

# **SAFEGUARDING** FOOD SECURITY IN VOLATILE **GLOBAL MARKETS**



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# Safeguarding food security in volatile global markets

Edited by Adam Prakash

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# Country responses to turmoil in global food markets: The nature and preliminary implications of the policies pursued in the 2006-08 episode<sup>1</sup>

Mulat Demeke, Guendalina Pangrazio and Materne Maetz<sup>2</sup>

The downward trend in real food prices for the past 25 years came to an abrupt end when world prices began rising in 2006 and escalated into a surge of price inflation in 2007 and 2008. Prices of staple foods such as rice and vegetable oil doubled between January and May 2008. The upturn coincided with record petroleum and fertilizer prices. For low-income and highly import-dependent countries, higher food prices and larger import bills have become a major challenge, particularly for those with limited foreign exchange availability and high vulnerability to food insecurity (Rosen & Shapouri, 2008).

High food prices, in combination with high and volatile petroleum prices, have the potential of spurring inflationary pressures, competing for public expenditures intended for alleviating poverty or meeting Millennium Development Goal (MDG) targets and fuelling political unrest. Poorer households with a larger share of food in their total expenditures are suffering the most from high food prices, owing to the erosion of purchasing power, which has a negative impact on food security, nutrition and access to school and health services.

Policies responding to rising food prices have included a series of short-term, immediate measures. These can be grouped into three main areas:

- ▶ Trade-oriented policy responses that use policy instruments such as reducing tariffs and restricting exports to reduce prices and/or increase domestic supply;
- ▶ Consumer-oriented policy responses that provide direct support to consumers and vulnerable groups in the form of food subsidies, social safety nets, tax reductions and price controls; and
- ▶ Producer-oriented policy responses intended to support farmers to increase production, using measures such as input subsidies and producer price supports.

The objective of this chapter is to examine the short-term measures that were adopted by some 81 countries in Asia, Africa and Latin America and the Caribbean (LAC) during the 2006-08 episode and to assess their implications for food security and poverty alleviation. The analysis is based on data from weekly reports filed by FAO Representatives in Member countries, assessment reports conducted by the FAO in collaboration with other agencies

<sup>1</sup> This chapter is based on FAO (2009).

<sup>2</sup> Agricultural Policy Support Service (FAO).

such as the World Food Programme (WFP), World Bank and the International Fund for Agricultural Development (IFAD), reviews and notes prepared by national or international agencies, as well as press reports.

## Market and trade policy measures to reduce prices for consumers

Based on information obtained from 81 countries, the two most widely applied market and trade policy measures were reducing tariffs or custom fees, as reported by 43 countries, and selling grain from public stocks or from imports, as reported by 35 countries (see Table 10.2). Reducing tariffs was among the easiest measures to implement. Countries with reserve stocks have been able to respond more quickly and cheaply than those with limited or no reserves. Some 23 countries suspended or reduced value-added tax (VAT) and other taxes, while 25 countries restricted or banned exports. Price controls were reported in 21 countries, with ten of these in Africa. A number of countries applied two, three or even four different market and trade measures to bring down domestic prices. The manner in which the different market and trade measures were applied varied from country to country, as discussed below.

### *Releasing food stocks to the market*

Releasing public stocks and providing consumer subsidies were among the most common measures applied to contain the problem of rising food prices. Countries such as India, Ethiopia, Senegal, Cameroon, China (Mainland) and Pakistan released public stocks and offered targeted and untargeted subsidies for staple food. However, the degree to which prices were influenced on the open market depended on the amount of food stock released or made available for release onto that market.

National grain reserve systems and state grain trading companies, together with bumper harvests, helped China (Mainland) escape the steep increases in grain prices that hit other countries in the Asia-Pacific region. A record purchase of rice and wheat by the Food Corporation of India<sup>3</sup> (the Government's grain procurement and distribution agency) in 2008 created an opportunity for the Indian Government to release sufficient stock onto the market to stabilize prices. Owing to a good harvest, Malawi avoided cereal imports and even managed to export maize in 2008. Malawi has also a grain marketing parastatal that undertakes open market operations.

Some countries expanded imports to secure more stock and stabilize food prices. For instance, the Government of the Philippines, a middle-income country and the world's largest rice importer, increased its imports for 2008 to 2.4 million tonnes from 2.1 million in the previous year in a bid to ensure at least a 30-day stockpile until the end of the year.<sup>4</sup> The Saudi Arabian Government, one of the major importers of rice in the Middle East, proposed that rice importers consider raising their stocks of grain by 50 percent in 2008, which implied increasing strategic stock levels to cover between six and eight months of national consumption requirements (up from about four to five months' needs.<sup>5</sup> Japan and China (Mainland) were also reported to be holding very large stocks in excess of 18-20 percent of total consumption.

<sup>3</sup> A 38 percent surge (over the last year) in the Food Corporation of India (FCI) grain procurement - amounting to 50 million tonnes - was anticipated in 2008 (Modi, A, "FCI procurement of rice, wheat touches 50 MT", Business Standard, New Delhi, 10 September 2008).

<sup>4</sup> Philippine Daily Inquirer, "Government's hikes rice import quota to 2.4 million tonnes", 22 June, 2008.

<sup>5</sup> Gulfnews, "Riyadh asks traders to raise rice stocks", Gulfnews.com, 29 July, 2008.



Many poor food-deficit countries seemed to have imported much less than they actually needed (owing to a shortage of foreign exchange) and appealed for food aid or external support to bridge the balance. The Government of Mauritania, for instance, allocated a USD 3.2 million budget (equivalent to 4 500 tonnes) for the replenishment of its National Food Strategic Reserve (NFSR) in 2008, while WFP (Mauritania) looked for funds to finance 6 400 tonnes for its life-saving activities. The Government of Burkina Faso implemented subsidized sales of grain and hoped that resources would be made available to WFP to assist 600 000 beneficiaries (through school feeding and mother and child health centres) in 2008.<sup>6</sup>

The Ethiopian Government sold about 190 000 tonnes of wheat from its grain reserve to about 800 000 urban poor and imported 150 000 tonnes of wheat in August/September 2008 to meet demand in urban areas, while WFP and NGOs channelled about 197 629 tonnes of food<sup>7</sup> to the increasing number of people requiring food assistance.<sup>8</sup> Poor harvests, limited public stocks and a shortage of foreign exchange posed a major challenge to food security in many poor countries. Over the years, several African countries had scaled down or scrapped their grain reserve programmes as a result of liberalization and market reform measures.

### *Reducing tariffs and VAT*

A number of countries, including Bangladesh, Egypt, India, Indonesia, Mali, Mexico, Morocco, Pakistan, Peru, the Philippines, Senegal and Turkey, reduced or eliminated food tariffs or taxes. The impact of tariff reduction on food prices depends on the extent of the reduction, but tariffs in developing countries had been declining as a result of multilateral agreements, regional and bilateral trade pacts as well as from structural adjustment programmes (UNCTAD, 2008). While the decline in food prices as a result of tariff reduction had not been significant in many countries, the impact was substantial in several selected food items. For instance, Morocco cut tariffs on wheat imports from 130 to 2.5 percent, while Nigeria slashed duties on rice imports from 100 to 2.7 percent (ICTD, 2008). India removed a 36 percent import tariff on wheat flour and Indonesia eliminated duties on wheat and soybeans. Turkey cut import taxes on wheat to 8 percent from 130 and on barley to zero from 100 percent. Burkina Faso suspended import taxes on four food staples in February 2008 after riots over price increases.<sup>9</sup>

Several countries also suspended or reduced domestic taxes on food items. Brazil reduced taxes on wheat, wheat flour and bread.<sup>10</sup> Mongolia scrapped its VAT on (imported) wheat and flour.<sup>11</sup> The Republic of Congo reduced VAT levied on a range of basic imported foodstuffs and other goods from 18 to 5 percent in May 2008 (FAO Policy Database). In Madagascar, VAT was reduced on rice (from 20 to 5 percent), lighting/cooking fuel and possibly other primary necessity goods (FAO, 2008b). Kenya removed VAT (16 percent) on rice and bread (FAO Policy Database), while Ethiopia removed VAT and turnover taxes (15 percent) on food grains and flour (IMF, 2008a). These measures may have softened the price shocks but did not solve the problem.

<sup>6</sup> ReliefWeb, Rising food prices: Impact on the hungry, 14 March, 2008 <<http://www.reliefweb.int/rw/rwb.nsf/db900SID/ASAZ-7DLBNQ?OpenDocument>>.

<sup>7</sup> OCHA Ethiopia, Weekly Situation Report, Drought/Food Crisis in Ethiopia, 23 September, 2008.

<sup>8</sup> The government announced a revised estimate of people in need of humanitarian assistance from 4.6 million to 6.4 million. The revision necessitated additional resources.

<sup>9</sup> Business Day, "Food prices trump trade talks", 14 April, 2008 <<http://business.theage.com.au/business/food-prices-trump-trade-talks-20080414-25z7.html>>.

<sup>10</sup> Reuters (2008a), Brazil cuts wheat sector taxes to ease inflation, 15 May, 2008 <<http://uk.reuters.com/article/marketsNewsUS/idUKN1454178820080515>>.

<sup>11</sup> Business Day, "Food prices trump trade talks", 14 April, 2008 <<http://business.theage.com.au/business/food-prices-trump-trade-talks-20080414-25z7.html>>.



## Controlling prices

Some countries attempted to control prices and restrict private grain trade in order to keep prices low for consumers. Sri Lanka announced retail and wholesale prices of all varieties of rice (effective 16 April 2008): the Government fixed maximum retail and wholesale prices for different grades of rice.<sup>12</sup> Senegal released assorted grains to the market and announced price controls (FAO Policy Database). The Government of Malawi announced that all maize would be sold through the Agricultural Development and Marketing Corporation (ADMARC) and fixed the price at which ADMARC would buy and sell maize.<sup>13</sup> The Government of Côte d'Ivoire announced emergency measures to cut prices of food and basic services in April following protests against the rising cost of living.<sup>14</sup> Malaysia imposed ceiling prices on rice sold to consumers and raised the guaranteed minimum price for rice growers.<sup>15</sup> Some governments, including India, Pakistan, the Philippines (Box 10.1) and Thailand, also enacted harsh penalties for hoarding grain.

