

Food and agricultural policy trends after the 2008 food security crisis

Renewed attention to agricultural development

by

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1. Introduction

After decades of decline and a peak during the 2007-2008 food security crisis, the international food prices fell again in late 2008 and 2009. However, the consumer prices of food commodities remained higher than historical levels¹. The impact of this can be felt, for example, in the reverse declining ratio of the impoverished in developing countries (from 18 percent in 1995-1997 to 16 percent in 2004-2006)². The FAO-OECD outlook reports project food prices to remain higher in the future than before the 2007-2008 crisis. Recent developments, in the second part of 2010 and early 2011, have shown new price surges as illustrated by record values of the FAO Food Price Index. This changed situation has also translated into changes in government policies. The aim of this paper is to analyse policy trends and in particular the policy decisions taken by governments between October 2008 and mid 2010.

Over the period analysed in this paper, concerns for food security remain serious as this period corresponds to the peak financial and economic crisis that followed. At the micro level, income and employment opportunities of the most vulnerable population groups have been significantly affected³ and at the macro level, pressure to boost economic growth led to the implementation of fiscal stimulus packages (2009-2010), which in many cases were followed by serious long-term deficits^{4,5}. Additionally, reduced aid and investment flows have impacted on developing countries. Moreover, severe weather conditions in 2010 brought agricultural production failures in key countries and again raised concerns over the food prices. It was a reminder that global food security is still at risk, if serious and sustained efforts are not made to address it.

The food security and financial crises stressed the need to have a policy monitoring system in place to produce information on the implications of the shocks for a diversity of stakeholders and on measures taken by governments to react to the crisis6,7. At the time of the 2008 high food prices, FAO observed the immediate short-term measures taken by governments in reaction to this crisis in more than 80 countries, and analysed global responses in "Country responses to the food security crisis: nature and preliminary implications of policies pursued".8

¹ IMF. 2008. International Financial Statistics Yearbook 2008. International Monetary Fund, Statistics Dept., Washington DC, USA

² Ecofair trade dialogue website: http://www.ecofair-trade.org/pics/en/WSFS Financial crisis food security.pdf

³ UNSCN, 2009. *UNSCN Brief 2009 Global financial and economic crisis – the most vulnerable are at increased risk of hunger and malnutrition*. Standing Committee on Nutrition of the UN System.

⁴ Freedman et al, 2009. The case for global fiscal stimulus, *Staff Position Note SPN/09/03*, International Monetary Fund, Washington DC, USA.

OECD, FAO. 2010. OECD-FAO Agricultural outlook 2010-2019, Paris, France. Available at: http://www.agrioutlook.org/dataoecd/13/13/45438527.pdf

Von Braun, Joachim. 2009. Overcoming the world food and agriculture crisis through policy change and science, Trust for Advancement of Agricultural Science (TAAS) Fourth Foundation Lecture. International Food Policy Research Institute, Washington DC, USA.

⁷ UNCTAD. 2008. Addressing the global food crisis: Key trade, investment and commodity policies in ensuring sustainable food security and alleviating poverty, United Nations Conference on Trade and Development, Geneva, Switzerland.

Demeke, Pangrazio, Maetz, 2008, Country responses to the food security crisis: nature and preliminary implications of the policies pursued, FAO, Rome, Italy..

Its conclusion revealed changing approaches to achieving food security such as isolating domestic prices from world markets; a more food self sufficiency-ocriented strategy; non-conventional trade cooperation or land investment and less reliance on the private sector.

As the food security concern prevails, even after the 2008 price peak, policy changes made or the immediate responses adopted during the crisis, need to be re-examined. Between 2007 and 2008, countries reacted to the food security crisis with more short-term oriented measures because of a sense of urgency. As food prices are expected to remain higher than before, it is critical to observe policy trends also in a long-term perspective, to see how and whether governments orient their economies to achieve food security in the longer term. Furthermore, new challenges to food security pose a question on the validity and implications of short-term measures. For instance, although many countries committed more investment in the food and agriculture sector, and more foreign aid in this sector was pledged during the food price crisis, the global financial and economic crisis has changed its priorities for public expenditure^{9,10,11}

The purpose of this paper is to examine whether the policy swings observed in 2008 were confirmed in the following years, by collecting and analysing information on decisions of both short and long-term food and agriculture policies. As in the 2008 paper¹², policy responses here are categorised into three groups: producer-oriented, consumer-oriented, and tradeoriented policy decisions. The classification of policies has been further elaborated in detail and broadened to accommodate long-term oriented decisions.

Miller et al, 2010. Agricultural investment funds for developing countries. FAO, Rome, Italy.

Lin, J. Y. & Will, M. 2010. The financial crisis and its impacts on global agriculture. 01/09/2010. The World Bank Policy Research Working Paper 5431. The World Bank, Washington DC, USA.

UNCTAD. 2009. Global economic crisis: implications for trade and development. UNCTAD Trade and Development Board. United Nations Conference on Trade and Development, Geneva, Switzerland.

¹² Demeke, Pangrazio, Maetz, 2008, Country responses to the food security crisis: nature and preliminary implications of the policies pursued, FAO, Rome, Italy.

2. Background and methodology

This paper is based on extensive research, document reviews and country level surveys on policy decisions taken by governments from October 2008 to mid 2010. This work is a result of a collaborative effort of the Food and Agriculture Policy Decision Analysis (FAPDA) team that gathers staff from FAO headquarters as well as from FAO regional, subregional and country offices.

It presents findings from 78 countries: 13 in Asia, 28 in Latin America and the Caribbean, 7 in North Africa/Middle East and 30 in Sub Saharan Africa. The selection of specific policy decisions in the text reflects the relevance and the importance with the subject matter and an exhaustive list of all the collected policy decisions during the respective period of the paper is enumerated in the Annex. The selection of the countries was subject to the likelihood of availability of reliable information, the limited human and financial resources available and the importance of the country with respect to the objective pursued, which is to keep track of food and agricultural policy decisions on a regular basis in selected countries in order to analyse policy trends, carry out analyses, promote dialogue, improve policy assistance and rapidly generate information on policy decisions in specific situations, for example, in times of high food prices.

FAPDA activities started in 2008 within the framework of the Initiative on Soaring Food Prices (ISFP). In order to provide technical advice to member countries for mitigating the then food security crisis, FAO developed the Guide for Policy and Programmatic Actions at Country Level to Address High Food Prices.¹ This guide proposed a classification of policy decisions which was subsequently elaborated and used as a basis to design a policy decision monitoring system. This system was used to monitor the decisions taken by governments as an immediate response to the food security crisis.

This work was led by FAO's Policy and Programme Development Support Division, Global Information and Early Warning System (GIEWS), and the FAO Regional Office for Latin America and the Caribbean (RLC). The output was the publication: Country Responses to the Food Security Crisis Nature and Preliminary Implications of the Policies Pursued.²

In 2008, FAPDA work was mainly driven by an interest in short-term policy responses to the food security crisis, but later it was expanded to include medium and long-term food and agricultural policies as well as nutritional aspects. A methodology and a concept note were prepared and discussed with the FAPDA team members so as to ensure consistency, ownership and sustainability of FAPDA within FAO. The information collected was mainly gathered through periodic reports prepared weekly by FAO country, subregional and regional offices, mission reports and online sources of information.

After its peak, the 2008 crisis system in place produced less regular and exhaustive information. The nature of the information required also changed as the objective was also to include decisions

 $^{^{1} \}quad \text{http://www.fao.org/fileadmin/user_upload/ISFP/revisedISFP_guide_web.pdf}$

² Demeke, Pangrazio and Maetz, 2008.

Table 1

Main Sources of Information in 2007/2008

Name		Percentage
	ISFP Weekly Questionnaires	41
	FAO Country Updates	1
FAO	Mission Reports	13
	Regional Weekly Reports	6
	RLC Database	10
	Factiva	11
FAO - GIEWS	Reuters/IRIN News	4
	Other	2
UNSPECIFIED	Unspecified	12
TOTAL		100

that had medium and longer term results. A different approach therefore needed to be adopted for the second phase (2009-2010) of policy monitoring. The approach adopted for collecting information on policy decisions taken varied across regions and countries depending on the sources of access and the availability of reliable information, and the level of involvement of FAO Decentralized Offices: combining research on official websites, national consultants and missions to countries by FAPDA team members. The media are mainly considered to be an alert to identify decisions taken, but this information is then checked and further research carried out to guarantee its reliability.

In Latin America, the FAO Regional Office has been engaged in policy monitoring since the beginning of the initiative and was at the forefront of its development. Since 2008, the Regional Office has developed and maintained a policy database using the FAPDA classification of policies. This database has been updated continuously using official sources of information (mainly on-line official sites).

In Northern Africa and the Middle East different approaches were taken. In most of the countries a questionnaire-based survey was carried out by national consultants. In Egypt and Tunisia information was collected through focal points established at different ministries in the framework of a pilot exercise, which started in January 2009 and aimed at institutionalising a national policy monitoring system. In Syria information was collected through the National Agricultural Policy Support Centre³, an institution already working in this area.

In Sub-Saharan Africa on-line information is generally not available. Therefore FAPDA carried out country level surveys to gather the information needed through national consultants. The work was coordinated by FAO regional/subregional offices. In all the countries where the

³ National Agricultural Policy Centre, Syria: http://www.napcsyr.org/

Table 2

Main Sources of Information from October 2008 to Mid 2010

Name		Percentage
	FAPDA Country Surveys	41
	RLC Database	38
FAO	RAP Policy Studies	11
	Country Focal Points	4
SEE BIBLIO		6
TOTAL		100

survey was conducted, a consultant was asked to fill in the questionnaire using the FAPDA classification of policies and to provide background documents, sources of information and notes on the methodology used to carry out the work. This additional material will be available to FAPDA users and will help to substantiate the information.

