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That Crooked Carrot Is Also Food

By ASIT K. BISWAS AND LEONG CHING

Sunday is World Food Day, and there is no question more important than this: If we are failing to feed the world's 7 billion people, how will we feed 9 billion in 2050? Last year, more than 925 million people — or nearly 1 in 7 people in the world — were undernourished.

The fact is that the world could feed itself, both now and in 2050. The problem is not that the world grows too little food; there is plenty of food overall. The problem is that while there is too much food in some places and not enough in others, everywhere food is wasted. Each year, 1.3 billion tons of food is lost worldwide.

The Londoner who walks home with three bags of groceries will never eat the contents of one of them: One-third of all the food bought in Britain is thrown away every year. Americans discarded a staggering 33 million tons of food in 2009, according to the U.S. Environmental Protection Agency — making food the single largest component of solid waste in U.S. municipal landfills and incinerators. It costs the United States nearly one billion dollars a year to dispose of food waste.

The countries of South and Southeast Asia produce less food per capita than industrialized countries in the West, but they waste roughly the same proportion, 30 to 35 percent. Although tiny Singapore needs to import more than 90 percent of its food supply, in 2008 it nonetheless threw out some 570 million kilos, or one-fifth of the total — mostly edible scraps.

In industrialized countries, much of the loss occurs at the consumer level, after the food has reached supermarkets and stores. This is partly because food expenses as a percentage of a family's income have come down significantly in the West, especially relative to transportation and housing costs, which have gone up. People don't throw away designer clothes or iPhones; these have what economists call "scarcity" value. Food does not.

The issue is different in the developing world. Some 35 to 45 percent of the food produced is also lost there every year, but typically well before the supplies even reach buyers. Most waste occurs during and just after harvesting and at the distribution stage.

India, the world's second-largest producer of fruits and vegetables, loses about 40 percent of that production because of mismanagement, inadequate infrastructure and storage, poor transportation, shoddy supply-chain logistics, and underdeveloped markets. It also loses more than one-third of its cereals.

Such local problems are compounded by international economic trends. Farmers in the United States and the European Union, for example, have an incentive to grow corn, sugarcane, oil seeds or coarse grains for ethanol and other biofuels. In the United States, where government subsidies encourage such activities, ethanol production consumes nearly 40 percent of the corn crop.

If these trends continue, the price of vegetable oils could increase annually between 2013 and 2017 by 35 percent, that of coarse grains by 13 percent, and that of oilseeds by 7 percent. This would further aggravate poverty and hunger throughout the world. According to the World Bank, during the second half of 2010 "an additional 44 million people fell below the \$1.25 poverty line as a result of higher food prices."

In industrialized countries, reducing food waste will require raising public awareness and changing consumer attitudes. Consider carrots. On farms, photographic sensors scan all harvested carrots and reject those that are crooked, dull, blemished, too thin or too fat. As a result, 25 to 30 percent of carrots end up as animal feed even though they pose no health risk to humans. Many other fruits and vegetables are also set aside because supermarket managers believe consumers will not buy them for aesthetic reasons.

In developing countries, the effort to cut back on waste must focus on building better infrastructure facilities, including for storage, and significantly improving supply-chain and marketing systems.

In India, some 35 million people (7.3 percent of the workforce) earn their living in the unorganized retail sector. But wholesale retailing has been gaining momentum with the entry of Bharti, Wal-Mart, Reliance Industries and Carrefour into the market. This is contributing to the rise of trade over medium and long distances and the establishment of special production areas, procurement systems and modern food retailing.

Several NGOs are working with small farmers so that they can meet the quality requirements of these new supply chains. Modernization could also help reduce food losses by helping India process more of its fruits and vegetables: Currently it processes only about 2 percent of production, compared with 30 percent in Thailand and 80 percent in Malaysia.

The problem of hunger cannot be solved if we continue to seek solutions focused almost exclusively on boosting agricultural production and yields. When one-third of the food produced in the world is never even consumed, limiting waste must be our first priority.

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