### Box 10.1: Anti-hoarding measures

The Philippines introduced an aggressive policy towards suspected price distortions: it created an Anti-Rice-Hoarding Task Force (ARTF) to seek out hoarders and punish them with life sentences for "economic sabotage" or "plunder" (IFDC, 2008). The ARTF handled proceedings on inquest, preliminary investigation and prosecution of all cases relating to unlawful acts or omissions inimical to the preservation and protection of the country's rice supply. Among the alleged violations were overpricing, unreasonable depletion of stocks, non-display and refusal to sell stocks to consumers.

The Ecuadorian Government set up a system of controls and monitoring of prices. Police checks were established in markets, supermarkets, district storehouses and shops. A campaign on enforcing the sanctions foreseen by consumer law was initiated: a fine of USD 100 to USD 1 000 and imprisonment for 6-24 months.

Enforcing price controls was costly and difficult in instances where there was no adequate public stock or imported supply to meet demand at government-fixed prices. Prices fixed at low levels were also likely to discourage domestic production and create a black market. Some governments thus opted for a partnership with the private sector to prevent price hikes. The Mexican Government, for instance, opted for public-private partnerships and announced a price freeze on 150 basic-basket food products until the year's end as part of a pact with the National Confederation of Chambers of Industry (Concamin). Food processors affiliated with the largest Mexican industrial trade groups agreed not to pass their rising production cost on to consumers. The agreement was intended to enable the Government to achieve price controls without direct economic intervention, such as through subsidies or ordering sanctions against manufacturers.<sup>16</sup>

The Government of Burkina Faso also negotiated with importers and wholesalers and announced indicative prices for some basic staple foods such as sugar, oil and rice. As a result

<sup>12</sup> Asian Tribune, "Sri Lanka imposes price control on retail and wholesale prices of rice", 17 April, 2008 <<http://www.asiantribune.com/?q=node/10614>>.

<sup>13</sup> IRIN, "Malawi: Cheer and concern over ban on private sale of maize", 28 August, 2008 <<http://www.irinnews.org/Report.aspx?ReportId=80052>>.

<sup>14</sup> IRIN, "Ivory Coast: Government curbs prices after second day of confrontations", April 4, 2008 <<http://www.irinnews.org/Report.aspx?ReportId=77558>>.

<sup>15</sup> China View, "Malaysia takes measures to keep price of rice down", 13 May, 2008 <[http://news.xinhuanet.com/english/2008-05/13/content\\_8158823.ase](http://news.xinhuanet.com/english/2008-05/13/content_8158823.ase)>.

<sup>16</sup> Los Angeles Times, "Mexico is freezing prices on scores of food staples", 19 June, 2008.

of an agreement between the government and the private sector, prices of rice and sugar in Jordan were printed on all packages to avoid retail mark-ups. The Jordanian Government also launched a consumer awareness campaign and began publishing price lists of selected basic commodities (UNRC, 2008). Such measures, while popular with the public, were likely to reduce private storage or marketing activities and reduce incentives for producers. It was also unclear how long the private sector could continue to avoid passing rising production costs onto consumers. The experience of Pakistan is presented in Box 10.2.

#### Box 10.2: Administrative measures to control prices in Pakistan

To keep prices low during the procurement period (April-June) and to avoid wheat hoarding and smuggling, the Provincial Government of Punjab implemented administrative measures limiting the flow of wheat to other provinces. The measures included: i) enforcement of regulatory mechanisms to limit the inter-district and inter-provincial movement of wheat; ii) restriction on flour mills to stock wheat in excess of the one month requirement; and iii) provision of wheat flour rather than wheat grain to other provinces and to Afghanistan.

Source: High food prices in Pakistan, UN Inter-Agency Assessment Mission, July 2008.

### *Restricting exports*

Major cereal exporters imposed restrictions in the wake of food price inflation. Argentina, Cambodia, China (Mainland), Egypt, India, Kazakhstan, Pakistan, Russian Federation, Ukraine and Viet Nam restricted food exports in an attempt to shore up domestic supplies. Unfortunately, world prices escalated as a result of the restrictions. The impact on the thinly traded rice market was particularly dramatic (see Figure 9.2 in Chapter 9). It was also claimed that export bans or restrictions created serious beggar-thy-neighbour effects owing to price volatility and shortages, particularly when they were applied by major exporters (World Bank, 2008a).

Although high grain prices brought more foreign exchange to exporters, reconciling export earnings with high food prices at home became a major policy dilemma. Argentina, one of the major exporters of food in the world, was faced with the difficult task of protecting its citizens from high prices without affecting its earnings from food exports. In March 2008, the Government announced the third tax hike in six months on exports of soybeans and other products as part of an overall strategy that aimed to keep local prices low and generate revenue that would allow the Government to redistribute the agricultural sector's disproportionate wealth to the people most vulnerable to price hikes. The Government was worried because food inflation had begun to affect the population. But farmers considered the government measure as stifling and their long and protracted protest resulted in the lifting of the tax in July.<sup>17</sup>

Egypt, India, Pakistan and Viet Nam imposed a ban or steeply-hiked minimum prices for fear of dwindling supplies and rising prices, but later lifted or promised to end their export restrictions.

### **Safety net measures**

As shown in Table 10.3, 23 countries reported cash transfers, 19 implemented food assistance programmes and 16 reported measures aimed at increasing disposable income. Safety net

<sup>17</sup> Washington Post, "Argentina Tries to Reconcile Exporting Food With Prices at Home", 26 April, 2008.

measures were relatively less common than market and trade interventions. Mobilizing the necessary cash or food was not easy for poorer countries.

### *Cash and food transfers*

Social safety nets were intended to lessen the social impact of the price turmoil and to avert starvation and malnutrition of the most vulnerable groups in both urban and rural areas. The two main categories of safety nets were targeted cash-based transfers and food access-based approaches.

Countries that used cash transfer programmes included Bangladesh, Brazil, China (Mainland), Costa Rica, Egypt, Ethiopia, Haiti, India, Indonesia, Mexico, the Republic of Mozambique and South Africa. A number of these countries – such as Brazil, Ecuador, El Salvador and Mexico – already had ongoing cash transfer programmes and they only scaled up the level of payment (to compensate for the high prices) or expanded the programme's coverage. Conditional cash transfers (CCT, payment made upon meeting requirements such as attending training, sending children to school, etc.) sought to create incentives for individuals to invest in human resource development. CCTs have been shown to reduce income inequality in Brazil, Chile and Mexico (Soares et al., 2007). Where CCT programmes already existed, increasing their benefit or coverage was a key part of the response. Establishing new CCTs, however, required capacity and took too long to constitute a rapid response during the high price event. They also carry the risk of being poorly targeted because they exclude the neediest.

Food assistance programmes included direct food transfer, food stamps or vouchers and school feeding. Countries such as Bangladesh, Cambodia, Ethiopia, Haiti, India, Liberia, Madagascar and Peru implemented self-targeted food-for-work programmes, while Afghanistan<sup>18</sup>, Angola (World Bank, 2008d), Bangladesh and Cambodia (FAO Policy Database) distributed emergency food aid. School feeding programmes were reported by Brazil, Burkina Faso, Cape Verde, China (Mainland), Honduras, Kenya, Mexico and the Republic of Mozambique, among others (World Bank, 2008d). Countries such as the Dominican Republic, Egypt, Ethiopia, Indonesia, Jordan, Lebanon, Mongolia, Morocco, the Philippines and Saudi Arabia (FAO Policy Database) sold food at subsidized prices to targeted groups.

School feeding became an important component of food assistance and income support. It was increasingly viewed as a way to encourage students of poor households to maintain schooling and to discourage parents from placing them on the labour market. High food prices, however, resulted in dropping-out and reduced enrolments in the Philippines<sup>19</sup> despite the Government launching the "Enhanced" Food for School Feeding Program (SFP) in July 2008. This initiative provided porridge to public elementary students from pre-determined areas every day, conditional on school attendance.<sup>20</sup> During the high-price episode, the Government of Madagascar spent USD 3.9 million to expand the WFP's school feeding initiative to 150 000 children, an increase of 90 000.<sup>21</sup>

<sup>18</sup> IRIN, "Afghanistan: Over 400 000 people receive food aid amid soaring prices", 13 April 2008 <<http://www.irinnews.org/Report.aspx?ReportId=77739>>.

<sup>19</sup> Bulatlat, "Workers, Urban Poor Skip Meals to Cope with the Crisis", Vol. VIII, No. 27, 10-16 August, 2008, <<http://www.bulatlat.com/2008/08/workers-urban-poor-skip-meals-cope-crisis>>.

<sup>20</sup> Bayan-natin, "What is up in the Philippines, President launches enhanced food for school feeding program", 31 July, 2008, <<http://bayan-natin.blogspot.com/2008/07/president-launches-enhanced-for-for.html>>.

<sup>21</sup> IRIN, "Madagascar: Seasonal food shortages on the doorstep", 2 October 2, 2008 <<http://www.irinnews.org/Report.aspx?ReportId=80705>>.

Nine Asian, five African and four LAC countries took measures to increase salaries and other benefits of mainly public-sector employees. Such measures helped reduce tensions in urban areas, particularly in “administrative” cities where civil servants constitute an important element of the population. The proposal to raise public sector salaries by 30 percent in Egypt was a response to the unrest over high food prices.<sup>22</sup> Reportedly, the poorest Egyptians include many low-paid civil servants. Cambodia, Egypt, Ethiopia, Iraq and Syrian Arab Republic, among others, also took measures to increase salaries and benefits of public-sector employees.

