Professor Suwa-Eisenmann is a graduate of the École Normale Supérieure, Sciences Po, and the École des hautes études en sciences sociales (EHESS).