Food and agriculture policy decisions

Trends, emerging issues and policy alignments since the 2007/08 food security crisis

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Acronyms and abbreviations

AFTA	ASEAN Free Trade Area
ADB	Agricultural Development Bank
AMIS	Agricultural Market Information System
APTERR	ASEAN Plus three Emergency Rice Reserve
ASEAN	Association of Southeast Asian Nations
AU	African Union
CAADP	Comprehensive African Agriculture Development Program
CAN	Andean Community
CCT	Conditional Cash Transfer
CES	Commodity Exchange System
CET	Common External Tariff
CFA	Financial Cooperation in Central Africa
CFS	Committee on World Food Security
CGS	Credit Guarantee Scheme
CILSS	Permanent Interstates Committee for Drought Control in the Sahel
CT	Cash Transfer
CU	Customs Union
DRC	Democratic Republic of Congo
DRM	Disaster Risk Management
EAC	East African Community
EAERR	East Asia Emergency Rice Reserve
ECOWAS	Economic Community of West African States
ETLS	ECOWAS Trade Liberalization Scheme
FAO	Food and Agriculture Organization of the United Nations
FAPDA	Food and Agriculture Policy Decision Analysis
FDI	Foreign Direct Investment
FTA	Free Trade Area
GDP	Gross Domestic Product
GFD	General Food Distribution
GIEWS	Global Information and Early Warning System
GMP	Guaranteed Minimum Price
HLPE	High Level Panel of Experts
ICT	Information and Communication Technologies
IEA	International Energy Agency
IFAD	International Fund for Agricultural Development

IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
ISFP	Initiative on Soaring Food Prices
LAC	Latin America and the Caribbean
LAO PDR	Lao People's Democratic Republic
LDCs	Least Developed Countries
MAFAP	Monitoring African Food and Agricultural Policies Project
MCCA	Central American Common Market
MENA	Middle East and North Africa
MERCOSUR	Southern Common Market
MFI	Microfinance Institution
MIS	Market Information System
MSP	Minimum Support Price
NAFTA	North American Free Trade Agreement
NCT	Non-contributory cash transfer
NEPAD	New Partnership for Africa's Development Program
NGO	Non-governmental organization
OECD	Organization for Economic Co-operation and Development
OMS	Open Market Sales
PFDS	Public Distribution System (Bangladesh)
PMV	Plan Maroc Vert
RAIP	Regional Agricultural Investment Plan
REC	Regional Economic Community
SAARC	South Asian Association for Regional Cooperation
SADC	Southern African Development Community
SAFTA	South Asian Free Trade Agreement
SCT	Social Cash Transfer
SFB	SAARC Food Bank
SICA	Central American Integration System
SSA	Sub-Saharan Africa
TRQ	Tariff Rate Quota
UNCTAD	United Nations Conference on Trade and Development
VAT	Value-added tax
WAEMU	West African Economic and Monetary Union
WB	The World Bank
WFP	World Food Programme
WRS	Warehouse Receipt System
WTO	World Trade Organization

Executive summary

This report is based on extensive research, including document reviews and country level surveys, on policy decisions made by governments during the period 2007 to 2012. A broad range of food security and agricultural development policy decisions implemented in 71 developing countries of **Africa** (27), **Asia** (24) and **Latin America and the Caribbean**, **LAC**, (20) was reviewed. The countries covered represent 81, 90 and 98 percent of the total population in **Africa**, **Asia** and **LAC**, respectively. The review has focused on policy trends, common practices and emerging issues. Policies are increasingly designed to influence domestic food availability and access.

Concerns about food security have increasingly prompted measures to boost production and manage price volatility and other risks

Since the global food crisis of 2007/08 there has been a renewed focus on production support measures. Most countries have implemented policies and programmes designed to enhance support for domestic producers, especially small farmers.

Subsidizing inputs and improving access to credit have attracted increased policy attention

Subsidizing inputs and improving access to credit have gained widespread popularity in all the three regions during the reference period. Many countries have opted for large-scale national subsidy programmes to lower input costs, especially following the significant and rapid increases in the international price of fertilizers in 2008. However, the report also finds that there is a growing interest in improving the efficiency of subsidy programmes by switching the design from universal coverage to targeted households and/or staple grains. The high cost and insufficient supply of private sector credit resources have also been responsible for government interventions to guarantee the availability of credit at preferential interest rates in many countries. Market failures in the credit market are being addressed through special programmes, credit guarantee schemes and specialized banks in many countries.

The reduction of price, production and land tenure risks has gained widespread public support

A series of recent high price volatility events and production shocks has triggered a number of government interventions to stabilize prices and promote insurance as part of their production support measures. Several countries adopted price stabilization and support measures in 2007/08 to protect producers against price risks. These policy decisions were retained in 2009/10 and 2011/12 although the interventions were applied more consistently and systematically in **Asia** than in **Africa** or **LAC**. Both public and private agricultural insurance schemes were expanded to tackle production shocks including disaster risk management. State-owned insurance companies were often required to operate alongside private insurance companies and provide special services, such as reinsurance and insurance coverage, for catastrophic risks.

The period was marked by a considerable increase in global demand for farmland. As a consequence the proportion of countries adopting measures to improve access to land for smallholder farmers and increase security of land tenure witnessed a marked increase during the reference period. Legislative and administrative measures as well as broader land reform programmes are being applied to improve the security of tenure of smallholders in a number of countries. Concern about potential social and political conflicts associated with large-scale land acquisitions has also led to responses at the global level, including the *Principles for Responsible Agricultural Investment that Respect Rights, Livelihoods and Resources* (PRAI) presented by FAO, UNCTAD, IFAD and the World Bank, and the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security adopted by the UN Committee on World Food Security.

Since the 2007/08 global food crisis, governments have focused on improving the access and utilization of food to ensure food security

Consumer support policies to lessen the impact of the 2007-09 food, fuel and financial crisis on the poorest and most vulnerable groups were used by countries in all three regions (**Africa**, **Asia** and **LAC**). However, although the implementation of these policy measures between 2007 and 2012 followed different trends, approaches and practices, some common features and patterns have emerged.

Food and fuel subsidies remain popular despite ongoing attempts to reform

Food and fuel subsidy measures have remained popular with a number of countries seeking to rationalize their public spending by gradually moving from generalized universal subsidies toward more targeted interventions directed at vulnerable households. Although attempts to phase out subsidy regimes have often proved challenging, there is a growing recognition that universal price subsidies represent a burden for public finances, benefit better-off groups more than poor ones and distort the market.

Food and cash-based transfers have received a growing attention

Food-based transfer schemes have been widely utilized to protect vulnerable people from hunger and malnutrition. A growing number of countries in all three regions are shifting from short-term, ad-hoc food-based interventions, in most cases implemented in response to emergencies, towards mainstreaming and institutionalizing free food distributions, nutritional support initiatives and school feeding into their national social safety nets programmes. School feeding has gained popularity but there is a large discrepancy among the regions, with all selected **LAC** countries operating such programmes, compared to only 40 percent in **Africa** and 50 percent in **Asia**. Several countries have institutionalized long-term nutritional interventions to address hunger, especially among children and mothers. Nutritional programmes are more common in LAC and are often implemented as mother and child health care, delivery of food and micronutrients, nutritional extension and education. On the other hand, government-based food for work programmes have declined in popularity compared to nutrition or school feeding programmes.

Cash-based transfer schemes have emerged as a preferred policy instrument against poverty and food insecurity in LAC (mainly as conditional cash transfers) as well as **Africa** and **Asia** (mainly as unconditional transfers). Among the major attractions of cash transfer schemes are the greater choice they give to beneficiaries in how to use the additional income, the higher cost-effectiveness due to reduced administrative costs, lower transaction costs, and the greater impact on long-term education and poverty. The *Bolsa Familia* of **Brazil**, the best known of all conditional cash transfer schemes in the developing world, has the objective of reducing short-term poverty by direct cash transfers and fighting long-term poverty by increasing human capital among the poor through linking education and health services to cash transfers. A growing number of countries are also institutionalizing cash transfer as well as cash-for-work programmes.

Trade and market development policies are being applied to influence prices in favour of producers or consumers

Various trade and market development policy measures were used to mitigate the impact of high and volatile food prices on consumers, producers and other value chain operators throughout the reference period with differing degrees of intensity and policy mix. Some policies were adopted on an ad-hoc and short term basis while others were applied more consistently and with a longer term perspective.

More open import policies are being pursued often along with restrictive export policies

In the immediate aftermath of the 2007/08 food crisis a number of governments adopted more open or non-restrictive import policies but imposed export bans and restrictions to ensure the domestic availability of food staples at affordable prices. Import tariffs on staples were commonly reduced and/or suspended while

exports of important crops such as wheat, maize and rice were banned or restricted. Over the 2009/10 to 2011/12 period, however, an increasing number of countries removed export bans and modified import tariffs, with the goal of securing food for consumers (e.g. reducing tariffs) or protecting producers (e.g. increasing tariffs). The negative impact of export bans on producers' incentive was recognized and many countries replaced the bans with export taxes, minimum export prices and quotas. A few countries also reintroduced import tariffs to support domestic production.

Marketing development has received renewed public interest

A renewed public interest in foodgrain stocks (especially in **Asia** and **Africa**), warehouse receipt systems (WRSs), agricultural commodity exchanges and market information systems was observed as a longer term solution to manage price fluctuations, enhance farmers' incomes and promote market efficiency. Many of the countries reviewed increasingly promoted public-private partnership in grain marketing, particularly in stock management and market information systems. Measures to address regulatory and legislative challenges in the operation of WRSs and commodity exchanges have also attracted a growing attention. Many **African**, **Asian** and **LAC** countries have seen a rapid expansion of mobile phone networks and other ICT applications to provide pricing as well as matching (sellers with buyers) services (virtual trading floors).

Policy harmonization within Regional Economic Communities remains a major challenge as integrated policies are pursued to achieve food self-sufficiency at national level

Food-self-sufficiency policies are being pursued despite regional free trade agreements

A systematic promotion of mutually reinforcing actions and coordination to achieve food-security related goals at national or regional levels is generally seen as positive. At national level, goals such as food self-sufficiency have led to an integrated and coordinated approach. Since 2007/08, a few countries in **Asia**, **Africa** and **LAC** have shifted from a policy of food self-reliance (this includes food imports to achieve national food demands) to food self-sufficiency. To this end, a comprehensive programme, which entailed a package of subsidized technological inputs and services, price support, import tariffs to protect domestic producers, and increased public spending in agriculture, was launched during the reference period. Strategies aimed at national food self-sufficiency, however, could mean less dependence on trade with negative implications for regional food security and intra-regional food trade. High international prices, on the other hand, encouraged few countries to adopt integrated policy packages to stimulate the export of selected food commodities. A small number of countries (from all three regions) have recently launched export promotion

policies that include measures for facilitating trade (by easing export procedures) along with integrated programmes to boost production and enhance private sector participation. Such an export strategy is consistent with trade and food security policies of many RECs as most of them are dependent on food imports to feed the population and would benefit from being able to obtain adequate and reliable sources of food within the REC. Other member countries could also see this as a sign to pursue more open trade policies rather than follow a food self-sufficiency strategy.

National concerns about food availability and prices have led to regional policy misalignment

At the regional level, attempts have been made to harmonize trade and stock policies to achieve regional food security. However, export restrictions were widely implemented by members of most of the RECs covered in the study, whilst at the same time reducing or suspending import tariffs, particularly in 2007/08, causing policy misalignment with regional commitments. Food deficit countries restricted exports and facilitated imports with the objective of increasing domestic food supply and keeping prices lower for consumers. As a result, most RECs appear to have run into difficulties attaining collective region-wide food security because of divergent national interests, especially between food-deficit and food-surplus countries. In at least one particular case, that of the Central American Common Market (MCCA), trade policies seem to have been aligned with minimal trade restrictions on the selected staples thus boosting trade among the REC members and enhancing regional food security during the reference period.

The food price surge of 2007/08 has revamped policy debates on strategic stocks at global and regional levels and a few RECs in **Asia** and **Africa** have shown greater interest in harmonizing their policies to establish a regional stock during the study period. The Economic Community of West African States (ECOWAS), the Association of South-East Asian Nations (ASEAN) Plus Three Emergency Rice Reserve (APTERR) and the South Asian Association for Regional Cooperation (SAARC) Food Bank (SFB) are all trying to set up such mechanisms to create regional food reserves. However, it is unclear how countries can remain committed to regional reserves while simultaneously implementing policies and stepping up investment to establish or expand their own national stocks. It is still to be seen whether regional stocks could be a useful and effective tool for tackling future food emergencies, or whether national food stocks would be the most effective option for countries dealing with unexpected food shortages, or whether a combination of the two is a better option. Alternatively, RECs and national governments could agree to maintain a combination of regional and national stocks with the goal of benefiting from the merits of maintaining national as well as regional stocks.