However, public employees in many developing countries are generally economically better off than the average citizen, who is either unemployed or dependant on low-paying informal activities. Senegal undertook measures which were more in accordance with public sentiment: the President cut the number of ministers in his government by more than a quarter in December 2008 in a belt-tightening show of solidarity with citizens hit by rising fuel and food prices. El Salvador, Guyana and Panama reduced income tax for low-income groups, while Burkina Faso reduced the cost of electricity. But these measures did not help the poorest of the poor because, being unemployed, they are not subject to taxation and have no access to electricity anyway.

### *Three examples of targeted safety net measures*

General subsidies are considered less efficient in reaching most vulnerable groups than targeted ones (see Chapter 24). They also impose a greater fiscal strain than targeted programmes. Countries with existing targeted safety net programmes responded to the high food price event in a more effective manner than those with no such programmes. The experience of three countries below reveals that the design of safety net programmes varies from country to country and has considerable implications on efficiency and equity.

#### *Conditional cash transfer - Mexico's Progresa/Oportunidades*

In Mexico, a CCT programme known as Progresa was a targeted scheme where cash was directly provided to beneficiary families (usually mothers) on the condition that children attend school and family members visit health centres regularly. Progresa was introduced in 1997 in response to the general perception that food subsidies such as the tortilla price subsidy (FEDELIST) were badly targeted towards poor households and were a substantial drain on the government budget. It has been shown that subsidized tortillas cost 40 pesos to transfer 100 pesos to beneficiaries (Coady, 2003). Progresa, which was renamed as Oportunidades in 2000, gradually replaced generalized food subsidies with direct monetary transfers. In 2002, the programme was expanded to include urban areas. The selection of eligible households occurs in three stages: first, potential recipient communities are identified as poor (using the marginality index developed in the national population census); second, potential participating households are selected (based on data collected from a household census within the community); and third, the list of potential participants is presented to the community assemblies for review and discussion. Cash transfers for education increase with the school grade (motivated by higher opportunity costs for older children in high schools) and are also higher for girls in middle school. Cash transfer for food involves monthly payment and is conditional on households making regular trips to health clinics for a range of preventive checkups as well as attendance at monthly nutrition and hygiene information

<sup>22</sup> Aljazeera, "Egypt increases public-sector pay", 30 April 2008 <<http://english.aljazeera.net/news/middleeast/2008/04/2008614233233710513.html>>.

sessions. Progresa was designed to be non-partisan and has clear eligibility criteria to prevent politicized benefit distribution.

In 2008, following the high food prices and the riots of 2007, the Mexican Government increased the programme's budget to 42 billion pesos, up from 39 billion in 2007. The budget may have been increased even further, as the President announced an increase in public expenditure to protect vulnerable people in the middle of the year. The number of beneficiaries increased by 1 million and the total number of Mexicans assisted by the programme reached 5 million households (one out of four Mexican families) in 2008. Payment to the poorest families also increased by 24.3 percent to an average of 665 pesos per month (from an average of 535 pesos per month). However, a comparison of the rate by which payments increased with the rate of inflation shows that beneficiaries were not fully protected from rising food inflation. A study by Valero-Gil & Valero (2008) concludes that the expense-weighted price change for the 11 most consumed food products increased by about 39 percent during the period 2006-2008. Although the programme did not fully compensate the increase in food prices, a very strong detrimental effect on the poor had been avoided thanks to Oportunidades and other safety net programmes. Mexico normally depends on the United States of America for 25 percent of its maize consumption, and annual inflation fell in early September<sup>23</sup> following the fall in world grain prices.

Progresa/Oportunidades has been credited with improving the health of children and adults, nutrition and growth of children and school enrolment. The programme has been shown, through a rigorous evaluation process, to have generated substantial improvements in human capital outcomes among the poor population it serves (Coady, 2003). It afforded an opportunity for the Government to rapidly respond to the turmoil in food markets. Its targeting methods were generally effective in ensuring that benefits reached the poorest households and administrative costs were kept to a minimum low. An International Food Policy Research Institute (IFPRI) study found that for every 100 pesos allocated to the programme, only 8.2 pesos were spent on administrative or programme costs (IFPRI, 2008).

Unlike non-conditional transfers, benefits in education, health and nutrition remain even after the programme disappears (World Bank, 2008c). A number of Latin American and Caribbean countries reinforced their CCT programmes. Brazil's Bolsa Familia programme, which covers 11 million families, increased the value of its transfers by 8 percent. The programme Bono de Desarrollo Humano in Ecuador planned to increase its coverage by 5.3 percent to reach 1.3 million people. Oportunidades was also hailed with enthusiasm in countries such as India (Kapur et al., 2008). However, there were some issues to be resolved, such as providing a way to encourage an exit from the programme when a household's socio-economic circumstances improve, overcoming gaps in coverage for key vulnerable groups as well as improving the effectiveness of human capital services which require closer attention. There is also the question of whether the kinds of conditionality found in Latin America can be adapted to countries with much weaker institutional capacity and delivery mechanisms.

#### *Food based assistance - Bangladesh's PFDS<sup>24</sup>*

The Government of Bangladesh attempted to stabilize food grain prices on the grounds that they are a crucial determinant of welfare for both producers and consumers, particularly for the poorest groups. The Public Food Distribution System (PFDS) was the main

<sup>23</sup> Reuters, "Brazil cuts wheat sector taxes to ease inflation", 15 May, 2008 <<http://uk.reuters.com/article/marketsNewsUS/idUKN1454178820080515>>.

<sup>24</sup> See FAO/WFP (2008).

instrument for stabilizing prices while at the same time making grains available to poor households who would not otherwise have access to adequate food, as well as for distributing food during emergency situations (MOFAD/WFP, 2005). The bulk of the PFDS' assistance (approximately two-thirds of the total food distributed during fiscal year 2007-08) was provided through seven channels: Open Market Sales (OMS), Vulnerable Group Development (VGD), Vulnerable Group Feeding (VGF), Food for Work (FFW), Test Relief (TR), Gratuitous Relief (GR) and Food Assistance for Chittagong Hill Tribes (CHT) Area. Grain was either purchased from the domestic market or imported from abroad.

Bangladesh's food-insecure population, estimated at 65.3 million, increased by 7.5 to 12.3 million in 2008, largely because of the impact of higher food prices. The undernourished population is believed to have increased from 27.9 million to 34.7 million after the price shock. It has been estimated (by the FAO/WFP Crop and Food Supply Assessment Mission, CFSAM) that approximately 30.5 million people were receiving assistance from the various programmes of the PFDS during the fiscal year 2007-08. The Government proposed to widen and deepen social safety net programmes (in response to the food shortage and high prices), but high local and international prices made it impossible to meet procurement targets and assist all poor families. The Government was unable to buy sufficient quantities from the local market, as it could only offer a procurement price that was 15 percent less than the market price in April 2008. The rice market in Bangladesh was also affected by the supply and demand situation in neighbouring countries. Export restrictions in India and the failure of Myanmar to honour its commitment to export to Bangladesh (because of the devastation caused by Cyclone Nargis) added to the tightening of the PFDS' supplies. The price of rice increased by about 52 percent in August 2008 (over August 2007) and failed to come down in July and August, when world prices started declining. Protests against the high prices were held twice (in April and June), and the Government was forced to set up army-led joint forces to monitor prices during the month of Ramadan in order to ensure that traders could not make large profits by charging high prices.<sup>25</sup> The Government initiated open market selling of rice from 20 August to 31 October 2008 to help the poor during the festivity season. A total of nearly 300 000 tonnes of rice was expected to be sold with a rate of USD 0.41 per kg. The Food Ministry was also given the mandate to import food to meet emergency needs without going through the usual tender process.

Non-government sources of food security also played a critical part in providing assistance to a large number of poor households in Bangladesh. NGOs such as CARE and Save the Children-US (United States Agency for International Development (USAID) PL 480 Title II NGOs) were reported to have provided food assistance to about 4.8 million people. The WFP was assisting approximately 4.7 million people at that time (3.8 million of whom were also beneficiaries of government programmes). BRAC, Bangladesh's largest NGO, was reported to be assisting 1.4 million people with food rations and cash assistance. There were various other NGOs operating similar programmes; a FAO/WFP mission estimated that as many as 8.1 million people, representing just over 12 percent of the estimated food insecure population, were recipients of assistance from non-government channels. This implies that government and non-government safety net programmes were unable to reach a significant proportion of the vulnerable population in Bangladesh in 2008. An FAO mission visiting the country in April/May 2008 estimated that about 37 percent of households reported consuming less than three meals per day because of high food prices (FAO/WFP, 2008).

<sup>25</sup> The Daily Star, "Ministry can skirt purchase rules for urgent food import"; UNB, Dhaka, July 25, 2008, in Amader Krishi, <<http://amaderkrishi.wordpress.com/category/foodimport/>>.



The grain reserve enabled Bangladesh to rapidly respond to humanitarian needs, but maintaining reserves had significant cost implications. Unlike the open-market sales of grain from the reserve, the public stock releases for relief did not generate income with which the reserve could be replenished. The Government did inject scarce additional finance at the expense of funding for other programmes. Thus the PFDS faced the complicated task of managing its stock, averaging between 0.7 and 1.0 million tonnes, in a manner that was not too costly and did not affect market functioning when released.<sup>26</sup> The use of food subsidies as social protection has been discredited in recent years because of the high cost of handling and the huge subsidy requirements. Food transfer is more costly than distributing cash, as it involves inter-continental shipments (some 30-35 percent additional cost) or local procurement (5-10 percent extra cost according to WFP, 2006). Declining world food prices also made it cheaper to buy food from world markets than to subsidize the consumption of domestically produced food. Nevertheless, events in world food markets - notably restrictions by exporting countries and unprecedented price hikes - have placed the issue of public stocks back on the policy agenda. Food transfer remains the favoured intervention in acute emergencies and conflict situations and under general conditions of food shortages and rising prices (see for instance the Ethiopian case below). Food market turbulence in Bangladesh would probably have been worse had there been no public stocks and public distribution system in place. The Government's policy of maintaining public stocks to provide price support to producers as well as to protect consumers appears to have been a rational response to the high and continued risk of frequent cyclones and floods and very high levels of poverty in the country. However, a more concerted effort and the channelling of additional resources would be required for food-based safety net programme to effectively cope with high food prices, large numbers of food-insecure people and the unprecedented natural disasters that Bangladesh faces year in and year out.

