

Chapter 6

What Lies in Japan's Food Future?

How to deal with climate change and tap the world's potential farmland

There is no doubt that many of us have started paying closer attention to the future of our food and the farmlands that produce food since we experienced the soaring grain prices in 2008. Our concerns about the future of food were aggravated by yet another concern about Japan's self-sufficiency in food. It is still fresh in our minds, the big news that about how Japan's food self-sufficiency had dropped below 40 percent in calorie terms (regardless of whether this is the right way to measure the reality). But actually, Japan's self-sufficiency in food has not changed much in the past 15 years, if you pay close attention to the data, so it is already an overdue argument, if you ask me.

Nonetheless, there are some things we must acknowledge in considering the future of our food and agriculture that may affect every one of us, so I will point out some of them by way of summarizing this book.

First of all, we should consider the impact of the climate on world grain production. The most threatening risk for agricultural production is climate change, as we have witnessed the damage done to world grain production in recent years.

In the past few years, wheat production has been greatly affected by droughts from Central Asia through Russia. In North America, low humidity and high temperatures during the corn pollination season greatly lowered the yield, while abundant precipitation in Europe and Canada deteriorated the quality of the wheat in those regions. In Australia, droughts and

concentrated downpours caused extended damage to crops.

In Japan, there was the Great East Japan Earthquake as well as typhoons, and it is true that there are no places in the world that are immune all year round to such natural hazards. We should be aware that every part of the world is exposed to unexpected climate shifts and natural disasters all the time. There should be sincere discussions about how far and for what we should be prepared, and we should take appropriate measures.

Second, moves to acquire farmland throughout the world have been rapidly drawing attention, and the most sought-after areas are in Africa, but some active moves have been reported in Asian countries as well. According to a report provided by the World Bank in 2010, there are 446 million hectares of potential farmland in the world, some 200 million hectares of which are in Sub-Saharan Africa.

Most of us Japanese may think that Sub-Saharan Africa is too far away to imagine what it is like. Today, not only the private sector, but also the public sector has already embarked on various actions, including the governments of food importing countries as well as African governments.

As mentioned in chapter 4 of this book, the farmland we are talking about is the homeland for local people, who have their traditional ways of dealing with their own lands and resources, to say nothing of local customs concerning land ownership. Japan must cooperate and contribute so that local people get transparent, beneficial, sustainable and environmentally friendly deals, and we cannot exempt ourselves by saying that Japan is too far away.

Japan, as one of the big feed grain importers, should take part in establishing rules to help both parties involved, possibly by providing advice and effective models for agribusiness relationships, since food and farmland are owned by individuals, even though that food and farmland could be treated as an international public asset in times of supply-and-demand emergency.

Third, the trends of economic activity and agricultural produce trade are important for us to watch. Since the economic trends in the whole world and soaring price of energy are the driving forces for food prices, making agricultural produce more expensive, it is important for us to understand such trends and to deal with the outcome properly.

As history shows, higher incomes mean greater food consumption, especially of meat. There is a chain reaction in terms of meat consumption whereby expanded meat consumption causes feed demand to increase, and that drives up grain prices. Populations also tend to increase, especially in developing countries, and this is another factor reinforcing the chain reaction of meat consumption.

Future agricultural producers: Brazil, Russia and Ukraine

The annual USDA long-term projections out to 2020 predict that Africa and the Middle East will see the greatest growth in demand for food and agricultural produce.

It is also predicted that in 2020, 45 percent of poultry trade will be imported into Africa and the Middle East, along with 20 percent of beef. (See the chart below.) As was once the case in Japan, these areas will be hurriedly establishing their livestock industry and securing import partners under national policies, in order to respond to the rapidly increasing meat demand from their populations. In the countries where not enough tillage is available, the import of meat will be actively subsidized by governments, and they will also support their still fledging livestock industry with the active imports of feed grains. That will act in combination with official support for the establishment of feed manufacturers.