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1. Introduction

The FAO Food and Agriculture Policy Decisions Analysis (FAPDA)[1] initiative, led by the Agricultural Development Economics Division (ESA)[2], produced this report in collaboration with the Regional Office for Latin America and the Caribbean (RLC), the Regional Office for Asia and the Pacific (RAP), the Regional Office for Africa (RAF) and the Global Information and Early Warning System (GIEWS). The FAPDA team comprises staff from FAO headquarters as well as from regional, sub-regional and country offices. With the aim of promoting evidence-based decision making, FAPDA seeks to enhance the collection and dissemination of information on policy decisions and to create a policy database as a public good. To achieve these goals, FAPDA provides a web-based tool which tracks national food and agriculture policy decisions from more than 80 countries[3].

Policy monitoring is about gathering evidence on a policy while it is being implemented, enabling the findings to be used when deciding future courses of action. Because it is of paramount importance to FAO's mission of achieving food security and agricultural development, policy monitoring and analysis is now fully included in FAO's new Strategic Objectives (SOs), namely SO1 (*Contribute to the eradication of hunger, food insecurity and malnutrition*) and SO4 (*Enable more inclusive and efficient agricultural and food systems at local, national and international levels*).

Policies can be seen as a process; therefore, it is crucial to monitor them in order to provide evidence and create a space for policy dialogue, thereby shedding light on emerging issues. FAPDA's policy monitoring activities started in 2008 within the framework of the Initiative on Soaring Food Prices (ISFP)[4] to track policy decisions as an immediate response to the food security crisis. The scope has subsequently been expanded to cover medium and long term food and agriculture policy decisions. During the food crisis (2007/08), information was collected mainly through periodic reports prepared by FAO country, sub-regional and regional offices on a weekly basis, as well as mission reports and web-based monitoring. The first output was the

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1 See FAPDA's website: http://www.fao.org/economic/fapda

2 The FAPDA initiative started in 2008 under the former Policy Assistance and Support Service (TCSP).

3 Policy decisions discussed and analysed in this report have been registered and published in the FAPDA web-based tool and are available for consultation at: http://www.fao.org/economic/fapda/tool/Main.html

4 For more information, see the FAO ISFP website at: http://www.fao.org/isfp/about/en/

2009 publication: *Country Responses to the Food Security Crisis: Nature and Preliminary Implications on the Policies Pursued* .[5]

After the peak of the food crisis, attempts were made to expand the scope of policy monitoring activities. During this time, FAO country reports became less regular and the information less exhaustive. A combination of different modalities was thus adopted for collecting information on policy decisions, including:

- Web-based monitoring through governments' official websites and online reliable sources (mainly used for Latin America and the Caribbean and Asia regions);
- National consultants collecting information through purposely designed questionnaires (principally in Sub-Saharan Africa);
- National focal points nominated by governments in relevant ministries, or based in national policy institutes (few pilot countries in North and Sub-Saharan Africa as well as Asia).

This methodology was adopted for preparing the second global policy report, *Food and Agriculture Policy Trends after the 2008 Food Security Crisis: Renewed Attention to Agricultural Development*, covering the 2009/10 period[6] , as well as for the current third global report.

This report is based on extensive research, document reviews and country level surveys on policy decisions made by governments over three biennia (2007/08; 2009/10; 2011/12). A broad range of food and agriculture policy decisions implemented in 71 developing countries have been reviewed. Selected policy decisions were analysed following FAPDA's classification dividing policy decisions into three main categories: producer-oriented policies, consumer-oriented policies, as well as trade-oriented and macroeconomic policies. The policy decisions selected included those most debated and most frequently implemented since the 2008 food crisis. The analysis, where applicable, focused on the three major staple food commodities, rice, wheat and maize, due to their importance for food security, and volume of trade in the international market. The countries selected included: 27 countries in Africa (22 in Sub-Saharan Africa and 5 in North-Africa), 24 countries in Asia (14 in South and East Asia, 3 in Central Asia and 7 in Middle East) and 20 countries in Latin America and the Caribbean (10 in Central America and the Caribbean and 10 in South America), as shown below. Countries were selected considering: (i) the coverage in the two previous FAPDA reports; (ii) institutional settings or political conditions supporting the information collection process; and (iii) human resources and funding constraints. The countries reviewed represent 81, 90 and 98 percent of the total population in Africa, Asia and LAC respectively.

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5 Demeke M., Pangrazio G., Maetz M. (2009), *Country Responses to the Food Security Crisis: Nature and Preliminary Implications on the Policies Pursued*, FAO, Rome, available at http://www.fao.org/fileadmin/user_upload/ISFP/pdf_for_site_Country_Response_to_the_Food_Security.pdf

6 See *Food and agriculture policy trends after the 2008 food security crisis: renewed attention to agricultural development*, (2011) at: http://www.fao.org/docs/up/easypol/932/policy-trends_125en.pdf

AFRICA (27)	Algeria, Burkina Faso, Cameroon, Chad, Democratic Republic of Congo, Egypt, Ethiopia, Ghana, Kenya, Lesotho, Liberia, Malawi, Mali, Mauritania, Morocco, Mozambique, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe
ASIA (24)	Afghanistan, Azerbaijan, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Iran, Iraq, Kazakhstan, Lao PDR, Lebanon, Nepal, Oman, Pakistan, the Philippines, Saudi Arabia, Sri Lanka, Syria, Tajikistan, Thailand, Viet Nam, Yemen
LAC (20)	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela

The focus of the report is on policy trends, common practices and emerging issues at national, regional/sub-regional and global levels. It has been documented that threats to food security have led governments to reconsider liberalization policies in food and agricultural development and expand or launch social protection programmes. Policy decisions to achieve food self-sufficiency have attracted a lot of attention. The food, fuel and financial crises of 2007-09 have also brought to the table discussions regarding price and agricultural risk management.

As countries gain experience we see a more institutionalized and longer term approach replacing ad-hoc and knee-jerk reactions. We also see a high degree of policy convergence regarding domestic policy support to producers and consumers. However, protective trade policies at national levels have contradicted the strive for policy harmonization and regional food security advocated by many regional economic communities.

The remainder of the report is divided into four chapters: chapter two examines producer-oriented policies, focusing on input subsidies, agricultural credit, price support, agricultural insurance and land policies. Chapter three reviews consumer-oriented measures that provide support to consumers and vulnerable groups. Specifically, it discusses consumer subsidies (including food subsidies and price control measures, and fuel subsidies), food-based and cash-based safety nets. Chapter four examines policies affecting agricultural markets and trade, focusing on food stocks, market development and trade policies (import and export policies). Chapter five analyses policy harmonization and integration with particular attention to policy alignment between REC and member countries.

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2. Producer support measures

Producer support measures rely on a range of policies to boost domestic food production, increase farm income and improve food security. This report discusses only those that have been most frequently the object of policy decisions to lower the cost of production, stabilize prices, mitigate risks, and ensure tenure security of producers, especially smallholders, i.e. input subsidies, agricultural credit, price support, agricultural insurance and land policies. Since the 2007/08 food crisis, the use of these policy instruments has intensified but the trend has varied from one country or region to another.

2.1 Input subsidies

Key Findings

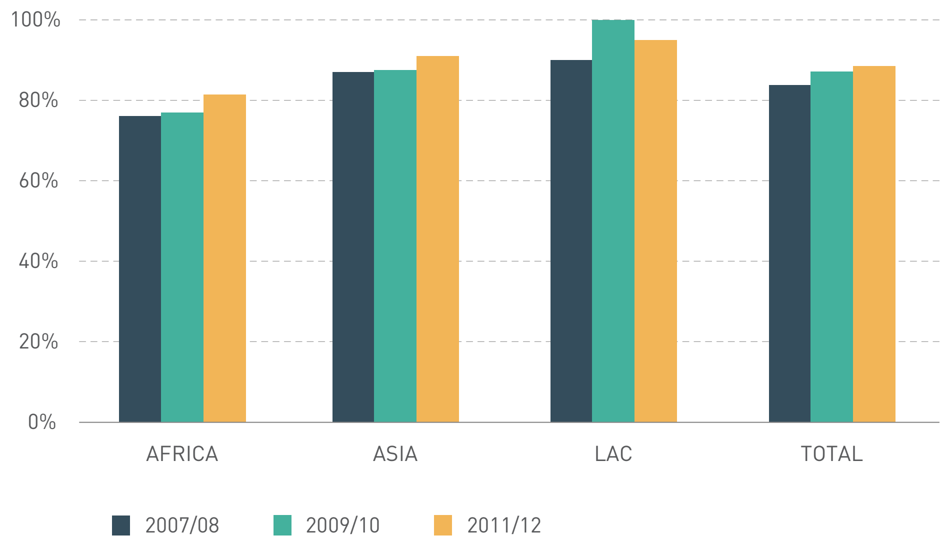
- Input subsidies have become one of the most popular production support measures. The proportion of countries with input subsidy programmes increased in 2009/10 and 2011/12, compared to 2007/08, in all the three regions.
- Large-scale input subsidy schemes gained popularity in **Africa** and remained a preferred policy instrument in **Asia**. In **LAC**, however, input subsidies have often been implemented as small-scale or ad-hoc measures in recent years.
- The design of input subsidy programmes has changed from a universal coverage with diffuse benefits and high costs to targeted households and/or staple grains using voucher systems.

An input subsidy is a payment made from public resources to lower the price of inputs that the farmer purchases for use on the farm. It could also take the form of a direct free distribution of inputs. The objective of the use of input subsidies varies but the most common reasons are: to stimulate production and achieve food security, to make inputs affordable for farmers who cannot afford them (as a major part of integrated package of inputs and services), and for social equity (transfer income to farmers). The trend in the use of input subsidies and approaches to improving efficiency of input subsidy programmes are discussed below.

2.1.1 The scale and trend of input subsidies

Input subsidies are among the most popular support measures applied to boost smallholder production of staple food crops. Despite the criticism that input subsidies distort markets and constitute an inefficient use of resources, the proportion of countries with subsidy programmes has increased for the surveyed countries for which information was available over the reference period. Nearly all governments have maintained input support programmes that were in place or re-launched following the 2007/08 food crisis (Figure 1).

FIGURE 1. PROPORTION OF COUNTRIES WITH INPUT SUBSIDY PROGRAMMES (2007-2012)[7]



Source: FAPDA

Input subsidy programmes are relatively more popular in **Asia** and **LAC** than in **Africa**: the proportion of countries subsidizing inputs approached or exceeded 90 percent in **Asia** and **LAC**, compared to 76 to 81 percent in **Africa**. In all three regions the proportion of countries with input subsidy programmes increased in 2009/10 and 2011/12, compared to 2007/08 (Figure 1).

In **Africa**, the re-introduction of large-scale input subsidy programmes has gained momentum following the first African Fertilizer Summit, held in Abuja, Nigeria in 2006. The summit called upon member states to improve farmers' access to fertilizer by granting targeted subsidies, with special attention to poor farmers (Druilhe and Barreiro-Hurlé, 2012). Several countries have established national programmes and expanded government support to input subsidy programmes, while others have small-scale or ad-hoc programmes

7 Information on input subsidies was not available for five countries: Mauritania (2007/08), DRC (2007/08; 2009/10), Lebanon (2007/08), Yemen (2011/12) and Syria (2011/12).

(Table 1). In 2011/12, four countries, namely **Ethiopia**, **Liberia**, **South Africa** and **Uganda**, had no direct input subsidy programme.

TABLE 1. **INPUT SUBSIDY SCHEMES FOR SELECTED COUNTRIES (2007-2012)**

Region	Ad-hoc/small-scale subsidy programmes	Large-scale programmes
Africa	Algeria, Chad, Lesotho, Mauritania, Mozambique, Sierra Leone, Tunisia, Zimbabwe	Burkina Faso, Egypt*, Ghana*, Kenya*, Malawi*, Mali*, Morocco*, Nigeria, Rwanda*, Senegal, Tanzania, Togo, Zambia*
Asia	Bhutan, Cambodia, Lao PDR, Nepal, Tajikistan, Thailand, Viet Nam,	Azerbaijan, Bangladesh*, China*, India*, Indonesia, Iran, Iraq, Lebanon*, Oman, the Philippines, Saudi Arabia, Sri Lanka*, Syria, Yemen*, Kazakhstan
LAC	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Haiti, Nicaragua, Panama, Peru, Uruguay	Ecuador*, El Salvador, Guatemala, Honduras, Mexico*, Paraguay, Venezuela*

* *Expanding programmes*

Source: FAPDA

In **Asia**, input subsidies were a major part of the green revolution packages and many governments retained or expanded their input subsidy programmes between 2007 and 2012 (Figure 1 and Table 1). **China**, **India**, **Indonesia** and the **Philippines** are known for their massive input subsidy schemes. In other Asian countries, input subsidy programmes are either small or ad-hoc (e.g. **Bhutan** and **Cambodia**), or simply non-existent as in **Pakistan** and **Afghanistan**.

