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Guest column: Crisis presents opportunity

PEDRO SANCHEZ directs the Tropical Agriculture Program of the Earth Institute at Columbia University. He was the 2002 World Food Prize Laureate.

This spring, I visited Levi Huffman's 3,500-acre farm near Lafayette, Ind., to see how the food/oil crisis is affecting American farmers and provide me with some perspective to the situation I am working with in 10 African countries.

With corn at \$7 per bushel, their future is bright. Fertilizer costs and crop prices have doubled in the past year, but since fertilizers represent about a third of the total cost of production, and fuel perhaps another third, they are ahead of the game.

As a son of a farmer and fertilizer dealer, I am happy to see American family farmers making money, eventually decreasing the need to receive government subsidies and to overfertilize, causing nitrate pollution in streams and dead zones in coastal waters. As an agricultural scientist, I am also happy because we researchers unwittingly contributed to the steady drop in world crop prices for the past 40 years. Because of drastic improvements in yields, in 2000 the real price of corn was only 35 percent of what it was in 1961; wheat, 37 percent; and rice, 15 percent. Food became really too cheap.

The same crisis is affecting hungry African countries. World grain prices have almost doubled since 2000, and African countries have caught up with world prices. That has triggered food riots in Africa and elsewhere around the world. Nitrogen fertilizer prices in Africa have doubled in the past year, and phosphorus fertilizers have tripled. This is terrible for food-importing countries and for humanitarian food aid, but it represents an unprecedented opportunity to increase crop production in Africa by investing at the front end of the food chain when prices are high.

Here are the key metrics. It costs about \$77 in fertilizers and hybrid seed for a smallholder African farmer to produce an extra ton of maize, based on our research at the Millennium Villages. To bring in the same ton of maize into Africa as U.S. food aid costs \$670, based on a Government Accountability Office report. Both numbers are as of April 2007, the latest I could obtain. If we assume that the cost of fertilizers, seed and food aid has doubled, then it is about 10 times more expensive to "give people a fish and they will eat for a day" than "empower people how to fish and they will eat for a lifetime." Since it may now cost an African smallholder farmer about \$150 in inputs to produce an extra ton of maize, and she can sell it locally for \$250 to \$300, the farmer will generate income and begin the economic transformation from sub-subsistence into commercial entrepreneurs.

This argument is not theory. In 2005, Malawi was facing one of its worst food shortages. Harvest produced only 44 percent of the country's maize requirements, thrusting a third of its population into dependency on food aid. The government made the courageous decision to provide a 75 percent subsidy for two bags of fertilizers and 3 kilos of hybrid maize seed to every farmer. In spite of the daunting logistics of a poor, landlocked African country, the policy was implemented, and the 2006 harvest of 2.6 million tons resulted in an 18 percent surplus.

Malawi did it again in 2007, with a 3.4 million ton harvest, and the surplus increased to 57 percent. This allowed the country to export 300,000 tons to Zimbabwe, and the World Food Program to purchase 900,000 tons for its food-aid efforts to Zimbabwe, Congo and even West

Africa. The 2008 harvest just completed is estimated at a 50 percent surplus.

Maize prices in Malawi have been steady; no food riots have taken place. It can be done!
