

# Managing the Food Price Crisis in South Asia<sup>1</sup>

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## 1. INTRODUCTION

**A**fter a sustained period in which a relatively benign global environment has contributed to strong growth in poverty reduction in many developing countries, the situation changed dramatically in 2008. Through the first half of the year, the oil and food price crisis hit developing countries and the world's poor hard. Adding to this crisis are the direct and indirect impacts of the global financial crisis and the resultant global economic recession in major industrial economies. Both oil and food prices have now come down from the peaks seen in the first half of the year. As of October 2008, oil prices in particular were less than half the peak reached in July 2008, when the price hit US\$147 per barrel, although the market remains highly volatile. In the case of food prices, despite the recent easing, the expectation is that prices will remain high over the medium to long term.

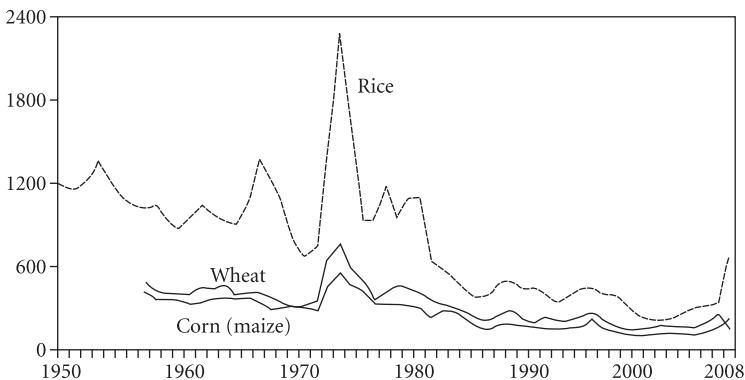
Although all three crises are linked, this chapter focuses on the food crisis in South Asia and its impact and long-term implications for the countries and the region. The chapter includes a review of the main causes of the recent food price increases, which while now relatively well documented, still need to be understood properly if countries are to determine

the appropriate response or set of responses to the crisis. It also reviews the role and scope for regional cooperation in dealing with the crisis, particularly in light of the Colombo Statement on Food Security, which was agreed on at the 15th South Asian Association for Regional Cooperation (SAARC) Summit held in Colombo in August 2008.

## 2. BACKGROUND AND NATURE OF THE CRISIS

According to the United Nations Food and Agriculture Organization, “during the first three months of 2008, international nominal prices of all major food commodities reached their highest levels in nearly 50 years [Figure 9.1], while prices in real terms were the highest in nearly 30 years” (FAO 2008a, 2). Before the latest increase, the real price of food had been on a downward trend since 1950, although the trend started to reverse in 2000.<sup>2</sup> A sharp upturn began in mid-2007 and continued through the early part of 2008. Prices of rice and wheat in the international markets rose by 165 percent and 89 percent, respectively, between April 2007 and April 2008. Prices of cereals and some other food commodities like oils, fats, and sugar have eased since April–May 2008. Production prospects for grains in 2008 are good and could reach record levels, in part because

**FIGURE 9.1** Long-run Movements in Real Prices of World Grains (US\$ per metric ton)



**Source** Extracted from Timmer 2008, 2.

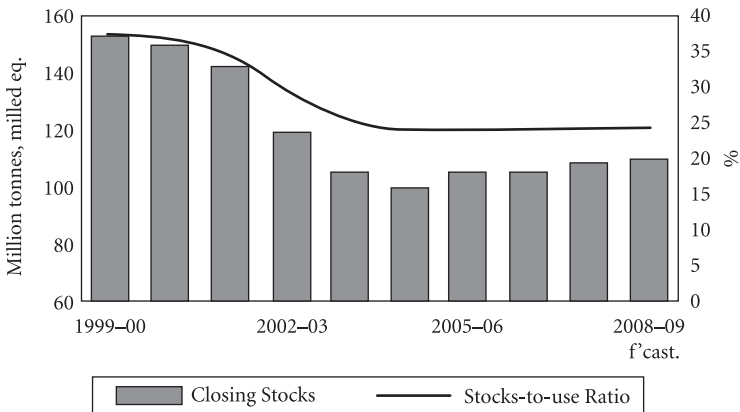
**Note** 2008 represents data for the first five months. Prices were deflated by the U.S. consumer price index, with 2007 prices as the base.

of the supply response to high prices. However, it is generally accepted that food prices are likely to remain high over the medium to long term, albeit below their recent peaks, reflecting the fact that structural as well as more short-term cyclical factors have played a significant part in the current crisis.