In **LAC**, input subsidy interventions are relatively small or ad-hoc in several countries, including **Brazil** and **Argentina**, all of which are major exporters of agricultural commodities in the region. **Brazil** distributed free seeds to small and rural holders through its *Plano Brasil Sem Miséria* (Brazil Without Misery Plan) from 2011. **Chile** began the implementation of a similar policy in 2008, through the *Programa de Desarrollo Rural* (PRODESAL), which focuses on rural development interventions that include input subsidies. Chile is also using a special input subsidy scheme to support indigenous communities or groups with agricultural, forestry and related activities, through its *Programa de Desarrollo Territorial Indígena* (PDTI). Meanwhile, certain countries expanded their large-scale national input subsidy programmes during the study period, particularly **Mexico** (mainly diesel and electricity for irrigation), **Venezuela** and **Ecuador** (Table 1). Other countries (e.g. **El Salvador**, **Guatemala** and **Honduras**) have simply retained their national input subsidy programmes. All LAC countries had either small or large national subsidy schemes in 2009/10 (Figure 1).

2.1.2 Improving efficiency of input subsidy programmes

In recent years, the design of input subsidy programmes around the world has changed from a universal coverage with diffuse benefits and high costs to a more efficient design with targeted households and/or staple grains using voucher systems and decoupled payments. In **Asia**, small-scale rice farmers are the most common beneficiaries (e.g. **Bangladesh**, **Nepal** and **Sri Lanka**), while in **Africa**, subsidies are often channeled towards smallholder farmers producing staples such as maize (e.g. **Kenya, Malawi, Mozambique, Tanzania** and **Zambia**). In **LAC**, small and medium farmers growing food crops are the usual targets, although cash crops, such as coffee and cotton, are also included in input subsidy programmes in some countries (e.g. **Peru**, **Costa Rica** and **Colombia**). However, universal subsidy programmes still exist in some **African countries**: **Burkina Faso**, **Egypt**, **Ghana**, **Mali**, **Nigeria**, **Senegal** and **Togo** for example. Among **Asian countries**, **China**, **India**, **Iran**, **Iraq**, **Lao PDR** and the **Philippines** offered input subsidy programmes to nearly all farmers. In **LAC**, only **Mexico** implemented universal input subsidy programmes in 2007/08 and 2009/10 and the universal approach was discontinued in 2011/12.

To minimize the negative effect of subsidized or free inputs distribution on market development, attempts have been made to introduce input voucher systems, thus allowing targeted farmers to buy inputs from nearby private dealers. However, voucher systems are not widely practiced. Only **Malawi**, **Kenya**, **Mozambique**, **Tanzania**, **Nigeria** (pilot phase in several states) and **Rwanda** from **Africa** and **Bangladesh** from **Asia** are reported to have used voucher systems. **Ghana** piloted a vouchers system but dropped it in 2010. Alternatives to the traditional system of input distribution have been introduced in countries such as **Mexico** and **India**. **Mexico**, for instance, has retained its 'decoupled' area-based agricultural support payments (the *Procampo* programme) to reduce distortions and improve farmers' income. Starting in 2012, **India** began replacing the current system of input subsidies with a direct deposit into famers' bank accounts.

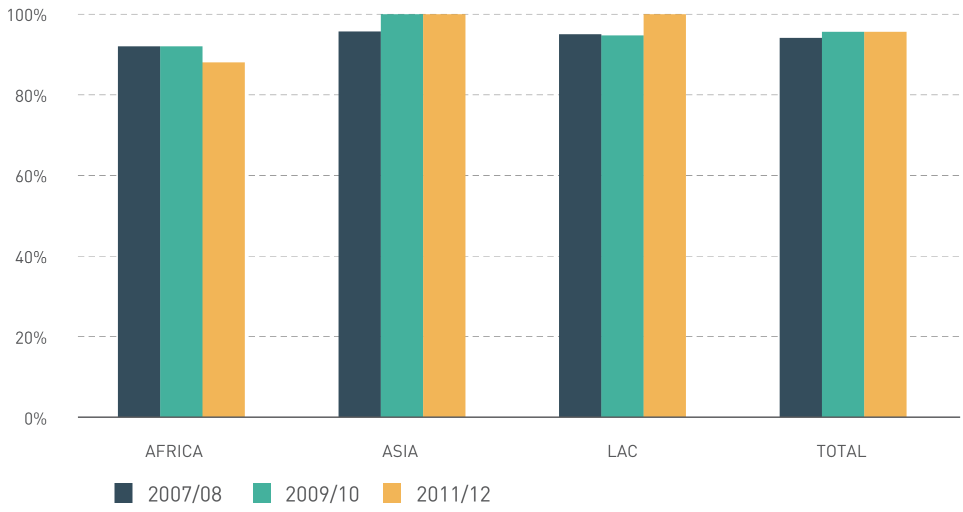
2.2 Agricultural finance provisions

Key Findings

- Policy instruments aimed at improving access to credit, reducing the cost of credit and addressing market failures were widely applied during the reference period.
- Nearly all **Asian** and **LAC countries** and the majority of **African countries** took measures to facilitate the provision of agricultural credit in 2011/12.
- The use of credit guarantee schemes (CGSs) as a tool to address market failures and improve access to credit increased in all three regions.
- Special public agricultural financial institutions have been maintained, newly established or reorganized to operate alongside private commercial banks.

In developing countries, lack of access to finance represents a major constraint for smallholders' investment and, consequently, for agricultural production as well as income creation. During the Pittsburgh Summit (September 2009), immediately following the food crisis, G20 leaders, made a commitment to improve access to financial services for the poor. Again, in October 2012 at the *Committee on World Food Security (Global Strategic Framework for Food Security and Nutrition*, 39th Session, Rome, Italy), leaders from the developed countries pledged to promote and implement policies that facilitate smallholders' access to credit. The evidence shows that in most cases such commitments had been sustained or even intensified during the reference period. About 95 percent of the countries for which information was available had provisions for improving access to credit or lowering interest rates (Figure 2).

FIGURE 2. PROPORTION OF COUNTRIES IMPLEMENTING MEASURES TO ENHANCE CREDIT PROVISION TO SMALLHOLDERS (2007-12) [8]



Source: FAPDA

A comparison between the three surveyed regions shows that **Africa** lags behind in facilitating agricultural credit provisions: 100 percent of countries in **Asia** and **LAC** had agricultural credit programmes in 2011/12, compared to 88 percent in **Africa** (Figure 2). Within **Africa**, **Liberia** and **Sierra Leone** had no specific rural credit programme and information on credit programmes was lacking in countries such as **Mauritania**, **Burkina Faso**, **Democratic Republic of Congo** and **Chad**. Other priorities, such as peace and security, and lack of resources, appear to have constrained the use of credit to boost food production in many African countries.

The major credit approaches adopted to support producers included: (i) special programmes to increase the flow of credit to agriculture, (ii) measures to reduce the risk of agricultural credit (credit guarantee schemes), and (iii) measures establishing or sustaining agricultural financial institutions. Many countries have also used specialized financial institutions to make rural credit accessible and affordable. As shown below, the trend and pattern in applying these instruments vary from one region/country to another.

2.2.1 Special programmes to improve access to credit and reduce the cost of credit

In **Africa**, some countries (Table 2) have increased the flow of credit to agriculture with the help of special schemes, while other countries provided interest rate subsidies, or combined both measures. In **Nigeria**, the *Agricultural Credit Support Scheme*, in place since 2006, and the *Commercial Agriculture Credit Scheme*,

8 Information on credit provisions was not available for seven countries: Cameroon (2007/08), Chad (2011/12), DRC (2009/10; 2011/12), Haiti (2009/10), Lebanon (2007/08), Mauritania (2007/08; 2009/10) and Yemen (2011/12).

established in 2009 provide finance for the country's agricultural value chains. In **South Africa**, the Ministry of Agriculture has reorganized the *Agricultural Credit Scheme* into the *Micro-Agricultural Finance Schemes of South Africa* (MAFISA), which was piloted in 2005 and later expanded to provide micro and retail financial services to communal farmers and emerging entrepreneurs. **Egypt** implemented credit schemes that included debit reduction and interest exemptions in 2011/12. It also supported small and micro enterprises through the *Social Fund for Development*, which offers cash funding and advice to small farmers. **Morocco** introduced interest rate subsidies on long-term loans for farmers without a bank account. Similarly, the **Kenyan** government reduced interest rates (from 24 to 10 percent) for small farmers and agro-dealers in 2011. In **Rwanda**, the government has launched the *Girinka Programme* to provide credit to very poor families to purchase a cow. Nevertheless, agriculture continues to receive only a small share of total credit in Africa, leaving smallholder farmers to rely on meager savings and informal sources of credit (MFW4A, 2012).

During the period 2009/10 and 2011/12, a number of **Asian countries** took measures to expand credit and reduce interest rates in support of small farmers (Table 2). In **India**, loans to agriculture increased at a compound annual growth rate of 18.5 percent between 2005/06 and 2009/10 (FAO, 2013a). In **China**, a sharp growth in the number of rural, cooperative and other banks has significantly increased the volume of agricultural loans in recent years (e.g. 2011). The growth of microfinance institutions (MFIs) in many countries (particularly **India**, **Nepal**, **Bhutan**, the **Philippines** and **Cambodia**) has also played a key role in expanding agricultural credit (and other financial services). The **Philippines**, **India** and **Cambodia** have recognized the special features of microfinance and issued appropriate regulations and supervisory practices for banks engaged in the provision of microfinance products. The **Philippines** is reported to be the first country in Asia that has developed microfinance performance standards for banks, cooperatives and microfinance institutions.

TABLE 2. MAJOR CREDIT INSTRUMENTS ADOPTED IN SELECTED COUNTRIES OVER THE REFERENCE PERIOD (2007-12)

Region/ measure	Credit expansion	Interest rate subsidy	Both
Africa	Lesotho, Malawi, Mauritania, Rwanda, Zambia	Kenya, Tunisia, Uganda, Zimbabwe	Algeria, Egypt, Ghana Morocco, Mozambique, Nigeria, South Africa, Tanzania
Asia	Bangladesh, Cambodia, China, Thailand	Indonesia, Iran, Iraq, Nepal, Saudi Arabia, Syria, Viet Nam	India, Lao PDR, Pakistan, the Philippines, Sri Lanka
LAC	Cuba	Argentina, Chile, Costa Rica, Dominican Republic, Guatemala, Mexico, Nicaragua, Paraguay, Panama	Bolivia, Brazil, Colombia, Ecuador, El Salvador, Peru, Venezuela

Source: FAPDA

In **LAC**, some countries introduced measures to expand agricultural loans and more countries reduced interest rates (Table 2). Special credit schemes have been designed to improve access to credit for small and medium farms. Some countries implemented credit measures under the framework of the family farming policy of MERCOSUR (Box 1). In 2008, **Ecuador** launched the *Programa Socio Siembra* as an integral approach for boosting agriculture (including credits, input subsidies and technical assistance) for small and medium farms. **Peru** has introduced various schemes with major credit components since 2007 (*Programa Agro Rural*, *Programa Agro-Perú* and *Plan Agroequipo*, among others), while it has given greater attention to rural producers and family farmers, with credit disbursements nearly doubling between 2007 and 2010 (CEBRI, 2012). The development and sustainability of microfinance in Latin American urban areas also stimulated microfinance activity in rural areas. This itself was facilitated by an adequate environment: a stable macro-economy, appropriate operational policies, clear property rights, and an adequate regulatory framework (Jaramillo, 2013).

