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Coping Strategies in Response to Rising Food Prices: Evidence From India

Sharad Tandon and Maurice Landes

What Is the Issue?

Global food prices increased dramatically between 2006 and 2008. The rise in prices was not uniform across food categories. Cereal prices showed an especially large increase, and the average increase in rice prices was nearly twice as large as that of wheat prices. Causes of the high prices included low stocks, droughts in food-producing countries, rising oil and fertilizer prices, the expansion of biofuels made from feedstocks, and growing food and feed demand associated largely with rising incomes and urbanization in developing countries. The rise in food prices led to heightened concerns regarding the implications for the prevalence of food insecurity and household welfare, particularly among vulnerable low-income consumers in developing countries.

This study examines how households in India coped with rising domestic food prices that accompanied global price patterns. Given widespread and chronic malnutrition in India, the response of Indian households to rising food prices is of particular concern. Cereal prices in India surged during and after the period of the 2008 global food price crisis due to developments in India's domestic market, as well as the runup in world prices. Certain large regions in India consume either rice or wheat as the staple food, but not both. Because the increase in rice prices was large relative to the increase in wheat prices, the Indian setting provides an opportunity to compare both food and nonfood responses between the two regions and isolate household coping strategies in response to the rising food staple prices.

What Did the Study Find?

An analysis of changes in consumption across India between 2004-05 and 2009-10 and a comparison of food and nonfood coping strategies between rice-eating regions and wheat-eating regions during the same period demonstrated the following:

- Households maintained consumption of their staple cereal as cereal prices spiked but reduced consumption of calories from all other sources. As a result, overall calorie consumption significantly decreased across India during the period.

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- Consumption of calories from noncereal sources (legumes, fruits, vegetables, and animal products) dropped 13 percentage points more in rice-eating regions than in wheat-eating regions, which were less affected by the rising prices. This change resulted in a less diverse diet and worse nutritional outcomes in terms of total consumption of a number of beneficial nutrients for households in rice-eating regions. However, there was little difference in the decline of overall calorie consumption between rice-eating and wheat-eating regions because households in both regions maintained consumption of their staple cereal while adjusting expenditures for other foods.
- Regions worse hit by rising food prices also decreased expenditures on medical care and durable goods relative to other regions of the country.
- These relative changes in consumption in India only appeared after the rise in cereal prices, and there is little evidence that the changes were driven by national policy changes and other shocks during the period.

These findings suggest that higher prices for staple foods affected nutrition in India. However, findings also suggest that higher food prices affected Indians' health status by reducing access to health care at the same time that households faced increasing rates of malnourishment. Furthermore, decreased spending on clothing and durable goods potentially increased domestic labor requirements for mending and repair work, which has implications for time allocations to work outside the home and education.

Despite India's substantial food security investments and trade restrictions on cereals, cereal prices still increased substantially between 2006 and 2010. The study's findings suggest that effective policies to strengthen household food access and security may also need to address availability and access to important nonstaple foods.

How Was the Study Conducted?

ERS researchers used data from consumer expenditure surveys conducted by the Government of India in 1999/2000, 2004/05, and 2009/10 to estimate how food consumption, other measures of nutrition, and overall household expenditures changed across India as prices of staple cereals spiked. Measures of nutrition were calculated using the quantity of each food item consumed by Indian households and the average nutritional content of Indian foods. Researchers then compared changes in food security and expenditures in rice-eating regions and in wheat-eating regions to account for shocks or changes in national policy that might have contributed to the observed trends. Consumption changes prior to the food price crisis between 1999/2000 and 2004/05 were used to demonstrate that the estimates were due to the differential increases in wheat and rice prices and not other unrelated factors.