In the Asian and Pacific Region information was only collected in English from official electronic sources. The period covered is from late 2008 to mid 2010 for Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Nepal, the Philippines, Sri Lanka, South Korea, Thailand and Vietnam. Pakistan is covered partially. The type of policies reviewed encompasses those affecting agriculture, food security and nutrition. In general, information was collected from publications of the Ministries of Agriculture, Commerce, Finance, Health and Planning Committees. Another significant source of information came from the series of studies to assess the impact of the food and financial crisis in food security in selected countries (Bangladesh, Cambodia, China, India, Indonesia, Nepal, Sri Lanka, Thailand and Vietnam) prepared by the FAO Regional Office for Asia and the Pacific in 2010.

2.1 IMPLICATIONS OF THE METHODOLOGY FOR THE INFORMATION COLLECTED

The different methodologies used to collect data in 2008 and 2010, with slight adjustments and approaches used in each region, has had an impact on the information collected and the comparability of information over time and across regions. At the beginning of 2008, governments responded by adopting mainly short-term measures, and the focus of data collection at that time was on short term interventions which responded to the main interest of researchers and the media. Whatever medium or long-term measures may have been taken at that time were hardly reported. For instance in 2008, the ISFP weekly questionnaires, which were the main source of information, were only seeking to collect information on short-term responses.

In 2010, information collected by consultants with a long experience in the agricultural sector - the dominant profile of national consultants - is likely to be biased towards agricultural measures in support of producers, rather than trade, macroeconomic or social measures, whether because of their personal interest and experience or because of the network they may have in

government offices. This may exaggerate a government's emphasis towards medium and long-term agricultural measures. In several cases, it was observed that even in 2009 the consultants limited their collection of policy measures to those which responded to the 2007-2008 food security crisis only, and unfortunately missed some important measures of the period for which they were supposed to collect information. Last but not least, in those countries where the information was mostly collected from official websites, there could be a risk of bias decisions taken by those ministries which are more active and effective at communicating on the Web.

The collection of policy decisions for most of the African countries needed to be through direct interaction with relevant people in different ministries. In some cases policies were collected, but without a valid background document to support the statement data could not be taken into consideration. Identification of a national consultant with a comprehensive knowledge and understanding of "Policy" was crucial for this work. Many surveys had to be revised several times and modified as the concept of policy was sometimes reduced to a government's general laws and objectives rather than the main decisions. It should be noted that even through official sources of information it is sometimes impossible to differentiate between a policy which is actually implemented or that is merely announced. Therefore in this paper it may be that some policies were announced but not implemented. The same problem occurs when verifying the initial effective date of a policy decision. All these factors have to be kept in mind when analysing the information now available in the FAPDA database.⁴

⁴ FAPDA database is available at: www.fao.org/tc/fapda-tool/

3. Producer oriented measures

3.1 WIDESPREAD AGRICULTURAL INPUT SUPPORT PROGRAMMES

The most commonly used policies for production support are agricultural input support programmes, in particular for fertilizers and seeds.

After 2008, an increase was observed in the number of countries **distributing seeds to farmers either at a subsidized price or free of charge.** Some countries, including Ecuador, the Philippines, Rwanda, Sudan and Togo provided seeds freely to the selected regions in their countries. Other countries such as Benin, Bolivia, Costa Rica, India, Syria, Yemen and Zambia subsidised seed prices. In many countries (Afghanistan, Bangladesh, Costa Rica, Ecuador, Syria, Egypt, India, the Philippines and Yemen), the objective of seed programmes was to distribute **improved seeds** in order to achieve better yields. In Near East countries, this attempt was clearly linked to their aim to increase food self-sufficiency.

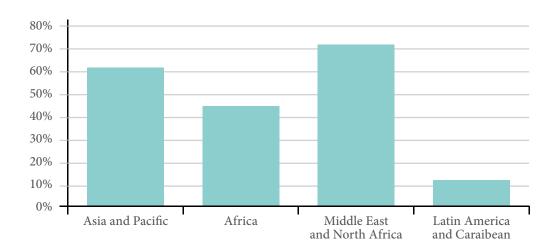
Seed distribution included, besides cereals, cash crops such as cotton in Benin, Costa Rica, Ecuador, Syria, Egypt and Yemen. The Government of Benin, for example, procured and distributed 4000 tons of cotton seed to farmers in the traditional 45 cotton-growing areas.

Furthermore, in October 2008, the Government of Sudan distributed cotton seed free of charge to farmers totalling SDG 6 million (equivalent to US\$ 2.4 million). Timely delivery of seeds, in consideration of weather forecasts (drought or flood), is critical to generate successful impacts. Afghanistan, for example, has been distributing winter wheat seed on time since 2008 through its National Seed Program. The Programme, which began when a severe drought hit the country in 2008 and dropped its wheat production by 55 percent, has benefited 260 000 farmers in 31 out of 34 countries.

In addition to the distribution and long-term programmes to improve local production of fertilizers, many countries intervened in the marketing process to facilitate farmers' **access to fertilizers**. Algeria exempted fertilizers and pesticides from VAT. In Syria, the price of fertilizers was liberalised in April 2009. To extend support to agriculture production other than cash crops, Syria's Agriculture Cooperation Bank (ACB) provided area-based direct cash support to tomato, potato, maize, and cotton growers with SP 5000, 6000, 8000, 10 000 (equivalent to around US\$ 100 to 200) per hectare respectively. These payments were also applied in 2010. In China, where the domestic production of fertilizers has not met its demand, VAT return on the exported fertilizer was cancelled in March 2004 and the payment for subsidies has gradually increased. In 2009, the Chinese Government allocated RMB 72.01 billion (equivalent to 2 percent of Agriculture GDP, US\$ 10.5 billion) in both fertilizer and fuel subsidies. In 2010, 1.1 billion RMB (equivalent US\$ 170 million) was allocated to subsidise fertilizers and pest control materials. In Sri Lanka, fertilizer subsidies have more than doubled between 2007 and 2008, and continued to remain at the high level of subsidies in 2009.

Additionally, several countries sought more fertilizers through the provision of more **favourable conditions for import.** For example, in Ethiopia, the Government increased fertilizer imports by about 60 percent in 2008 from the previous year.

Figure 1
Input subsidies measures (introduction/increase)
Percentage of surveyed countries which introduced/increased input subsidies in the region



By November 2008, Bangladesh relaxed requirements for fertilizer imports by the private sector by removing import duty. In China, the import tariff on fertilizers and related raw materials remained below 4 percent in 2008. VAT exemption on selected imported fertilizers, introduced since 2002, was expanded to other types of imported fertilizers in 2008.

More countries also paid attention to the production of **organic fertilizers.** In July 2009, Nepal announced that half of the cost of machinery to produce organic fertilizers would be subsidised.

Bangladesh also initiated a programme to distribute organic, green and bio fertilizers in 2010 to 9.7 million families in the country in order to popularise the use of natural fertilizers. In 2009 Indonesia started to subsidise a mix of inorganic and organic fertilizers (5.5 trillion metric tonnes); while Vietnam started expanding a fertilizer plant with environmentally-friendly and energy-saving technologies. Total investment reached US\$ 570 million.

Box 1
Fertilizer subsidies and export control in China

The provision of subsidies on fertilizers has been one of the major tools for agricultural development in China. Between 2004 and 2007, agricultural subsidies in China had more than tripled. Since 2004, for instance, fertilizer distributors who maintain the level of the fertilizer storage during the winter season qualified for a bank loan interest subsidy. Although the fertilizer industry is moving towards market adjustment, fertilizer producers still enjoy preferential prices for electricity, gas and transportation. Also, VAT exemptions were gradually granted to several types of fertilizers, and VAT refunds on fertilizer (urea and DAP) exports were banned since March 2004 to satisfy domestic needs. During the food security crisis in 2008, China doubled taxes on fertilizer exports to ensure their supply to domestic farmers between April and September 2008. The latest policy on fertilizer exports, adopted since November 2008, introduces a dramatic difference in export tariff level between off- and mid-seasons. The export tariff on some fertilizers is as low as 10 % during off-season, and as high as 110 % during mid-season.

In some countries, governments were involved in input marketing by issuing **agricultural input vouchers** with the aim of providing inputs at a subsidised price. An input voucher system was created or reactivated in Chile, Honduras and Venezuela, as well. In Rwanda, a targeted input voucher programme for fertilizer and seeds was introduced for maize and wheat producers in November 2008 for a short period. In addition, in July 2010, a new voucher system was implemented to distribute fertilizer at subsidised prices. Zambia, which has been running the Fertilizer Support Programme (FSP) for seven years, is reviewing whether it is suitable to replace this current input distribution system by a voucher-based inputs supply system, taking Malawi as a model.