BOX 1. **FAMILY FARMING POLICIES AND CREDITS WITHIN MERCOSUR**

MERCOSUR members (**Argentina**, **Brazil**, **Paraguay** and **Uruguay**)*, have focused their attention on family farming (FF) since early 2000. In 2004, they established the *Reunión Especializada de Agricultura Familiar* (Specialized Meeting on Family Farming -REAF), and in late 2008, the *Fondo de Agricultura Familiar* (Family Farming Fund) was created with a particular focus on gender, rural youth, land access and agricultural insurance. All member countries have individually implemented special programmes in support of FF: **Brazil** launched its *Programa Nacional de Fortalecimento da Agricultura Familiar* (National Programme for Strengthening Family Agriculture) in 2006; and **Paraguay** launched in 2009 its *Plan Nacional de Soberanía y Seguridad Alimentaria y Nutricional* (National Plan for Food and Nutrition Sovereignty and Security), which targeted family farmers. **Argentina** and **Uruguay** dedicated special credit lines and assistance to this sector and developed projects for facilitating their access to markets.

** A fifth member, Venezuela, joined the block in 2012. Venezuela is not considered in the box since only policies until 2012 are analysed.*

2.2.2 Credit guarantee schemes (CGSs)

The use of CGSs as a mechanism for risk transfer and to address market failure in credit services and promote lending to the agricultural sector has gained increased attention over the reference period (FAO, 2013a)[9]. Well-managed CGSs have the potential to improve smallholders' access to credit. CGSs are not widely

9 CGSs have been used to address market failures and as a partial substitute for conventional collateral to reduce the risk of default and to induce lenders to serve the agricultural sector. The guarantor is obliged to repay the outstanding loan (in full or part) in case a borrower defaults.

available in **Africa** but new pilot initiatives through partnerships between governments, the private sector, donors or NGOs have emerged during the reference period (Table 3). For instance, a partnership between an international commercial bank and various organizations resulted in a pilot credit guarantee scheme in four African countries (**Ghana, Mozambique, Tanzania** and **Uganda**) in 2009 (Box 2). Small-scale CGSs, often run as partially governmental or non-governmental, were found in a few countries. On the other hand, only **Ethiopia, Egypt, Morocco** and **Nigeria** were reported to have fully government-owned CGSs during the period under consideration (Table 3). In **Ethiopia**, the government financially backed banks to protect farmers against default of payments. In **Nigeria**, the government established the *Agricultural Credit Guarantee Scheme Fund* (ACGSF) in 1977 to provide some measure of risk coverage as well as to encourage commercial banks to increase their lending to agriculture. A new initiative, the *Nigeria Incentive-based Risk-sharing System for Agricultural Lending* (NIRSAL), was also launched in 2011 with the aim of de-risking agricultural lending to farmers as well as lowering the cost of lending for the banks.

BOX 2. A PILOT AGRICULTURAL CREDIT GUARANTEE FUND SCHEME IN FOUR AFRICAN COUNTRIES

A partnership between *Standard Bank*, the *Alliance for a Green Revolution in Africa* (AGRA), *OPEC Fund for International Development* (OFID), *Kilimo Trust, Millennium Challenge Account* (MCA) and *Millennium Development Authority* (MiDA) has created an innovative fund for Africa's smallholder farmers: the *Agricultural Credit Guarantee Fund Scheme*. Initiated in March 2009, the fund operates in **Ghana**, **Mozambique**, **Tanzania** and **Uganda** and aims to reach about 750,000 small farmers and small- and medium-sized enterprises (SME's). The partners provide a first loss loan and risk share guarantees to the bank and *Standard Bank*, making up to US$100 million available for lending over three years. This partnership is the largest single financing facility targeting smallholder agriculture by a bank in Africa (Standard Bank, 2009).

In **Asia**, public CGSs exist in some countries (Table 3) but they are intended to mainly serve small and medium enterprises. In **India**, the *Credit Guarantee Fund Trust for Micro and Small Enterprises* (CGTMSE) meets the loss incurred by the lender up to a maximum of 85 percent of the amount in default. Although the system's coverage has grown consistently since its establishment in 2000 (in both the number of people reached and the amount of credit distributed), the CGTMSE does not cover agricultural loans (FAO, 2013a). Based on the experience of the CGTMSE, the Reserve Bank of India recommended the establishment of an *Agriculture Credit Risk Guarantee Scheme* for small and marginal farmers in 2012[10]. Recently, the government of **Cambodia** reported that it is looking into the possibility of establishing a CGS and risk-sharing facility to promote paddy rice production and export (GAFSP, 2011).

10 The hindu Bussiness line. available at http://www.thehindubusinessline.com/industry-and-economy/banking/set-up-credit-risk-guarantee-scheme-for-small-marginal-farmers/article2917045.ece).

CGSs are more widely available in **LAC** than in Asia or Africa**:** nearly all LAC countries surveyed had one or more public credit guarantee scheme during the reference period. Many LAC countries operate a range of individual and partial credit guarantee facilities. In **Brazil**, for instance, three different credit guarantee schemes for agriculture and agro-processing are managed under the umbrella of the Brazilian Development Bank. The *Fundo Garantidor para Investimentos* is the most important of these funds and works with 12 intermediary banks supporting investments, mainly in larger-scale agricultural production (FAO, 2013b). Some countries have expanded the scale of their CGSs. For instance, **Mexico**, with one of the oldest and largest guarantee funds in the world, the *Fideicomisos Instituidos en Relación con la Agricultura* (FIRA) – Trust Funds for Rural Development – granted nearly 6 billion USD in guarantees in 2010, supporting 1.08 million agriculture and agricultural value chain actors (FAO, 2013a).

TABLE 3. EXAMPLES OF COUNTRIES WITH PUBLIC, PARTIALLY PUBLIC AND NON-GOVERNMENTAL CREDIT GUARANTEE SCHEMES (CGSS)

Region	Credit Guarantee Schemes
Africa	Burkina Faso **, Egypt*, Ethiopia*, Ghana***, Kenya ***, Morocco*, Mozambique***, Nigeria*, South Africa**, Tunisia**, Tanzania**, Uganda**, Senegal***
Asia	Cambodia*, India*, Indonesia*, Iraq***, Lebanon**, the Philippines*, Thailand*, Saudi Arabia**, Syria*
LAC	All countries have public CGSs except Cuba, Dominican Republic and Haiti ***

**public CGSs, ** partially governmental, ***non-governmental*

Source: FAPDA

2.2.3 Agricultural financial institutions

Specialised agricultural financial institutions are common in all regions and increasingly operate alongside private commercial banks and cooperative banks. Improving access to affordable credit by small farmers has required specialized institutions such as state-owned agricultural development banks (ADBs), community or rural banks. The argument that private commercial banks provide sporadic and limited services, and tend to target wealthier farmers is often used to justify the establishment of public specialised financial institutions.

In **Africa**, several public agricultural financial institutions have survived economic reform programmes and played an important role in the rural credit market during the period under consideration (Table 4). In **Rwanda**, the *Banque Rwandaise de Développement* (the Rwanda Development Bank) was reformed and expanded to provide loans to MFIs and cooperatives. A government fund for refinancing and development of microfinance increased during the study period (Republic of Rwanda, 2011). The *Principal Bank for Development and Agricultural Credit* in **Egypt** and the *Crédit Agricole du Maroc* of **Morocco** have recently been revitalized and expanded. In **South Africa**, MAFISA funds are administered by the government-owned

Land Bank[11], which performs fund and treasury management functions on behalf of the Department of Agriculture (WTO, 2009). Other countries have reversed the decision to close down specialized banks. For instance, after nearly two decades of liquidating the *Crédit Agricole of Cameroon*, in January 2011 **Cameroon** announced the creation of the *Cameroon Agriculture Financial Rural Corporation* with the goal of financing agricultural projects (Pibasso, 2011).

In **Mali**, the *Banque Nationale de Développement Agricole (BNDA)* continues to play a role in agriculture, although its credit authorizations to the rural areas have markedly declined in recent years, mainly due to the cotton sector crisis and the high indebtedness of actors in the two main sub-sectors, rice and cotton (Michigan State University, 2011).

In **Asia**, nearly all countries monitored have specialized banks serving agriculture. Each country (except **Afghanistan**) has retained one or more key long-standing financial institutions to serve the rural sector and in recent years, the role of cooperatives (often supervised and supported by governments) has markedly increased. The *Viet Nam Bank for Agriculture and Rural Development* (Agribank) is the biggest commercial bank in the country, holding the dominant role in the economic development of **Viet Nam**, particularly with regard to agricultural and rural investments. Agribank credit disbursement has rapidly expanded in recent years[12]. **Thailand's** *Bank for Agriculture and Agricultural Cooperatives* has increased outreach to 6.25 million farm families representing nearly 98 percent of the country's total number of farm households, as of March 2011. Financial services to agriculture, rural areas and farmers in **China** are delivered by public banks (e.g. *Agricultural Development Bank of China*) and various types of specialized banks, including rural commercial banks, rural credit cooperatives and township banks (Financial Stability Analysis Group of the People's Bank of China, 2012). In **Bangladesh**, state-owned specialized banks, state-owned commercial banks, together with private commercial banks and foreign commercial banks are encouraged to extend lending facilities to agriculture through a partnership agreement with the NGO-based microfinance institutions (Rahman et al., 2011). In **India**, a number of government schemes provide credit to the agricultural sector and the flow has significantly exceeded targets in recent years. The *Reserve Bank of India* regulations make it mandatory for domestic commercial banks to direct 18 percent of their adjusted net bank credit to agriculture and allied sectors.

In **LAC**, several countries have active specialized banks (Table 4). Development financial institutions (DFIs) are the main sources of financing for the agricultural sector. The DFIs that serve the agriculture sector have redefined themselves over the years. In many cases, they have improved their management as state or public-private financial institutions and changed their orientation, shifting from specializing in agriculture to

11 For more information see the Land Agriculture Development Bank of South Africa website e at http://www.landbank.co.za/overview/corporate_profile.php

12 See: http://financelearners.blogspot.it/2011/02/largest-banks-in-Viet Nam.html

a multi-sector approach, and from direct loans to farmers (first-tier) to a second-tier line of credit through intermediaries. **Chile**'s *Instituto Nacional de Desarrollo Agropecuario* (National Institute for Agricultural Development, INDAP) is a specialized institution under the Ministry of Agriculture. It is a major provider of credit to small-scale agriculture at preferential rates, and its role has become more important over the years, mainly because of the various credit initiatives introduced since 2009 (e.g. special credit for medium-size farmers and a plan for financial support to agricultural producers). In 2011 INDAP lending increased by 31 percent from 2010. The *Banco Nacional do Desenvolvimento Econômico e Social* (BNDES) is **Brazil**'s premier state-owned development bank, providing the bulk of long-term credit (more than 70 percent) in the country and supporting activities in agriculture, industry and service sectors. BNDES, the largest creditor in South America, provides subsidized financing in a country where credit is expensive by international standards and still generates a huge profit. Among the successful public-private agricultural banks is **Guatemala**'s Banrural SA, which serves the rural poor as well as clients from non-agricultural sectors. Banrural SA has remained a profitable public-private bank in which the public sector initially held 30 percent of the shares and private shareholders held the rest (Trivelli and Venero, 2007). The share of Banrural SA's agricultural portfolio rose steadily over the reference period (Jaramillo, 2013).

TABLE 4. COUNTRIES WITH FINANCIAL INSTITUTIONS SERVING AGRICULTURE

Region	Public agricultural/development financial institution	Cooperative banks and other forms of financial institutions serving agriculture
Africa	Algeria, Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Mali, Mauritania, Morocco, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Tunisia, Uganda, Zimbabwe	Algeria**, Kenya*, Rwanda*, Tanzania***, Uganda*
Asia	Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Iran, Iraq, Lao PDR, Nepal, Oman, Pakistan, Sri Lanka, Saudi Arabia, Syria, Thailand, Viet Nam, Yemen	Bangladesh****, Cambodia****, China***, India****, Pakistan***, the Philippines***, Viet Nam***
LAC	Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela	Argentina**, Cuba ***, Guatemala*, Uruguay**

Public- private partnership, ** Public commercial banks, * Cooperative banks, **** Private commercial banks*

Source: FAPDA

2.3 Price stabilization and support policies

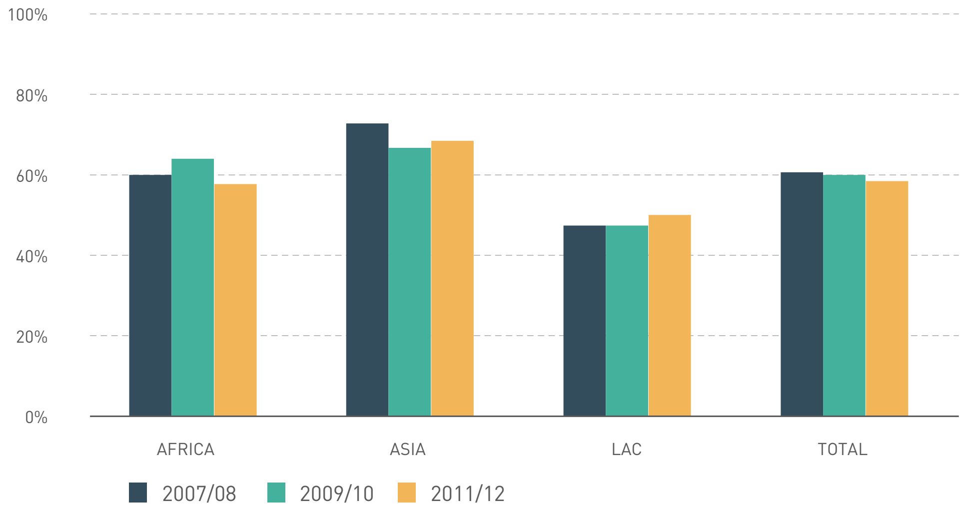
Key Findings

- Price stabilization and support schemes attracted greater attention in the wake of the 2007/08 crisis and for many countries; interest in such action did not fade in 2009/10 or 2011/12.
- Price support programmes are more widespread and comprehensive in **Asia** than in **Africa** or **LAC**.
- Price support programmes in **Africa** have become more popular in recent years but comprehensive and consistent national price support programmes are rare in the region.