In Asia, however, we should pay close attention to China's developments. China has already adopted a policy to rely entirely on imported oilseed, and it is estimated that China will import two-thirds (67 percent) of all projected trade in soybeans by 2020. The following charts show the projected exports of soybeans (top) and the projected import demand for soybeans (bottom). These charts indicate that the production in Brazil and Argentina will

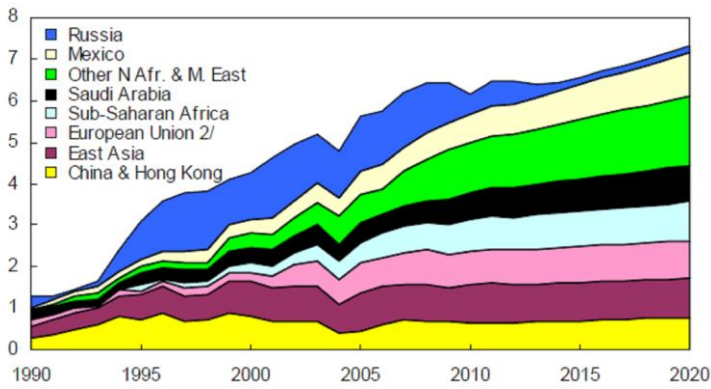
increase remarkably, and that the amount of soybeans that China imports will grow tremendously.

It can be predicted that Africa, the Middle East and China will be the world powerhouses of feed grain imports in 2020, a role that Japan once played.

There is no doubt that the U.S., Canada, Australia and the EU will remain important agricultural exporters, and also that Brazil, Russia and Ukraine will take a greater and greater part in the trade of agricultural produce.

Poultry imports 1/

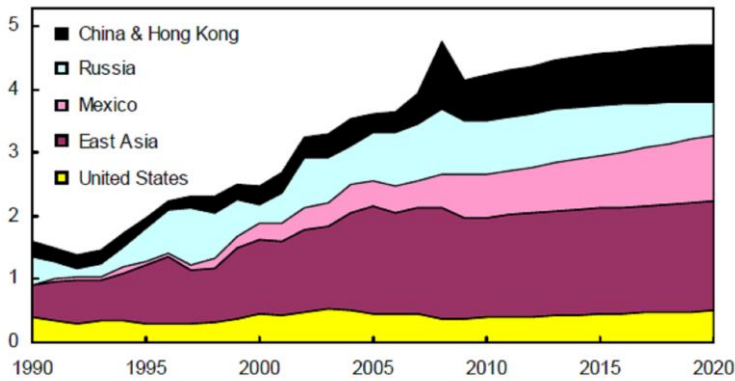
Million metric tons



1/ Selected importers.
2/ Excludes intra-EU trade.

Pork imports 1/

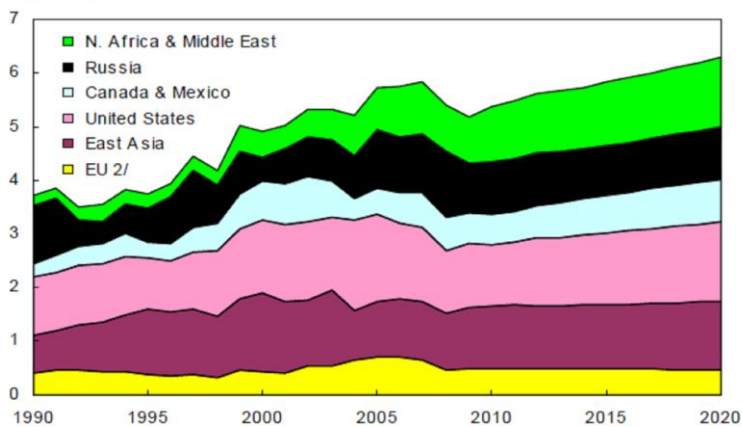
Million metric tons



1/ Selected importers.

Beef imports 1/

Million metric tons

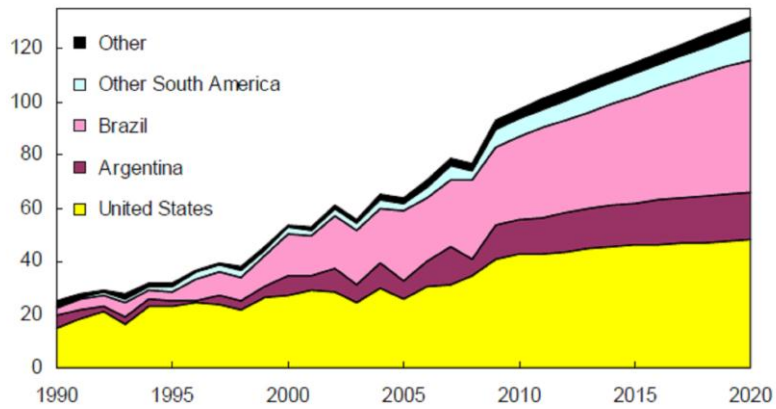


1/ Selected importers.
2/ Excludes intra-EU trade.