## 2.1 Cyclical Factors

A number of cyclical, short-term factors contributed to the food price crisis. Natural calamities in parts of South Asia (twin floods and cyclone in Bangladesh, drought in Afghanistan, and floods in Pakistan and Sri Lanka) reduced harvests, particularly for rice. According to an Asian Development Bank (ADB) paper, “These declines in rice production took place against a backdrop of declining global rice stocks [Figure 9.2] ... ironically a response to sharply declining prices in the early 1990s” (Timmer 2008, 5). Given that only about 6 to 7 percent of total world rice production enters world trade, the impact of even relatively small changes in production on world prices is magnified. In addition, stockpiles of other major cereals had been falling (FAO 2008a, 5). The ADB also reported that “[d]eclining stocks, along with the instability of the global financial markets, helped to trigger the initial round of speculative demand in recent years as part of the wider commodity boom” (ADB 2008g, 6). The steep decline of the US dollar against all major currencies in 2007–08, also contributed to

FIGURE 9.2 Global Rice Closing Stocks and Stock-to-use Ratio



Source <http://www.fao.org/docrep/o11/ai474e/ai474e05.htm>(accessed in August 2008).

an increase in the prices of commodities, most of which are denominated in US dollars.

Once prices began to rise, a number of factors added to pressure on supplies and prices. Hoarding by farmers, households, and traders is an inevitable response to rapidly rising prices and shortages. As prices began to rise through 2007, efforts by public food grain agencies to replenish stocks were another significant factor in what has been termed an explosion of “precautionary” demand. These efforts further contributed to upward price pressures in the global markets, especially in the case of rice, given the limited quantities traded on world markets (Timmer 2008, 17). Export restrictions, price controls, and subsequently outright export bans imposed by some key countries (for example, People’s Republic of China (PRC), India, Pakistan, Thailand, and Vietnam) also reduced supplies in the world rice markets and increased uncertainty about future rice supplies, contributing significantly to the surge in rice prices, especially from the end of 2007.<sup>3</sup> Finally, “a lack of efficient logistics systems and infrastructure for food grain marketing and distribution in several countries tightened the market further as experienced by Afghanistan, Bangladesh, Nepal, Philippines, and Tajikistan” (ADB 2008g, 7).

## 2.2 Structural Factors

Apart from the cyclical factors noted above, a number of longer term structural factors contributed significantly to the recent crisis. Given the growing energy intensity of agriculture, including smallholder agriculture, rapidly rising oil prices through 2007–08 soon fed through to production costs, with sharp rises in domestic energy, fertilizer, irrigation, and transport costs, despite the continuation of large subsidies in many countries. This highlights the close links between the twin crises of high oil and food prices (ADB 2008g).

Even before the recent large increases, concerns over rising oil prices, energy security, and climate change had prompted governments to take a more proactive stance toward encouraging production and the use of biofuels, with both the United States and European Union mandating targets for the increased use of biofuels. This led to increased demand for biofuel raw materials, particularly soy, maize, and palm oil. As an example, “almost all of the increase in global maize production from 2004 to 2007 (the period when grain prices rose sharply) went for biofuels production in the U.S., while existing stocks were depleted by an increase in global consumption for other uses” (World Bank 2008b, 1). With some

authoritative sources estimating that it accounted for as much as 30 percent of the price increases through 2007–08, the diversion of food crops and substitution of food cropland to biofuel feedstocks remains one of the more controversial and hotly debated elements in the food price crisis (Rosegrant 2008).

The rapid rates of urbanization and industrialization have both led to the conversion of land from agriculture. With this conversion has come a growing competition for water. “An ADB study shows that the water available for agriculture has declined sharply over the past several decades, particularly in Asia. Water scarcity will be increasingly challenging for PRC and India, where irrigation water consumption as a share of total consumption is projected to decrease by 5–10% by 2050 compared with 2000” (ADB and IFPRI 2008, 8).

Rising incomes, linked to growing urbanization and industrialization, as well as rising rural incomes in countries such as PRC and India have been a significant factor driving increased food demand. The demand for food grain consumption of poor and low-income quintiles of the population increases more than the growth of incomes. Food grain demand also has increased dramatically because of the high-income elasticity of demand for meat and animal-based products in Asia. Meat prices have doubled since 2000 and butter and milk prices have tripled. India consumed 20 percent more meat, fish, and eggs in 2007 than in 1990 (ADB 2008g, 9). This trend is projected to continue once the global economy comes through its current turmoil and downturn.

While demand has been rising sharply, productivity levels, especially for rice, have stagnated. The growth in demand for rice in Asia has been well below the rate of population growth since the 1990s. An important factor accounting for the slowdown in yield growth and the poor agriculture sector performance is reduced public investment in agriculture. In Asia, agriculture spending as a share of total spending almost halved between 1980 and 2002 (OPM 2008, 1). Productivity growth in agriculture has been constrained by the pace of development of high-yielding and pest-resistant varieties. National, regional, and international agricultural research institutions have lacked the resources needed to carry out basic research for varietal development, follow-up adaptive research, and technology dissemination under diverse agro-ecological conditions.

Policy inadequacies and weak institutions have undermined the incentives for agricultural production. Interventions such as food grain support prices, input subsidies, and involvement of public agencies in food grain imports, marketing, and distribution lead to distortions and tend to

be ineffective over the medium term and inhibit supply increases. Subsidies on food crops in 2008 amounted to US\$1 billion in Bangladesh and US\$16 billion in India (ADB 2008g, 8). Such subsidies have contributed to the wasteful use of water resources, degradation of land, and imbalances in fertilizer use. As an example, the Indian states of Punjab, Haryana, and western Uttar Pradesh, the main success “stories” of the Green Revolution in India, are now suffering from severe soil degradation, groundwater depletion and contamination, and declining yields (ADB 2008g, 8–9).