Subsidies on production assets of machinery were commonly found in Latin America and the Caribbean as well as in several African countries (Morocco, Mozambique, Senegal, Togo and Uganda). In Bolivia, for example, the "Credit Programme for the Agri-mechanization" (*Programa Crediticio para la Mecanización del Agro*) distributed *Equipos Integrales* (a machinery packet) to cooperatives and farmers' organizations at a subsidised price. In 2009, an additional US\$ 13 million was committed to finance the purchase of tractors and other farm machinery. Brazil's *Programa Mais Alimentos* (More Food Programme) was launched in July 2008, with the aim of increasing productivity of smallholder farmers at the household level by modernising infrastructure. Brazil therefore supported the sale of 14 350 tractors through credit facility. This programme contributed 61 percent of all tractor sales in Brazil in the first quarter of 2009 alone.

Increased public investment and support was widely provided to **enhance finance and credit facilities** channelled through public and commercial banks. State-led processes were particularly visible in the Near East, Latin America and the Caribbean (LAC). Algeria established a zero-interest credit system through its National Bank and the Ministry of Agriculture, and Egypt has provided loans for crops through the Principal Bank for Development and Agricultural Credit since 2009. Small producers in Egypt also received funding and advice through the Social Fund for Development. In LAC, debt cancellation for farmers (Columbia, Dominican Republic and Venezuela), adjusted requirements to loans, interest rates or renegotiation of debts (Argentina, Ecuador, Chile, Guatemala, Paraguay, Uruguay) were observed. There were also adjustments to newly opened credit lines or mandatory credit disbursement and lastly liquidity injection to the agricultural sector (Brazil, Peru). These were among the major instruments to improve finance and credit facilities. In Thailand, smallholder farmers' debts were cancelled by 50 percent.

Selected countries in Africa and Asia strengthened the finance and credit support, not only through public institutions but also private institutions or farmers' organizations. In Sudan, the Agricultural Bank was given SDG 100 million (equivalent to US\$ 30.6 million) to provide credit to producers for the summer crops of the 2009/10 season. The Central Bank of Sudan also received SDG 80 million (US\$ 28.6 million) to provide supply credit to agriculture engaging other commercial banks. For horticultural crops, another SDG 34 million (US\$ 12.2 million) was distributed to the Agricultural Bank of Sudan to subsidise the commodities by 50 percent over 3-5 years. In Asia, the Philippines approved the additional injection of P 100 million (US\$ 2.3 million) to the Agricultural Credit and Policy Council and People's Credit and Finance Corporation (ACPC-PCFC) for the Agro-Microfinance Programme (AMP) to address the credit requirements of farmers and fishermen affected by El Niño and other climate related calamities

in 2010. Cambodia released soft loans for the State-trade enterprise and private sector to help them boost stockpiles.

Insurance schemes were widely used in Asia and Latin America as instruments to reduce the risks of smallholder farmers. Although agriculture-oriented insurance is not yet fully developed in Latin America and the Caribbean, the schemes have however arrived in this region. Chile, for example, has expanded and increased crop insurance subsidies and, like Brazil, has increased the equity and coverage of their funds as collateral for agricultural credit and export. Meanwhile, Mexico has created a national insurance system. In Peru, Agro-Peru (public funds to provide guarantees to farmers) has been reactivated and an insurance programme has been set up for emergency situations. Argentina, Bolivia, Guatemala and Nicaragua also implemented decisions in the risk management sector. In Asia, insurance schemes emerged for both crop (Bangladesh, India and Thailand) and livestock purposes (China, India and Nepal) and the implementation is taken care of in both public and private sectors. Forward sales' agreements took place in Sri Lanka. In Africa, more private sectors were involved in the provision of crop insurance.

One of the most severe constraints met by production systems of developing countries is the weak institutional set-up. Efforts to strengthen institutions were made across regions through supporting farmers' organizations, strengthening public institutions, or creating a new institutional framework for the agriculture sector and agri-business. Ghana, for example, approved the distribution of US\$ 653 000 to eight farmers' organizations and associations in the Northern and Upper West regions through the Export Development and Investment Fund (EDIF) in order to increase mango plantation and other annual crops. In 2009, it was obvious that the awareness had grown in Latin America and the Caribbean regarding the importance of strengthening public institutions towards research and development, and the integration of agro markets. A new institutional framework for the agriculture sector and agri-business was created and developed to manage emergencies, implement programmes or alleviate agricultural risks (Argentina, Bolivia, Brazil, Chile, Dominican Republic, El Salvador, Guatemala, Nicaragua, Paraguay, Puerto Rico and Venezuela). A public network was also designed to strengthen farmers' organizations (cooperatives, campesino organizations, women's associations). In Asia, governments like Afghanistan, Nepal, India, Indonesia and the Philippines promoted the development of farmers' organizations to increase their bargaining power.

3.2 INPUT MARKETS

Some countries **froze or intensively controlled input prices** in order to reduce production costs. In March 2009, Ecuador also signed a decree setting maximum prices for fertilizers and chemicals that are sold inside the country in order to minimise the impacts of high prices. Studies reveal that there were significant differences between the international cost of fertilizers and agrochemicals and the cost paid in Ecuador. In Bangladesh, the newly elected Government in 2009 authorised massive cuts in fertilizer prices to boost farm production and keep commodity prices stable. Retail prices of triple super phosphate, murate of potash and diammonium phosphate were reduced by half. In 2009, Chad set the prices of 50 kg of NPK and urea fertilizer at Francs 8 500 (US\$ 100) and Francs 7 500 (US\$ 89) respectively. In Ghana, 10 000 metric tonnes of fertilizer were subsidised in 2010 so that its price remained the same across the country.

Greater attention has been given to enhance access of smallholder farmers to the market through **financing post production infrastructure** and implementing projects aimed at facilitating the sale and distribution of agricultural products. Interventions in the infrastructure sector generally include:

- Construction of storage buildings (to reduce post harvest losses) in Brazil, Chile, China, Ecuador, Guatemala, Indonesia, Nicaragua, Nepal, Peru, the Philippines, Venezuela and Vietnam.
- Creation of new processing plants for specific food products such as rice (Colombia), sesame (Paraguay) and coconut (the Philippines).
- Rural road improvement to facilitate transport in Afghanistan, Jamaica, Nicaragua, Nepal and Vietnam.

Other initiatives that strengthen the linkages between farmers and markets are related to the installation of new public marketplaces (Brazil, Panama and Venezuela). In Brazil, the Ministry of Social Development announced the inauguration of a new "Food Bank" to facilitate the crop sale and launched a public tender to municipalities to establish mechanisms that allow direct marketing of crops in order to benefit smallholder farmers.

An increasing number of countries redesigned or newly set up their **national price or policy information collection system.** Market prices of agricultural commodities are now being monitored in Chad, Nigeria and Rwanda, and in many countries in Latin America and the Caribbean. Argentina (*Registro Nacional para la Agricultura Familiar* - RENAF); Chile (for the wheat sector); Colombia (for ecological agriculture); Ecuador (*Sistema Nacional de Información de Organizaciones Agro-productivas*) and Paraguay (*Transparencia Paraguay*) are among these newly created systems. At the regional level, MERCOSUR's information system was also strengthened.

3.3 INCREASING ATTENTION TO LAND POLICIES AND WATER MANAGEMENT SYSTEMS

Despite the efforts of various governments, water scarcity and land constraints remain particularly challenging for agriculture in most countries situated in arid or semi-arid areas. Against this backdrop, Algeria, Egypt, Tunisia and Syria announced **new land policies.** In August 2009 the Egyptian Ministry of Agriculture created the Desert Research Centre to explore the potential to expand total national cultivation areas, minimising the encroachment of buildings on cultivable land, and allocating land for reclamation, investment, and cultivation. In Syria, in addition to the cultivation of crops and fruits in 6 200 ha and 19 600 ha of irrigated areas through reclamation between 2006-2008, the irrigation fee for the public has reduced from SP 3500 (US\$ 75)/ha to SP 1750 (US\$ 37.3)/ha in order to encourage settlement near rural Damascus, Daraa and Quintara. In Asia, Sri Lanka has extended plantation to abandoned lands. Land policies extensively taken in several Latin American countries are mainly directed to facilitate access to land through the concessions of title deeds to smallholder farmers. In some cases new specific laws in land governance and management sectors have been promulgated to improve the share of land for cultivation only.

Most of the policies related to **productive assets and infrastructure** in the Near East region are related to water because of its scarcity. Egypt has seen a decline of roughly 15 percent in its water availability over the last decade. To protect water resources, the Egyptian Ministry of Agriculture decreed that the allowable area for rice cultivation is to be decreased from 5.8 million to 4.62 million km² as of the beginning of 2009. This marked a 15-20 percent decrease, in order to redirect more water usage towards less demanding crops such as corn, which had been facing water shortages. In 2009, further water related policies were announced by the Ministry of Agriculture and Ministry of Water Resources and Irrigation. This entailed the recycling of agricultural drainage water towards the irrigation of certain crops; the implementation of modern methods of irrigation, and further modifications to protect and conserve the Nile and its extended water canals.

In Morocco, subsidies to irrigation infrastructure were introduced in 2009, following the revision of investment policy. The irrigation equipment with a new dripping technology, was 80 percent subsidised and this subsidy was increased by up to 100 percent for small holder farmers who possess less than 5 ha. Algeria also supported farmers to buy local equipment through the National Fund for Agricultural Development. The eligibility criteria are related to the local provenance of the machinery, benefiting different actors in the agricultural system.

Other regions also increased investment in irrigation or water infrastructure. In Asia some countries like Bangladesh, Cambodia, China, Nepal, the Philippines and Sri Lanka extended or rehabilitated irrigation facilities. In Latin America, Peru promulgated a specific Water Act to improve the efficient use and management of its water, particularly regarding the conservation of natural sources and sewage facility and the distribution system infrastructure. During the past two years, the country emphasised attention on the matter through the signature of different agreements and planning of several water facilities' projects to support the sanitation structure, especially in rural areas.

