

# The Global Food Crisis: Identification of the Vulnerable and Policy Responses

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Seventy-five percent of the world poor are rural people. Half a billion of them are located in countries both vulnerable to rising food prices and with weak capacity to provide social safety nets. For them, agriculture must be the main instrument to respond to the food crisis and escape poverty.

The global food crisis has made the headlines for the last year. Governments and international organizations have shown concern and poor people have expressed discontent in the streets and in polling booths. The main symptom of the crisis has been sharply rising food prices on international commodity markets, reaching 120 percent for wheat, 140 percent for maize, and 150 percent for rice and soybean oil over the period extending from mid-2005 to mid-2008. The causes of the price increases have been extensively described, so we do not need to return to those here. We focus instead on the consequences. Because food is so important in poor people's consumption budgets, our concern has to be with (1) the impact of rising prices on vulnerable countries that have a weak capacity to protect against price increases on the international market and to organize policy responses to protect their poor, and (2) the impact within these countries on the vulnerable poor who are most exposed to price changes and least protected by policy interventions. We first characterize who these categories represent and how they are exposed to the food crisis. We then ask what has been done to respond to the food crisis,

reviewing policy interventions already in place. We note that policy interventions, in spite of being extensively discussed, have been improperly defined and targeted relative to the nature of the problem to make them effective for the intended purpose. This takes us to the thesis of this paper—namely, that too much attention has been given to trade policy adjustments and targeted social safety nets and not enough to the role that agriculture can play in reducing the social costs of the food crisis, in both the short and the medium run. Agriculture has been neglected and poorly understood in the past as to what it can do for development. This neglect is among the factors contributing to the current food crisis. While the crisis has elevated concern about access to food for the poor, use of agriculture as the main instrument for policy response in the case of the most vulnerable countries and the most vulnerable people within these countries continues to be insufficient.

## Uneven Pass-Through

There is no doubt that international market prices for major staple foods—wheat, rice, maize, and soybean oil—have increased sharply and are likely to remain high for the next 10–15 years in spite of the decline from peak prices in June 2008. What has been neglected is a look in greater detail at how much pass-through there has been from international to domestic retail prices. This is important because some countries have in fact been able to shelter their domestic markets from international commodity prices, avoiding a food crisis, while others have borne the full brunt of rising prices.

As an example of uneven transmission, we show in Figure 1 real border

prices and real consumer prices for rice in Burkina Faso and India. We see strong pass-through in the first case but very limited in the second. In general, among importing countries, high- and middle-income countries have had more capacity to restrain pass-through than poor countries. This gives a sense that some countries are more vulnerable to international price movements than others.

## The Vulnerable Countries

Countries are more vulnerable to rising international food prices if they meet three criteria:

1. High food dependency as measured by the share of cereal imports in total cereal consumption.
2. High food import burdens as measured by the share of cereal imports in total imports.
3. Low income as measured by a gross national income (GNI) per capita in 2006 of less than \$905 or lower-middle-income with a GNI per capita between \$906 and \$3,595. With low income comes weaker policy, fiscal, and administrative capacities to respond to a crisis.

Countries are classified according to these criteria in Table 1. It shows that most of the poor vulnerable countries are in Sub-Saharan Africa and Central Asia, but also include Haiti, Mongolia, Papua New Guinea, Bangladesh, and Yemen. Together, these countries account for 900 million people, a rural population of 630 million representing 70 percent of the total population, a rural poverty rate of 84 percent with a \$2 per day poverty line, and a poor rural population of 530 million representing 73 percent of the total number of poor. For countries for which data are available, fiscal revenues are very weak,

accounting for only 15 percent of GDP. Foreign aid is very important, accounting on average for 70 percent of central government expenditures. Policy space to reduce tariffs on imported foods is very limited, with a nominal rate of taxation on the order of only 10 percent for agriculture-based countries in the World Bank's World Development Report (WDR) for 2008. Reducing import tariffs on food is a nearly insignificant policy instrument in the face of price increases on the order of 150 percent.

The message here is that a very large number of world poor are located in countries vulnerable to international food price shocks. These countries have very little policy space to manipulate domestic prices. As a consequence, price transmission is high. They also have very limited fiscal and administrative capacity with which to organize safety nets to protect their poor from rising food prices. An overwhelming majority of these poor are rural and are the poorest of the poor. It is that population that should be of concern in organizing responses to the food crisis.

