

# **The global food crisis: Identification of the vulnerable and policy responses**

by

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## **Abstract**

75% 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**

The global food crisis made the headlines for the last year. Governments and international organizations have shown concern, and poor people have expressed discontent in the streets and polling booths. The main symptom of the crisis has been sharply rising food prices on international commodity markets, reaching 120% for wheat, 140% for maize, and 150% for rice and soybean oil over the period extending from mid-2005 to mid-2008 (World Bank, 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, concern has to be with (1) the impact of rising prices on vulnerable countries with weak capacity to protect themselves from price rises on the international market and to organize policy responses to protect their poor, and (2) within these countries the impact on the vulnerable poor most exposed to price changes and least protected by policy interventions. We focus on these two categories in this paper. We first characterize who they are and in what way they are exposed to the food crisis. We then ask what has been done to respond to the food crisis, reviewing policy interventions put into 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 to reduce 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 (World Bank, 2007). This neglect is among the contributing factors to the current food crisis. While the crisis has elevated concern with access to food for the poor, using 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.

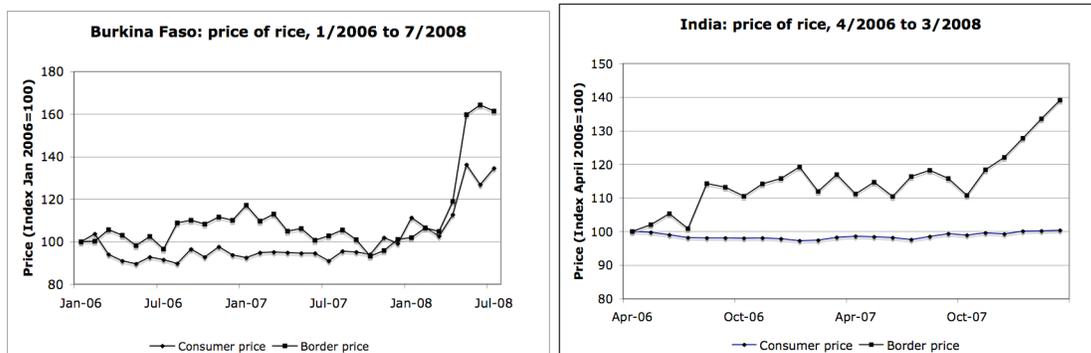
## **Uneven passing through**

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No doubt that international market prices for the 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 to look in greater detail how much passing through from international onto domestic retail prices there has been. 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. What we see is strong passing through in the first but very limited in the second. In general, among importing countries, large and middle income countries have had more capacity to restrain passing through than poor countries. This gives a sense that some countries are more vulnerable to international price movements than others.



**Figure 1. Price transmission in Burkina Faso and India**

### 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 burden 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 (World Bank, 2007). With low income comes weaker policy, fiscal, and administrative capacity to respond to the 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. All together, these countries account for 900 million people, a rural population of 630 million representing 70% of the total population, a rural poverty rate of 84% with a \$2/day poverty line, and a poor rural population of 530 million representing 73% of the total number of poor. In the countries for which data are available, fiscal revenues are very weak, accounting for only 15% of GDP. Foreign aid is very important, accounting on average for 70% of central

government expenditures. Policy space to reduce import tariffs on imported foods is very limited, with a nominal rate of taxation in the order of only 10% for the agriculture-based countries in the WDR 2008 (World Bank, 2007). Reducing import tariffs on food is a nearly insignificant policy instrument in the face of price rises of the order of 150%.

Food dependency Cereal imports/Cereal consumption	Food import burden Cereal imports/Total imports	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 1. Countries vulnerable to a international food price shock**

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 to organize safety nets to protect their poor from rising food prices. An overwhelming majority of these poor are rural, and they 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 non-vulnerable low income countries (India and Vietnam). They show that smallholders tend to be a majority of the country's poor. They also show that a majority of these poor smallholders tends to be net buyer of food. In Bangladesh, for example, 80% of the poor are smallholders, and 62% of the poor smallholders are net buyers of food. In the end, poor net-buyer smallholders thus represent 50% 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.

	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

**Table 2. Households vulnerable to a domestic food price shock**

### Policy responses

Policy responses follow three lines of action: they can use policy instruments to reduce consumer prices, they can set up safety nets to provide access to cheap food to the targeted poor, and they can 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).

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

Source: World Bank, Global Food Crisis Response Program, as of September 2008

**Table 3. Global food crisis response program in low and lower middle-income countries**

***(1) Price policy to reduce consumer prices***

Vulnerable countries are net importers. Policy instruments for them to manipulate domestic food prices consist in reducing import tariffs and in introducing food price subsidies. These instruments are basically ineffective, the first because remaining tariffs, after years of pressure to liberalize trade, are very low; the second because they do not have the fiscal resources 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% of the participating countries receive this type of assistance. This is important to help governments maintain their expenditure programs. However, it can only make a marginal contribution to the impact of the food crisis on the poor via lower prices for the 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. This is usually missing in the low-income vulnerable countries. In these countries, safety net programs are implementable mainly in the urban environment or for children through the school, 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% 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 shock on children. At the same time, they are not reaching the majority of the poor, especially those who are rural and 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 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 putting into place 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. It consists in two types of responses: (1) short run “next-harvest” responses that aim at reducing the gap in land productivity for smallholders who depend importantly on home production for family consumption, and (2) medium run responses that restore the role of agriculture for 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 learning how to do it more effectively than it has been done 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 poor losing from the food crisis, smallholders represent as much as 82% of the total in India and 57% in Guatemala. These are smallholder farmers who have access to land, yet must buy on the market the shortfall in production relative to consumption. They lose from rising food prices, but have the capacity of responding 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% 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 at reducing 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 to the private agro-dealer sector. It would complement access to these inputs by technical assistance provided by 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 insure 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 looked at 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 a solution to both 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 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, precipitating in part the current food crisis. The share of agriculture in public expenditures in most Sub-Saharan Africa countries is of the order of 4% compared to the 10% NEPAD objective. Overseas Development Assistance going to agriculture has fallen from 12% in 1990 to some 4% today, in spite of a non-declining 75% 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 non-farm economy. Important for this, is 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 non-recurrent. 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 need to be made on four fronts:

- (1) Increase the 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 levels.
- (4) Mobilize political support to elevate agriculture in government and donor priorities.

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