3.4 EMPLOYMENT GENERATION IN AGRICULTURE

Some countries, recognising the potential for agriculture to create employment, sought to **foster employment through the agricultural sector or rural development.** The approach varied from country to country. To enhance employment in the agricultural sector, in 2008, Rwanda proposed to provide incentives for youths to return to agriculture. In Ecuador, the construction of local ports aimed to foster employment in the fishery sector. In contrast, China has run a training programme aimed at transferring surplus labour of up to 40 million farmers to the non-agricultural urban areas by 2010. Several countries across the regions were more interested in rural development in general. Ghana, for instance, fosters rural employment by paying more attention to non-farm rural enterprises. Similarly, but more focused on agricultural household incomes, countries such as Uganda and Syria supported diversification of income sources through farm and non-farm activities.

3.5 EXTENSION SERVICES

Several countries also enhanced **knowledge management**, **technical assistance and training** for the agriculture sector. In Nigeria in those areas where the government-led extension services dominated, there was a pilot programme to assess the impact of Farmers' Field Schools on the

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Box 2 National Rural Employment Guarantee Scheme Act (NREGA), India

This is one of the major employment generation programmes in rural areas (which alone required a public investment of approximately US\$ 2.3 billion ~ Rs 105 billion). This programme helps households that are Below the Poverty Line (BPL) to get some minimum employment by providing at least 100 days of guaranteed wage employment for each financial year to every household whose adult members volunteer to do unskilled manual work. They are paid on a weekly basis with statutory minimum wage. If work is not provided within 15 days, applicants are entitled to an unemployment allowance: one third of the wage rate for the first thirty days, and one half thereafter. Implementation of NREGA is done by the states in accordance with the State Employment Guarantee Schemes formulated by various states as per the provisions of the Act. NREGA has set a minimum wage across the country. Implications in the dynamics of labour market are: (i) a slow change towards the economic attraction centres; (ii) the private sector has been forced to increase salaries above market price in order to attract labour force. Nevertheless, in the long run, certain considerations need to be made as firstly, improvement for income safety of (targeted) rural population is likely to produce an increase in market prices; and secondly mechanisation will tend to substitute human capital. In the medium term, there is the need to introduce these possible scenarios and plan ahead as to where to relocate potentially affected labour force in the market.

productivity of cocoa farms in 2003-2006 and then again in 2009. In 2009, given its effectiveness, Nigeria announced that it would set up extension services until 2014. Ecuador also reactivated National Plans and provided agro-technology extension. Courses or seminars for specific crops, soil management or fertilizer self-production were organised. In Sudan, such assistance was more focused on the wheat commodity, and Cameroon concentrated on improving research capacities on fisheries. From 2009, some countries in Latin America and the Caribbean (Argentina, Chile, Cuba and Dominican Republic) provided courses for farmers on a broad range of topics, including specifics, such as soil management.

4. Trade oriented measures

Trade of food commodities and associated economic policy reforms have a strong potential impact on domestic prices and they can confer powerful incentives/disincentives for producers but can also safeguard consumers' food security.

It is particularly hard to identify a global trend for the trade oriented measures taken by countries during the period considered in this paper: the complexity and the differences in the trade sector do not point towards a similar tendency for countries. Despite that, some general findings and regional characteristics are reported here.

4.1 IMPORT-RELATED MEASURES

In general, measures that had been used to facilitate imports during the 2007-2008 food security crisis continued to be used after October 2008. These measures, which were geared at opening borders to imports, have been aimed at countervailing the consequences of high international food prices but also at facing emergency situations that affected food availability in some countries, especially in their poorest areas because of natural disasters, extreme weather conditions or poor harvests.

During 2009-2010, in an attempt to avoid future shortages or new price peaks that would undermine their weak food security, several developing countries put in place additional food import facilitation measures which generally consisted of an elimination or reduction of import tariffs in order to replenish domestic food stocks. This strategy was adopted especially in the countries that have to rely heavily on imports for their food security (net food importing countries), such as Central America and most of the African countries which are highly dependent on external supply for their food availability (Table 3)¹.

Besides food import facilitation, several efforts were also directed to the productive input availability, such as fertilizers, feed or machinery. These measures, specifically reported in Table 4, have been implemented in Latin America (Belize, Brazil and Colombia decreased import tariffs and Ecuador subsidized import of fertilizers), in some Near East countries (Syria supported feed imports and Yemen supported the purchase of machinery equipment) and in other African countries, such as Algeria, Liberia, Mozambique and Togo. These decisions reinforce the increasing attention paid to production oriented measures, as already pointed out.

The few import defence measures reported in the timeframe considered for this paper were generally implemented during the second half of 2009 or beginning of 2010, far from the peak of the 2007-2008 crisis. Measures, generally adopted for a limited time, aimed at boosting domestic production of a specific product or raw materials (import substitution strategy),

¹These countries were also the most affected by food inflation at times of high food prices. Even if it has been widespread in the world, there are some differences in the price transmission process (from international to national). Generally the poorest countries with small economies, a currency linked to the dollar or depreciation, and dependent on food imports, have recorded the strongest transmission of international prices (FAO, 2008. www.rlc.fao.org/es/temas/precios/pdf/precios.pdf).

of the 2007-2008 crisis. Measures, generally adopted for a limited time, aimed at boosting domestic production of a specific product or raw materials (import substitution strategy), to protect national producer gains or to solve severe deficits in the balance of payments (case of Ecuador, 2010). Kenya, for example, first reduced import tariffs on wheat from 35 to 10 percent in 2008 and then increased the duty again to 25 percent in 2009, because of larger domestic wheat production and falling international prices. The Government then reduced it to 10 percent again (for hard wheat and barley) in 2010, effective until June 2011. Rwanda decreased the taxes on food products in 2008, but the year after it imposed higher taxes on agricultural products that are produced in sufficient quantities within the East African Community (EAC), to encourage local markets and discourage import from non-EAC countries.

Table 3 Import oriented measures (after food security crisis)

•	ed measures (after 1000 se	,		
Region		Policy measu	ures	
	Import tai	riff	Import restric	tions and bans
	Removed/decreased	Imposed/ increased	Ban lifted/ quota expanded	Ban/quota imposed
ASIA	India Nepal Pakistan Philippines South Korea Thailand	Philippines Vietnam (meat, dairy products)	Philippines Vietnam (sugar)	China Indonesia South Korea
AFRICA	Chad Congo (DR) Kenya (maize) Mali Mozambique Rwanda (*) Tanzania Uganda Zambia Zimbabwe	Gambia Ghana Kenya <i>(wheat)</i> Nigeria Rwanda <i>(**)</i>		Congo (DR) Senegal
NEAR EAST	Algeria (input) Egypt Morocco (wheat, 2010) Syria (feed, pulses, maize, fruits)	Morocco (wheat, 2009) Mauritania Yemen	Syria (potatoes, potato seeds, garlic)	Algeria Morocco Syria <i>(pork)</i> Yemen
LAC	Belize Bolivia Brazil Colombia (maize, input) Costa Rica Ecuador Mexico Nicaragua Panama	Argentina Colombia (milk) Jamaica	Colombia Ecuador Guatemala Panama Paraguay (tomato, 2010) Venezuela	Brazil Honduras Paraguay (tomato, 2009)

^{*} Simplified tax regime within COMESA (Common Market for Eastern and Southern Africa).

^{**} Higher tariff on agricultural products imported from non-EAC countries.

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Table 4

Main interventions to facilitate import of inputs

Country	Input import facilitation measures
Algeria	Import tariff suspended on seeds.
Belize	Import tariff suspended for fuel to facilitate sugarcane producers.
Brazil	Development of a strategy to import enhanced seeds of coffee to boost the production and export part of the crop. Import tariff reduction for feed.
Colombia	Import tariff reduction for fertilizers and pesticides to support rice producers. Import tariff suspended on some fertilizers, pesticides and insecticides, not produced in the country.
Ecuador	Subsidies on fertilizers import to reduce the cost for the smallholder farmers.
Liberia	Import tariff suspended on agricultural equipment, materials and supplies in order to encourage production.
Mozambique	Import tax on fertilizers (2.5%) suspended.
Syria	Import tariff reduction for feed supplements and fish feeds.
Togo	Import tariff reduction on agricultural equipment.
Yemen	Import exemptions limited to machinery, equipment, tools, materials and products imported by the Ministry of Agriculture and Irrigation.

4.2 EXPORT-RELATED MEASURES

In an attempt to lower domestic prices and to ensure a sufficient domestic food supply through bans or increased export duties (export restrictions) were a common reaction to the food security crisis in 2008. Afterwards, the short-term restrictions imposed by some countries to ensure food security appear to have been slowly relaxed, even though it is difficult to identify a clear trend for export oriented measures.

The observed heterogeneity of the export measures taken can be explained by the different roles played by countries in international trade: for example developing exporting countries of agricultural commodities base their trade balance on export gains. The degree of vulnerability to food insecurity and the political and international sensitivity of these types of measures1 generally affect the national production system. For example, export bans or high export duties impose a tax on producers, cutting their incentives to respond to the international price rises by increasing domestic supply.2 Moreover, they may discourage investment in agriculture and have negative implications for food security. Internationally, export restrictions adopted by large exporting countries, can induce an increase in world prices and have negative effects for low income and food importing countries. Outright export bans create greater efficiency losses than export taxes to the country that uses them.