Finally, with agriculture especially vulnerable to weather events and natural disasters, climate change and the resultant increase in storms, floods, changes in rainfall patterns, and rise in sea level all increase both the short- and long-term risks to agricultural output.

### 3. IMPACT OF THE CRISIS IN SOUTH ASIA

#### 3.1 Poverty Impact

The food price crisis has serious macroeconomic implications for South Asia, but it is the human dimension of the crisis that has been at the forefront of recent concerns.

Recent World Bank studies suggest that total world poverty has already increased by between 73 and 105 million people because of rising food and energy prices (Heads of Multilateral Development Banks Meeting Discussion Paper-MDBs Meeting 2008, 1). Given the large number of near poor in South Asia, we can assume that a significant proportion of these people are to be found in the region. Despite the fact that the number of people living in extreme poverty (an income of less than US\$1.25/day) in South Asia fell from 59.0 percent in 1981 to 40.0 percent in 2005 (World Bank 2008d), the region is still home to 500 million people, more than half of Asia’s poor. The human cost of the crisis thus has been particularly severe in South Asia.

Food price inflation is highly regressive. Food expenditure as a proportion of total household expenditure of the poor is as high as 75 percent in Afghanistan and India and 63 percent in Sri Lanka. In Bangladesh, rice comprises 71 percent of the calorie intake per person in rural areas and 60 percent in urban areas. Higher food prices led poor people to limit their food consumption and shift to less balanced diets, causing nutritional deprivation in Bangladesh” (SARD 2008, 2).

Although the sharp rise in food prices severely affects those who are already living below the poverty line, the fact that a large share of households in South Asia are concentrated at an income level only slightly above the poverty line, with as many as 1 billion South Asians living on less than US\$2 per day, means that many households have been pushed back into poverty by the food and energy price crisis. For example, “a 10% increase in food prices is estimated to increase the urban poor in India by 8 million. Other countries experiencing an increase in urban poverty of a million or more due to the impact of higher food prices include Bangladesh, Indonesia, and Pakistan” (ADB 2008d, 41). A simulation study carried out by the ADB using household data and national poverty lines suggest a “10% increase in food prices pushes an additional 7.05 million people into poverty in Pakistan, while a 20% rise doubles that figure” (ADB 2008c, 15).

The erosion in the poor’s purchasing power not only increases the severity of food deprivation and malnutrition but also squeezes out other expenditures, such as for clothing, schooling, and health care. The combined impact of the food and energy price crisis thus put at risk the chances of achieving the Millennium Development Goals (MDGs) by 2015. As a recent UN note on the food crisis stated, “Higher food prices have not only set back progress towards the reduction of poverty and hunger (MDG1), but will also make it more difficult to achieve the targets for education (MDG2), child and maternal mortality reduction (MDGs 4 and 5), and the spread of major diseases (MDG6)” (United Nations 2008c, 2).

That said that the impact of the food crisis on the poor is clearly not uniform. Poor households in urban areas, as well as small farmers and landless laborers who are net food purchasers, are the ones most seriously affected. Net producers in the rural areas can benefit from higher prices, although higher prices of inputs, including fuel and fertilizer, have certainly offset some of this benefit. The evidence of a strong supply response to higher prices also points to positive terms of trade effects to many rural inhabitants. Even so, available evidence suggests that more households have lost as a result of the food price increase than have gained (Young and Mittal 2008, 11).

All South Asian countries have been affected by the crisis, but it is the major net food and grain importing countries, namely Afghanistan, Bangladesh, and Nepal, that have been most seriously affected. In Afghanistan, the crisis hit when the country was already facing difficulties owing to a prolonged period of drought and the growth of poppy cultivation at the expense of food crops. Because Afghanistan’s wheat imports come

almost entirely from Pakistan, it was also hard hit by the imposition of Pakistan's export ban in May 2007. In January 2008, the government and the United Nations launched the Afghanistan Joint Emergency Appeal to provide a safety net for 425,000 vulnerable households (2.6 million people) who were placed at risk of food insecurity during the winter and during the first half of 2008. This appeal succeeded in bringing in 87,100 metric tons of food (81,200 metric tons of wheat, 3,100 metric tons of pulses, 2,500 metric tons of vegetable oil and 300 metric tons of iodized salt) to be distributed by the end of August 2008 (United Nations 2008a, 5). The government took several other steps to reduce the impact of food prices, including the removal of the import tax on both wheat and wheat flour and tax deductions for other staple items. The very high food prices have encouraged some farmers to move to legal crops, a process supported by the United Kingdom's Department for International Development (DfID 2008). Even with these supports, Afghanistan continues to face a fragile food situation as it moves into winter, and further extensive food aid will be needed.

