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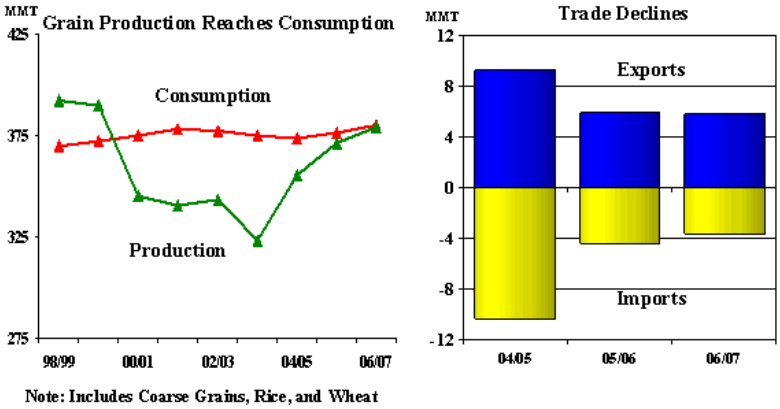
China, Japan and World Food Insecurity

Motegi Yoshinobu

In 1995 Lester Brown published a book, Who Will Feed China? Wake-up Call to a Small Planet. Among the most influential accounts warning of the dire consequences of China's growing appetite for food and resources, the book ignited an international debate centered on the domestic and international consequences of China's mega-growth. Although China continued to lose land to urbanization, and faces acute water shortages and pollution issues, it retained high levels of food self-sufficiency in most areas and the predicted famine did not occur as rising world food prices prompted increased food production. Indeed, China has not only maintained high levels of grain self-sufficiency, but maintains a balance of export and import of grain that is price sensitive and transport sensitive.



China's grain production, exports and imports

More than a decade on, China is being targeted as the primary source for mounting resource pressures and rising prices. Indeed, there is an important China effect, although other factors such as gluttonous US oil consumption and pressures on corn supplies as a result of ethanol production are among many other important factors.

Motegi Yoshinobu here considers the implications for Japan and China's other neighbors of China's growing grain needs, particularly corn. He locates the issues in light of Japan's own grain self-sufficiency level of 27 percent, the world's lowest, and policies that keep some productive Japanese land fallow. Will the pressures on food and environment that derive from Chinese and Indian development, and from high level consumption in the developed countries, lead to a reassessment of Japan's reliance on international markets? There are few signs of a significant shift in Japanese strategy to date. MS

China's voracious appetite for imported grain threatens to trigger a food crisis of international proportions, experts say.

Corn left to dry in Chenjia village, in Jilin province (Photo Motegi Yoshinobu)

Just as happened in the early 1970s, when the Soviet Union suddenly accelerated its imports after a sharp fall in domestic grain production, growing demand in China could have global implications, they warn.

Yuki Takagi, who heads the Agriculture, Forestry and Fisheries Finance Corp., was in charge of feed grain at the Ministry of Agriculture, Forestry and Fisheries at the time. Looking back on the crisis, he said: "Prices for livestock feed doubled."

According to Takagi, grain stockpiles around the world have dropped to those same levels of more than 30 years ago. Given the international flow of hot speculative money, he warned that "once China runs short of grain, we may be seeing an even steeper price hike in the future." If that happens, Japan will be in trouble.

According to farm ministry figures from last August, Japan produced 9.6 million tons of grain in 2007 for a self-sufficiency rate of 27 percent. For corn, Japan is almost totally dependent on imports. According to the agriculture ministry, Japan imported 16.8 million tons of corn in 2006.
Japan's domestic livestock industry traditionally has relied on cheap imported feed. But those days may be numbered, experts say.

Resource-poor Japan--and much of the rest of the world--may be at a crossroads before too long. Much depends on whether China can keep its ever-surging demand for grain in check.

Ruan Wei, a senior researcher at the Japanese think tank Norinchukin Research Institute Co., said China may end up becoming a corn importer by around 2010. In addition to growing demand for corn to produce bioethanol and starches, China's population is expected to grow another 100 million by 2030, further fueling demand for food and commodities.