Price stabilization and support policies often refer to a minimum price supported by the government to protect farmers against low and fluctuating commodity prices. Price support is a government-based price risk management tool employed to achieve self-sufficiency in key grain commodities, support farmers' income, and build grain stock for public distribution to vulnerable groups (stocks and public distribution are discussed in chapter four).

Globally, around 60 percent of the countries with available data (65 to 66 countries) applied price support schemes during the study period (Figure 3). Nearly all countries that adopted the policy in 2007/08 maintained it during 2009/10 and 2011/12 (Figure 3). High price volatility in the international and domestic markets recently appears to be among the major motivations for continued government intervention in the staple grain markets.

FIGURE 3. **PROPORTION OF COUNTRIES IMPLEMENTING PRICE STABILIZATION AND SUPPORT SCHEMES (2007-2012)**[13]



Source: FAPDA

Price stabilization and support programmes are more widespread and comprehensive in **Asia** than in **Africa** or **LAC**. In 2011/12, about 68 percent of the **Asian countries** implemented price support schemes, compared to 58 percent in **Africa** and 50 percent in **LAC**. Price support and stabilization programmes, which were more or less universally applied throughout **Asia** during the drive to adopt 'green revolution' technologies in the 1960s and 1970s (Demeke et al., 2012), appear to have been sustained during the period under review. However, the pattern and scope of price interventions varied from one country to another within each region.

In **Africa**, price support programmes have attracted greater attention in recent years (Table 5) but comprehensive and consistent national price support programmes are not very common. Many countries in East and Southern Africa retained state-controlled marketing parastatals that led to an uneasy coexistence with the private sector (Oyejide et.al., 2012). In **Malawi** the main objective of the minimum support pricing (MSP) scheme is to protect the farmers but the quantity of maize purchased by the parastatal, *Agricultural Development and Marketing Corporation*, has been minimal relative to production and has declined in recent years (Ricker-Gilbert et al., 2013). In **Zambia**, the government purchased maize at above-market prices through the *Food Reserve Agency* during the bumper harvest period of 2009/10 to 2011/12. In **Kenya**, the government intervenes intermittently in the maize market through the *National Cereals and Produce Board* (NCPB). For the 2011 harvest, the NCPB raised its buying price and protected farmers from

13 Information on price stabilization and support policies was not available for eight countries: Mauritania (2007/08; 2009/10) and Cameroon (2007/08; 2009/10; 2011/12) in Africa; Yemen (2009/10; 2011/12), Iran (2011/12), Syria (2011/12), Azerbaijan (2007/08; 2009/10; 2011/12) and Tajikistan (2007/08; 2009/10; 2011/12) in Asia; and Venezuela in LAC (2007/08; 2009/10).

falling prices but maize prices decreased markedly after NCPB stopped buying the commodity in January 2012 (Kamau et. al., 2012). **Nigeria** introduced a guaranteed minimum price (GMP) scheme in 2009 but the level of procurement by the *National Food Reserve Agency* (NFRA) fluctuated sharply.[14] In 2010/11, market prices were far higher than the GMP and farmers preferred to sell at the prevailing market price (Olomola, 2013). In **North Africa**, **Algeria, Egypt, Morocco** and **Tunisia** used price support programmes during the period 2007/08 to 2011/12 but not on a regular basis.

In **Asia**, most of the major agricultural economies (Table 5) have price support schemes and the level of support is increasing over time. To better support grain production and provide farmers with incentives to grow grain, the **Chinese** government has been raising minimum purchase prices for wheat and rice. The *Food Corporation of India* has bought wheat, rough rice and milled rice for MSPs that have been announced well before the planting seasons. In response to rising international prices and declining wheat stocks that began in 2005, the **Indian** government raised the MSP for each staple grain. The procured foodgrains are used for distribution to poor consumers or for export at times of surplus. Similarly, in **Bangladesh**, domestic procurement serves the dual purpose of building rice stocks for the *Public Foodgrain Distribution System* and providing income support to farmers. The fixed MSP for rice in Bangladesh is well above the market price and is the highest among Asian countries[15]. In **Indonesia** and the **Philippines** price support schemes are used to stimulate food production and ensure self-sufficiency, while in **Thailand** the main objective is to support farmers' incomes and boost rice production for exports. Thailand's new policy of guaranteeing farmers' prices at levels well above the market rate has led to a reduction in its rice exports and an increase in government rice stocks (IFPRI, 2013). A few Asian countries, including **Viet Nam**, **Pakistan** and **Sri Lanka**, maintain a small-scale intervention but the magnitude is increasing.

TABLE 5. **EXAMPLES OF COUNTRIES WITH PRICE SUPPORT MEASURES FOR STAPLE COMMODITIES**

Region	Price support measures
Africa	Malawi, Mozambique, Tanzania, Zambia, Rwanda, Zimbabwe, Algeria, Burkina Faso, Nigeria, Ghana, Togo, Morocco, Kenya, Egypt, Mauritania, Tunisia
Asia	Bangladesh, China, India, Indonesia, the Philippines, Pakistan, Ukraine, Iraq, Syria, Lebanon, Iran, Nepal, Thailand, Sri Lanka, Viet Nam, Yemen, Kazakhstan
LAC	Brazil, Ecuador, Venezuela, Costa Rica, Cuba, Argentina, Mexico, Honduras, Dominican Republic, Colombia

Source: FAPDA

14 The Guaranteed Minimum Price programme of Nigeria is the follow-up of the *Buyer of Last Resort Grain* programme whose main goal was to develop a buffer stock to respond to shortage of cereals, as well as to influence prices by purchasing cereals when markets prices are below an intervention threshold.

15 For more information, see the International Rice Research Institute webpage at: http://www.irri.org/

Price support programmes are applied intermittently in some Middle East economies. The Government of **Lebanon**, for instance, guaranteed prices for farmers, purchased wheat at a higher price from local producers in 2007 and 2009 and then sold it at lower prices. In 2008 and 2010, market prices were higher; farmers sold directly to the market, and the government bought only a small quantity of locally produced wheat. **Iran, Lebanon, Iraq** and conflict-affected countries such as **Syria** and **Yemen,** implemented price support programmes sporadically.

In **LAC**, price support programmes are less popular than credit, input subsidies or insurance programmes. Only a few LAC countries, such as **Brazil, Mexico, Ecuador, Dominican Republic** and **Venezuela** operate large-scale price support programmes. **Brazil** uses its national food reserve system to stabilize local prices of staple crops such as maize, and also to foster and support smallholder agriculture and family farms. The *Companhia Nacional de Abastecimento* (National Supply Company, CONAB), which manages food supply, stocks and distribution, along with the *Programa de Aquisição de Alimentos* (Programme for the Acquisition of Food, PAA), guarantee a minimum price to small food producers and buy grains from smallholders at subsidized rates. The food purchased is then donated and re-circulated through local food-security related organizations or lodged in the national or local food reserves (IATP, 2012). Price support levels have tended to increase in recent years (IATP, 2012). **Mexico** provides market price support to some commodities, and payments based on output (through the *Ingreso Objetivo* programme). Mexico has significantly reduced market price support in favour of direct historical payments and more recently increased expenditure on payments based on inputs. The country has large direct payment programmes and subsidy schemes to inputs and crop insurance (OECD, 2011).

In general, countries that responded to the 2007/08 food crisis with price stabilization and support measures did not change their market intervention policies in 2009/10 and 2011/12. However, the measure is applied more consistently and systematically in **Asia** for the purpose of increasing farm income, ensuring food security, or boosting production for export.

2.4 Agricultural insurance provisions and risk management

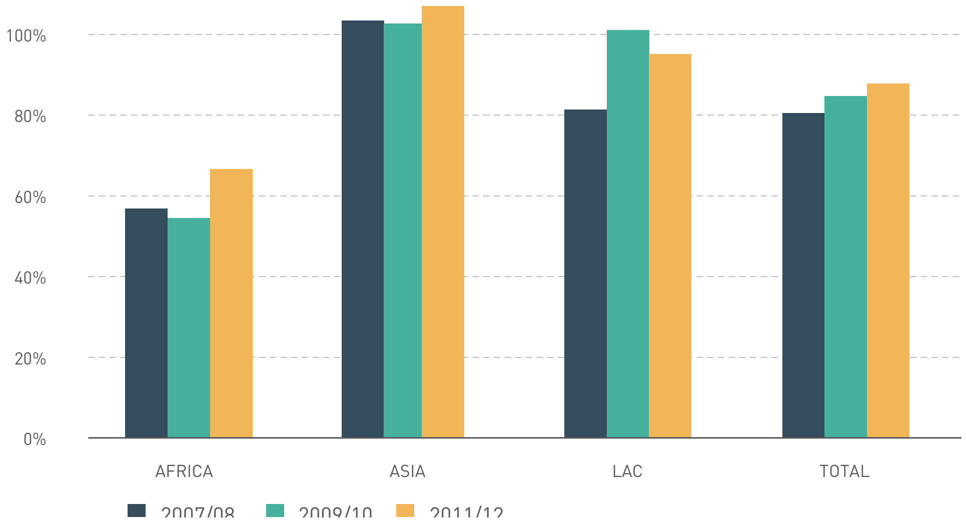
Key Findings

- The proportion of countries implementing insurance and risk management measures increased: from 68 percent in 2007/08 to 71 percent in 2009/10 and 74 percent in 2011/12.
- Government policies in agricultural insurance and reinsurance services, as well as disaster management, have increasingly favoured public-private partnerships, especially in **LAC** and **Asia**.
- In **Africa**, with a few exceptions, there is almost no tradition of national agricultural insurance provision, while disaster risk management is dependent on donors' generosity but is being restructured and institutionalized in many countries of the region.
- In **Asia**, reform measures have led to the emergence of a combination of public, private and public-private models of agricultural insurance along with government-based natural disaster risk management programmes.
- In **LAC**, state-owned insurance companies have gained popularity but operate alongside private insurance companies, offering special services, such as reinsurance and insurance coverage, to catastrophic risks.

Agricultural activities are particularly prone to risk, especially in relation to extreme natural events (e.g. droughts, floods, pests and diseases) that have a significant impact on yields and in turn on price volatility. High levels of risk in agriculture prompted many governments to get involved in agricultural insurance programmes and disaster risk management schemes during the study period. About 74 percent of the surveyed countries with available data had provisions for improving access to insurance and disaster risk management in 2011/12. The proportion consistently increased: from 68 percent in 2007/08 to 71 percent in 2009/10 and 74 percent in 2011/12 (Figure 4).

The incidence of agricultural insurance and disaster risk management schemes is higher in **LAC** and **Asia** than in **Africa;** of the surveyed countries with data available about 80 percent of the **LAC** and around 90 percent of the **Asian countries** had national agricultural insurance and risk management schemes in 2011/12, compared to around 56 percent in **Africa**. Governments with national programmes have relied on two major approaches in support of insurance programmes: public insurance and related schemes, and premium subsidies.

FIGURE 4. PROPORTION OF COUNTRIES WITH PUBLIC MEASURES IN AGRICULTURAL INSURANCE AND DISASTER RISK MANAGEMENT (2007-2012)[16]



Source: FAPDA

2.4.1 Agricultural insurance and related schemes

Government involvement in agricultural insurance and reinsurance, as well as disaster management, has increasingly favoured public-private partnerships. Public insurance and related schemes refer to state-owned insurance companies, government-based re-insurance (last resort) programmes, and state-run disaster management programmes. The poor performance of most public sector schemes and their limited uptake among farmers have led many governments to reassess and redefine the role of the public sector in agricultural insurance.