In Bangladesh, too, the crisis hit against a backdrop of natural calamity, with the country losing about 2 million metric tons of rice (7.3 percent of domestic production) to the twin floods of July–August and the cyclone of November 2007 (World Bank 2008a). To offset the shortfall, Bangladesh imported rice from India until this avenue was closed with the imposition of India's ban on rice exports (except basmati rice) in February 2008, which aggravated the rice shortages in Bangladesh and increased inflationary pressure on rice prices.

Bangladesh has benefited from considerable emergency assistance, including from the ADB, World Bank, and U.S. Agency for International Development, mainly aimed at providing relief and strengthening social safety nets with support targeted at the poor through food for work and school feeding programs. As an example, the ADB's emergency loan, amounting to US\$170 million, approved in July 2008, provided "short-term transitional support to help the government meet increased expenditures for its safety net programmes to enable it to restore the purchasing power of the poor and vulnerable who are at a greater risk of hunger and malnutrition by enhancing their access to food, livelihood support and employment" (ADB 2008f, iv). In Bangladesh, where 25 percent of the population is extremely poor, roughly 7 percent of the population has access to social protection or safety net programs.

In Nepal, where 80 percent of all households are net food purchasers, some 3.9 million people are estimated to be at risk of food insecurity.

According to the United Nations World Food Programme (WFP), “While India’s export ban did have some impact on Nepal, the existence of a large informal trade between India and Nepal along its porous border limited the upward pressure on prices” (WFP and NDRI 2008, 12). In October 2008, the World Bank approved a US\$36 million Nepal Food Price Crisis Response Program, which financed activities to mitigate both the short-term and medium- to long-term impact of rising food prices in Nepal. The program included support for (a) the implementation of social safety net measures to maintain access to basic needs (mainly food) among vulnerable households in food insecure districts and (b) agricultural productivity activities to expedite a supply response through the implementation of measures to raise the yields and consequently the production of staples.

India and Pakistan, as grain exporters, were better placed to face the food price crisis and resorted to export bans to alleviate pressure on domestic prices. They introduced measures to reduce pressure on prices, including the reduction in import duties, and took measures to strengthen social safety nets and social protections to help the most vulnerable members of their populations.

## 3.2 Macroeconomic Impact

The food price crisis, coinciding with and in part linked to the oil price crisis, has had significant macroeconomic impacts, most notably on inflation, public finances, and balance of payments. This crisis presented a major challenge to short-term macroeconomic management even before the more recent turmoil in the global economy.

### 3.2.1 Inflation

Given the large weight of food prices in the consumer price index basket,<sup>4</sup> the pass-through effects of food price inflation are high, with food price inflation becoming a significant driver of inflation (Table 9.1). The upward trend in inflation has continued since the first quarter of 2008. Inflation in India was more than 11 percent by the end of September, while in Pakistan it rose sharply to reach 23.9 percent in the same month. In Sri Lanka, the inflation rate reached 26.2 percent in July, although it decelerated to 24.3 percent by the end of September 2008.

The risks of an oil, food, and wage price spiral have lessened somewhat with the recent sharp downturn in oil and food prices. However, in countries like Sri Lanka—where wages in the public sector are indexed to

TABLE 9.1 Inflation Rate versus Food Price Inflation, March 2008

<i>South Asian country</i>	<i>Inflation rate (%)</i>	<i>Food price inflation (%)</i>
Afghanistan	13.0	32.0
Bangladesh	10.1	11.8
Bhutan	6.0	9.0
India	7.7	6.1
Maldives	13.0	26.0
Nepal	7.2	13.0
Pakistan	12.0	32.0
Sri Lanka	23.8	34.0
<b>Average for South Asia</b>	<b>11.6</b>	<b>20.5</b>

**Source** ADB unpublished country reports.

the Consumer Price Index and private sector wage board salaries increased by 15 to 35 percent in July 2008 (Employees Federation Committee, Sri Lanka) in part due to political pressure—the pass-through effects have been particularly strong. In such countries, it will take longer to rein in inflation.

To contain inflationary pressures, most countries in the region had correctly been tightening monetary policy. India and Pakistan lifted policy rates and cash-reserve ratios, and Sri Lanka raised the yield on government securities. For example, the Reserve Bank of India raised its repo rate by 50 basis points to a 7-year high of 9 percent in July 2008. Bangladesh was something of an exception, keeping an accommodative policy to facilitate economic recovery from natural disasters in 2007.<sup>5</sup> The adoption of counter-inflationary policies has been complicated, at least in the short term, by the global credit crisis, its impact on the banking sector in at least some South Asian countries, and the prospects of recession in industrialized economies, which remain vital export markets for the region.