Trade policy is generally subject to intensive international/external negotiations, it can act as a detrimental instrument or in reprisal to other countries (embargo, dumping actions, safeguards and technical barriers to trade) but it is also an important fiscal policy tool for the governments to collect tax revenues.

² Norton, R. D., 2004. Agricultural development policy. Concept and experiences, Wiley Edition.

Since 2009 and with the increasing focus on medium-long term policy decisions that were mainly producer oriented, the **export facilitation process**, which aimed at supporting national production, became more important. In other words, after the 2008 food security crisis, we noticed some attempts in the renewed interest for earnings and advantages offered by export.¹

Among the countries in our sample, export facilitation measures are mainly found in South America (Argentina, Brazil, Chile, Ecuador and Paraguay), in some Near-East countries (Syria and Yemen) and Asian countries, such as China, Pakistan and Thailand, and partially in India. Those measures generally include reduction or elimination of export taxes, lifting of licence approvals (extension of quotas) or export bans. In some cases export subsidies were observed (e.g. in Tunisia for olive oil), in others export financing (e.g. Brazil, India and Syria,) or the reduction of the minimum export price (Thailand for rice). Some measures reflect a long-term decision to improve accessibility to destination markets by some export products, by making internal regulations consistent with the international standards (e.g. Brazil and Chile).

Other countries have not brought major changes to their trade policy orientation since 2008, keeping existing measures in force, such as export bans or restrictions, quota or minimum export price that had been put in place in order to protect the concerned countries from high international prices or to prevent domestic food shortages. Even if as already mentioned, the imposition of taxes to discourage exports could be less detrimental than bans, the trend discloses a "preference" for the export halt of certain commodities, even after the food crisis.

$\ensuremath{\mathsf{Box}}\ 3$ Facilitating accessibility of export products to destination markets

Brazil adopted a combination of measures to facilitate exports of national food products: both through tax incentives (agreement with the EU to reduce tariffs on banana exports) and through sanitary and phytosanitary interventions in the sector. In particular, the government established new rules for the identification and certification system for beef and it developed regulations to comply with international sanitary standards on genetic resources.

Box 4 Institutional measures to improve export

In order to stimulate export some countries established new specific institutions or organizations. For example, Chile created a network, named Tercera Plataforma de Exportación, for agricultural exporting enterprises. They established, through a memorandum, the Safety Guidelines to enhance the export of fruit and vegetables.

In Syria, in February 2009, a supreme council was created that supervised export. In November, a union of exporters was created. The fund for the development and promotion of export also announced the creation of a bank with the specific purpose of financing exports. The Government of Yemen established an Export Center to promote food exports. after announcing its intention to improve the export marketing infrastructure.

For example, the high prices of commodities in general, became a commercial advantage for some Latin American countries that based their export structures in commodities, minerals and nutrients. In 2008 the value of total exports of Argentina, Brazil, Chile, Colombia, Mexico and Uruguay respectively increased by 32%, 27%, 112%, 42%, 17%, 47% compared with the previous year (due to higher price not to export quantity). (Da Silva, 2009, http://www.rlc. fao.org/es/temas/precios/pdf/politicas.pdf).

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In many African net food importer countries, the export bans imposed during 2008 were not removed until the end of 2009 (Chad, Ethiopia, Kenya, Tanzania, Uganda, and Zambia). Bolivia, Peru, several Central American countries, Nepal (for pulses), Indonesia and Vietnam (mainly for rice) and Bangladesh (for rice), temporarily stopped export to moderate the inflation and to cope with shortages in the domestic market. In India, export bans imposed during 2009 on corn, wheat, non-basmati rice and edible oils, started relaxing later, as Ethiopia and Tanzania lifted the export bans kept in force until the first half of 2010.

4.3 TRADE AGREEMENTS AND REGIONAL COOPERATION

The trend regarding the trade agreements and the regional cooperation between countries, as pointed out in "Country Responses to the Food Security Crisis: Nature and Preliminary Implications of the Policies Pursued", is confirmed for the more recent period. In some regions food trade has been growing, driven by the crisis as a result of a trend to lower barriers and facilitate trade. This can also benefit the most vulnerable countries.1

The shifting from "beggar thy neighbour" policies2 to cooperation and solidarity among countries is clearly visible, especially in Latin America where the strongest efforts in that direction can be noted. New free-trade agreements and cooperation agreements in the food and agriculture sector have been established in the region (Free Trade Agreement Chile-Peru, Nicaragua-Panama, Chile-Guatemala, trade cooperation agreements between Colombia and Chile, Venezuela and Ecuador, México and Ecuador) as well as bilateral or multilateral systems of payments. This is the case for the Unified System for Regional Compensation – (SUCRE) between Cuba, Ecuador, Nicaragua and Venezuela, which aimed at avoiding the use of dollars in the commercial transactions, and the bilateral payment system in local currency established between Brazil and Uruguay, and Brazil and Argentina.

Regional integration and bilateral cooperation on food security and nutrition, benefits some of the most vulnerable countries such as Central America, which have a low capacity to import and consequently to cope with food shortages. On the other hand, it allows trade balance improvement for exporting countries (e.g. Argentina, Brazil and Chile).

An example of trade cooperation also comes from Africa: it is the East African Common Market Protocol, signed in November 2009. It came into effect in July 2010 between Burundi, Kenya, Rwanda, Tanzania and Uganda, and it allows free movement of goods, services, capital and labour. Some common trade policies in those countries have been implemented under the East Common Market framework.

Demeke, Pangrazio, Maetz, 2008. Country responses to the food security crisis: nature and preliminary implications of the policies pursued, FAO, Rome, Italy.

² Trade policy that utilizes currency devaluations or protective barriers on import to alleviate a nation's economic difficulties at the expense of other countries.

5. Measures in favour of consumers

During the food security crisis of 2007-2008, governments used different policy measures to support consumers. Most of these measures were built on already existing instruments and were further reinforced during the financial and economic crisis. But there were also several short-term measures taken as a rapid response, mainly expanding coverage and benefits to immediately improve the situation and protect consumers. In late 2008 and early 2009 these measures were mainly continued, although in some cases with less intensity compared to what had been observed in early 2008. In other cases they were continued in a more institutionalised way, encouraging the pursuit of food self-sufficiency or better levels of food security. To achieve these goals, interventions with a longer term perspective were needed. Looking at governments' policies starting from late 2008, it can be observed that decisions taken are highly dependent on the degree and the way countries were affected by the food security crisis. The period and coverage of information collected by this paper are explained below.

5.1 SAFETY NETS

Food Assistance. Governments provided supplementary food assistance to ensure adequate food consumption. Over the past two years, governments reinforced their existing food assistance policies and tried to improve their targeting to very poor households. This was the case for Ecuador, Ethiopia, Guatemala and Yemen. Untargeted food assistance was also bolstered in China, Bangladesh, Honduras, the Dominican Republic, Syria and Malawi.

School Feeding. It is a type of food assistance which was significant in countries such as Brazil (Bolsa Familia), Cape Verde, Colombia, Nepal and Togo especially where, in the latter part of 2008, countries improved the nutritional aspect of this measure.

The use of targeted cash transfers has increased over the past two years: countries use this instrument to minimise their fiscal burden and to target the vulnerable population more effectively. Conditional cash transfers (CCTs) condition the release of cash against the achievement of basic health, nutrition and education standards, an aspect very significant in Latin America: by providing nutrient supplement and health check-ups for children and pregnant women, governments try to increase food access at household level. In the programmes that target specific

Box 5 **Ghana-School Feeding Programme (GSFP)**

GSFP started as a pilot scheme in 10 schools in 2005, one in each region of Ghana with an objective to enhance school enrolment, encourage attendance, ensure retention and improve the nutritional and health status of children. Food for the programme is produced and procured locally with the aim of providing an output market to poor small holder farmers. In 2008, 1435 schools and 614 291 pupils in 138 districts have benefited from GSFP. In 2009 about 640 000 pupils were being fed in 1700 schools throughout the country. The programme was continued in 2010 placing emphasis on rural communities and it was expected that 1 040 000 pupils would have benefited by the end of the year.

population cash is usually paid to the mother in the household. Up to 2010, 18 Latin American countries implemented this type of programme benefiting around 25 million households. In Asian countries, improving coverage of safety nets through cash transfers took place in China, India, Indonesia, and the Philippines. In Iran and Syria, oil coupons were replaced with targeted cash transfers in consideration of annual income levels and expenditures, and family assets. In Ethiopia and Eritrea Governments reduced direct food aid and replaced it with cash transfers. Cash transfer programmes are mostly implemented in middle income countries as low income countries have lower capacities in terms of designing and delivering schemes. Examples of effective and positive cash transfer schemes in low income countries are Liberia and Zambia.

5.2 MARKET INTERVENTION

Strategic Food Reserve. One of the immediate responses of the countries during the first months of the 2008 food security crisis was to release public stocks onto the domestic market to ensure availability of food. But from October 2008 governments started to shift their policies towards replenishing their stocks and developing strategic food reserves. Food Reserves have increased considerably following the food security crisis and various models have been discussed and proposed to combat the crisis. By early 2009, most countries monitored by FAO had started to set up a food reserve as a source of emergency support and in some cases with the view of stabilising prices. In some countries the stock was focused on the main staple commodity such as wheat in Afghanistan, Bangladesh, Libya and Pakistan, maize in Malawi and Zambia or rice in Cambodia, Thailand and Sri Lanka. Countries such as Brazil, Ghana, Nigeria, Rwanda and Venezuela also implemented this measure to improve their food security.