### The Vulnerable Poor

Poor rural people can be landed or not, and if landed, they can be net sellers or net buyers of food. Poor smallholders who are net buyers will lose from a rise in the price of food. How many of the country's total poor are in that category? The answer is a surprisingly large percentage. We show in Table 2 data for two vulnerable low-income countries (Ethiopia and Bangladesh), two vulnerable lower-middle-income countries (Bolivia and Guatemala), and two nonvulnerable low-income countries (India and Vietnam). They show that smallholders tend to be a majority of a country's poor. They also show that a large share of these poor smallholders tend to be net buyers of food. In Bangladesh, for example, 80 percent of the poor are smallholders and 62

Figure 1. Price Transmission in Burkina Faso and India

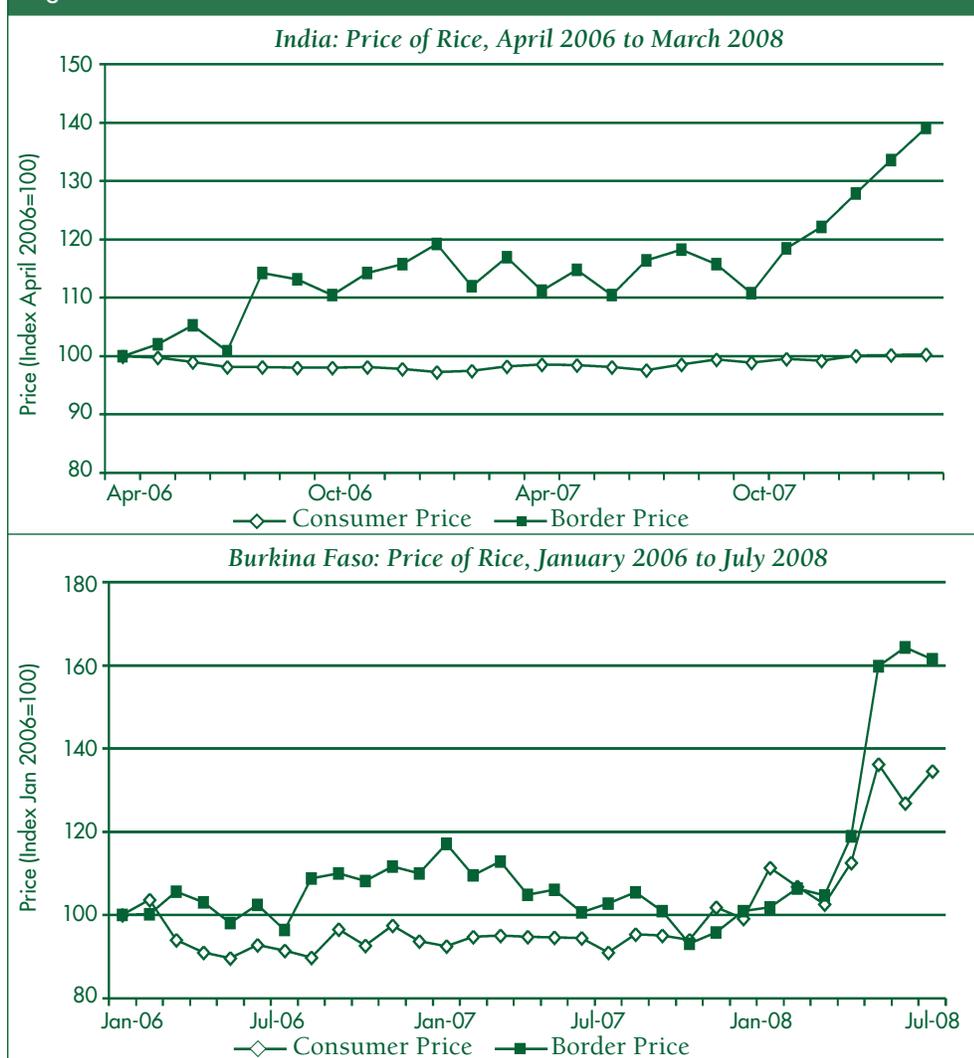


Table 1. Countries Vulnerable to an International Food Price Shock

Food Dependency	Food Import Burden	Vulnerability to Food Crisis	Low-Income Countries (GNI per capita, in 2006 < \$905)	Lower-Middle-Income Countries (GNI per capita, in 2006 \$906–\$3,595)
High	High	Most vulnerable	CongoDR, Cote d'Ivoire, Eritrea, Gambia, Guinea-Bissau, Haiti, Liberia, Mauritania, Mongolia, Papua New Guinea, Senegal, Tajikistan	Azerbaijan, Egypt, Jamaica, Morocco, Peru, Swaziland, Tunisia
Low	High	Highly vulnerable	Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Central Africa Rep, Ethiopia, Ghana, Guinea, Kenya, Kyrgyzstan, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Sierra Leone, Sudan, Tanzania, Togo, Uganda, Uzbekistan, Yemen, Zambia, Zimbabwe	Bhutan, Bolivia, Cameroon, Sri Lanka, Suriname, Syria
High	Low	Somewhat vulnerable	Somalia, Timor, Yemen	Angola, Cuba, Dominican Rep, El Salvador, Guatemala, Honduras, Jordan, Namibia

**Table 2. Households Vulnerable to a Domestic Food Price Shock**

	Bolivia	Guatemala	Ethiopia	Bangladesh	India	Vietnam
Share of Smallholders in Total Poor (%)	60	48	64	80	81	88
Share of Net Buyers Among Poor Smallholders (%)	67	93	44	62	62	51

percent of the poor smallholders are net buyers of food. In the end, poor net-buyer smallholders thus represent 50 percent of the country's poor. They are poorer among the poor, as they are a higher share of the poor on the basis of a \$1 rather than a \$2 poverty line.

## Policy Responses

Policy responses follow three lines of action: use policy instruments to reduce consumer prices, set up safety nets to provide access to cheap food to the targeted poor, and/or focus on supply response in agriculture. These three types of interventions are the instruments used by the World Bank in its Global Food Crisis Response Program (Table 3).

**1. Price policy to reduce consumer prices**  
Vulnerable countries are net importers. Policy instruments that allow for them to manipulate domestic food prices include reducing import tariffs and introducing food price subsidies. These instruments are basically ineffective. Tariffs that remain after years of pressure to liberalize trade are already very low and they do not have the fiscal resources necessary to subsidize food.