Source: The USDA data

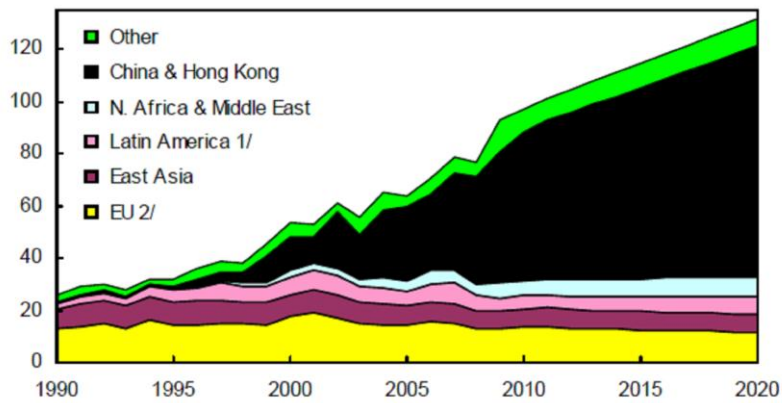
Global soybean exports

Million metric tons



Global soybean imports

Million metric tons



1/ Includes Mexico. 2/ Excludes intra-EU trade.

Source: The USDA data

Overcoming Japan's declining prominence in world grain trade

Fourth, in the context of the worldwide trade of agricultural produce, Japan's position as a major importer will decline in relation to the emerging countries. We should face up to this possibility.

The following charts are based on the USDA long-term projections, showing prospects for world grain trade in 2010 and 2020, as well as the prospect of Japan's grain imports in the same years, and prospects for the areas where agricultural purchases will increase significantly.

It is projected that the 373.3 million tons of agricultural produce trade in 2010 will expand to 468.8 million tons in 2020. This is a 25 percent increase that works out to a 2.5 percent increase on average per year for 10 years. Among the major produce items, wheat, rice, coarse grains and soybeans are all projected to increase in trade volume.

World grain trade projections

(Unit: million tons)

	2010	2020	%
Wheat	127.2	151.9	1.8
Rice	30.5	41.0	3.0
Coarse grains	118.4	144.4	2.0
(Corn)	(93.2)	(113.2)	2.0
Soybeans	97.2	131.5	3.1
Subtotal	373.3	468.8	2.3

Note: average growth rate between 2010 and 2020

Japan grain import projections

(Unit: million tons)

	2010	%	2020	%
Wheat	5.2	4.1	4.9	3.2
Rice	0.7	2.3	0.7	1.7
Coarse grains	19.2	16.0	18.4	12.7
(Corn)	(16.1)	17.3	(15.8)	14.0
Soybeans	3.5	3.6	3.0	2.3
Subtotal	28.6	7.7	27.0	5.8

Note: share of total world trade

Grain trade projections in areas where purchases are expected to expand

(Unit: million tons)

		2010	%	2020	%
Wheat	Africa and the Middle East	54.3	42.7	68.5	45.1
Rice	Africa and the Middle East	14.2	46.7	17.8	43.5
Corn	Mexico	9.1	9.8	14.3	12.6
Corn	Asia excluding Japan	20.8	22.3	30.8	27.2
Soybeans	China	57.0	58.6	88.3	67.1

Note: share of total world trade

Source: The USDA data modified by the author

In fact, Japan's grain imports decreased moderately from 28.6 million tons to 27 million tons. (This is the figure for soybeans only. If other oilseeds such as canola are included, the figure exceeds 30 million tons.) The chart also shows Japan's share of the world's grain trade, which decreased from 7.7 percent to 5.8 percent. Even corn, which used to be the grain most in demand by Japan, dropped from 17.3 percent to 14.0 percent.