### 3.2.2 Fiscal Impact

The fiscal impacts of the crisis have come from the rising cost of relief and social protection, increases in the cost of fuel and fertilizer subsidies, and increases in the cost of grain procurement.<sup>6</sup> Short-term measures to ease prices rise, such as duty and tariff waivers or reductions, added to the fiscal pressures. While Bangladesh, India, Nepal, and Sri Lanka provided general relief by lowering domestic trade tax on petrol and removing customs duty on crude oil, in Bangladesh, this relief was combined with

increased spending through targeted subsidies on food grains for the poor and fertilizers for farmers. In Bangladesh, food subsidies are expected to double in its current fiscal year to well over US\$1.5 billion (Kuroda 2008, 2). To keep food prices under control, India increased procurement and raised its minimum support prices for both rice and wheat. According to a simulation study done by the International Food Policy Research Institute (IFPRI), 10 percent, 20 percent, and 30 percent increases in the procurement prices of rice and wheat would increase budgetary costs by 4 percent, 9 percent, and 13 percent, respectively, in India. Thus, the crisis has added to fiscal deficits at a time when a number of countries, notably India, Pakistan, and Sri Lanka, already faced large fiscal deficits (Table 9.2).

TABLE 9.2 Macroeconomic Performance in South Asia, 2007

Country	Percent of GDP			External reserves (months of imports cover)
	Fiscal surplus/ deficit	Current account balance	Debt	
Afghanistan	-2.9	-1.4	n.a.	4.9
Bangladesh	-3.2	1.4	44.9	3.3
Bhutan	-3.4	10.5	n.a.	n.a.
India	-5.5	-1.9	16.4	12.4
Maldives	-7.9	-45.0	n.a.	3.0 <sup>a</sup>
Nepal	-2.0	0.5	43.4	10.3
Pakistan	-5.8	-4.8	56.1 <sup>a</sup>	n.a.
Sri Lanka	-7.7	-4.3	85.8	3.7

**Source** ADB unpublished country reports.

**Notes** n.a. = not available.

<sup>a</sup> Estimated.

According to the South Asian Regional Department (SARD), “The tightening of fiscal space has brought with it the risk of crowding out other public investment. The failure to pass on the increased fuel prices to the consumers posed a financial risk, forcing cutbacks on development spending thereby eroding growth prospects in the future” (SARD 2008, 2).

### 3.2.3 The Impact on the Balance of Payments

For most countries in the region, the main impact on the balance of payments has come through increases in the cost of oil rather than food, although for the main grain importers, Afghanistan and Bangladesh, the increase in the cost of food imports was also significant. India imports

about 73 percent of its oil requirements, while Afghanistan and Sri Lanka are 100 percent dependent on oil imports. Sri Lanka saw its crude oil import bill increasing from US\$75.52 million in August 2007 to US\$253.39 million in August 2008, an increase of 235.5 percent, before the recent sharp decline in oil prices brought relief. The adverse impact of the increased cost of both oil and food imports on the current account balance was partly offset by the strong inflow of foreign remittances, particularly in Bangladesh, Nepal, and Sri Lanka. Even so, the International Monetary Fund (IMF) provided US\$218 million in emergency assistance to Bangladesh in April 2008 for balance-of-payments support to reduce pressure on foreign exchange reserves. By contrast, India, with more than 12 months of import cover, was in a relatively strong position to handle pressures on the external account (Table 9.2). Pakistan's ban on wheat exports from May 2007 and the export ban on non-basmati rice by India in February 2007 resulted in forgone export revenues. Because food prices are expected to remain high over the medium to long term, both countries stand to benefit once normal trading patterns are established.<sup>7</sup>

### 3.2.4 Macroeconomic Policy Priorities in Managing the Crisis

The current turmoil in global financial markets and the severe economic recession in industrialized economies add to the challenges of macroeconomic management at least in the short to medium term. The growth rate in South Asia declined in 2008 and it is expected to decline further in 2009 (ADB 2008a, 4). Inflation is expected to remain high at least in the short term, however, highlighting the need to continue corrective policy measures to rein in inflation and reduce fiscal imbalances, while at the same time providing targeted support to more vulnerable groups.

## 4. THE LONG-TERM RESPONSE TO THE CRISIS: REVITALIZING AGRICULTURE AND THE RURAL SECTOR

While governments continue to struggle with the immediate effects of the food crisis, it is widely accepted that a key element in the long-term solution to high food prices lies in the revitalization of agriculture and the rural sector, thereby addressing many of the structural issues that have contributed to the food crisis. To transform the crisis into an opportunity

for farmers and build resilience to future food crises, a transition to viable long-term investments in support of sustained agricultural growth is urgently needed. As the Indian Prime Minister, Manmohan Singh, has stated, what is needed is a second Green Revolution that boosts production by raising productivity (Singh 2008).

Unlike the first Green Revolution of the 1960s and 1970s, which apart from high-yielding hybrid seeds and inorganic fertilizer, also relied heavily on irrigation, a second Green Revolution will require new elements, because inorganic fertilizers that use oil as a feedstock are increasingly costly and water resources are becoming scarce or difficult to develop.<sup>8</sup> Biotechnology or genetically modified crops are likely to play an important role, thus raising the need to share research and new technologies.