#### *Employment-based safety net programme - Ethiopia's PSNP*

In 2005, the Government of Ethiopia revised its strategy of distributing food aid by shifting from a relief-oriented to a productive and development-oriented safety net approach in areas suffering from chronic food insecurity. The focus of the new programme, known as the Productive Safety Net Programme or PSNP, was to provide more reliable and timely support to chronically food-insecure households in more than 260 counties. The number of beneficiaries increased from five million people in the first year to over eight million in 2008. Technical and financial support is provided by a joint donor group that includes, among others, the UK's Department for International Development (DFID), USAID, the World Bank, the European Commission and the WFP. The PSNP is designed with the objective of mobilizing labour for public works activities that build infrastructure and assets to promote agricultural productivity and access to markets (e.g. feeder roads, soil and water conservation, micro-dams for irrigation) while contributing to smoothening food consumption and protecting household assets or preventing impoverishment. People facing predictable food insecurity are targeted and offered guaranteed employment for five days a month in return for transfers of either 15 kg of cereals or cash equivalent of USD 4.00 per month for each household member. Households with no labour and no other means of

<sup>26</sup> Although low by international standards, food aid leakages owing to inefficient transport and handling, short ration and under-coverage have been reported in the past in Bangladesh. Empowerment of women at the union level to hold programme managers accountable is reported to be one of the reasons for the low level of leakages (Ahmed et al., 2004).



support are eligible for direct support at the same levels. The goal is to achieve “graduation” of beneficiaries after three to five years of cash or food transfers complemented by regular government support measures to improve agricultural productivity and transform rural livelihoods. Graduation means the household is no longer chronically food-insecure and also has the economic resilience to resist falling back into chronic food insecurity in the future (Devereux et al., 2006).

In response to the high price episode of 2006-08, the Government of Ethiopia relied on donors to provide additional support to PSNP participants and new relief aid for non-PSNP rural areas affected by the high prices. The wage rate for public work programmes was increased by 33 percent in January 2008 (World Bank, 2008c). But high food prices affected other parts of the country as well. The number of rural people (from non-PSNP areas) that depended on the food assistance of various non-government organizations increased from 4.6 to 6.4 million by August 2008. In urban areas, the Government took the responsibility of selling subsidized wheat obtained from the strategic grain reserve and from imports. The urban scheme was estimated to have benefited about 4.5 million people. However, prices continued to rise and maize prices escalated by 132 percent in August 2008 compared with August 2007, straining safety net outreach. Demand for food transfers increased sharply in the PSNP areas, since even before the price surges (i.e. 2006), the majority of households preferred food only (54 percent), followed by half food, half cash (36 percent), while less than one in ten preferred cash only (9 percent). Fungibility of cash and high food prices are cited to be among the major reasons that food was preferred in 2006 (Devereux et al., 2006). The WFP also reported shortfalls of 66 362 tonnes, 36 148 tonnes and 4 983 tonnes of food items for its relief, the PSNP and Targeted Supplementary (TSF) programmes in September, October and November 2008 respectively.

Ethiopia’s employment-based safety net programme is a strategic move to end dependence on food aid and create more sustainable livelihoods. But several challenges warrant closer attention. High price episodes and drought clearly demonstrate that vulnerability remains a major concern. Addressing the problems of drought and land degradation - the main causes of vulnerability in chronically food-insecure areas - requires a higher level of support at the household level and major investments in irrigation, soil conservation and alternative sources of livelihoods, among other needs. The provided support is deemed too little to induce significant investment in farm or in non-farm activities. Measures aimed at preventing price increases also act as a disincentive to farmers and traders. A substantial amount of resources, as well as increased institutional and technical capacity, are required for Ethiopia’s new safety net programme to achieve the desired goal of ending food aid dependence and stimulating sustainable livelihoods.

## Producer-oriented measures

Producer-oriented measures include actions directed at supporting producers through non-market and market mechanisms. Among the 81 countries monitored, non-market based measures such as production support were reported by 35 countries, productive safety nets by 15 countries and fertilizer and seed programmes implemented by ten countries (Table 10.4).<sup>27</sup> On the other hand, only 15 countries carried out market intervention measures that included

<sup>27</sup> Production support measures mainly include production subsidies, untargeted input subsidies and improved access to credit. Seed and fertilizer programmes are largely aimed at improving availability, while productive safety net programmes refer to targeted input subsidies (to support poor producers).

support to value chain management, producer price and market information. Below we discuss experiences of implementing some of the main producer-oriented measures as well as implications and emerging trends.

### *Producer-support measures in developing countries*

Policy response must find the right balance when addressing the impact of soaring food prices on producers and consumers. In the short-term, food or cash transfer can be an effective emergency policy response to support consumers, but they may have a disruptive impact on local production and consumption patterns. Such effects can be mitigated by adopting measures that support producers. Producer-support measures took the form of productive safety nets such as input vouchers and input subsidies in Bangladesh, Dominican Republic, Indonesia and Madagascar. In some cases, these measures were accompanied by actions to improve access to funds and credit facilities, reduction of import taxes, exemption of producers from the payment of taxes on fertilizer and farm machinery, and by governmental purchase or governmental price support to smallholder producers.

In Bangladesh, the Government supported farmers by procuring rice at a higher price and providing subsidies in the form of cash transfers to poor and marginal farmers to mitigate the higher costs of irrigation and fertilizer. In June 2007, the Government also committed to subsidizing the extra diesel cost that poor farmers had to endure on account of the fuel price hike for their diesel-driven irrigation pumps. Farmers using electric-powered pumps were also promised continued benefits from a 20 percent subsidy against their electricity bills. The fertilizer subsidy was also increased significantly in the 2007-08 budget. But Bangladesh loses 0.6 percent of its agricultural land annually, and increasing productivity on declining farmland has become a huge challenge.<sup>28</sup>

India also raised its minimum support price for food grains and maintained (and expanded in some cases) its subsidy on fertilizer (paid to manufacturers and importers), irrigation and power. In February 2008, the Indian Government announced a plan to cancel the entire debt of the country's small farmers in a giant scheme estimated to cost about USD 15 billion.<sup>29</sup> India's 2008-09 budget also included a provision to significantly increase subsidized agricultural credit, boost investment in water resource development, establish the Irrigation and Water Resources Finance Corporation (IWRFC) for funding major and medium-sized irrigation projects, increase funding for crop insurance and revive cooperative credit structures.<sup>30</sup> But questions remain about the sustainability and effectiveness of India's huge and expanding subsidy programme. Moreover, while Indian agriculture has been successful in increasing food grain production in the past, it has also become very difficult to sustain growth owing to recent environmental degradation (Abrol & Sangar, 2006).

In March 2008, China (Mainland) promised to increase financial support for agricultural production with the objective of curbing inflation that was blamed on food shortages and rising prices. China (Mainland) raised the minimum purchase prices for wheat and rice and improved financial services available to farmers. It also increased subsidies for seeds and other inputs and allocated more funds for flood and drought preparedness and for agricultural infrastructure (IFPRI, 2007). The Central Government's budget earmarked for

<sup>28</sup> Bangladesh News, "Bangladesh Budget 2007 – 2008: Text of Finance Advisor's Speech", 8 June, 2007.

<sup>29</sup> International Herald Tribune, "India waives loans to poor farmers in annual budget ahead of likely elections", 29 February, 2008.

<sup>30</sup> "Minister of Finance, Union Budget 2008 – 2009 Speech" <<http://indiabudget.nic.in/ub2008-09/bs/speecha.htm>>.

agriculture, farmers and rural areas increased by 30 percent in 2008 (compared with 2007<sup>31</sup>). Despite these measures, China (Mainland) was expecting its food deficit to grow and looked for a new and unprecedented measure to ensure food security.

A few African countries, including Madagascar, Malawi, the United Republic of Tanzania and Zambia attempted to introduce or expand input (mainly fertilizer) subsidy programmes. However, only Malawi is regarded to have in place a well-designed targeted input subsidy programme in Africa. The subsidy programme in 2006/07 included the sale of 175 000 tonnes of fertilizer and 4 500 tonnes of seeds of hybrid maize and open pollinated varieties to targeted farmers with a 72 percent subsidy (i.e. farmers paid only 28 percent). Programme costs were just under USD 91 million, with 87 percent funded by the Government of Malawi.<sup>32</sup> It is estimated that maize production increased by 26 percent in 2006/07. The Government also continued distributing coupons that allowed poor smallholder farmers to buy fertilizer and seeds at close to 80 and 100 percent subsidy, respectively, in 2007/08.<sup>33</sup> Input subsidy programmes in many other African countries are still subject to policy-makers' reluctance to re-introduce subsidies and are absent also owing to a lack of budgetary resources.

Some African countries opted for the promotion of home gardens and off-season utilization of irrigated land to produce short-duration vegetables and other crops. For example, in the peri-urban area of Bangui, the capital of the Central African Republic, the Government allocated money to promote the cultivation of maize, rice, cassava and poultry farming of one-day-old spring chickens. In Benin, an Emergency Programme was established for immediate production of off-season short-cycle rice and maize. The FAO supported the off-season planting of rice in July and August in Madagascar by providing rice and bean seeds plus fertilizers to some 6 000 farmers hit hardest by cyclones.

The policy challenge of protecting consumers while allowing small producers to benefit from the high prices has not been easy in many countries, especially in those that are poor and food-insecure. Poor infrastructure, day-to-day price instability as well as policy measures limiting the transmission of high prices to producers, coupled with high prices of fertilizer, discourage small farmers from investing in productivity-enhancing technologies. The 2006-08 high price event failed to trigger a concerted effort to improve transport and communication infrastructure, greater investments in soil and water conservation, enhancements of small-scale irrigation and extension services and other measures in many of the poorest countries.