The chart on the bottom shows figures for the areas in the world where grain demand is projected to grow most. Demand for wheat and rice will make Africa and the Middle East into the biggest importers. Mexico imports just 9 million tons of corn from the U.S. at present, although it is estimated that Mexican demand will increase as much as Japan's, making Mexico a competitive rival to Japan. It is likely that other Asian countries will also expand their grain imports steadily.

As for soybean imports, China's share is overwhelmingly high, and it is projected that Chinese imports will reach 67 percent of the world's total by 2020, while Japan's share of soybean imports will be just 2 to 3 percent. Furthermore, China's oil extraction from oilseeds including soybeans is astonishingly high at 93 million tons, whereas domestic oil extraction only amounts to 57 million tons. It is no longer relevant for us to talk about competition with China over soybeans, so we should realize how eminent the situation has become in the area of grain procurement.

No way to satisfy Japanese appetite only with domestic farmland

I have mentioned the rising concerns about Japan's food self-sufficiency after the run-up in grain prices in 2008, as well as the problems in our food system revealed through the Great East Japan Earthquake, the unsung efforts of those engaged in the food and feed industries in both the U.S. and Japan, and the invisible infrastructure, from a historical standpoint. Now that we have acknowledged these things, let us focus on what to do next.

I think balancing is the key solution. We need a good balance between domestically grown products and imported products, between nature and scientific technology, and between the U.S. and Japan from a long-term

perspective.

Japan and the U.S. have been cooperating to secure the stable supply of the U.S. feed grains to Japan in order to establish and promote Japan's livestock industry over at least half a century. The cooperation between our two countries has contributed greatly to improving Japan's living standard, especially our diet. Japan's ultimate goal was to satisfy our demand for meat by supplying the necessary feed grains to livestock.

From now on, Japan will enter into a critical phase where our population will slowly decrease, but Japan has to find a way to sustain our agricultural industry. Unfortunately, it is true that many of us perceive this trend in terms of Japan entering its sunset stage.

On the other hand, it is undeniable that Japan has achieved impressive economic growth and improved its living standards after World War II as no other country has, and the Japanese organizational ability is still a successful model for many developing countries even today.

Those developing countries may also find it worthwhile to study how Japan has applied state-of-the-art technologies to actual day-to-day life problems and how to solve the problems that arise due to the most advanced technologies. Many countries still need to learn not only the technology that Japan has invented, but also Japan's processes for adapting to growth.

Now we Japanese should face up to the reality that the tillage in Japan will never be able to produce enough food to feed us all, assuming we intend to maintain our current living standard. Therefore, Japan must swiftly construct a mechanism by which younger Japanese can master the most advanced agricultural skills in the world as well as agricultural business management so that farming can be a lucrative business for them. This way we can perhaps halt the declining production of domestically grown produce.

Ties with agricultural producers must be strengthened

At the same time, we should reinforce even more our ties with agricultural

producers such as the U.S. When grain prices were skyrocketing, many agricultural producers banned the export of grain in order to calm unrest in their countries, whereas the U.S. never did that to Japan.

If the U.S. had banned grain exports at that time, Japan would have fallen into all-out panic. Therefore, it is essential for us to strengthen our ties with our counterparts, the agricultural producers, both at the public and private levels partly as a precautionary measure.

It is only possible for us to make contracts and trade if we have willing partners out there. No matter how desperately Japan needs feed grains, we won't get a single grain if our partners don't want to trade with Japan. Thus, the half-century of close ties between the U.S. and Japan will be remembered by both our countries as a valuable achievement and a testament of trust, because it takes endurance and sincerity from both parties in order to maintain a long-term partnership.

Since the U.S. no longer has a wide open western frontier to exploit, many opportunity-hungry young people, who were engaged in farming, have moved into agricultural management. The young Americans have been engaged in the agricultural management not only in the U.S., but also in South America as well as in Africa over the past 10 years or more. I have met many young people, not only in the U.S. but also in other countries, who are pursuing the noble cause of feeding our increasing world population.

It is an important social duty not only for Japan's educational organizations, but also for those Japanese who have experienced the era of unprecedented economic growth, to educate young people to take up farming in Japan as well as to take on an active role in the business of farming all around the world.