Productivity growth in agriculture will require a significant increase in investment in adaptive research and dissemination. The capacity of public sector institutions engaged in agriculture research and technology dissemination in most Asian countries has weakened over the years, in line with the general neglect of the agriculture sector. While rebuilding their capacity is important, policies to attract private investment and participation of civil society institutions will be important as well.

Investments for sustained agricultural growth include expanded public spending for rural infrastructure, agro services, agricultural research, and science and technology. Improvements in connectivity to the markets will help lower production and marketing costs, reduce waste of inputs and produce, and improve returns to agriculture. Therefore, investments in rehabilitation, maintenance, and development of existing and new farm-to-market roads need to be a priority area for public sector intervention. Improvement in postharvest handling and processing capacity would enhance food security by limiting waste, and would increase income, supply, and employment. New and innovative crop insurance mechanisms should be introduced and tested at a larger scale. Information technology, improved weather data, and the expected high returns to insurance make innovation in this field much more feasible. Furthermore, the role of telecommunications and information communication technology in improving market connectivity can make an important contribution, as the Grameen Phone Program has shown in rural Bangladesh.

Stronger links between smallholder agriculture and agribusiness companies should be further developed to enable farmers to benefit from changing patterns of consumption and retailing. Access to credit is another critical requirement, especially for small farmers; financial institutions, including microfinance institutions, need to expand operations rapidly

to improve access of farmers and the rural poor to credit (United Nations 2008b, 29).

Investments in agriculture still may not generate the envisaged returns unless reforms, pricing, trade reforms, and other policies accompany these investments. Since the mid- to late 1990s, most Asian countries have initiated reforms aimed at removing distortions arising from interventionist price and trade policies; however, progress has been mixed and most countries have faltered on the reforms. As a result, farmers in most Asian countries still make their production decisions based on distorted prices and are unable to benefit from the higher prices in international markets. The distortions need to be corrected and divergence between economic and financial returns narrowed. Otherwise, farmers will continue to operate suboptimally and return on investment will continue to be low in the sector (ADB 2008c, 13).

Because increased agriculture production is heavily dependent on the availability of rich soils, water resources, and catchment areas such as forests, an environmentally sustainable approach must be taken to avoid yet another food crisis resulting from the depletion of water sources, salination of soils and water tables, and permanent loss of biodiversity and ecosystem services. Removing distortions in input pricing, such as electricity for farmers and fertilizers, will help to ensure that environmentally sustainable practices are adopted. For example, conservation agriculture, as well as water and soil conservation, will be critical.

Considerable scope exists to redirect public expenditure from subsidies to more productive investment (for example, India), but the negative impacts of the food and energy crisis, coupled with weakening economic prospects, present formidable political constraints (Chand and Kumar 2004). While every effort needs to be made to rationalize public expenditure in agriculture, external assistance will have to play an important role in helping to revitalize agriculture.

As the following examples show, this revitalization is already happening. In Afghanistan, the World Bank recently approved an additional US\$28 million (to the original US\$65 million) for the Emergency Irrigation Rehabilitation Project in July 2008, while under the Global Food Crisis Response Program, an additional US\$8 million was approved for the National Solidarity Program to rehabilitate small-scale irrigation infrastructure in vulnerable communities.

In India, the ADB approved an initial loan of US\$75 million to enhance rural economic growth and reduce poverty in the existing irrigation systems within four northern river basins and along part of the Mahanadi

River Delta in Orissa. Additionally, the loan will be used to institutionalize effective mechanisms to implement agricultural growth based on participatory irrigation management. The outcome will be enhanced productivity, efficient water use, sustainability of irrigated agriculture, and improved performance of irrigation service delivery and water resources management (ADB 2008e). In Pakistan, the ADB also approved a loan worth US\$75 million (ADB 2008b) in March 2008 for a water resource project to (a) increase the sustainable water storage capacity; (b) develop sustainable rural water supplies and small-town domestic water entitlement; (c) develop efficient irrigation schemes with community-based management; (d) enhance dam planning, management, and implementation capacity; and (e) improve farmers' access to production support and market services.

## 5. REGIONAL COOPERATION AS A RESPONSE TO THE FOOD CRISIS

Donor assistance will have to play a key role in supporting the long-term response to the food crisis, but the crisis has highlighted both the need and scope for greater regional cooperation, not least within the framework of SAARC of which all eight South Asian nations are now members. Low agricultural productivity and poor infrastructure connectivity are common problems. Many of these countries have similar agro-ecological zones, which in some cases cut across national boundaries. These countries face many of the same challenges in ensuring food security, especially for the urban poor, and can benefit from sharing experience and knowledge (FAO 2008b, 27).

The food price crisis was one of the key issues addressed at the 15th SAARC Summit held in Colombo in August 2008. In the Colombo Statement on Food Security (Ministry of Foreign Affairs, Sri Lanka 2008), SAARC members agreed "to ensure region-wide food security and make South Asia, once again the granary of the world ... to evolve and implement a people-centered short to medium regional strategy and collaborative projects that would lead to:

- Increase food production.
- Investment in agriculture and agro-based industries.
- Agriculture research and prevention of soil degradation.