Production response is also constrained by the high cost of fertilizer. International fertilizer prices more than doubled in the space of a few months during 2008, while China (Mainland) imposed 150 percent export tax on fertilizer. High fertilizer prices also led to riots among smallholder farmers in developing countries. Fertilizer protests were reported in Egypt, India, Kenya, Nepal, Nigeria, Pakistan, Taiwan and Viet Nam.<sup>34</sup>

While smallholders protest the unaffordability and inaccessibility of fertilizers, large commercial farmers in developed and most food-exporting countries appear to have benefited from high food prices. Cereal production in developed countries increased by 11 percent between 2007 and 2008 - largely by expanding production on land set aside previously by regulation - while at the same time, developing countries' production increased only by 0.9 percent.<sup>35</sup>

<sup>31</sup> China Gate, "China giving greater support to agriculture to cool inflation", 27 March, 2008.

<sup>32</sup> ASARECA, PAAP's Electronic Newsletter, 14 November, 2008, Volume 11, Number 22.

<sup>33</sup> FEWSNET, Malawi Food Security Update, November 2007.

<sup>34</sup> The Guardian, "Soaring fertilizer prices threaten world's poorest farmers", 12 August, 2008.

<sup>35</sup> Production in developing countries actually decreased by 1.6 percent over this period if one excludes Brazil, India and China (Mainland) from this group, (FAO, 2008a).

### *International support*

During and after the episode, FAO distributed key agricultural inputs in more than 80 countries through its Technical Cooperation Programme (TCP) projects and some donor-funded activities. TCP projects are estimated to have benefited 370 000 smallholder farmer households and their dependents. The World Bank also announced a USD 1.2 billion fast-track facility for dealing with the turmoil that included not only financing for emergency food assistance, but also funding for seeds, fertilizer, irrigation, and crop and livestock insurance for small-scale farmers. The European Commission was in the process of creating a one billion Euro fund to help farmers in developing countries. The High-Level Conference convened by FAO (3 to 5 June 2008) called on the international community to take urgent and coordinated action to combat the negative impacts of soaring food prices on the world's most vulnerable countries and populations. At the conference, many G8 countries responded to the call and announced that they would significantly increase funding in response to the turmoil (around USD 10.6 billion), which added to prior announcements of more than USD 13 billion. But deployment of these funds was slow and only a small proportion of the declared amounts were actually disbursed. The financial crisis that emerged afterwards dampened the prospect of increased financial assistance, particularly as international food prices sharply declined in the latter part of 2008.

## **The macroeconomic implications and food price impacts of the policy responses**

The different policy responses - market and trade measures, safety net programmes and production support measures - were aimed at easing the high price burden. In the following section, we consider the macroeconomic implications of these measures and the extent to which prices have been contained relative to international prices as a result of these interventions.

### *Macroeconomic cost implications*

The policy responses to high food prices have implications for macroeconomic stability of many developing countries. Government responses to mitigate the impact of the food security threat have required increased public outlays with adverse implications for financing basic services. In particular, poorer countries have been faced with the challenge of financing subsidies, social protection and food as well as fuel imports. Several countries had to draw down their foreign exchange reserves or resort to domestic borrowing, risking reallocation of resources, higher inflationary pressures and balance of payment difficulties.

The total expenditure on food subsidies has been projected to exceed 1 percent of GDP in six countries, namely Burundi, Egypt, Jordan, Maldives, Morocco and Timor-Leste in 2008. The total transfer cost (including agricultural subsidies) is projected to be between 2 and 4.5 percent of GDP in Bangladesh, Belize, Iraq, Malawi, Mauritania, Mexico, the Philippines and South Africa in 2008. In Malawi, the transfer cost, estimated at about 2.6 percent of GDP (approximately 15 percent of government expenditure), is entirely devoted to supporting poor farmers, while nearly all targeted expenditures in Belize, Iraq, Mexico and South Africa are used to support poor consumers. Bangladesh and the Philippines allocate between 30 and 40 percent of their total transfer budget to assisting poor producers (IMF, 2008b).

The fiscal cost of high food prices is particularly significant in poor countries that are more exposed to international food and fuel price shocks as they cumulate the negative

effects on public finance and inflation of both crises. Countries such as Djibouti, Eritrea, the Gambia, Haiti, Sierra Leone, Tajikistan and Togo potentially face a fiscal cost that is beyond their budgetary means. The effort to control inflation is also proving difficult as high food and energy prices are placing further pressure on fiscal expenditures of several countries (World Bank, 2008a). A cash injection can also result in local inflation where markets are not functioning well and food items are in short supply (World Bank, 2008b).

Response to high food prices have also absorbed a significant amount of foreign exchange in many countries, especially in those with low capacity to import when measured by the value of food imports as a share of foreign exchange reserves. The impact of the 2008 food and fuel price increases could exceed 50 percent of the initial international reserve for eight African countries, namely the Democratic Republic of Congo, Eritrea, Ethiopia, Guinea, Liberia, Madagascar, Malawi and Zimbabwe (IMF, 2008a). An IMF study estimated a rise in the food import bill of USD 7.2 billion, or 0.3 months of imports for 43 net food-importing countries with available data (IMF, 2008c).

### *Achievements in bringing down domestic food prices*

Food riots in several countries, including Bangladesh, Burkina Faso, Cambodia, Cameroon, Côte d'Ivoire, Egypt, Indonesia, Mauritania, Senegal and Yemen forced governments to act. Many countries applied a combination of measures to counter rising food prices, which were viewed as threats to political stability. In April 2008, African finance ministers warned that the rise in international food prices was a serious threat to the continent's growth, peace and security (Patel, 2008). The impact of the different policy responses in containing increases in food prices was examined using data for four major food crops, namely rice, wheat, maize and millet. A total of 28 countries with relevant price data have been considered, and the results show that the effort to keep down prices vary from country to country and from crop to crop.

### *Rice*

International rice prices rose to unprecedented levels in May 2008 but eased slightly in recent months. Nonetheless, prices remained very high, and by August 2008, Thailand white (first grade) rice was 135 percent above its level a year before while the price of broken (second grade) was 95 percent higher (Table 10.1). Table 10.5 shows that domestic rice prices in the countries under consideration did not increase by as much as the international prices in most cases. The policy responses seemed to have prevented the full transmission of the unprecedented price hike on the international rice market to domestic markets.

In West Africa, the price of imported rice rose by 43 percent in Mali, 50 percent in the Niger and 65 percent in Burkina Faso in August 2008 (compared with August 2007). Senegal experienced the highest price surge (112 percent). Unlike many West African countries, where cereal imports accounted for less than 10 percent of the total consumption (during the period 2003/04 to 2006/07), Senegal depends heavily on cereal imports, accounting for 53 percent of its domestic requirement.<sup>36</sup>

In Asia, where rice is the dominant staple crop, rice prices increased at a much lower rate than the international price for most of the countries for which data are available. The highest rate of increase was 75 percent in Sri Lanka followed by 52 percent in Bangladesh,

<sup>36</sup> All cereal import figures are from FAO/ GIEWS.

compared with a 95 to 135 percent increase in world rice market prices.<sup>37</sup> On the other hand, rice prices increased by only 26 percent in India and China (Mainland). Both countries restricted export and relied on government market intervention to prevent the transmission of international prices to local markets. China (Mainland) and India have also benefited from limited dependence on imports: cereal imports accounted for only 1 and 1.5 percent of total domestic use in India and China (Mainland), respectively, during the period 2003/04 - 2006/07.

In LAC, rice price increases were relatively more pronounced (than in Asia and Africa), ranging from 85-90 percent (Chile, El Salvador and Haiti) to 102 percent (the Plurinational State of Bolivia).<sup>38</sup> Prices increased by 46-65 percent in Guatemala, Honduras, Nicaragua and Peru (Table 10.5). Import dependence is generally high for most LAC countries, exceeding 40 percent for most of the countries under consideration. A significantly lower rate of price increase was observed in the case of the Dominican Republic (25 percent), and this is mainly owing to the excellent spring rice harvest that started in May 2008.<sup>39</sup>

### *Wheat*

Although they declined after the peaking June 2008, in August 2008 world wheat prices (United States No.2, hard red winter wheat f.o.b. Gulf) were still 24 percent higher compared with a year earlier and in Argentina wheat prices (Up river f.o.b.) were 12 percent higher (Table 10.1). Domestic prices, however, of wheat in countries such as Afghanistan, Eritrea, Ethiopia, Sri Lanka and Sudan increased more rapidly (from 46 to 130 percent) than the international markets. In Eritrea, where wheat is the main staple and is fully imported, prices more than doubled by August 2008. The policy responses would appear to have brought limited relief in the case of wheat for these countries. However, the price surge could have been worse were it not for the actions such as releasing stocks (e.g. Afghanistan, Eritrea and Ethiopia) and tax reduction (e.g. Ethiopia and Sudan).<sup>40</sup> Most of these countries were also affected by natural disasters or conflicts. A decline in the amount of food aid distribution has also contributed to the price increase in countries such as Ethiopia (Demeke et al., 2007).

### *Maize and millet*

World maize prices have followed a pattern similar to wheat, although the rates at which prices increased were higher for maize: United States maize increased by 53 percent while Argentina maize increased by 39 percent in August 2008. Domestic maize prices in Ethiopia, Kenya, Malawi and the Republic of Mozambique increased at a faster rate than world maize prices, varying from 59 percent to 157 percent (Table 10.5). These countries are all very poor and have limited resources to import and increase domestic supply. The price of millet (locally produced) also increased by 28-46 percent in Burkina Faso, Mali and the Niger. By contrast, export prices weakened in South Africa following a bumper harvest. Maize prices in El Salvador, Haiti and Nicaragua also declined or increased only marginally as a result

<sup>37</sup> The price surge in Sri Lanka may be attributed to the high level of dependence on cereal import (37 percent) and the high inflationary pressures, which peaked at 28.2 percent in June 2008 (Sri Lanka Today, "Sri Lanka's 'underlying' inflation in new trouble, as Thailand dumps core", 6 September 2008 <[http://srilankatoday.com/index.php?option=com\\_content&task=view&id=2](http://srilankatoday.com/index.php?option=com_content&task=view&id=2)>).