In **LAC**, state-owned insurance companies have gained popularity but operate alongside private insurance companies, offering special services such as reinsurance and insurance coverage to catastrophic risks (Table 6). In **Bolivia**, the Ministry of Rural Development and Land promoted the agricultural insurance act *Pachamama,* which was adopted in 2011 and entered into effect in February 2012. Established in 2009, the national agricultural insurance scheme of **Ecuador,** AGROSEGURO, safeguards farmers' investments from natural disasters and the impact of climate change. **Mexico's** state-owned Agroasemex provides insurance and reinsurance services across the country. With the exception of AGRODOSA (*Aseguradora Agropecuaria Dominicana*) in the **Dominican Republic**, parastatal insurance companies operate together with private

16 Information on agricultural insurance was not available for eleven countries: Egypt (2007/08), Togo (2007/08; 2009/10), Cameroon (2007/08; 2009/10; 2011/12), Chad (2007/08; 2009/10; 2011/12), Honduras (2007/08), Malawi (2007/08; 2009/10; 2011/12), Mozambique (2009/10; 2011/12), Yemen (2009/10; 2011/12), Iraq (2011/12), Syria (2011/12) and Tajikistan (2007/08; 2009/10; 2011/12).

insurance companies. In other words, state-owned insurance and reinsurance companies in the region are subject to the same legal framework as the privately owned insurance and reinsurance companies. Public-private partnership is also a common trend in the region. The **Brazilian** government in 2008, for instance, enacted a law creating the *Fundo de Catástrofe Rural*, a public-private partnership that includes the government of Brazil, the private insurance sector, agro-industries and cooperatives, to create mechanisms to cap the potential losses faced by insurers and encourage them to underwrite agricultural business in risky geographic areas and for risky crops. Pure market-based private insurers, normally backed by private reinsurers, compete for underwriting agricultural insurance in all LAC countries.

In situations where agricultural production is exposed to the risk of catastrophic windstorms, excess rains or droughts, the insurance industry may not have the appetite to underwrite agricultural risks and governments usually intervene after the disaster struck (in ex-post fashion). Reliance on government post-disaster aid is widespread in most of the **Caribbean** countries as well as **Bolivia, Mexico** and **Brazil**. On the other hand, agricultural insurance complements governments' post-disaster assistance in **LAC** countries with more sophisticated financial markets (such as **Brazil** and **Mexico**). The public sector (at the national and sub-national levels) in several LAC countries (e.g. **Mexico** in 2001, **Colombia** in 2010, **Peru** in 2010 and **Argentina** in 2009) has recently begun to purchase private agricultural insurance coverage to transfer catastrophic agricultural risks to international markets and protect small traditional and semi-commercial farmers.

In **Asia**, reform measures have led to the emergence of a combination of public, private and public-private models of agricultural insurance along with government-based natural disaster risk management programmes (Table 6). **India** is administering the world's largest crop insurance programme in terms of the number of farmers insured. The *National Agricultural Insurance Scheme* (NAIS) annually insures approximately 18 million farmers, or 15 percent of all farmers. The Indian government decided to reform the NAIS in 2010/11 and move from a public social insurance programme to a market-based insurance scheme. In **China**, where the *People's Insurance Company of China* enjoyed a near monopoly over agricultural insurance, the government promoted a major expansion of private sector-led agricultural insurance and by 2008 all agricultural insurance was provided by private and or mutual insurance companies (no public sector agricultural insurers). In **Iran,** the governmental *Insurance Fund for Agricultural Products* (a monopoly) increased insurance coverage, jumping above 30 percent of total hectares of the farming lands under cultivation during the reporting period.

Market-based agricultural insurance companies operate in **India, Pakistan,** the **Philippines, Thailand** and **Viet Nam**. However, most of the private companies are small and recently began operation as pilot schemes. Government is involved in agricultural reinsurance in **Sri Lanka, Thailand, China, Viet Nam** and **India**. The Sri Lankan government is understood to be the only provider of agricultural reinsurance. Meanwhile the governments in China, Viet Nam, Thailand and India act as a catastrophe reinsurer, but their markets are

also open to competition from national reinsurers and/or international reinsurers.

Agriculture in **Asia** is highly exposed to notable climatic risks, including typhoons, floods, droughts and tsunamis, and a high proportion of rural households thus depend upon publicly provided post-disaster relief assistance. Most countries in the region have government-based natural disaster risk management programmes that combine preventative measures with post-disaster response programmes in the form of relief, recovery and reconstruction operations. Farmers typically receive post-disaster compensation for lost livestock as well as free seeds and fertilizers to enable them to replant their crops. **Viet Nam** has an extremely well developed natural disaster management system as well as a post-disaster emergency relief and reconstruction scheme that are partly funded by central and local government (provincial and district-level governments). Asian countries are also known for other forms of state-sponsored agricultural risk management tools such as public irrigation schemes and state sponsored lending to farmers that are often linked to compulsory crop insurance, as in **India** and the **Philippines** (FAO, 2011a).

TABLE 6. **AGRICULTURE INSURANCE SCHEMES AND DISASTER RISK MANAGEMENT (2007-2012)**

Region/ Measure	Insurance					Disaster Risk Management
	Public Insurance	Public-Private Insurance	Reinsurance	Premium subsidy	Technical Support	
Africa	Morocco*, Nigeria*	Senegal*+, Morocco, Ghana, Algeria, Tunisia, Malawi+, Mozambique, South Africa Kenya*+, Ethiopia +	Morocco		-	Algeria, Mauritania, Mozambique*, Malawi, Ethiopia, Ghana
Asia	Iran, India*, Syria, Saudi Arabia, Oman, Nepal*, the Philippines*, Sri Lanka	China*, India, Indonesia, Nepal, Pakistan*+, Viet Nam, Thailand, Sri Lanka, the Philippines	Sri Lanka, Thailand, China, Viet Nam, India, Iran, Kazakhstan	India, China	India, Viet Nam, Bangladesh China, Indonesia, Sri Lanka, Thailand	India, Lebanon, Iran, Saudi Arabia**, Syria**, Iraq**, Oman, Thailand, Viet Nam, China
LAC	Bolivia*, Panama, Uruguay*, Brazil*, Ecuador*, Nicaragua, Costa Rica*, Dominican Republic*, Mexico*, Peru*	Dominican Republic, Mexico, Brazil, Costa Rica, Argentina, Uruguay, Paraguay, Venezuela, Peru, Chile, Colombia*	Brazil, Dominican Republic, Mexico, Costa Rica, Peru	Argentina, Brazil, Chile Uruguay	Uruguay, Argentina*, Chile, Brazil, Paraguay, Peru, Ecuador, Panama, Nicaragua, Honduras, Mexico, Dominican Republic	Honduras, Costa Rica, Cuba, El Salvador+, Dominican Republic, Guatemala+, Panama, Bolivia, Nicaragua, Brazil, Mexico

** Includes premium subsidies, ** Sporadic funds, + pilot*

Source: FAPDA, Mahul and Stutley, 2010; World Bank, 2012a; and FAO, 2011a

In **Africa**, with the exception of **South Africa, Nigeria, Algeria, Morocco** and **Tunisia**, there is almost no tradition of national agricultural insurance provision. In **Nigeria**, the state-owned *Nigeria Agricultural Insurance Corporation* holds a de-facto agricultural insurance monopoly but its coverage has remained very limited (Eleri et.al, 2012). Conversely, **South Africa** has a longer tradition and stronger agricultural insurance services. Seven private commercial and mutual companies and underwriting agencies currently offer crop and livestock insurance, or both to commercial farmers (DHNA Foundation) (Mahul and Stutley, 2010). However, South Africa has no insurance programme for small farmers. In North Africa**, Morocco** expanded the coverage of its national insurance programme (the *Mutuelle Agricole Marocaine d'Assurances*) in 2012.

Public-private and private models of agricultural insurance have emerged in several **African** countries**.** In **Ghana**, the *Agricultural Insurance Programme* was launched in 2011 and developed the first agricultural insurance products to protect farmers from the negative impacts of climate change. It represents an example of public-private partnership in the agricultural insurance system, since the steering committee coordinating the programme is composed of representatives of the public sector, the private sector and development agencies. In North Africa, insurance services based on public-private partnerships are found in **Algeria** and **Tunisia**. The coverage of agricultural insurance in **Algeria** expanded by 98 percent in 2010. However, agricultural insurance accounts for just one percent of the domestic insurance market (Mena Insurance CEO Club, 2013). Other African countries have pilot insurance programmes which reach only a limited number of farmers and herders. The provision of public agricultural reinsurance is also underdeveloped in Africa.

Disaster risk management is dependent on donors' generosity but is being restructured and institutionalized in many parts of **Africa** (Commission of the African Union, ISDR and the World Bank, 2008). A number of countries have taken measures to strengthen their national disaster risk management (DRM) and formulate national policies, strategies and action plans. In **Malawi**, **Mozambique** and **Ghana**, for instance, projects were designed (in partnership with the World Bank) between 2007 and 2010 to mainstream DRM into strategic plans and sectoral development policies. Some countries have started looking for contingency financing mechanisms to finance the projects. For the agricultural seasons 2008/09 through to 2011/12, the Government of **Malawi** purchased, with the co-financing support of donors, drought protection in the form of weather derivative contracts which provided coverage against the risk of severe drought during the critical rainfall season (World Bank, 2012a). In **Ethiopia**, contingent financing mechanisms were first introduced by the government in 2006 for drought response. In 2010 a contingent financing window, supported by different donors, was made a permanent feature of the country's productive safety-net programme.

2.4.2 Premium subsidies

Premium subsidies, which refer to the proportion of the total premium subsidized by the government, are among the most common forms of public intervention in support of agricultural insurance. Agricultural premium subsidy schemes are often designed to increase the participation of farmers to purchase insurance

coverage and make agricultural insurance programmes attractive to private insurers.

In **LAC**, premium subsidies are widely applied and have attracted increased public budgetary allocations in recent years. Government expenditure on premium subsidies increased sharply in **Brazil** and **Mexico** in 2009 (World Bank, 2010a). Many LAC countries have developed policies that channel premium subsidies to enhance food security objectives. **Costa Rica** offers higher premium subsidies to small and marginal farmers than to larger farmers. **Argentina** and **Uruguay** channel premium subsidies to specific crop insurance programmes. In **Colombia**, premium subsidies currently account for 60 percent of the premium value. Several countries, including **Brazil** and **Chile**, have a limit (cap) on the maximum amount of premium subsidies that any farmer can receive, preventing large farmers from capturing a disproportionate share. Several LAC governments also maintain technical support units to promote and assist the development of agricultural insurance markets.[17]

Premium subsidies are less common in **Asia** than LAC and have taken different forms and scale (FAO, 2011a). **India**'s government policy is to make agricultural insurance as widely available and affordable as possible to small farmers using a premium subsidy which can be as high as 75 percent and technical support (e.g. conducting crop-cutting experiments (CCE) in the fields that are used to determine the average yield levels for each crop, which are used to indemnify area-yield losses). It should be noted that India launched the first micro-level or individual farmer weather index insurance (WII) programme in 2003. Since then, it has been scaled up by both the public and private insurance companies with the support of a government premium subsidy. **China** operates variable premium subsidies and the levels of agricultural insurance premium subsidy have increased significantly in recent years (FAO, 2011a). **Viet Nam** conducts extensive research and development into weather index insurance with the aim of supporting rice farmers.

In **Africa,** a few pilot cases that emerged during the reference period often used premium subsidies as a tool to promote insurance. In **Senegal** the agricultural-specific insurance company, *Compagnie Nationale d'Assurance Agricole du Sénégal*, was established in 2009 as a pool company. It is owned by the state, local insurers and banks and receives a 50 percent premium subsidy from the state[18]. Most of the pilot agricultural insurance schemes operate with the support of agribusiness firms and donors. In **Kenya**, for instance, half of the premium for the *Killimo Salama* agricultural insurance scheme is paid by agribusiness partners such as *Syngenta East Africa Limited*. Capacity-building efforts and technical support to insurance products are lacking for the most part in Africa. Agricultural development strategies and investment plans do not have provisions for insurance or risk management instruments in the continent. This gap has recently prompted

17 These units perform diverse activities, including gathering basic information needed to develop agricultural insurance, assessing the risks for different agricultural activities in different areas of the country, developing products to assist farmers and the industry in risk management, developing agricultural insurance products (such as crop and/or weather risk maps), conducting agricultural risk assessments and creating farmer awareness education and training.