- Development and sharing of agricultural technologies.
- Sharing of best practices in procurement and distribution.
- Management of climatic and disease related risks in agriculture.

The members agreed to draw up a SAARC Agriculture Perspective Plan for 2020 and to pursue greater cooperation with the international community to ensure food availability and nutrition security in South Asia. Finally, they agreed to make the SAARC Food Bank operational.

With the exception of the Food Bank, these efforts address the long-term structural issues and the need to revitalize agriculture. The fact that the management of climatic risks is mentioned is especially important because this is an area where transboundary cooperation will be critical, although to be effective, this cooperation will need to encompass the sensitive issue of water resource management. The Extraordinary Meeting of Agriculture Ministers of the SAARC that took place in early November 2008 in New Delhi adopted the SAARC Declaration on Food Security. This Meeting also covered areas such as climate change, integrated nutrient management, biotechnology and bio resource management, and development of a harmonized network for safe movement of agriculture commodities. (South Asia Watch on Trade, Economics and Environment 2009, 38). While food security is a central issue, it will also be important to examine carefully the costs and benefits of different approaches to food security. As experience during the first Green Revolution showed, achieving 100 percent self-sufficiency in basic grains can be extremely costly. In addition, while recent prices rises have made food crops attractive to farmers, the low income elasticity of demand for basic staples means that, in time, these prices will again decline relative to those of other agricultural commodities. Forcing farmers to grow basic staples to meet national food security objectives may run counter to efforts to boost incomes and reduce poverty and thus meet resistance.

In contrast to the other actions listed in the Colombo Statement, the SAARC Food Bank is a short-term response measure designed to help countries weather periods of food shortage. Originally proposed at the 14th SAARC Summit held in New Delhi, the Food Bank would provide supplies in addition to country strategic reserves (SACEPS 2008). The Secretariat for the Food Bank will be housed in Bangladesh, although stocks would be held around the region, with contributions from each country according to the size of its population. The Food Bank will commence with an initial reserve of around 240,000 tons of food grains. The first meeting of the

Board of the Food Bank was held in Colombo in October 2008, at which time guidelines for the determination of prices, terms, and conditions of payment were discussed. As with all buffer stocks, determining the “right” size and balancing the costs and benefits will be challenging. Given the importance of maintaining the quality of seeds and encouraging farmers to use new varieties, a SAARC Seed Bank would be a useful complement to the proposed Food Bank.

Although not specifically mentioned in the Colombo Declaration, continued progress toward the implementation of the South Asian Free Trade Agreement (SAFTA) and closer trade and market integration could mitigate such crises in the future. In this regard, avoiding the imposition of export bans and price controls is clearly desirable.

## 6. ROLE OF INTERNATIONAL COOPERATION

Development partners have responded to the food crisis by providing emergency assistance to the countries most affected, including those in South Asia. Much of this assistance has been aimed at strengthening social safety nets to protect the poor. The IMF has indicated that it stands ready to provide rapid financial support to address the balance-of-payments needs of countries hit by food and other commodity shocks. In addition, development partners have begun to provide assistance to support agriculture and rural development, and this can be expected to expand significantly because of the renewed attention and priority accorded to agriculture and the rural sector. Ensuring that small farmers, landless laborers, and lagging regions benefit from such assistance will be essential to ensuring that targets for poverty reduction get back on track, even if at times this may conflict with efforts to maximize production gains.

International assistance to global public goods, especially agricultural research and development, will be necessary to complement and support efforts at the country level. Again, this assistance will need to pay particular attention to the needs of poorer groups and regions by focusing on the following:

- “Orphaned” crops relatively neglected by the research and extension efforts that fostered the Green Revolution (for example, sweet sorghum is a food, feed, and fuel source important for parts of Africa that could benefit from genetic improvement).

- Crop varieties suited to harsh growing conditions and adapted to the changing conditions being experienced or expected in countries affected by climate change (for example, tolerance of water stress, temperature stress, excessive rainfall and flooding, and so on).
- Improved crop varieties that require fewer chemical inputs (for example, pest-resistant varieties, varieties requiring limited fossil-fuel-based fertilizers).
- Agricultural techniques that achieve sustainably high yields with minimal adverse or even positive environmental impacts.
- Second-generation biofuels, obtained from plant residues and animal wastes, that can reduce land-use change and avoid some of the emissions associated with certain current biofuel programs (United Nations 2008c).

More generally, research on biofuels versus food trade-offs and climate change is needed so that policies to promote biofuels are consistent with the goals of agricultural development, food security, and environmental sustainability.

Climate change is another area in which international cooperation will be needed to address its underlying causes and to help countries and regions reduce carbon emissions and cope with the consequences of climate change and the costs of risk mitigation. Although uncertainties remain, there is a growing consensus that agricultural production globally is likely to be reduced by climate change, with developing countries experiencing the greatest production losses and increased food insecurity (Braun 2008, 3; Lobell and Field 2007, 6; Rosenzweig et al. 2001, 102).

