

General Comment 1

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Thanks for the invitation by JIRCAS to this important international symposium and to Drs. Maeno and Miwa for their vision for this meeting. [I also want to thank Kunio Tsubota, Keiji Ohga, and Osamu Koyama, not only for their contribution here, but for their contribution to other international forums in the debate about global agriculture sustainability.]

I have five comments to make :

1. First, I would like to raise the issue of the sustainability of dietary change in Asia. Much of the focus in the last two days has been about "the disturbing equation" [Rothschild] of rapid growth in effective demand for food and the impact on the region's agricultural self-sufficiency.

Concerns about declining self-sufficiency and the sustainability of agriculture in Asia often fail to recognize that much of the decline has to do with rising animal product consumption across the region driven by higher income levels. Yearly growth in meats and eggs in Asia is high [Koyama], particularly in urban areas. Rapid urbanization in China, for example, is leading to more rapid growth in consumption of meats, milk and eggs [Ke Bingsheng].

Some countries in Asia are increasingly confronted with the need to either import feed-grain to support domestic livestock production or import the finished livestock products, either way leading to declining self-sufficiency.

As diets become more oriented to animal products, they also become more resource-intensive, requiring more arable land per capita and more gross calories per capita. Meat-based diets in developed countries are about 2.5 times more resource-intensive than diets in developing countries. Since of all the regions in the world, Asia has the greatest constraints on bringing additional arable land into production, a diet increasingly reliant on animal products implies that Asia will necessarily become less food self-sufficient and more import-dependent.

2. Grains are not the only agricultural crop. We get a distorted picture of Asian agriculture by focusing so much attention on grains as was the tendency in the symposium presentations. Granted grains are extremely important as a basic food and as Koyama pointed out, 60 % of caloric intake in Asia is explained by grain, about 50 % for the world. But grain needs to be put into a broader agricultural context. I don't think it can serve as a "proxy" for all of agriculture as it did several decades ago. The fact that area devoted to grain production is declining in some Asian countries, does not necessarily mean that the land is lost to all together. In China, for example, "only a fraction of the shrinkage of cultivated land is caused by non-farming purposes." Decline in grain area has been offset by expansion in aquaculture, oil-seeds, sugar, tobacco, fruit trees and vegetables [Ke Bingsheng] and other farm activities.

The same is true in Japan and Korea. Rao reports that in India the area in fruit and vegetables is rising in response to rising income and dietary upgrading.

The shift out of grain can be explained by comparative advantage. The abundant resource in Asia is labor, both skilled and unskilled, not agricultural land. We can expect with continued economic growth and policy reform in Asia, that comparative advantage will come into freer play. This will mean that Asian economies will generally become larger markets for "land-extensive" bulk commodities from other parts of the world, like Oceania and North America. As this process moves along, agricultural resources will shift from land-extensive activities to labor- and capital-intensive ones within agriculture (e.g. horticultural products instead of grains) and within the economy as a whole (e.g. light manufacturing instead of agriculture).

It should not be surprising that rapid economic growth in a country like Thailand is bidding up the price of rural labor and forcing adjustments, sometimes painful, on Thai agriculture. The labor-saving adjustment represented by direct seeding of rice is an example.

3. Focus on grain and production agriculture also takes our focus off a vast "system" in Asia that reflects consumer demand via a price mechanism and that transforms and delivers food product to the consumer. What happens on the farm is only a partial picture of the region's food system—a complex mosaic of economic relationships and linkages that tie the region's food consumers to producers. Some authors spoke about transportation issues, postharvest losses, and the role of electricity, all important variables in the sustainability of the food supply in Asia beyond the farmgate.

Food processing and marketing are increasingly important to the region's ever more sophisticated food system, reflecting changes in consumer demand and advances in marketing and shipping technology. The rising demand for perishable products in the developed and urban parts of the region, sometimes from local producers or from the other side of the world, has had a major role in making the Asian food system logistically complex. Cold chains have to be established and maintained from the point of production to the point of consumption to provide timely delivery of fresh and frozen produce. Transportation and communication networks need to function efficiently to make sure these cold chains are continuous and reliable, sometimes over long distances.

4. Less intrusive government policy is important in sustaining agriculture in Asia in an environmentally sound way. It is important that governments facilitate rather than interfere with markets. It is right that markets have shortcomings but there is an increasing urgency in Asia that resources in agriculture be efficiently allocated to meet the needs of future generations. A "level playing field" needs to become a reality for farmers so that they are not asked to pay more than the world price for their inputs and that they receive the world price for their outputs.

Less intrusive governments should help in dealing with overuse of pesticides in Thailand and fertilizer in Japan. Reduction of consumer subsidies and development of a market for water in China should moderate growth in meat consumption and increase the supply of water to agriculture by reducing the wastage in urban areas where it is priced too low.

There will always be an important Government role in providing investment in rural infrastructure, in agriculture research, in protection of property rights and in protecting a legal

framework that supports the efficient functioning of the market.

5. Finally, Governments can also play an important role in gathering data and statistics to better understand the food situation in Asia and to internalize the cost of negative externalities.

Some presenters discussed discrepancies in household survey and food balance data, the variability of FAO/USDA feed consumption data, and the reliability of farmland data in China. Governments need to invest additional resources to reduce these data problems and enhance efforts to assess the current as well as the future world agriculture situation. It would be a false economy to scale back Government data collection efforts given the strategic importance of food and agriculture to individual countries as well as the region as a whole.

The role of Governments in collecting and interpreting data on the impact of pollution on our "commons" is of particular concern. Keeney raised the issue of the loss of marine life in the oxygen-depleted "dead zone" of the U.S. Gulf of Mexico from Mississippi River pollution. Similar issues exist throughout Asia. We need better data and information about the extent of such problems, their causes, and their impact on human health and the economy. Assessing these negative externalities will raise the probability that their societal cost will be internalized by government regulation and paid for by the polluter, the consumer, or the taxpayer.