<sup>38</sup> Haiti and the Plurinational State of Bolivia have also been listed as vulnerable countries by WFP.

<sup>39</sup> Oryza News, "Dominican Republic: an excellent harvest of rice is expected", 8 May, 2008 <<http://oryza.com/news/Dom-Republic-rice-harvest.html>>.

<sup>40</sup> Prices in Pakistan seem to have changed very little but this is because the quotations were in United States Dollars. Prices in local currency increased until August, see FAO (2008c).



of good maize harvests (in 2007) and the policy measures taken by governments to reduce prices of imported maize.

### *Price developments: July - September 2008*

Prices of rice, wheat and maize declined on international markets in July and August. On a monthly basis, rice prices on the world market declined by 4 to 10 percent, wheat by 5 to 9 percent<sup>41</sup> and maize by 2 to 14 percent in July and August 2008 (Table 10.1). But the evidence shows that the decline was not immediately reflected in local grain prices in most the countries under consideration: in July 2008, the price of rice increased in 14 countries and decreased in only 3. In August, rice prices continued to rise in 6 countries, decreased marginally in one (Sri Lanka) and showed no change in 4 countries.<sup>42</sup> The situation in the case of maize was less encouraging: prices continued to rise in most cases in July and August. Wheat prices tended to decline in some cases, but mostly remained volatile in July and August (Table 10.5).

In September, international prices of rice, wheat and maize declined further: rice by 3 to 7 percent, wheat by 8 to 10 percent and maize by 1 to 3 percent (Table 10.1). However, the number of domestic grain markets that experienced price increases for primary food commodities was greater than those that witnessed a price decline. According to USAID's sample survey of 183 markets in 25 countries, this occurred in 19 countries from Africa, one from the Caribbean, two from Central America and two from Central Asia. The price of primary food commodities increased in 85 markets (46.5 percent), declined in 60 markets (32.8 percent) and showed no change in 38 markets (20.7 percent). The highest increases (greater than 34 percent) were recorded in Haiti, Nigeria, Senegal, parts of Somalia and Zimbabwe.<sup>43</sup>

Price declines were attributed to good production prospects and the consequences of the global financial crisis and the accompanying economic slowdown (von Braun, 2008).

### **Response to the turmoil: paradigm change?**

Responses of developing countries to food insecurity during 2006-08 appear to have been in contrast with the policy orientation most had pursued in the preceding decades as a result of implementation of the Washington consensus supported by the Bretton Woods Institutions. This period was characterized by increased reliance on the market - both domestic and international - on the grounds that this reliance would increase resource allocation efficiency, and by world prices serving as a reference for measuring economic efficiency. The availability of cheap food on the international market was one of the factors that contributed to reduced investment into and support of agriculture by developing countries (and their development partners), which is generally put forward as one of the reasons for the price turmoil. This increased reliance on markets was also concomitant to a progressive withdrawal of the state from the food and agriculture sector on the grounds that the private sector was more efficient from an economic point of view.

The 2006-08 event has revealed some drawbacks of this approach. Countries depending on the world market have seen their food import bills surge while their purchasing capacity has decreased, particularly in the case of those countries that also had to face higher energy

<sup>41</sup> With the exception of August, United States wheat which remained largely unchanged.

<sup>42</sup> Price information was not available in the case of seven countries for August 2008.

<sup>43</sup> FEWSNET, Price Watch: urban markets, September 2008.



Table 10.1: Selected international cereal export prices

	Annual Changes Aug 07/Aug 08	Monthly Changes		
		Aug 08	July 08	September 08
<b>United States</b>				
Wheat <sup>1</sup>	24.28	-4.75	0.59	-10.20
Maize <sup>2</sup>	52.63	-4.98	-13.11	-1.29
Sorghum <sup>2</sup>	22.22	-13.43	-9.91	-0.48
<b>Argentina <sup>3</sup></b>				
Wheat	12.45	-9.37	-6.69	-7.82
Maize	39.10	-2.33	-13.89	-6.45
<b>Thailand <sup>4</sup></b>				
Rice white <sup>5</sup>	134.93	-4.02	-5.75	-2.92
Rice, broken <sup>6</sup>	95.17	-9.61	-9.95	-7.24

import prices. This situation was further aggravated when some important export countries, under intense domestic political pressure, applied export taxes or bans in order to protect their consumers and to isolate their prices from world prices.

As a result, several countries have decided to change their approach, questioning de facto the paradigm that had guided their policies and strategies during the last decades:

- ▶ By trying to isolate domestic prices from world prices (exporting countries);
- ▶ By moving from a food security based strategy to a food self-sufficiency based strategy;
- ▶ By trying to shunt “normal” international trade processes either by acquiring land abroad for securing food and fodder procurement or by trying to engage in trade agreements at the regional level;
- ▶ By showing distrust towards the private sector (price controls, anti-hoarding laws, government intervention in output and input markets).

### *Isolation from world markets*

As the analysis in this chapter has shown, 25 countries restricted or banned food exports in order to reduce transmission of increased world prices to their domestic markets.

### *Food self-sufficiency*

Several countries, including China (Mainland), Indonesia, Malaysia, the Philippines and Senegal, have now declared food self-sufficiency as their strategic response to high food prices. For example, the Government of the Philippines, the biggest rice importer in the world, is seeking to achieve 98 percent self-sufficiency in rice by 2010. This clearly represents a change in policy orientation from food security to food self-sufficiency.

Similarly, the President of Indonesia recently stated that the country must become food self-sufficient and that global food production had been compromised by events in 2006-08. "Indonesia must struggle to reach food self-sufficiency, and learn not to rely on other countries because we have our own good resources with which to develop the agriculture

Table 10.2: Market and trade-based policy measures adopted (as at 1 December 2008)

Region	Domestic Market Based Measures			Trade Policy Measures	
	Release stock (public or imported) at subsidized price	Suspension/reduction VAT and other taxes	Admin. price control or re-strict private trade	Reduction of tariffs and customs fees on imports	Restricted or banned export
Asia (26 countries)	Bangladesh Cambodia China India* Iraq Jordan Lebanon Malaysia Nepal Pakistan Philippines Republic of Korea Thailand Viet Nam Yemen	Azerbaijan China Indonesia Jordan Mongolia	Bangladesh Jordan Malaysia Pakistan Republic of Korea Sri Lanka	Azerbaijan Cambodia China Indonesia Iran (Islamic Republic of) Jordan Lebanon Pakistan Philippines Republic of Korea Saudi Arabia Turkey Yemen	Bangladesh Cambodia China India Iran (Islamic Republic of) Jordan Kazakhstan Lebanon Myanmar Nepal Pakistan Syrian Arab Republic Viet Nam
	15	5	6	13	13
Africa (33 countries)	Algeria Benin Cameroon Egypt Eritrea Ethiopia Kenya Lesotho Malawi Mauritania Nigeria Senegal Sierra Leone Togo	Burkina Faso Congo Djibouti Ethiopia Côte d'Ivoire Kenya Madagascar Morocco Mozambique Senegal Sudan Uganda	Benin Cape Verde Djibouti Ethiopia Côte d'Ivoire Malawi Morocco Senegal Sudan Togo	Benin Burkina Faso Cameroon Cape Verde Gambia Ghana Guinea Côte d'Ivoire Kenya Liberia Libyan Arab Jamahiriya Madagascar Mauritania Morocco Niger Nigeria Rwanda Senegal	Cameroon Egypt Ethiopia Guinea Kenya Malawi United Republic of Tanzania Zambia
	13	14	10	18	8
Latin America & Caribbean (22 countries)	Bolivia (Plurinational State of) Brazil Costa Rica Dominican Republic Guatemala Guyana Honduras	Brazil Dominican Rep. Guyana Suriname	Belize Costa Rica El Salvador Mexico Saint Lucia	Argentina Bahamas Belize Bolivia (Plurinational State of) Brazil Ecuador El Salvador Guatemala Mexico Nicaragua Peru Trinidad & Tobago	Argentina Bolivia (Plurinational State of) Brazil Ecuador
	7	4	5	12	4
Total	35	23	21	43	25

Table 10.3: Countries that introduced safety net programmes in response to high food prices

Region	Safety net (increased or introduced)		Increase disposable income
	Cash transfer	Food assistance	
Asia (26 countries)	Bangladesh China India Indonesia Jordan Pakistan Saudi Arabia Yemen	Afghanistan Bangladesh Cambodia India Indonesia Iraq Jordan Republic of Korea Saudi Arabia	Bangladesh Cambodia Jordan Iraq Lebanon Saudi Arabia Syrian Arab Republic Yemen
	8	9	8
Africa (33 countries)	Burkina Faso Egypt Ethiopia Liberia Mozambique South Africa	Angola Ethiopia Liberia Madagascar Nigeria	Cameroon Egypt Ethiopia Libyan Arab Jamahiriya
	6	5	4
Latin America & Caribbean (22 countries)	Brazil Chile Costa Rica Ecuador El Salvador Guyana Haiti Mexico Suriname	Bahamas Guatemala Haiti Peru Suriname	El Salvador* Guyana* Honduras Panama*  * Reduced income tax for low income group
	9	5	4
Total	23	19	16

sector", he declared. Food self-sufficiency is to be achieved though increasing subsidy for seeds, fertilizers and loan schemes for farmers.<sup>44</sup>

Senegal consumes about 800 000 tonnes of rice per year and nearly 80 percent of this is imported, making it one of the top-ten importers in the world. As one of the countries hardest-hit by the turmoil, evidenced by widespread riots during the episode, the President unveiled an ambitious agricultural plan called the Great Offensive for Food and Abundance (GOANA), which aims to make Senegal self-sufficient in food staples, especially rice. The target is to produce 2.5 times more than current production.<sup>45</sup>

The episode has also brought a renewed emphasis on domestic food production in many Latin American and Caribbean countries that have been relying heavily on food imports. For instance, Colombia, which imports 60 percent of its requirements of maize (3.4 million tonnes) and 96 percent of wheat (1.4 million tonnes), has begun supporting its farmers with

<sup>44</sup> The Jakarta Post, "Food self-reliance national priority: SBY", 27 November, 2008.