18 For more information, please see; http://www.swissre.com/rethinking/food_security/Agricultural_insurance_helps_enhance_food_security_in_Africa.html

the *Comprehensive Africa Agriculture Development Programme (CAADP)* of the *New Partnership for Africa's Development (NEPAD)* to launch an initiative aimed at integrating risk management tools, including agricultural insurance, into national and regional agricultural investment plans (NEPAD, 2012).

2.5 Land-related policy measures

Key findings

- The proportion of countries adopting measures to improve access to land and tenure security increased over time. In **Africa**, the proportion has increased sharply.
- In **Africa** and **Asia**, legislative and administrative measures are employed to improve tenure security of smallholders, while in **LAC**, land tenure issues are tackled through land distributions and titling or broader land reform programmes.
- Concerns about potential social and political conflicts associated with large-scale land acquisitions have led to policy responses at three different levels: investing countries, host countries and international communities.

Overall, the proportion of countries implementing land-related measures increased from 71 percent in 2007/08 to 82 percent in 2011/12. With a growing population pressure and increased investors' interest in land acquisitions, land markets have expanded and governments have been forced to implement policies in order to ensure that local communities have adequate access and tenure security over the land they cultivate. However, there are regional differences: the percentage of countries implementing land policies was higher in **LAC** (on average 88 percent) and **Asia** (85 percent) than in **Africa** (61 percent) during the reference period. Many African countries have yet to take actions but several governments are reviewing their land policies and the proportion of counties introducing new measures has increased sharply in recent years, from 43 percent in 2007/08 to 70 percent in 2011/12 (Figure 5).

Land policies designed to improve access to land for smallholders and marginalized groups have used various instruments, ranging from expanding credit for land acquisitions to land distributions. Some recent land policies are used to target the governance of foreign land investment.

2.5.1 Land policies to improve farmers' access to land

Governments have a number of measures at their disposal to improve access to land for small farmers: land distribution for the extremely poor and marginalized, land titling for farmers who own land on a customary

basis, and credit facilities for low- or mid-income households earning their living from land.

FIGURE 5. **PROPORTION OF COUNTRIES IMPLEMENTING LAND POLICIES (2007-2012)**[19]

Source: FAPDA

In **Africa,** several countries have been reviewing land policies and legislation with the aim of ensuring equitable access to land, promoting land tenure security, especially for smallholder farmers, and providing some form of legal recognition of customary property rights (Table 7). **Burkina Faso**, for instance, adopted a rural land law in 2009 and revised the existing land tenure legislation in 2012. The new land law embodies a clear trend toward local management of land and promotion of formalized land rights including those based on customary claims. Other countries have taken different measures to enhance land access: expanding micro credits for land acquisition in **Uganda**, subsidizing land purchases in **Malawi** or creating better conditions for the land market in **Zimbabwe** and **Morocco**.

In **LAC**, land tenure issues are being tackled by nearly all governments through the implementation of land distributions and titling or broader land reform programmes (Table 7). Unequal land distributions and a large concentration of land (*latifundios*) in the hands of a few people have historically been a major problem in the region, thus some countries started reforming their land tenure in the 1960s and 1970s. The crisis of 2007/08 reinforced this tendency, i.e. many countries recognized that the problem of undernourishment in LAC was not due to food availability, but a food access problem. As a result, marginalized groups, particularly indigenous peoples, were targeted for land titling. Land distributions and titling programmes are recorded

19 Information was not available for 11 countries: Egypt (2007/08; 2011/12), Mauritania (2007/08; 2009/10; 2011/12), Senegal (2007/08; 2009/10), DRC (2009/10), Malawi (2007/08), Mozambique (2007/08), Zambia (2007/08; 2011/12), Lebanon (2007/08), Iran (2007/08; 2009/10; 2011/12) and Syria (2007/08; 2009/10; 2011/12).

in nearly all LAC countries (Table 7). Some countries implemented comprehensive land reform measures: **Colombia** launched its land reform in 2010 (mainly to address the problem of its displaced groups after its internal armed conflict); **Brazil**, although pursuing agrarian reform since the 1970s, increased its efforts in 2009 with major land distributions carried out through INCRA – *Instituto Nacional de Colonização e Reforma Agrária*; **Ecuador** introduced major reforms in 2009, adopting a new constitution declaring that land has a social value and thus unproductive lands can be expropriated; **Bolivia** pursued land reform since 2006, establishing in 2009 the possibility of expropriating land 'not fulfilling its social value' and introducing in 2011 the *Plan Nacional de Titulación Masiva de Tierras*; **Argentina** imposed a limit on land ownership by non-citizens (Box 3); and **Venezuela** adopted radical land reform; *the Instituto Nacional de Tierras*, created in 2001, has been implementing large-scale land expropriations and redistributions to small farmers since 2006.

In **Asia**, most countries attempted to address land issues primarily by using legislative and administrative frameworks. Many countries have introduced new policies or amended existing land policies (Table 7). In **India**, an amended *Land Acquisition Bill* was passed in February 2009 with the goal of reducing involuntary displacement and providing greater compensation and an improved legal process to those whose land is taken away, among others. The *National Land Title Registration* programme (2007-2022) of **Sri Lanka** is under implementation to survey and demarcate land, issue titles and strengthen land ownership within a time frame of 15 years. By 2010, the **Vietnamese** government had issued approximately 31.3 million land-use right certificates (LURCs), covering roughly half of Viet Nam's land area, to enhance tenure security.

New land legislation was approved to improve access to land (**Iraq, Oman, Thailand** and **Yemen**). **Iraq** has also facilitated foreign investments in land in 2007. **Yemen** passed a law allowing foreigners to own land but restricting foreign ownership to 49 percent afterwards.

TABLE 7. EXAMPLES OF COUNTRIES WITH LAND-RELATED POLICY MEASURES (2007-2012)

Region	Policies aimed at land distribution and/or tenure security for smallholder farmers
Africa	Algeria, Ethiopia, Kenya, Rwanda, Senegal, South Africa, Tanzania, Burkina Faso, Cameroon, Ethiopia, Kenya, Liberia, Malawi, Mauritania, Morocco, Rwanda, Tunisia, Uganda, Zambia, Zimbabwe
Asia	Cambodia, Iraq, Oman, Sri Lanka, Afghanistan, Azerbaijan, Bangladesh, Bhutan, India, Indonesia, Iraq, Kazakhstan, the Philippines Thailand, Tajikistan, Thailand, Ukraine, Viet Nam Yemen
LAC	Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Uruguay, Venezuela, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama

Source: FAPDA

2.5.2 Policies for governing foreign direct investments in land

Interest in foreign direct investment (FDI) in land is mainly driven by long-term goals, such as growing consumption of food and biofuels in the context of limited availability of arable land, water and energy. Investors are looking for secure access to food and other agricultural products as well as attractive financial returns, while host countries expect to benefit from job creations, increased foreign exchange earnings and a boost in food supplies to the local market. However, there are risks associated with large-scale land acquisitions. Investors may be allocated land and water belonging to local communities who receive little or no compensation, resulting in social and political conflict, especially in countries with weak governance and inadequately defined land tenure systems. Land allocated to grow food and biofuels for export may not only reduce supply of food to local markets but may also result in land degradation and deforestation. Such concerns have led to policy responses at three different levels: investing countries, host countries and international communities.

Investing countries

FDI in agriculture primarily originates from emerging countries (e.g. **Brazil, South Africa, India, Malaysia** and **Korea**), the Middle East and North Africa (MENA) region and developed nations (namely the **United States** and **European countries**). Investors from North and South America and **Europe** are almost exclusively private companies while the main actors from the Middle East**,** and to a lesser extent from **China** and **South Korea**, are state-owned companies. For instance, some MENA countries, which are among the most heavily dependent on imported food, have created special institutions in support of farmland purchase in foreign countries.

Following the shift away from the expensive self-sufficiency policy in agriculture (due to scarce water resources), **Saudi Arabia** launched in 2008 a package of measures in support of private investors and established in 2009 the *King Abdullah's Initiative for Saudi Agricultural Investment Abroad*. The first initiative grants credit facilities through public financial institutions and finance infrastructure projects in targeted countries. *King Abdullah's Initiative*, a public organization, identifies suitable hosting countries, signs bilateral agreements and has established the *Saudi Company for Agricultural Investment and Animal Production* (Cotula et. al., 2009; Green, 2012; Hallam, 2010). Also, the **Chinese** government has recently issued several regulations as well as financial subsidies and concessions to support the acquisition of land in foreign countries for production purposes, in the attempt to overcome domestic resource limitations (land and water) and avoid over-reliance on international markets to ensure food imports (Hongzhou and Zhang, 2013).

Host countries

It is estimated that over 80 countries are targeted by foreign investors but 11 of them account for 70 percent of targeted surface areas according to Land Matrix.[20] About two-thirds of the targeted farmland area is located in **Africa**, mainly **Sudan, South Sudan, Mozambique, Tanzania, Ethiopia, Madagascar, Liberia, DRC** and **Zambia**. **Argentina** and **Brazil** from **LAC** and **Indonesia** and **Lao PDR** from **Asia** are also among the target countries for investment in land. The policy response of recipient countries has varied from one of providing generous incentives with few restrictions to imposing conditions on ownership of land by foreigners.

Some countries have special policies aimed at attracting FDI in agriculture. In **Ethiopia**, the government expects FDIs to produce export crops and hence increase the country's foreign earnings, facilitate technology transfers, create employment opportunities, improve social infrastructure (like roads, hospitals and schools), and promote energy security through the production of biofuels. Hence, a number of policies have been put in place to attract investors. In Ethiopia**,** a large tract of land in the southern and western part of the country is designated as free and readily available to interested investors; land rent is fixed by the government at a very cheap rate and the land acquisition process for foreigners is highly simplified with no contractual obligations. Investors are eligible for various tax exemptions and financial facilities, including exemptions from custom duties and taxes on imports of capital goods; and land use fee exemptions for up to five years and the right to fully repatriate, in convertible currency, profits and dividends. **Tanzania** has also approved a scheme which grants investors five-year tax exemption, facilitates residence and working permits for foreign workers, and confers the right to repatriate funds. In **Iraq**, the 2009/10 amendments to the investment law stated the need to survey all land owned by the state with the objective of transferring state land to the *National Investment Commission* for allocation to investors. The amendments allowed foreign investment companies/individuals to rent Iraqi lands in partnership with Iraqis. In **Yemen**, a legislation allowing foreigners to acquire and own land was passed by the cabinet in September 2007. The government passed a law in 2008 for massive land registrations as it was a major hindrance to investments.

As a result of domestic political pressure and international initiatives to protect the land right of local communities, several countries have taken steps to protect the interest of local communities and the recipient countries. Some governments, including **Cambodia** (May 2012) and **Lao PDR** (June 2012) have imposed a moratorium on land purchases by foreigners. Many **LAC** countries have drafted legislation to limit land purchased by foreigners. **Argentina** restricted foreign rural land ownership to 15 percent of the total land in the country in 2011 (Box 3) while **Brazil** restricted foreign ownership to 25 percent (down from 40 percent) of the area of any municipality in 2010. In **Uruguay**, the state has the first option to buy in every farmland

20 For more information see: http://landmatrix.org/

transaction, and in **Paraguay** land property is restricted to nationals, although for years there have been ways of circumventing the norm. **Bolivia** and **Ecuador** have also capped the maximum size of land owned by a farm.

BOX 3. **THE LAND ACT, ARGENTINA**

In December 2011 the Argentinian parliament approved the *Ley de Tierras* (Land Act), which limited foreign land ownership in Argentine territory. The act sets a maximum of 15 percent foreign ownership of the total land in the country, within which no single nationality can own more than 30 percent. Additionally, it sets a 1,000-hectare limit per buyer. The law is not retroactive: it does not permit repossession of land already in the hands of foreign landowners, thus guaranteeing acquired rights. Furthermore, the law envisages the creation of the *Registro Nacional de Tierras Rurales* (National Registry of Lands), in charge of conducting a cadastral and manorial survey, and the *Consejo Interministerial de Tierras Rurales* (Rural Land Inter-ministerial Council). According to research conducted by the *Federación Agraria Argentina* (Argentine Agrarian Federation), from 2000, when foreign-owned land in Argentina totalled around seven million hectares, there was a steady increase of land acquisitions until 2010, when it was recorded that 20 million hectares were owned by foreigners (approximately seven percent of total land). This rapid escalation in demand for land, particularly in Patagonia, has prompted concerns over sovereignty.