Price Control. One of the most commonly used instruments has been direct price control, particularly on food. Countries tried to pre-set prices or freeze retail prices. Fifteen countries tried to control food prices by fixing prices on certain commodities: rice in Burkina Faso, Cameroon, Mozambique, India, Senegal and Thailand, fertilizer in Bangladesh, Cameroon and Chad. In Latin America and the Caribbean, price controls were introduced on meat in Belize, chicken in Bolivia, meat and milk in Colombia, sugar, wheat, milk and banana in Ecuador, LICONSA programme for milk² in Mexico and sugar, oil and dairy products in Venezuela.

5.3 TAXES

Removal of Value Added Tax (VAT). At the beginning of 2008, 23 of the countries monitored by FAO had reduced or eliminated food tariffs or taxes to combat high food prices. After October 2008, 10 countries reduced VAT, not only on food items but also on agricultural equipments. In Sub Saharan Africa VAT was reduced, not only on food items but on agricultural equipment. However the effectiveness of this policy depended on the initial level and the size of the rate

[&]quot;Asignaciones Familiares" in Uruguay; "Bolsa Familia" in Brasil; "Bono de Desarrollo Humano", Ecuador; "Bono Juancito Pinto/Bono Juana Arzurduy de Padilla" in Bolivia; "Comunidades Solidarias" (former Red Solidaria) in El Salvador; "Conditional Cash Transfer Programme" in Trinidad and Tobago; "Familias en Acción" in Colombia; "Juntos" in Perú; "Mi Familia Progresa" in Guatemala; "Oportunidades" in Mexico; "Plan Escudo" in Costa Rica; "PRAF", Honduras; "Programme of Advancement of Health and Education" in Jamaica; "Red de Oportunidades" in Panama; "Solidaridad" in Domincan Republic; and "Tekopora" in Paraguay.

² For example, in Mexico, for the fourth consecutive year, the price of milk (bought from the government through LICONSA programme) is fixed at 0.32 dollars per litre and this measure is assumed to affect about 3 million people in the country.

Box 6 Liberia-Cash Transfer

The Government of Liberia, with support from UNICEF, the European Commission and the Government of Japan, launched the first cash transfer pilot scheme in 2010 to help reduce poverty, hunger and starvation in extremely poor and labour constrained households and with the aim of children achieving their rights to education and nutrition. The initial pilot scheme was started for a period of two years in Bomi County. The programme aims to provide regular money payments to the most vulnerable families in which there were no working adults: households that consist of people too old to work very young, disabled or chronically sick and child-headed households. The cash transfer programme meets the needs of families that might fall outside the general social safety net support criteria.

reduction. As examples, Tunisia and Algeria removed VAT on food products, the Ethiopian Government removed exempted VAT on food, grain and flour. The Government of Namibia announced a decision to scrap the value added tax on selected food items (bread, cakes, cooking oil, dry beans etc.), and the Central African Republic reduced VAT for basic food from 19 percent to 5 percent. Uruguay decreased VAT on meat and its products. In Asia, only Nepal, the Philippines and Vietnam eliminated or reduced VAT.

5.4 PURCHASE POWER

Governments took measures to increase income, especially for public servants in countries such as Argentina, Brazil, Egypt, Mozambique, Nepal, Syria and Yemen. At the same time in Latin America, the pension scheme is taken into consideration in countries such as El Salvador and Nicaragua.

Measures to improve **employment** have been taken in countries in the Near East, Sub Saharan Africa and in Asia. In Asia, the objective pursued was mostly to ensure a minimum income security. In Uganda and Rwanda, the objective was to modernise agriculture and to have a pool of more skilled labour. Pakistan launched internship programmes to facilitate young people entering the labour market. Bangladesh, Cape Verde and Mozambique created jobs in the public service.

Box 7 The improved Chinese pension system

Deserves special attention due to an innovative mechanism to expand coverage (expected to reach 800 million) and introduce a system to transfer and transport contributions. Any rural resident over the age of 16 who does not take part in the government's existing urban pension scheme is eligible to join the programme. The programme provides a basic monthly pension of between RMB 60 and RMB 300 (US\$ 9 and US\$ 44), depending on the region and size of the individual's account. These pensions are portable across provinces and contributions can count as credit toward retirement, even if the person subsequently moves to a different province. In addition, many provinces are working to increase risk pooling by aggregating the pension fund contributions and outlays across the whole province.

5.5 HEALTH AND NUTRITION INTERVENTIONS

Health and Nutrition Interventions. Those that contribute to food utilization to untargeted populations still take place in a few countries: Afghanistan, Colombia, Ethiopia, and Peru. The majority of them are focused on a specific population and purpose; for example in Brazil, Bolivia, India and Rwanda, mainly to children and mothers through micro nutrient fortification, fortified food and vaccines. In Asian and African countries these interventions usually stand alone; while in Indonesia and Latin America most of them are inserted into institutionalized programmes: commonly conditional cash transfers. The partial information on health and nutrition does not allow for an explanation of the causes behind these phenomena. However overall, it was observed that nutrition interventions in Asia and Africa remain fragmented from food security policies. In some cases the lack of any formal multi-ministry linkages between food and agriculture policies, and social development and health policies, make it difficult to coordinate multi-intervention programmes. On the other hand, it is more common to find clear institutional efforts in Latin America to link food security and nutrition at ministerial and operational levels (Right to Food and Food Security and Nutrition law approvals). The older members of the population are taken care of within more broad and general health programmes, such as in the Dominican Republic, Ecuador, Honduras, India, Jamaica, Peru and Venezuela.

6. Did food and agriculture policies enter into a "new era"?

The 2007-2008 food security crisis caused a change in the orientation of policies adopted by countries, compared to the one that followed over the last two to three decades1. After many years of policies giving a central role to domestic and international markets, with increasing reliance on the private sector and the withdrawal of the state, countries decided to change the policy landscape. Many governments were less inclined to rely on the private sector and increased their direct interventions in markets and even tried to circumvent mechanisms of the international market. Several governments also attempted to achieve food security through food self-sufficiency as described in their agriculture development strategies.

Observers wondered whether, once the peak of the crisis was over, the new policy orientations would be maintained, bringing food and agriculture policy into a "new era" or the countries would go back to the same environment as before the crisis. The information analysed here seems to confirm that the policy decisions taken by countries over the 2008-2010 period tend to remain largely consistent with those made during the 2007-2008 food security crisis. A good example is the increase in the frequency of measures supporting at a large scale farmers' access to improved seeds and fertilizers at subsidized prices.

6.1 A MOVE FROM SHORT-TERM TO MEDIUM AND LONG-TERM CONCERNS

The food security crisis of 2008 was a strong driver for countries to give priority to their food and agricultural policies, which resulted in a series of short-term responses to mitigate the crisis. As of late 2008, countries started giving more importance to medium/long-term policies by focusing on supporting agricultural production as they moved out of the food security crisis and experienced the impact of the global financial and economic crisis.

Governments also stepped up their role in building and financing transport and post-harvest infrastructure. They introduced crop insurance schemes and strengthened public institutions for the agricultural sector. Countries started to build on the already existing short-term policies and integrate them with long-term objectives, while introducing more medium/long-term measures.

Two notable different strategic approaches are: (i) increasing investment in infrastructure to improve the smallholder access to food, and (ii) developing national price and policy information systems to identify problem areas and to inform the producers on prevailing market prices. Other measures worth mentioning are technical assistance, training, public research in agriculture, as well as land and irrigation-related policies. In this latter domain, policies had already been given considerable attention during the food security crisis but gained even more attention in late 2008, as countries moved towards more long-term concerns.

As regards consumers and their improved access to food safety nets, such as food assistance, school feeding and cash transfers, they remain in place at a level comparable to that observed

¹ Demeke, Pangrazio, Maetz (2008), "Country responses to the food security crisis: nature and preliminary implications of the policies pursued"

during the food security crisis. It is, however, integrated with greater long-term development perspectives after the peak of the food security crisis. For instance, while the safety net measures had been implemented with an emergency-oriented approach in 2008, this assistance became more targeted to the most vulnerable populations. Countries with an extensive social protection system managed and benefited more from these measures and strengthened their systems. When the supply of food was provided locally, it also stimulated local production. Several food assistance programmes were implemented in response to natural disasters that countries faced during the past two years, such as drought in Syria and the Agatha hurricane in Central America. As for cash transfer, they increased in frequency among countries in Asia, but reportedly decreased in Africa. In Latin America and the Caribbean, they were stable, and the emphasis was placed on conditionality so as to ensure an enhanced diet diversity and micronutrient intake. Job creation is also medium to long-term measures emphasised by governments.

6.2 TRADE POLICIES: BACK TO MORE "NORMAL" POLICIES IN THE WAKE OF THE 2008 CRISIS

Trade is the only domain where some of the measures taken in 2007-2008 have been reversed. Although export restrictions are still observed by some exporting countries, in order to keep their domestic prices low, unlike in 2008, several countries tried to facilitate exports and provide support and incentives to their domestic production. It is however, difficult to verify whether export oriented measures are always consistent with smallholder production policies and strategies followed by countries. In food importing countries, the earlier focus on the facilitation of imports and increased food availability of input was confirmed, while regional trade cooperation remained high on the agenda in order to reduce dependence on import from outside the region and to develop solidarity among neighbours.

