

World Food & Poverty Problems: Japanese Perspectives

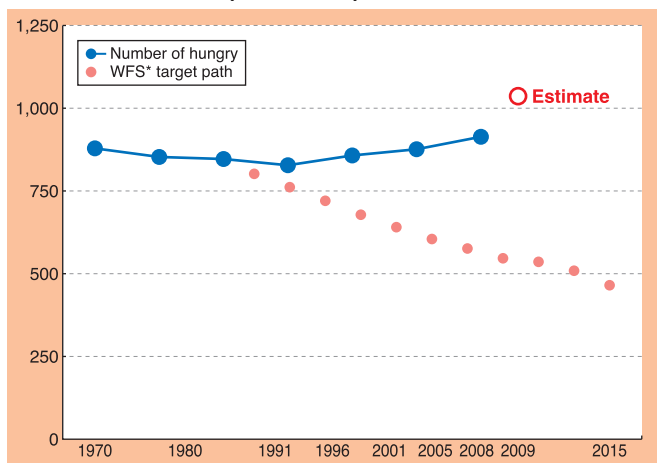
By Masa IWANAGA

Global Food Crisis

Global prices of grain staples such as maize, wheat and soybeans began rising in 2007 and surged two- to threefold in short bursts during 2008. The exorbitant prices have left many countries short of food or unable to get enough food. The resultant social unrest developed into riots in some of those countries. The food shortage, coupled with the global economic crisis that began in the latter half of 2008, caused the number of poor people in developing countries to increase by more than 100 million from 2008 through the first half of 2009. The U.N. Food and Agriculture Organization (FAO) announced that the number of people suffering food insecurity and poverty has increased to 1.02 billion (Chart 1). The World Food Summit held in 1996 set a target to reduce the global number of undernourished people by half by 2015. Actually, however, the number has swelled instead of falling in 2009.

Japan depends on imports for the bulk of its maize, wheat and soybean consumption. The total import value of these three commodities almost doubled to 1,161.5 billion yen in 2008 from 598.6 billion yen in 2006, according to the Ministry of Agriculture, Forestry and Fisheries. The spike in food prices, particularly those of wheat products, has made Japanese people deeply interested in food problems. They have come to talk frequently of a “global food crisis.” Until quite recently, they had seen a food crisis as “somebody else’s problem,” peculiar to developing countries. But they have come to realize that the surge in food prices can have a serious impact on Japan and other affluent countries. Many Japanese were shocked to learn that Japan’s food self-sufficiency on a supplied calorie basis is 40%, the lowest among

CHART 1
Number of hungry people in the world (in millions)



Note: *World Food Summit, 1996
Source: Food & Agriculture Organization, 2009

industrialized countries, and that Japan relies on other countries for an overwhelming portion of its food needs. They have come to be aware that countries across the world are linked to each other by food.

Rapid Economic Growth & Decline of Agriculture

Japan accomplished a miracle economic expansion after World War II. Its gross domestic product (GDP) grew 588-fold over a period of 30 years from 1955 to 1985. However, much of the growth was brought by enhanced efficiency and productivity in industry and commerce. The improvement in agricultural productivity during that period was much slower. For example, the rice yield per hectare grew only 67%, from 3 tons to 5 tons. In that process, the number of people engaged in agriculture declined. The growth of Japan’s population was led by industry and commerce as more people moved from villages to cities with higher productivity. Japan’s population growth continued in the postwar years, increasing from 87 million in 1955 to 120 million in 1995. Its economic expansion continued until the 1990s, thanks primarily to its “population bonus.”

The rapid economic development in the postwar years had a tremendous impact on Japan’s dietary life and agriculture. Per capita rice consumption, which averaged around 130 kg per year before the war, fell to an estimated 90 kg during the war years due to short supply. The people’s desire for “a full stomach of rice” sent annual consumption recovering to 120 kg in later years. However, with diet becoming increasingly diversified since the 1960s, consumption has now fallen to around 60 kg.

The aging of people engaged in agriculture has also been fast progressing in Japan. Today, 60% of farmers are aged 65 or older. And there have been few newcomers in agriculture. If the trend continues, Japan will face grave worry over who will support its agriculture.

Japan’s rice acreage, which totaled 2.55 million ha in 1885, went on expanding year after year to reach a peak of 3.17 million ha in 1969. Rice policy reforms implemented in later years have resulted in cutting it drastically to less than 1.70 million ha. The government’s rice acreage reduction policy has inevitably increased the number of paddy fields converted to other uses, that is, farmland where rice is not grown. The total area of abandoned farmland left dilapidated has increased to approximately 400,000 ha. This equals the size of Saitama Prefecture. The aging of the farm population and the rapid expansion of abandoned farmland are symptomatic of Japan’s declining agriculture.

Japan’s Affluent Diet

The dietary life in Japan remains affluent despite its sinking agriculture. Amid the affluence of versatile foodstuffs and food products, Japanese generally appear enjoying a healthy diet. In general,

sugar and meat consumption, and calorie intake grow in proportion to rises in disposable income. In Japan, too, both sugar and meat consumption and total calorie intake increased amid the rapid economic growth in the postwar years. But they peaked out in later years. For example, per capita meat consumption has not visibly increased since 1980. Today, Japan's average meat consumption is less than half that in Europe and the United States, and is also lower than in China and South Korea.