It is vital for them to develop skills to sustain domestic farming and take the initiative in Japan's food industry, as well as in the global arena. During the period of high economic growth, it was common for Japanese people to take an active role in international markets for distribution of Japanese automobiles and home electrical appliances. But it seems that competitive

Japan-made products are dwindling away year by year, while the number of highly competitive young Japanese, able to promote themselves in the global market, is also dwindling.

The U.S. business school where I once studied has lately seen a remarkable decline in the number of its students from Japan, but an amazing increase in students from other Asian countries, especially China. More Asian students are going abroad for study year after year. I myself have been asked by my old friends and colleagues, “What happened to the frisky up-and-coming Japanese?”

The amicable relationship between the two leaders among countries works positively for the bilateral relationship, but reinforcing every level of the relationship, including the private sector and individuals between our two countries, will be the most vital driver leading to an even better bilateral relationship on the whole. In fact, the number of agricultural producers in the world that can supply agricultural products in a steady and stable way is limited, and Japan has to continue importing crops from these countries. It is obvious what we, in each generation, must do.

In the process of learning about our international partners – their language, politics, economics, history, culture and food – we can also realize the position Japan is in at present in the world. If we don’t gain such a vision, it is just a pipe dream to reach mutual understanding between two countries. In a bilateral relationship, it is the first yet vital step to be aware of each other’s differences, and only after that will it be possible to take a further step toward cooperation and compromise.

As for the global supply-and-demand of food, there is no doubt that food demand from developing countries will increase fast and by a large amount. On the other hand, as the example of bio-ethanol shows, it is true that an unexpected new market may emerge due to the development of technology or a shift in countries’ policies, and that could have a huge impact on the whole supply-and-demand balance. In fact, the prevalent cultivation of biotech crops is one of these cases.

Here is what one confident young corn grower has to say about biotech crops. Nathan Fields is a 34-year-old member of the National Corn Growers Association (NCGA). He said,

“I’m a corn grower but we are talking about food. We are talking about food security, and we are talking about consistent abundance of supplies, producing enough to feed the projected 9-10 billion people on this planet in the next generation ...”



“Biotechnology enables us to supply our safe corn continuously to the market in Japan,” says Nathan Fields of the National Corn Growers Association confidently.

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Here is his message especially to the Japanese people:

“People can see how bio-technology affects the food system in the United States and is consistent with safety and supply. So we are very confident in this technology, and we believe it is a very safe technology. It is something we want to see all the market continue to adopt, and we want it to grow.”

Of course, his message has a promotional aspect in favor of the U.S. crops. Nonetheless, his confidence in the technology and safety of the crop is surely evident in his comment.

He said he is growing his corn with every confidence, and he hopes that Japanese people will buy his corn. He is not intrusive just to promote his

corn unilaterally, but he and his fellow corn producers are constantly paying attention to how their crop is consumed and eaten, as well as the impression their crop gives consumers. Food security is not something that can be done unilaterally or through short-term decisions. Instead, it must be established based on a balance among all the other trade crops, with clear intentions on both sides over a long-term process.

In order to accomplish that, it is important to build a win-win relationship between the importer and the exporter. We have looked back on the U.S.-Japan grain business over the past half-century, as described in this book, and we reflect on the lessons we have learned. In particular, we should remember that food trade issues between two countries should be addressed based on people-to-people ties at the grassroots level, just like the “Hog Lift” project that was realized through trust and compassion on both sides and paved the way for the long-lasting U.S.-Japan relationship.

Now that Japan has experienced such a valuable process where a single event provided an enormous opportunity to build a beneficial relationship with a foreign country, this experience can also give us a hint about how to solve food trade problems between Japan and foreign countries.

Doing nothing would surely push Japan to the brink of losing its position as a major trade player in the world, since other countries are taking over major roles, although many of us seem to be coming to terms with that already, as if it is unavoidable. That cannot be right.

There is no one simple answer to our problems, so we must use our eyes, ears, hands, legs or any available part of our body and every experience from the past, and move into action to construct a new framework to tackle all the problems of Japan’s food and agricultural industry, including the issue of the U.S. grain imports.

Now is the time to move – not to mope, even though we must also face up to the formidable challenge of our aging society.