Because of weak fiscality, import tariffs are an important contribution to government tax revenues. For this reason, the World Bank's Global Food Crisis Response Program has focused on compensating governments for the loss of fiscal revenues when lowering tariffs on imported foods. As can be seen in Table 3, 32 percent of the participating countries receive this type of assistance. This is important to help governments maintain their expenditure programs. However, it can make only a marginal contribution to reducing the impact of the food crisis on the poor

via lower prices for main staple foods.

### **2. Access to food: safety net programs**

Middle-income countries such as Mexico and Brazil and low-income countries with strong administrative capacity such as India can organize extensive safety net programs to provide the poor with access to food. This can take the form of targeted food subsidies, targeted cash transfers, food-for-work or workfare programs, and targeted conditional cash transfers. These programs require not only fiscal resources but also strong administrative capacity, which is usually missing in low-income vulnerable countries. In such countries, safety net programs are implementable mainly in the urban environment or for children through schools, an institution already in place. Yet the majority of the poor are rural and hard to reach through these programs.

The main policy instrument used under the Global Food Response Program is to help countries introduce safety nets for those affected by the food crisis, with 68 percent of participating countries following this approach (Table 3). For the rural poor, school feeding programs are relatively easy to administer and make very important contributions in reducing the educational and health irreversibilities of a price shock on children. At the same time, they are not reaching the majority of the poor, especially those who are rural smallholders.

### **3. Supply response in agriculture**

Given who the poor are in vulnerable countries—mainly rural people, a majority of them landed, even if endowed with only a small plot of land—and given the weakness of the policy instruments that would be effective in middle- and high-income countries to respond to the food crisis (lowering the price of food and

establishing safety net programs), agriculture has to be the main instrument for a response in vulnerable countries and for vulnerable people. In a sense, the fact that the poor are so close to the land in these countries creates an opportunity to use agriculture effectively for that purpose. Two types of responses are available: (1) short-run next harvest responses that aim to reduce the gap in land productivity for smallholders who depend heavily on home production for family consumption, and (2) medium-run responses that restore the role of agriculture on development and succeed in bringing a Green Revolution to Africa, specific to its own conditions, as argued in the WDR 2008. Both require attention that agriculture has not received and more effective approaches than those used in the past. We take each in turn.