<sup>45</sup> African News Network, "Food insecurity complicates land use for biofuel crops in Southern Africa", 19 November, 2008, <<http://www.africanagricultureblog.com/2008/11/food-insecurity-complicates-land-use.html>>.

Table 10.4: Short-term measures aimed at supporting producers and production

Region	Non-Market Based Production Support Measures			Market-Based Intervention
	Production Support Programmes	Productive Safety Nets	Fertilizers and Seeds Programmes	
Asia (26 countries)	Azerbaijan Bangladesh China Indonesia Malaysia Mongolia Myanmar Pakistan Republic of Korea Syrian Arab Republic Tajikistan	Bangladesh Indonesia Iraq Philippines	Pakistan Philippines	Afghanistan Bangladesh China India Lebanon Nepal Pakistan Turkey Yemen
	11	4	2	9
Africa (33 countries)	Algeria Benin Burkina Faso Central African Republic Ghana Liberia Libyan Arab Jamahiriya Madagascar Nigeria Senegal Seychelles Tunisia	Guinea Kenya Liberia Madagascar United Republic of Tanzania Tunisia	Burkina Faso Nigeria Tunisia Zambia	Algeria Egypt Ethiopia Tunisia
	12	6	4	4
Latin America & Caribbean (22 countries)	Antigua and Barbuda Belize Brazil Costa Rica Dominican Republic Guyana Haiti Jamaica Nicaragua Peru Suriname Trinidad and Tobago	Dominican Republic El Salvador Jamaica Nicaragua Trinidad and Tobago	El Salvador Jamaica Trinidad and Tobago	Brazil Honduras
	12	5	3	2
Total	35	15	9	15

credit to produce maize and wheat. Focusing too heavily on export crops such coffee, banana, tropical fruits and beef is considered to have adversely affected the food security situation of the country. There are also calls for expanding area under food crops, removing the huge subsidies and incentives granted for biofuels and reducing area under cattle ranching to make Colombia not only food self-sufficient, but also able to generate exportable surpluses. In

Table 10.5: Domestic food grain price changes for selected countries (in percent)

		Annual Changes	Monthly Changes		
		Aug 08/Aug 07	July 08	August 08	
<b>Imported Rice</b>	Niger	50.00	11.76	18.42	
	Mali	43.14	7.35	0.00	
	Burkina Faso	64.58	-12.22	0.00	
	Senegal	112.27*	53.11	n.a	
<b>Local rice</b>	Madagascar	35.73	12.98	4.13	
	Bangladesh	51.61	6.82	0.00	
	Sri Lanka	74.62	-5.06	-0.69	
	India	25.79	5.22	n.a	
	China	26.36	0.56	n.a	
	El Salvador	85.29*	n.a	n.a	
	Nicaragua	65.70	9.84	1.55	
	Guatemala	46.05	3.26	n.a	
	Honduras	53.77	3.82	n.a	
	Haiti	89.35	5.18	41.33	
	Dominican Rep.	25.36	3.79	2.46	
	Peru	48.12	6.67	2.60	
	Chile	89.58	-5.30	0.00	
	Bolivia (Plurinational State of)	102.43	2.56	n.a	
	<b>Wheat</b>	Sudan	59.66	24.30	n.a
Eritrea		115.25	0.00	n.a	
Ethiopia		85.30	3.21	n.a	
Afghanistan		129.63	-1.61	1.64	
Pakistan		4.38	0.00	-1.76	
Sri Lanka		45.75	-0.86	-2.76	
<b>Maize</b>		Kenya	58.62	4.94	-5.29
		United Republic of Tanzania	39.53	-3.24	0.42
		Ethiopia	132.64*	5.04	n.a
	Malawi	157.04*	48.98	n.a	
	Mozambique	86.64	16.62	9.50	
	South Africa	-3.95	1.58	-5.45	
	El Salvador	-3.84*	n.a	n.a	
	Haiti	10.20	-3.70	-3.84	
Nicaragua	5.41*	-2.50	-2.56		
<b>Millet</b>	Niger	39.29	11.76	2.63	
	Mali	28.00	10.71	3.23	
	Burkina Faso	45.83	6.25	2.94	
	Senegal	8.52*	0.00	n.a	

\* Price changes refer to July 2008/July 2007.

Honduras, the President launched the Plan for Supply of Basic Grains and the Technological Productive Voucher (BTP) to reach self-sufficiency in basic grains to feed its population of 7.3 million people. There are provisions of some basic inputs in terms of agricultural credit at low interest rates (lowered from 24 to 9 percent) for seeds, technology, etc. The policy that encouraged rice imports from the United States (starting in the early 1990s) as a cheap alternative in Honduras is now viewed as undesirable as it has driven rice farmers into bankruptcy (IRRI, 2008).

### *Shunting “normal” international trade processes*

*Regional cooperation:* Doubting that national self-sufficiency goals can be met by small countries in a risky international environment, several regions have taken steps toward improving food security through regional cooperation to reduce dependence on imports from outside the region. For example, in August 2008, the Southern African Development Community (SADC) announced that it would establish a Regional Food Reserve Facility while urging member states not to impose export restrictions on maize.<sup>46</sup> Kenya, Uganda and the United Republic of Tanzania are discussing the possibility of setting up a regional fertilizer plant to offset high costs and ensure long-term sustainable supplies.<sup>47</sup>

In Asia, the Greater Mekong Sub-region (GMS) intends to intensify integration of agricultural trade and establish a more equitable way to share the gains from agricultural growth. In Latin America and the Caribbean, some countries are working on integrated national plans (e.g. the Costa Rican National Food Plan). Groups of countries are signing regional agreements, such as the Plurinational State of Bolivia, Cuba, Nicaragua and the Bolivarian Republic of Venezuela, which have agreed on a USD 100 million fund to finance multilateral cooperation on the theme of “Food Sovereignty.”

The 2006-08 high price episode also encouraged solidarity among neighbouring countries and among some developing countries. In April 2008 Malawi announced a ban on maize exports to all countries except Zimbabwe to shore up the country’s dwindling stocks. India partially lifted its maize export ban and allowed the WFP to buy maize for distribution to three African countries.

*International land acquisitions for outsourcing food and fodder production:* In recent years particularly, cash-rich nations such as China (Mainland), Japan, Kuwait, Saudi Arabia and the Republic of Korea have engaged in buying or leasing huge quantities of foreign land for the production of food for domestic consumption. Their big corporations engaged in acquiring land in foreign countries are using their technical and financial power to increase the production of food, fodder and biofuel crops. With the supply of the world’s food under long-term threat, investment in land is viewed favourably and is proving a sound proposition for many investors. For instance, the Republic of Korea’s Daewoo Logistics recently announced that it had negotiated with the Government of Madagascar a 99-year lease of some 3.2 million acres of farmland. Daewoo plans to put about three quarters of it under maize, while the remainder will be used to produce palm oil - a key commodity for the global biofuels market. Daewoo’s plan is to invest about USD 6 billion over the next 20 years to build the port facilities, roads, power plants and irrigation systems necessary to support its agribusiness in Madagascar. This is expected to create jobs for the country’s unemployed.

<sup>46</sup> IRIN, “SADC meal planning”, 22 August, 2008 <<http://www.irinnews.org/Report.aspx?ReportId=79946>>.

<sup>47</sup> IRIN, “East Africa: Budgets to ease food crisis”, 13 June, 2008 <<http://www.irinnews.org/report.aspx?ReportID=78738>>.

Daewoo is reported to have leased the land for a price of around USD 12 per acre, which is only a fraction of the price of farmland in the corporation's home country.<sup>48</sup>

Between 2006 and 2008, some Japanese food corporations including Asahi, Itochu, Mitsubishi and Sumitomo leased and purchased hundreds of hectares of land in Africa, Brazil, Central Asia and China (Mainland) for organic food production. Japanese firms are reported to own 12 million ha of farmland abroad for the production of food and fodder crops. A Gulf Cooperation Council (GCC) committee has been constituted - with representatives from Bahrain, Jordan, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates - to scout for overseas land in return for investments. Land deals have already been struck with Cambodia, Indonesia, Laos, Myanmar, Pakistan, the Philippines, Thailand and Viet Nam in Asia; Georgia, Kazakhstan, Russian Federation, Turkey and Ukraine, in Central Asia/Europe, as well as Sudan and Uganda in Africa. Saudi Arabia is also planning to acquire 1.6 million hectares in Indonesia to produce rice for export back home. After the 2006-08 turbulence, there is a general recognition among Gulf countries that oil revenues cannot feed their populations.<sup>49</sup>

China (Mainland) has emerged as a major player in the land acquisition race. It was estimated that by the end of 2008, the country has signed some 30 land deals in different parts of the world, including Africa, Australia, Central Asia and the Philippines in recent years. China (Mainland) has also prepared an agricultural policy on outsourcing food production. Given its huge population, rapidly-disappearing farmland to industrial development and the shift of the farming population to cities, China (Mainland) is looking for cheap sources of food and fodder. India is also moving fast not to be outdone by its neighbour in terms of land acquisition. About 15 Indian companies, led by the public sector State Trading Corporation (STC), are in the process of leasing farmlands in Latin America (Brazil, Paraguay and Uruguay) mainly to cultivate soybean and oilseeds. Indian companies are also moving into Myanmar to undertake production of pulses and to buy palm oil plantations in Indonesia.<sup>50</sup>

All of these initiatives can be interpreted as attempts to circumvent normal international trade processes to secure procurement at cost of food and other agricultural commodities. This approach has some similarities with the one adopted by multinationals for decades and which was estimated to represent about 40 percent of world "traded" commodities in 2000 occurring outside of "normal" trade processes and that escape WTO regulations (Fernández & Maetz, 2000). While some of these arrangements include heavy investments leading to increased production and employment generation, they also carry the risk, unless they are properly regulated and negotiated, of having dramatic consequences on access to land by farmers and communities in developing countries and for the countries themselves in terms of lost income. For instance, farmland prices have soared in Brazil as a result of the rush for Brazilian land by foreign investors.<sup>51</sup> In countries with no functioning land market and proprietary rights, land deals are conducted between investors and politicians who can easily be bribed to ensure that rightful residents are evicted off their land by force. In Cambodia, as in Madagascar and many other African countries, the Government is granting land concessions

<sup>48</sup> African News Network, "Madagascar to be the breadbasket of Korea?", 24 November, 2008, <<http://www.africanagricultureblog.com/2008/11/madagascar-to-be-breadbasket-of-south.html>>.