While the high food prices and the financial and economic crisis had put food security at stake, these also presented a window of opportunity for agriculture development by making space for food and agriculture policy initiatives. The collection of policies over the past three years needs to be reviewed for lessons learned in order to identify the most effective approach which drives long-term development, and to take advantage of the opportunity to enrich the new food and agricultural era with the provisions of appropriate policy decisions.

Annexes

Annex 1. Producer oriented measures

	AFGHANISTAN	BANGLADESH	CAMBODIA	CHINA	INDIA	INDONESIA	NEPAL	PAKISTAN	PHILIPPINES	SOUTH KOREA	SRI LANKA	THAILAND	VIETNAM	ARGENTINA	BAHAMAS	BARBADOS	BELIZE	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	CUBA	DOMINICAN REPUBLIC	ECUADOR	EL SALVADOR	GRENADA	GUATEMALA	GUYANA	HAITI	HONDURAS	JAMAICA	MEXICO	NICARAGUA	PANAMA	PARAGUAY	PERU	PUERTO RICO	TRINIDAD & TOBAGO	URUGUAY	VENEZUELA
Input subsidies					✓	✓	✓	✓	✓		✓			✓				✓			✓				✓			✓	✓				✓	✓	✓						
Input distribution	✓	✓			✓		√		✓				✓					✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓			✓	✓	✓				✓	✓
Input voucher																				✓								✓			✓			✓		✓					
Seed improvement	✓	✓			✓				✓													✓			√			1						✓							
Input price control		✓		✓	✓				✓	√		✓	✓	✓					✓		√			✓	✓								✓								✓
Taxes on agricultural input			✓		✓																																			✓	
Finance/Credit	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓				✓	✓	✓	✓	✓		✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓			✓	✓
Insurance schemes		✓		✓	✓		✓				✓	✓		✓				✓	✓	✓					✓			✓					✓	✓			✓				
Institutions	✓		✓	✓	✓	✓	✓		✓	✓				✓				✓	✓	✓	✓	✓	✓	✓		✓		✓					✓	✓	✓	✓	✓	✓			✓
Government procurement				✓		✓			✓				✓						✓	✓	✓	✓		✓	✓			✓				✓	✓								✓
Asset/ Infrastructures	✓	✓	✓	✓		✓	✓		✓		✓		✓	✓				✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓
Information collection system				✓										✓					√	√	✓				√	√	✓	✓	✓			✓		✓		√	√			✓	
New land policies		✓																✓	✓	✓	✓	✓		✓	✓	✓		✓				✓	✓	✓	✓	✓				✓	✓
Employment	✓			✓	✓		√					✓		✓					✓		✓				✓			✓					✓		✓			✓			✓
Knowledge & Extension			✓				√		✓				✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	√	✓	✓

Annexes 29

BENIN	BURKINA FASO	BURUNDI	CAMEROON	CAPE VERDE	CENTRAL AFRICAN REPUBLIC	CHAD	DJIBOUTI	DRC	ETHIOPIA	GAMBIA	GHANA	KENYA	LIBERIA	MADAGASCAR	MALAWI	MALI	MOZAMBIQUE	NIGERIA	RWANDA	SENEGAL	SIERRA LEONE	SOUTH AFRICA	SUDAN	SWAZILAND	TANZANIA	TOGO	UGANDA	ZAMBIA	ZIMBABWE	ALGERIA	EGYPT	MAURITANIA	MOROCCO	SYRIA	TUUNISIA	YEMEN
						✓		✓			✓	✓		✓		✓	✓	✓	✓				✓					✓	✓	✓		✓	✓	✓	✓	✓
✓								✓	✓	✓	✓	√				√		√	√				✓			√					√	√		✓	✓	✓
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	✓		✓								✓						✓	✓	√	✓													✓	✓	✓	
						✓												√															√	✓	✓	✓
																											✓	√		√		√	√		✓	
			√				✓	✓	✓	✓	✓	√			✓		√					✓	✓		✓		√			√	√	√	√	✓	✓	
										✓	✓									√										√						
			✓				✓		✓	✓	✓	√						√	√	√	✓	✓			√	√	√	√		√		✓	✓	√	√	
	✓															√				√																
				√						√	√							√	√	√			√			√		√		√	√	√	√		✓	✓
						✓												✓												✓						
	✓			✓			√		√			✓							✓			✓				✓					✓			✓		
				V								V										V	V								V	V				
	✓							✓			✓							✓		✓						✓	✓			✓				✓	√	
	✓		✓	✓								✓						✓	✓	✓			✓			✓				✓				✓		

Annex 2. Trade oriented measures

	AFGHANISTAN	BANGLADESH	CAMBODIA	CHINA	INDIA	INDONESIA	NEPAL	PAKISTAN	PHILIPPINES	SOUTH KOREA	SRI LANKA	THAILAND	VIETNAM	ARGENTINA	BAHAMAS	BARBADOS	BELIZE	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	CUBA	DOMINICAN REPUBLIC	ECUADOR	EL SALVADOR	GRENADA	GUATEMALA	GUYANA	HAITI	HONDURAS	JAMAICA	MEXICO	NICARAGUA	PANAMA	PARAGUAY	PERU	PUERTO RICO	TRINIDAD & TOBAGO	URUGUAY	VENEZUELA
Removed/ decreased					✓		✓	✓	✓	✓		✓					✓	✓	✓		✓	✓			✓								✓	✓	✓						
Imposed/ Increased									✓				✓	✓							✓											✓									
Ban lifted/ quota expanded									✓				✓								✓				✓			✓							✓	✓					✓
Ban or quota expanded				✓		✓				✓									✓												✓					✓					
SPS measures on import*						✓													✓			✓				✓							✓		✓						✓
Removed/ decreased		✓		✓	✓			✓				✓		✓					✓	✓	✓	✓			✓	✓		✓			✓		✓	✓	✓	✓	✓				✓
Imposed/ increased				√										✓																											
Ban lifted/ quota expanded		√			√			✓					✓	✓				✓			✓	✓			✓						√			√		√					
Ban or quota imposed					✓	✓	✓							✓				✓							✓												✓				
Export subsidies					✓														√																✓						
Export promotion**					✓							√	✓	✓			✓		✓	✓	✓	✓		✓	✓								✓	✓	✓		✓			✓	
Trade agreement					✓		√										✓		✓	✓	✓		✓		✓			✓					✓	✓			✓				✓

Annexes 31

BENIN	BURKINA FASO	BURUNDI	CAMEROON	CAPEVERDE	CENTRAL AFRICAN REPUBLIC	CHAD	DJIBOUTI	DRC	ETHIOPIA	GAMBIA	GHANA	KENYA	LIBERIA	MADAGASCAR	MALAWI	MALI	MOZAMBIQUE	NIGERIA	RWANDA	SENEGAL	SIERRA LEONE	SOUTH AFRICA	SUDAN	SWAZILAND	TANZANIA	TOGO	UGANDA	ZAMBIA	ZIMBABWE	ALGERIA	EGYPT	MAURITANIA	MOROCCO	SYRIA	TUUNISIA	YEMEN
					√			✓				✓				✓	✓		✓						√		√	✓	✓	✓	√		✓	✓		
										✓	✓	✓						✓	✓													√	√			✓
																																		✓		
								✓												✓										√			√	✓		✓
																														√	√	√	√	✓	✓	
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																															√					
					√				✓						✓										√			✓		✓	√			✓		
					√				✓			√															√	√			√		√			
																																		✓	✓	
																	✓								✓				✓		√	√		✓	✓	✓
		√	✓									✓							✓					✓	√		√						√			

Annex 3. Consumer oriented measures

	AFGHANISTAN	BANGLADESH	CAMBODIA	CHINA	INDIA	INDONESIA	NEPAL	PAKISTAN	PHILIPPINES	SOUTH KOREA	SRI LANKA	THAILAND	VIETNAM	ARGENTINA	BAHAMAS	BARBADOS	BELIZE	BOLIVIA	BRAZIL	CHILE	COLOMBIA	COSTA RICA	CUBA	DOMINICAN REPUBLIC	ECUADOR	EL SALVADOR	GRENADA	GUATEMALA	GUYANA	HAITI	HONDURAS	JAMAICA	MEXICO	NICARAGUA	PANAMA	PARAGUAY	PERU	PUERTO RICO	TRINIDAD & TOBAGO	URUGUAY	VENEZUELA
Food Assistance		√		√	√		√		√										✓	✓	√			✓	✓	√		✓			✓			✓	✓	✓		✓			✓
School Feeding			√		√		√		✓										✓		√	✓		√		√		✓			✓	✓	✓		✓	✓					✓
Cash transfers					✓	√	✓	✓			✓		✓	✓				✓		√				✓	√	√		√			√		✓		✓			√			
Strategic Food Reserve	✓	✓	✓					√			✓	✓							√						√			√													✓
Price Control		√			✓			√	✓	✓		✓		√			√	√			✓			✓	√								✓								✓
Removal of VAT						√	✓						√																			✓			✓					✓	
Employment programmes		√		√	√		√	√		√		✓																			✓		√					√			✓
Nutrition and Health Assistance	√		√	√	√	√	√	√	√	✓		√			✓	√	√	✓	√	√	✓	√	✓	✓	√	√	√	√	✓	✓		✓	✓	✓	✓	✓	√		✓	✓	✓