Sugar consumption has also been declining since 1970. Daily calorie intake has averaged less than 2,000 kcal in recent years since peaking at 2,226 kcal in 1970. On the other hand, Japan's fish consumption is among the biggest in the world. Its vegetable consumption is also high. Such an affluent and balanced diet has contributed to prolonging people's average life span to 82 years, the longest in the world. The ratio of obese persons (with a BMI higher than 30) is 3.2% in Japan, much lower than 31% in the United States and 23% in Britain. In fact, it is the lowest among the OECD countries. These numbers indicate Japan is quite healthy as a nation.

What makes this rich diet in Japan possible? It is supported by a combination of agricultural output at home and imported food. Japan's land area totals 380,000 square km and it is smaller than California. A large portion of the land is unfit for residence or agriculture. The narrow archipelago has a population of 127 million, the 10th largest in the world, and Japan's population density is three times higher than China's. The Ministry of Agriculture, Forestry and Fisheries estimates that Japan needs to have a cultivated area 3.7 times as much as what it has (4.65 million ha) if it is to meet all its food needs on its own. This means that Japan's affluent dietary life is supported by output from 12.45 million ha of overseas farmland.

Japan's food self-sufficiency ratio has fallen to 40% from 60% in 1970 (Chart 2). The low ratio is outstanding in comparison to those in other industrialized economies. This is because Japan imports foreign farm products at low prices to meet a large portion of its food consumption. In fact, Japan is the world's biggest importer of grains and other main food items. It also imports nearly a quarter of the meat traded annually worldwide.

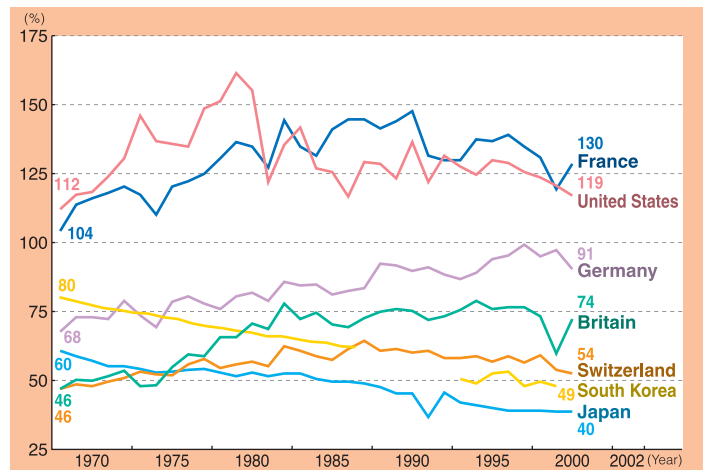
On the other hand, food wastes routinely left by Japanese are enormous in volume. These are the foodstuffs and dishes not fully consumed for varied reasons. They add up to 19 million tons per year, more than what Kenya needs to feed its entire population.

Enhancing Food Self-sufficiency Vital

The global food crisis in 2008 has added to the sense of urgency the general public felt about the implications of Japan's waning agriculture and its high dependence on imported foodstuffs. Growing popular calls for an invigorated agriculture and an improved food self-sufficiency ratio have prompted the government to draw up a

CHART 2

Trends of food self-sufficiency ratios (supplied calorie basis)



Source: Food supply/demand table, Ministry of Agriculture, Forestry & Fisheries, and other data

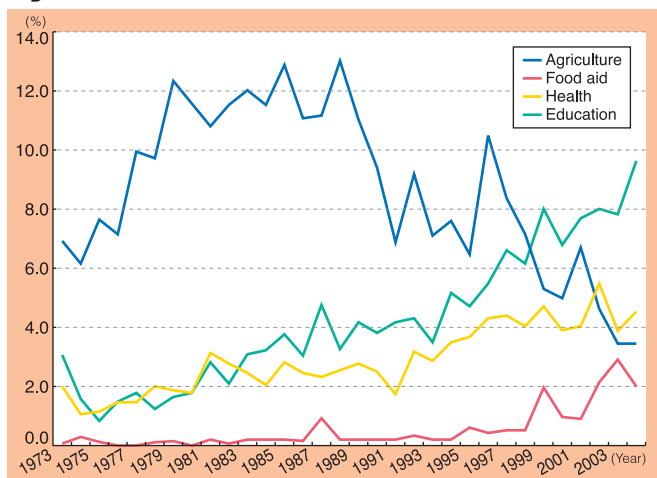
specific policy to meet them. It has set a target to bring up the ratio from 40% now to 50% within the next decade. It has defined three specific aims. First, Japan as the world's biggest food importer should contribute to easing the global crunch of grain commodity supply by reducing its imports or its dependence on imports. By so doing, it can avoid pinching the food that would otherwise be made available to developing countries. Second, Japan should reactivate its own agriculture through renewed efforts to enhance its food self-supply capacity. And third, a reinvigorated agriculture should help sustain farmland's multi-functionality. In addition to its key role of food production, farmland has its own multifaceted functions, such as river flow stabilization, prevention of floods and soil erosion, culture preservation and recreational values. These multilateral functions are estimated to have an economic value several times greater than that of food production itself.