<sup>49</sup> Grain Briefing, "Seized! The 2008 Land grab for food and financial security", October 2008, <[http://www.grain.org/briefings\\_files/landgrab-2008-en.pdf](http://www.grain.org/briefings_files/landgrab-2008-en.pdf)>.

<sup>50</sup> Grain Briefing, "Seized! The 2008 Land grab for food and financial security", October 2008, [link](#).

<sup>51</sup> African News Network, Food crisis spurs global land rush, 24 November, 2008, <<http://www.africanagricultureblog.com/2008/11/uganda-increases-production-decreases.html?>>.



to investors.<sup>52</sup> A large tract of land used by subsistence farmers could be taken away, and often without adequate compensation if the “land grab” continues unabated.

Similar arrangements have been adopted by some American and European companies that have leased land or sub-contracted small farmers in food-deficit countries such as Ethiopia, the Republic of Mozambique and the United Republic of Tanzania to grow biofuel crops. The benefit of such a shift has been questioned by Ethiopian farmers in Wollaytta district of Ethiopia who converted their plots from growing food to biofuel. The company (Global Energy Ethiopia, an American-Israeli subsidiary), which promised attractive payment, was unable to honour its promise and the farmers, with neither cash nor food, had to rely on relief from aid agencies. Declining oil prices in the aftermath of 2006-08 and the onset of a financial crisis have proven a commercial setback for the biofuel company.<sup>53</sup>

### *Distrust of the private sector*

A large proportion of the measures applied have amounted to increased involvement of the public sector in food markets. Many governments have been forced to embrace greater levels of subsidies, export restrictions and price controls to ease the burden of high food prices. For many countries, this appears to represent policy reversal in an otherwise market-friendly policy orientation. Malaysia imposed a ceiling price on rice sold to consumers and raised the guaranteed minimum price (GMP) for rice growers.<sup>54</sup> Some governments, including India, Pakistan, the Philippines and Thailand have also enacted harsh penalties for hoarding grain.

## Conclusions

This chapter has examined policy measures that were adopted by some 81 countries in Asia, Africa and Latin America and the Caribbean during the 2006-08 episode and has assessed their implications for food security and poverty alleviation.

Many of the countries responded to the food price surge through a spectrum of policies both at the market and household levels. Several food importing countries reduced import tariffs, while many producing countries limited, or even banned, exports in order to avoid food shortages and further price increases. A number of countries chose to intervene directly in the market by managing food reserves in order to stabilize domestic prices. Trade policies and direct market intervention attempt to reduce the cost of food and increase its availability for all, both poor and non-poor. Countries also resorted to micro-level interventions through targeted consumer and producer subsidies and safety nets aimed at supporting specific population groups who are vulnerable and most in need.

The sudden and unpredictable increases in many internationally-traded food commodity prices in 2006-08 caught governments by surprise and led to many short-term policy reactions that may have exacerbated the negative impacts of the price rises. On the basis that such interventions were in many cases deemed inappropriate, many have called for improved policy choices to prevent and/or manage sudden food price rises. Similar calls for improved

<sup>52</sup> Asian Human Rights Commission, Cambodia: Official land grab in Cambodia mirrors situation across region, August 6, 2007 (<http://www.ahrchk.net/ahrc-in-news/mainfile.php/2007ahrcinnews/1311/>).

<sup>53</sup> African News Network, "Struggling Ethiopian farmers regret opting for biofuel crops over food crops", 19 November, 2008 <http://www.africanagricultureblog.com/2008/11/struggling-ethiopian-farmers-regret.html>

<sup>54</sup> China View, "Malaysia takes measures to keep price of rice down", 13 May, 2008 <[http://news.xinhuanet.com/english/2008-05/13/content\\_8158823.ase](http://news.xinhuanet.com/english/2008-05/13/content_8158823.ase)>.

discipline of markets were made during almost all previous episodes of high prices, but were largely abandoned after the spikes abated, either because they were deemed too difficult to implement, they entailed too high fiscal costs or complacency set in when low prices ensued.

As economists question whether the 2006-08 high price event represents a structural change of world markets for food commodities, many wonder whether the change of policy orientation represents a paradigm shift and will be sustained in the future, or whether policies will revert to the pre-2006 orientation. Whatever the answer, the fact is that the 2006-08 turmoil raised fundamental policy questions that require further investigation. For instance, what is the most efficient agriculture and food security policy to be pursued by developing countries in the long term? Is it to minimize intervention in the food and agriculture sector and continue a liberalized policy orientation? Will pursuing the policies of prior decades put countries at risk of future crisis-type events that will entail high social and economic costs? Or is it acceptable to divert part of a country's wealth (and/or its development partners) to protect and subsidize food systems to enable them to avoid or face future crises with lower welfare costs?

## References

- Abrol, I. & Sangar, S.** 2006. Sustaining Indian agriculture – conservation agriculture the way forward, *Current Science*, 91(8).
- Ahmed, A., Rashid., S., Sharma, M. & Zohir, S.** 2004. *Food aid distribution in Bangladesh: Leakage and operational performance*, IFPRI, International Food Policy Research Institute, Washington, D.C.
- Coady, D.** 2003. *Alleviating structural poverty in developing countries: The approach of PROGRESA in Mexico*, IFPRI.
- Demeke, M., Alemu, A., B. Bushie, S., Yifredew & Ferede, T.** 2007. *Exploring demand and supply factors behind the new developments in grain prices in Ethiopia: Key issues and hypotheses*, DFID Ethiopia.
- Devereux, S., Sabates-Wheeler, R., Tefera, M. & Taye, H.** 2006. *Ethiopia's productive safety net programme (PSNP): Trends in PSNP transfers within targeted household.*, Institute of Development Studies, Sussex.
- FAO** 2008a. *Food outlook, November issue*, Rome.
- 2008b. ISFP assessment mission draft report for Madagascar, *Plan d'Action à Impact Rapide*, Rome.
- 2008c. *Regional food price update, prices of food staples remain at exceptionally high levels in low-income food-deficit countries*, Rome.
- 2009. *Initiative on soaring food prices, country responses to the food security crisis: Nature and preliminary implications of the policies pursued*, Food and Agriculture Organization, Rome.
- FAO/WFP** 2008. *Crop and food supply assessment mission to Bangladesh*, Rome.
- Fernández, Y. & Maetz, M.** 2000. *Trends in world and agricultural trade, in multilateral trade negotiations on agriculture, a resource manual: Introduction and general topics*, Rome.
- ICTD** 2008. *Rising world food prices: How to address the problem?*, International Centre for Trade and Development.
- IFPRI** 2007. *Responding to the world food crisis: Three perspectives*, Washington D.C.
- 2008. *Mexico, progesa breaking the cycle of poverty*, Washington D.C.
- IMF** 2008a. *The balance of payments impact of the food and fuel price shocks on low-income African countries: A country-by-country assessment*, IMF African Department.
- 2008b. *Fiscal implications of food and fuel international price increases*, Fiscal Affairs Department.
- 2008c. *Food and fuel prices – recent developments, macroeconomic impact and policy responses: An update.*, Washington D.C.

- IRRI** 2008. *Countries make plans to ramp up food output, international rice research institute.*, Manila.
- Kapur, D., Mukhopadhyay, P. & Subramanian, A.** 2008. The case for direct cash transfers to the poor, *Economic and Political Weekly*, 12 April, 2008.
- MOFAD/WFP** 2005. Ministry of food and disaster management and world food programme/ Bangladesh, food security in Bangladesh, in *Papers presented in the National Workshop*.
- Patel, R.** 2008. The hidden battle for the world food system, in *Stuffed and Starved: As Food Riots Break Out Across the Globe*. Melville House Publishing, New York.
- Rosen, S. & Shapouri, S.** 2008. Rising food prices intensify food insecurity in developing countries, *Amber Waves*, 6(1): 16–21.
- Soares, S., Osorio, R., Soares, F., Medeiros, M. & Zepeda, E.** 2007. *Conditional cash transfers in Brazil, Chile and Mexico: Impacts upon inequality*, Brasilia, International Poverty Centre.
- UNCTAD** 2008. Addressing the global food crisis: Key trade, investment and commodity policies in ensuring sustainable food security and alleviating poverty, in *Report for High-Level Conference On World Food Security: The Challenges Of Climate Change And Bioenergy, 3 - 5 June 2008*, Geneva.
- UNRC** 2008. *Food security and poverty in Jordan, Report prepared for the Office of the UNRC*, Amman, Jordan.
- Valero-Gil, J. & Valero, M.** 2008. *The effects of rising food prices on poverty in Mexico, working paper, 10221*, MPRA.
- von Braun, J.** 2008. Food and financial crises: Implications for agriculture and the poor, in *Brief prepared for the CGIAR Annual General Meeting in Maputo, Mozambique*.
- WFP** 2006. *Cash and food transfers for food security and nutrition: Emerging insights and knowledge gaps from WFP's experience*, Rome.
- World Bank** 2008a. Double jeopardy: Responding to high food and fuel prices, *G8 Hokkaido-Toyako Summit Document.*, Washington D.C.
- 2008b. *Guidance for responses from the human development sectors to rising food prices, human development network*, Washington D.C.
- 2008c. Mexico: Income generation and social protection for the poor., *Volume II an Overview of Social Protection Report No. 32929*, Washington D.C.
- 2008d. *Rising food prices: Policy options and World Bank response*, Washington D.C.