Annexes 33

BENIN	BURKINA FASO	BURUNDI	CAMEROON	CAPE VERDE	CENTRAL AFRICAN REPUBLIC	CHAD	DJIBOUTI	DRC	ETHIOPIA	GAMBIA	GHANA	KENYA	LIBERIA	MADAGASCAR	MALAWI	MALI	MOZAMBIQUE	NIGERIA	RWANDA	SENEGAL	SIERRA LEONE	SOUTH AFRICA	SUDAN	SWAZILAND	TANZANIA	TOGO	UGANDA	ZAMBIA	ZIMBABWE	ALGERIA	EGYPT	MAURITANIA	MOROCCO	SYRIA	TUUNISIA
~	✓								√						✓										✓	✓			✓			✓		✓	✓
	~			✓							✓					✓				✓	✓					√									
				✓					✓		✓		✓															✓		✓		✓		✓	
	√			✓		✓					✓	✓			✓			✓	✓						✓	✓		✓		✓					√
	√		✓			✓						✓	✓		✓	√	✓			✓					✓	√			✓				✓	✓	
							✓		✓																		✓	✓		✓		✓			√
				✓													✓	✓								✓									

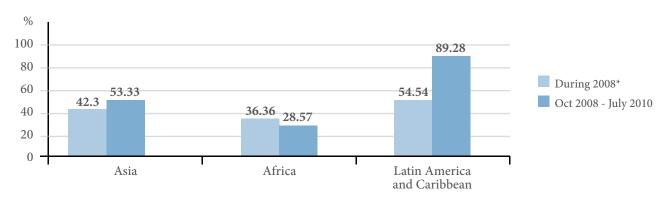
Α		4. Interventions on tion and health	MOTHERS	CHILDREN	ELDERLY	ALL	MICRO NUTRIENT SUPPLEMENTATION	VACCINE	FOOD FORTIFICATION	NUTRITION AND HEALTH EDUCATION	INITIAL DATE
	Morocco	Fix the concetration of lodine is salt for consumption, production and distribution				1			1		2009
	Mozambique	Breastfeeding	√	1							2008
AFRICA*	Senegal	Prevention and management of HIV/AIDS				1				√	2009
	Sierra Leone	Health care and nutrition pratices training sessions	✓							✓	2008
	Togo	Fortified food with vitamin A, especially in dairy products				1			✓		2009
	Cambodia	Iron folate, Vitamin A, Tetanus	✓				1	✓			NA
	China	Iodine salt				1	√				Since 2010
	India	Vitamin A, Iodine supplement	✓	1			1	√	✓		Since 1961
		Antenatal care, institutional deliveries (Reproductive and child health project)	✓								NA
		Disease control programme for: tuberculosis, blindness, leprosy, dengue and malaria (national rural health mission)				✓		1		✓	Since 2007
ASIA	Nepal	Kitchen garden, programme to strengthen nutritional deficiencies for school populations		1					✓		Since 2005
		Tuberculosis programme				✓		✓			Since 2009
		Vaccination programme for BCG, DPT, Hepatitits, Polio, Measles		✓				✓			Since 2009
		Maternal and child care	✓	✓							Since 2007
		Encephalitis	✓	✓				✓			Since 2009
		Family planning programme	✓							✓	Since 2009
	Philippines	Iron fortified rice (IFR) added to the distribution of Food for School Program (on-going since 2004)		1					✓		Since 2010
	Bolivia	Micro nutrient supplementation; nutrition and health education (Desnutrición Cero)	✓	✓			✓		✓		2008
	Brazil	Forums for soup kitchen and food bank managers to share experiences in food and nutritional security				√				✓	2010
		Introduction of a bakery for school feeding programme in order to complement the food ration given for dinner		✓							2010
	Colombia	Fortified milk with iron, zinc and folic acid		✓					✓		2008
	Domincan Rep	Fortified milk				✓			✓		2010
	Ecuador	Food supplementation "Chis-Paz" and fortified milk distributed within the Food and Nutrition programme for children (PANI)		√					✓		2010
		Fortified iron		✓			✓				
		Breastfeeding campaign	✓	✓							2010
LAC*	El Salvador	Tuberculosis, diphtheria, tetanus, pertussis, hepatitis B, Haemophilus influenza, rotavirus, measles, rubella and mumps Distribution of food with food supplementation item (iron, calcium, vitamin		✓				✓			2009
	Guatemala	A and C). The basket contains cooking oil, beans, corn, rice, sugar				√			✓		2010
		Fortified milk		✓		✓			✓		2010
		Education and training programmes on food and nutrition communication				✓				✓	2010
	Mexico	Production support to make more nutritious food available, such as fruits and vegetables, cereals, meat and fish				✓					2010
		Include highly nutritious food (amaranto) in the school feeding programme for public and private schools		*							2010
		Training in hygiene measures to prepare food for soup kitchen and school feeding programmes		1		✓				✓	2010
	Nicaragua	Fortified food distribution campaign	✓	✓					✓		2009
	Panama	Rice fortification				1			✓		2009
	The second secon	Breastfeeding campaign		1							

^{*} Most of the interventions listed above have existed for a long time. For countries in Africa and Latin America and the Caribbean, the table above reports in term of recent changes (2008-2010) experienced in policy decisions.

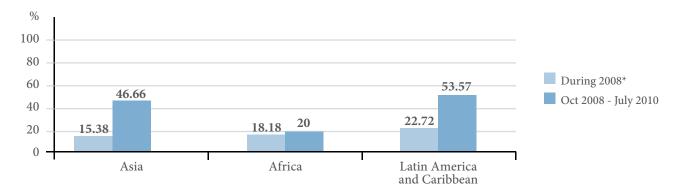
Annexes 35

Annex 5. Comparison of producer oriented measures during and after 2008¹

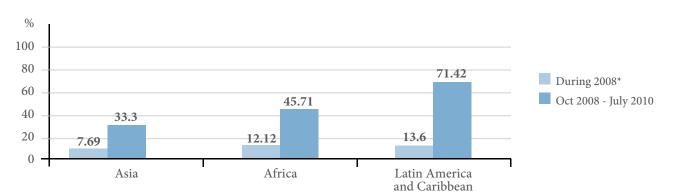
Production Support Programmes*



Productive Safety Nets*



Fertilizer and Seed Programmes*

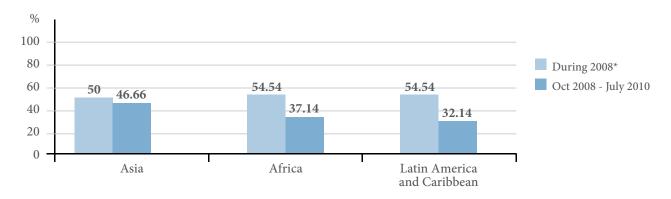


^{*} Production support measures mainly include production subsidies and general input subsidies. Seed and fertilizer programmes are largely aimed at improving availability, while productive safety net programmes refer to targeted input subsidies (in support of poor producers).

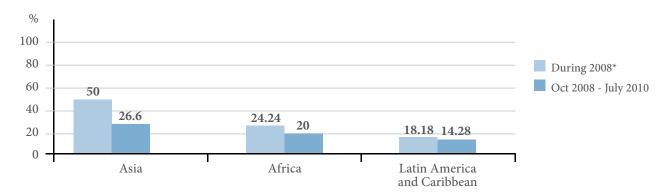
¹ Data for 2008 is extracted from the paper Demeke, Pangrazio, Maetz (2008) and the sample includes 81 countries: Asia (26 countries), Africa (33countries) and Latin America and Caribbean (22 countries). Asia includes Middle East and Africa refers to North and Sub Saharan Africa.

Annex 6. Comparison of trade oriented measures during and after 2008

Reduction of Tariffs and Custom Fees on Import*



Restricted or Banned Export*

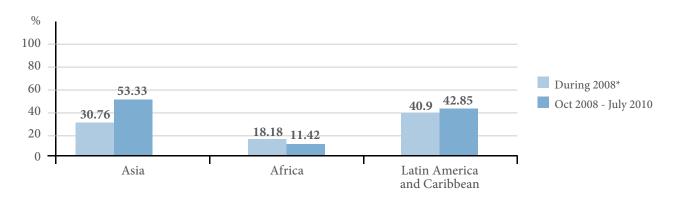


^{*} Comparison made on reduction of tariff on import as well as export restrictions in some cases might refer to different commodities with regard to different periods.

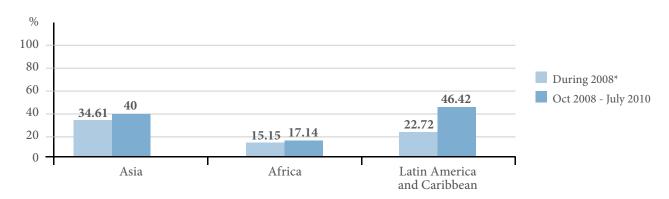
Annexes 37

Annex 7. Comparison of consumer oriented measures during and after 2008

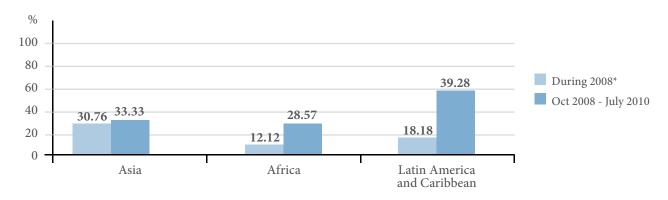
Cash Transfer



Food Assistance



Increase Disposable Income



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