## **“Next Harvest” Food Security Programs**

Simulations of the impact of rising food prices for India and Guatemala show that, among all of the poor suffering from the food crisis, smallholders represent as much as 82 percent of the total in India and 57 percent in Guatemala. These are smallholder farmers who have access to land yet must buy on the market to cover shortfalls in production relative to consumption. They lose from rising food prices, but have the capacity to respond by producing more for home consumption. Inspection of the levels of gross output per hectare they generate on the plots of land they control shows large gaps relative to potential. In Guatemala, for instance, gross production per hectare of farmers losing from the food crisis is about 30 percent of those gaining from the food crisis at equality of farm size. The expectation is that this is

due to very low levels of input use, especially new seeds and chemical fertilizers, among subsistence-oriented farmers.

A “next harvest” food security program would aim to reduce the land productivity gap in subsistence farming. For this, it would address the market failures that affect subsistence farmers, particularly in accessing seeds, fertilizers, and basic tools. It would offer subsidies for these inputs through vouchers redeemable in the private agro-dealer sector. It would complement access to these inputs with technical assistance provided by Non-Governmental Organizations (NGOs) that understand subsistence agriculture. These farming systems are quite different from more market-oriented agriculture as they are based on the principles of low external input use, diversity of crops and activities, and resilience to shocks to ensure food security. They take the form of the “milpa” in Mexico and the “conuco” in the Dominican Republic. Few extensionists in the public sector understand this type of agriculture, and it has been largely shunned by formal research institutions. Input subsidies are viewed with suspicion by most donors because they have so frequently been mismanaged and abused. Improving land productivity in subsistence farming is a road to production of a marketed surplus, adding to cash income. Diversification on the basis of comparative advantage, toward high-value crops and animal/fish activities in particular, can subsequently help increase monetary incomes. Improved production for home consumption is thus both a solution to the food crisis for the rural poor and a pathway out of poverty based on competitive smallholder farming.

The calculus of subsidies should not be made in terms of the opportunity cost of resources in alternative sources of growth, but in terms of the opportunity cost of providing food security to these households. The fact that they have access to plots of land

**Table 3. Global Food Crisis Response Program in Low & Lower Middle-Income Countries**

Number of Countries	Program Amount (million US\$)	Number of Interventions			
		Price Policy	Safety Nets	Agriculture Short Run	Agriculture Medium Run
31	581	10	21	14	12

and generally sub-utilized family labor likely makes it cheaper than approaches based on price subsidies or safety nets.

### Agriculture for Development

In the medium run, agriculture has to be the anchor for the food security of the rural poor. Yet we should recall that agriculture has been badly neglected by governments and international donors over the last 25 years, in part precipitating the current food crisis. The share of agriculture in public expenditures in most Sub-Saharan African countries is on the order of 4 percent compared to the 10 percent provided by the New Partnership for African Development ([www.nepad.org](http://www.nepad.org)) objective. Overseas development assistance going to agriculture has fallen from 12 percent in 1990 to some 4 percent today, in spite of a non-declining 75 percent of world poverty remaining rural.

Will the alarm bell of the food crisis be sufficient to restore interest in using agriculture for development and, in so doing, address the food crisis and avoid the recurrence of such incidents? For Sub-Saharan Africa in particular, this requires engineering a unique Green Revolution able to significantly increase productivity in agriculture. Success will require: (1) developing participatory national agendas that strategically position agriculture in relation to the specificity of local opportunities and constraints; (2) reversing the neglect of agriculture by governments and donors; (3) adapting the Green Revolution methodology to the conditions of Africa characterized by heterogeneity, multiple constraints, small countries, and severe resource constraints; and (4) extending the Green Revolution beyond staple foods toward high-value crops and the rural nonfarm

economy. It will be important to approach the problem as an opportunity to innovate and learn, not as a blueprint that can be drafted and implemented.

### Conclusion

The world food crisis was man-made and it requires a broad effort to be overcome and avoided in the future. Given the nature of world poverty, the main solution to the food crisis for the most vulnerable countries and the most vulnerable people has to come from agriculture, both through short- and medium-run responses. For this to happen, serious efforts must be made on four fronts:

1. Increase awareness of what agriculture can do to reduce hunger and poverty.
2. Identify options for effective investments in agriculture-based projects.
3. Develop capacities in using agriculture for development at the individual, collective, national, and international level.
4. Mobilize political support to elevate agriculture in government and donor priorities.

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### For further reading, the authors recommend the following sources:

- World Bank. World Development Report 2008, Agriculture for Development. Washington DC: The World Bank, 2007.
- World Bank. Commodity Markets Review. November 12. Washington DC: DECPG, The World Bank, 2008.