“Green Revolution” & Japan

Seen from the standpoint of long-term global food supply and demand, the ongoing food price spiral is not a transient problem. Rather, it is a structural problem due to the global food supply being unable to meet greater demand created by the population explosion. There was actually widespread concern about a similar food crisis 40 years ago. In the middle of the 1960s, South Asia faced fears of a major famine being caused by food production unable to catch up with the region's population growth. At the time, the International Maize and Wheat Improvement Center (CIMMYT) based in Mexico and the International Rice Research Institute (IRRI) based in the Philippines played crucial roles in preventing the outbreak of a crisis. They developed new wheat and rice varieties that yield two to three times as much as the conventional ones. The spread of the new

CHART 3

Official development assistance by sector



Source: Development Assistance Committee, OECD

varieties boosted output, saving 100 million people from starvation in what was then called the “Green Revolution.” Dr. Norman Borlaug, then director of CIMMYT’s International Wheat Improvement Program, was named the Nobel Peace Prize laureate in 1970 for his contribution to the movement. Genetic resources and high-yielding crop management practices developed in Japan made great contributions to leading the revolution to a success. CIMMYT had used a Japanese wheat variety, “Norin 10,” in developing its new high-yielding wheat varieties. Japan has made similar contributions to IRRI in its development of new high-yielding rice varieties. Its farming technologies have won a high reputation among agricultural specialists across the world.

What can we do to address the world’s structural food problems in the future? By following the example of the Green Revolution that staved off a famine in the 1960s, we should start a second Green Revolution to develop epochal new technologies that can lead to a major improvement in crop productivity. An urgent task to be done in the second revolution is a sustainable productivity increase in Africa’s rain-fed areas that have not benefited from the previous revolution. There is the need to establish new cultivation technologies that can yield weather-resistant crops in a stable manner. With global water resources drying up, we need to develop new grain varieties with higher water use efficiency that can grow even in poor soil.

How Can Japan Help Solve Global Food & Poverty Issues?

The generations who experienced food scarcity and witnessed the process of economic rehabilitation in the postwar years have a strong feeling about the bitterness of an empty stomach. Many Japanese, particularly those belonging to those generations, are strongly sympathetic to the people in developing countries facing food shortages. This is not unrelated to the fact that a larger proportion of Japan’s foreign aid is set aside to finance food and agriculture projects. In 2007, such projects accounted for 8.2% of its official development assistance (ODA), the highest in the world. The

OECD’s average ratio for the year was 4.6%. The corresponding ratios for individual member countries were 5.1% for Switzerland, 4.9% for the United States, 2.4% for Germany, 2.1% for Canada and 1.5% for the Netherlands.

In 2008, Japan hosted the fourth session of the Tokyo International Conference for African Development (TICAD IV) in Yokohama. The periodical conference is aimed to coordinate international aid for African development. TICAD IV had agriculture and food high on the agenda. Japan made an international commitment at the conference to provide financial and technical assistance in support of a project to double rice production in Africa. It brought up the global food security crisis as a main topic of discussion at the G-8 summit it hosted at Toyako, Hokkaido, later in 2008, contributing to structuring a framework of international collaboration to address the issue. Again, at another G-8 summit held in L’Aquila, Italy, in July 2009, Japan took positive action in a debate on food and agriculture, helping connect the outcome of the Toyako summit to the L’Aquila Joint Statement on Global Food Security, which contained among others the commitments made by countries represented at the L’Aquila summit toward a goal of mobilizing \$20 billion in three years to support increased and targeted investment to enhance agricultural productivity.

According to the OECD, the percentage of agriculture in ODA fell below 4% in 2005 from more than 12% in the 1980s as more assistance was set aside to cover other areas, notably medical care and education (Chart 3). However, assistance to agriculture remains crucially important. More than 60% of the population in the developing world is engaged in agriculture and agriculture-related industries. Agriculture plays the role of an engine in the social development of developing countries. A system to ensure a stable food supply at low prices is also imperative for urban people. Malfunction of such a system could hit city-dwellers in the form of higher food prices, possibly inciting urban social disturbance.

The world population of 6.7 billion is estimated to reach more than 9 billion by 2050. Agriculture, an industry based on water, soil and air resources, turns out food to feed the growing population. Countries are closely linked to each other through water and air resources as well as food. A massive failure of crops in one region could have a great impact on global food supply and demand. Ongoing global warming is threatening to undermine the foundation of agricultural production. The way one country utilizes and manages its farmland can seriously affect other countries. The way one country deals with its food supply and agricultural operation can similarly impact other countries. While agriculture and dietary habits have strong regional characteristics, they can remain the way they are only within the framework of global relationships. The Japanese are aware of that most strongly. In this sense, Japan’s international perspectives and activities are set to assume a growing importance. **J.S.**

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