The issue of climate change is particularly important to South Asia. Himalayan glaciers are among the fastest retreating glaciers globally as a result of global warming. The Himalayan glaciers feed into seven of Asia's greatest rivers (the Ganges, Indus, Brahmaputra, Salween, Mekong, Yangtze, and Huang He), ensuring a year-round water supply to hundreds of millions of people in the Indian subcontinent and PRC. As glacier water flows dwindle, not only is irrigation and agricultural production reduced, but the potential economic and environmental benefits from hydropower are also threatened (WWF 2005).

As Braun (2008) has stressed, the viable mitigation strategies for dealing with climate change in the agricultural sector in the developing world face a range of constraints. Such strategies cannot be expected to make a significant difference in the short to medium term. Thus, climate change adaptation has become an imperative (Braun 2008). As Braun has

noted, many adaptation strategies are extensions of good development policy, including (a) promoting growth and diversification; (b) investing in research and development, education, and health; (c) creating markets in water and environmental services; (d) improving the international trade system; (e) enhancing resilience to disasters and improving disaster management; and (f) promoting risk-sharing, including social safety nets and weather insurance (Braun 2008). As he further stresses, however, effective adaptation strategies must go beyond good development policy to explicitly target the impacts of climate change, particularly on the poor (Braun 2008).

Finally, Braun notes that improvements in the international trade system and efforts to reduce trade distortions, especially in agricultural commodities, are needed to help developing countries and their farmers benefit from international trade. Despite the recent setbacks in the Doha Round and the many sensitivities that surround trade liberalization, this is an area in which greater international and regional cooperation is required.

## 7. CONCLUSION

A unique combination of both cyclical and structural factors led to the recent dramatic increase in food prices and particularly to the peaks experienced in the early part of 2008. Prices have now been easing for some months. Because of the supply response to higher prices and efforts by governments to rebuild stocks (to minimize the risk and social, economic, and political costs of a similar shock in the future), a combination of bumper crops should help bring greater stability to global food markets. Given a number of structural factors involved in the upward trend in food prices, however, real food prices are expected to remain above their pre-2007 levels at least until 2015.

Although more definitive research is needed, it is undeniable that the food price crisis, along with the oil price crisis, has imposed major hardship on poor and vulnerable groups in South Asia (and other developing countries and regions). Measures taken by governments, both on their own and with extensive emergency help from development partners, have gone a long way to alleviate the adverse impact of the crisis on the most vulnerable groups. That said, the food situation in Afghanistan remains fragile and further emergency assistance should be a priority.

On the macroeconomic side, the adoption of policies to rein in inflation, coupled with the easing of global prices, especially of oil, are reducing the macroeconomic risks. The effects of the food and oil price crisis is now being overshadowed by the effect of the turmoil in global financial markets and the resultant global economic recession in industrialized economies, thereby presenting the governments in the region with new macroeconomic challenges.

This new crisis should not, however, be allowed to divert attention from the need for an effective long-term response to the food price crisis. A key component of this response should include efforts to revitalize development of the agricultural and rural sector. This development calls for a reprioritization and rationalization of government investment in the sector as well as expanded support from development partners. In providing renewed support to agriculture and rural development, the focus should be not only on efforts to boost food production, but also on the most effective means to increase incomes and build secure livelihoods for farmers and the nonfarm rural population.

Regional cooperation could play an important role in the long-term response to the crisis and in helping to mitigate future shocks. The elements included in the Colombo Statement on Food Security represent a good beginning. If the region is to come up with a truly effective long-term response to the crisis, however, regional cooperation must go beyond the Colombo Statement to encompass more directly trade, water management, and climate change issues.

Finally, a long-term solution to the food crisis calls for enhanced international cooperation. Enhanced external assistance, especially to support development in the agriculture and rural sectors, is one priority. Cooperation on climate change and its impact also will be essential, and should include the development and implementation of adaption strategies, as well as efforts to reduce international trade distortions, not least in agricultural commodities.

## NOTES

1. The views expressed in this chapter are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank or its Board of Governors or the Governments they represent.
2. The main exception to this downward trend was the period 1973–74, the time of the previous world food crisis, when prices in real terms rose well above even the peaks recorded in 2008 (Timmer 2008, 1).

3. Policy options, such as export restrictions and minimum export prices, intended to protect domestic consumers reduce incentives to producers and increase uncertainty thereby weakening the supply response.
4. Weight of food in the consumer price index basket: Bangladesh, 58.8 percent, Bhutan, 32 percent, India, 15.4 percent, Nepal, 53 percent, and Sri Lanka, 46.7 percent (SARD 2008).
5. Countries with currency pegs, including Bhutan, Maldives, and Nepal, however, have less room for active use of monetary policy to address increasing inflation pressures (ADB 2008a, 125).
6. Sri Lanka removed fuel subsidies in 2007.
7. There is some expectation in the market that India will lift its ban soon.
8. Some farmers in Tamil Nadu, southern state of India, are using less water and fewer seeds to grow more rice (World Bank Web site, October 2008).

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