But there is little likelihood of cultivating new croplands. The prospect of drought brought on by the effects of global warming is another factor. "It is hard to imagine there will be huge growth in corn production," Ruan said.

The United States produces 40 percent of the world's corn. With the new focus on corn as an ingredient in alternative bioethanol fuel, the United States is cutting back on its corn exports in a big way.

US corn-to-bioethanol plant

China is the world's No. 2 producer of corn, growing about 20 percent of the total. If it becomes an importer, there is no guarantee that it will be able to find suppliers to meet its needs.

Specialists say China likely will remain self-sufficient in rice and wheat for the time being. China turned an importer of soybeans in 1995. Since then, the self-sufficiency rate for soybeans dropped sharply, hitting 34 percent in 2006. China, with a billion-plus people to feed, imported 43 percent of the world's total soy export volume that year. Vast tracts of tropical rain forest and orchards in South America are now vanishing and being quickly transformed into soybean fields to feed China.

China's becoming a major grain importer in 1995 led to price hikes and drew international criticism. Last spring, the price of pork--a crucial ingredient in the Chinese diet--soared. The rising cost of feed was deemed to be the cause. In May last year, the government said it will halt construction of new bioethanol processing plants and expansion projects.

Other projects are also affected. A massive forestation program that aimed to convert slope farmland and desert areas into forests and grassland, in response to flooding of the Yangtze river in 1998, was also halted in 2007.

In 2006, China’s total cropland area was dropping, looming close to the benchmark 120 million hectares considered necessary to sustain food security in China. Thus, China must continue to walk a fine line, weighing demands for food, flood control and fuel.

A 46-year-old woman who runs a feed store in Meng La, Yunnan province, China, only 60 kilometers from the Laotian border said: "Corn from Laos is much cheaper, so it is gone in a flash." Domestic corn, mainly used as feed, has become scarce and now costs 27 yuan a kilogram. That price is 30 percent above 2006 prices.

Until a few years ago, there was a surplus of domestic corn. China enjoyed a bumper harvest from 1996 through 2000. More than 100 million tons were kept in storage, exceeding annual consumption volume. Then China began using excess corn for bioethanol production in 2002. The balance tipped when crude oil prices spiked and demand for bioethanol--and corn--exploded. Corn in storage shrunk to 25 percent and China began looking elsewhere to meet its needs.

Louang Namtha province in northern Laos lies just across the border from China. The 68-year-old president of a major trading company lamented: "I can't find any corn. My business is suffering." Corn is being gobbled up by private traders who cross over from China in hordes. Customs authorities don't bother to stop single trucks with a load full of corn. "Chinese trading companies are using at least a few hundred private operators so that they can save on taxes," the company president said testily.

Laotian corn field

A representative from a trading house based in Anhui province traveled 1,500 kilometers this winter to visit a brokerage storage plant in Jilin province, China's foremost corn production area.
An official at the storage company was unfazed: "(The representative) came all the way because Anhui province has bioethanol production plants but not much corn."

In nearby Chenjia village, farmers had completed harvesting and were whiling away their time playing mah-jongg and watching television, waiting for buyers to show up. In the past, under China's state-planned economy system, the farmers' work was considered done once they had hauled their produce to state-run storage houses. Now farmers decide the best time to sell.

Chen Xinsheng, 62, had 30 tons of corn drying. Chen said: "Traders who come early offer low prices. Only those in need will try and sell (their corn.)" Village chief, Chen Xinfu, 59, explained: "Actually, all of the villagers are like family. We keep a pact to sell only at a certain set price or higher. No one takes merchants who try to bargain seriously."

So where does Japan stand, with its 27-percent grain self-sufficiency? Japan actually has more than 380,000 hectares of farmland nationwide that has been left fallow in efforts to control overproduction of rice. The area is 1.8 times the size of Tokyo.

Takagi at the Agriculture, Forestry and Fisheries Finance Corp. said, "We really need to reassess the subsidy system so that farmers can use their farmland to produce rice that can be used as a cheap (livestock) feed source, instead of growing rice intended as a principal foodstuff."

This is a slightly abbreviated version of an article that appeared in the International Herald Tribune/Asahi Shinbun on January 14, 2008 and in Japan Focus on January 17, 2008.

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