Calls for scrutiny of land deals have forced some **African governments** to issue new legislations recognizing the right of local communities and/or limiting the ownership rights of foreigners. For instance, the new constitution of **Kenya** forbids non-citizens the right to own land – they can only lease land for 99 years. No new concessions over 10,000 hectares in **Mozambique** were publicly agreed between October 2007 to October 2011, and in 2008 the government approved a set of guidelines on the kind of investment it wanted to attract. **Tanzania** introduced ceilings to the size of new land deals: a maximum of 5,000 hectares for rice and 10,000 hectares for sugarcane. **Ethiopia** announced a halt to large land deals in 2012.

Global responses to concerns over land deals

In order to address the risks associated with FDI in land, principles and guidelines have been developed at international levels. In 2010, FAO, UNCTAD, IFAD and the World Bank developed the *Principles for Responsible Agricultural Investment that Respect Rights, Livelihoods and Resources* (PRAI). The principles include, among others, respect for existing land and resource rights, transparency and good governance and enabling environment in relation to investment in agriculture, and consultation and participation of all those materially affected by the investment.

In May 2012, more than 100 member countries of the UN Committee on World Food Security (CFS) endorsed the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security. The voluntary guidelines are a response to problems of tenure and weak governance faced in many countries. They were developed in an inclusive and participatory process which lasted more than three years, and provide internationally recognized principles and practices for improving tenure governance. Many countries are currently calling the UN to help them to integrate these principles into their national legislation as every context has to be well-addressed.

Conclusion

Producer support measures following the food crisis of 2007/08 have taken various forms. Among the different measures reviewed in this report, subsidizing inputs and improving access to credit gained widespread popularity in all the three regions. Many countries have opted for large-scale national subsidy programmes and various credit policy instruments to enhance farm investment and achieve a rapid increase in food production. Improving the efficiency of subsidy programmes has emerged as a major issue and many countries have taken measures to change the design of input subsidy programmes from universal coverage to targeted schemes, focusing on poorer households and/or staple grains. Market failures in the credit market are being addressed through special programmes, credit guarantee schemes and specialized banks in many countries.

Production support policy decisions have also included measures to address production, price and land-right (institutional) risks. Insurance and other risk management tools to protect farmers against price and production shocks have emerged as one of the key policy concerns in a growing number of countries. Recent policy reforms to improve agricultural insurance services have often required state-owned insurance companies to operate alongside private insurance companies and provide special services, such as reinsurance and insurance coverage, to catastrophic risks. In an attempt to tackle price risks, a number of countries adopted price stabilization and price support measures in 2007/08. These policy decisions were sustained through 2009/10 and 2011/12 although the interventions were applied more consistently and systematically in Asia than in Africa or LAC.

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3. Consumer support policy measures

FAO's twin track approach to rural development aims to increase production and productivity (as discussed in chapter two) while simultaneously leveraging the critical role played by social protection and social policy to protect vulnerable groups from poverty and food insecurity. Consumer-support measures are part of broader social protection strategies designed to ensure that economic access to food is guaranteed with a particular focus on protecting poor and vulnerable groups from high and volatile food prices. Consumer support measures discussed in this chapter are: consumer-related subsidies, food-based support programmes and cash-based transfer programmes. The manner in which these policies were implemented during the triple wave of food, finance and fuel crises from 2007 to 2009 and subsequent emerging issues are also discussed in this section.

3.1 Consumer related subsidies

Universal price subsidies and untargeted sales of subsidized commodities are measures which aim to control the prices of food and other essential goods, such as petroleum products (Grosh et al., 2008). The main objective of consumer-related subsidies is to guarantee that all or certain groups of households have access to these commodities at prices that they can afford. The rationale for using subsidies rather than cash transfer may be to create incentives for specific consumption behaviors (Alderman, 2002) as well as administrative considerations.

Consumer-related subsidies can be generalized (i.e. universal) or targeted. The most common design is an untargeted subsidy that lowers the price of food or fuel for all consumers in a country (Alderman, 2002). However, governments also use targeted subsidies to lower prices for certain households, targeting groups by income level or by other criteria such as number of children or geographic location (HLPE, 2012). Among the existing consumer-oriented subsidy instruments, this section focuses on direct and indirect food subsidies and fuel subsidies.

3.1.1 Food subsidies

Key Findings

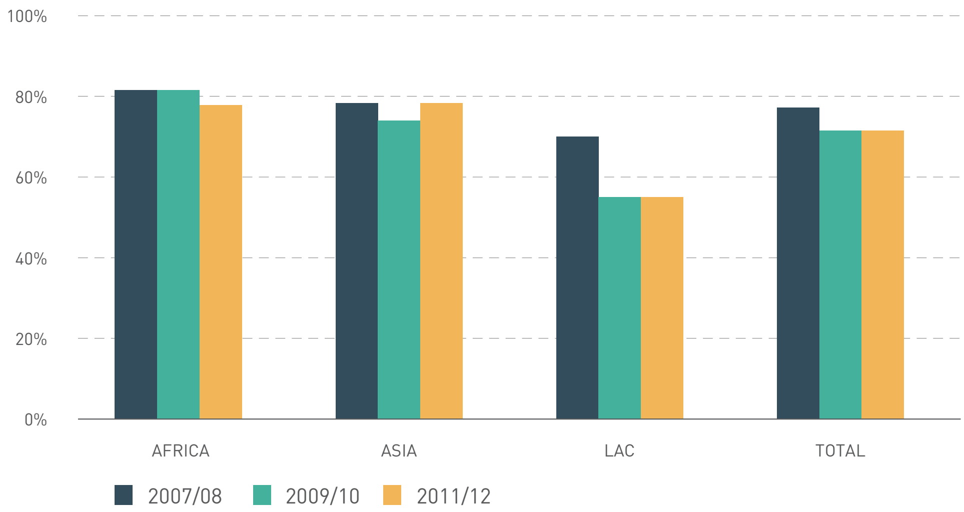
- Direct food subsidies and price control measures for basic staples were widely adopted and remained popular in **Africa** and **Asia** throughout the reference period.
- The number of countries using indirect food subsidies has generally increased but VAT or sales tax exemptions or reductions served only a temporary objective in many cases.
- In **Africa**, direct and indirect food subsidies were implemented mainly using targeted sales and ad-hoc or temporary price controls measures.
- In **Asia**, long-established food subsidy programmes prevailed in many countries and such schemes were expanded in some cases over the reference period. North Africa and Middle East countries increased public spending on food subsidies in response to both the 2007/08 food crisis and the political uprising in 2010/2011.
- In **LAC**, price control and domestic tax reduction measures have been used in response to the 2007-2009 food, fuel and financial crisis and a few countries have continued to implement these measures over the reference period.

Direct food subsidies are government subsidized sales of unlimited or rationed quantities of staple food commodities. These instruments are common in all regions, especially in **Africa** and **Asia** where close to 80 percent of the countries monitored used direct food subsidies during the reference period. On the other hand, the proportion of **LAC** countries that applied direct food subsidies was lower in 2007/08 than other regions and declined further in 2009/10 and 2011/12 (Figure 6).

Indirect food subsidies refer to tax (value added tax, VAT, or sales tax) exemptions or reductions are often considered as an untargeted, price subsidy (Alderman, 2002). Many countries in **Africa**, **Asia** and **LAC** apply some form of exemption or zero-rating on staple or unprocessed food in order to reduce the burden of high food prices on poor households. Overall, about 73 percent of the countries surveyed had in place a regime of VAT or sales tax exemption on basic food items over the reference period (2007-2012).[21]

21 Of the 71 countries surveyed, 40 implemented VAT exemptions/reduction over the reference period.

FIGURE 6. PROPORTION OF COUNTRIES IMPLEMENTING DIRECT FOOD SUBSIDIES (INCLUDING PRICE CONTROL MEASURES) (2007-2012)[22]



Source: FAPDA

Direct food subsidies

In **Africa**, direct food subsidies are among the most popular response to mitigate the impact of high food prices over the reference period. Most Sub-Saharan African (SSA) countries implemented targeted food subsidies and ad-hoc or temporary price controls on basic food items. In response to the food crisis of 2007/08, a number of SSA countries introduced temporary subsidies. Some of them, namely **Ethiopia**, **Kenya**, **Senegal** and **Zambia,** did so through subsidized sales to millers. Others, such as **Burkina Faso**, **Cameroon**, **Chad** and **Malawi**, responded with price controls, whereas **Ethiopia** and **Senegal** combined food subsidies and price controls. However, some countries have chosen to periodically set the price of the main staple food commodities (e.g. **Senegal** for bread, **Zambia** for maize, **Liberia** for rice) while others implemented price control as an ad-hoc measure to respond to specific circumstances. For instance, in **Burkina Faso**, the government identified and approved a list of 19 products subject to price regulation (November 2011) in response to the socio-political crisis of early 2011. Subsequently, retail prices of basic food commodities were fixed by decree and profit margin ceilings imposed on the sale of imported commodities. Similarly, in **Mali,** price ceilings were set for rice in 2008, 2009 and 2012 during the lean period (generally from March to May), and operators agreed to sell rice at or below this ceiling price in order to have exemptions on import duties and taxes.[23]

22 Information on food subsidies was not available for one country: Azerbaijan (2007/08; 2009/10; 2011/12).

23 See also section 4.1.1 on import policies.

Unlike SSA countries, universal food subsidies have existed in North Africa for several decades. In some of these countries, there was a clear trend of increased public spending on food subsidies in response to the soaring prices of 2007/08 and the political uprising of 2010/2011, popularly known as the 'Arab Spring'. In **Algeria**, **Morocco** and **Tunisia**, new food items were included in the list of the 2007 and 2008 subsidized products. **Egypt** increased the quantity of food distributed under the national ration card system (unchanged since 1988) and new groups were included as eligible beneficiaries (e.g. retirees and people with chronic diseases). The system reached approximately 64 million people (as of July 2011) representing nearly 79 percent of Egypt's total population in 2008 (Ghoneim, 2012). Despite recent efforts made by some governments to improve targeting (in **Tunisia** for instance), food subsidies remained universal in North Africa.

In **Asia**, direct food subsidies are a common practice and remained popular (similar to Africa) over the reference period. Some countries in South and East Asia have had large targeted food subsidy programmes in place for decades which have recently been expanded (in **India, Indonesia** and the **Philippines**) or scaled down in favour of other food-based safety nets (in **Bangladesh**). **India**, which has one of the world's largest food subsidy systems,[24] significantly increased the total budget of the programme during the last six to seven years, representing about five percent of agricultural GDP in 2010/2011 (Sharma, 2012). An ambitious *National Food Security Bill* is currently pending, awaiting parliament endorsement. It aims to extend the reach of subsidized food grains from 27 percent to about 67 percent of the population.[25] **Indonesia'**s benefit-in-kind programme 'RASKIN' distributes rice at a subsidized price to the poorest households on a monthly basis. Despite a rise in the price of subsidized rice for the first time in 2008, the budgetary cost of the programme doubled from 2007 to 2010. The **Philippines** also expanded its rice subsidy programme (which has been running for more than 50 years) increasing the coverage of the poor (from 26 percent in 2006 to 48 percent in 2009). Such improvements can be attributed to measures taken by the government to improve beneficiary selection (Fernandez and Velarde, 2012). In **Bangladesh**, the Public Food Distribution System operates through two channels: in kind (see section 3.2.1) and subsidized food sales (open market sales). The latter was recently cut back as the private sector increasingly played a prominent role in stabilizing market supplies and prices, especially at times of natural disasters.

Within Asia, Middle East countries followed a different path. Similar to North African countries, they relied heavily on universal food subsidies and most of them raised these subsidies in response to both the 2007/08 food crisis and to the unrest of 2010/11.[26] Food subsidies and price controls of main staple food commodities (mainly wheat, wheat flour and sugar) were in place in all the seven countries analysed[27] over the reference

24 The Targeted Public Distribution System (TPDS) provides a subsidy entitlement based on family size and composition; cards entitle households to monthly food stamps from prescribed distribution centres which could be cashed in for food from any food store at a subsidised rate.

25 The National Food Security Bill was approved by the House of Representatives of India on 26 August 2013.

26 In 2009, food subsidies ranged from 0.8 percent of GDP in Jordan to 3.5 percent of GDP in Iraq. See: *World Bank, 2011, Middle East and North Africa: Facing Challenges and Opportunities. Economic Developments and Prospects Report, May 2011.*

27 Namely Iran, Iraq, Lebanon, Yemen, Oman, Saudi Arabia and Syria.

period (2007-2012). However, in two of them, the governments are attempting to rationalize (**Iraq**) or phase out (**Iran**) subsidies.[28]

In **LAC**, direct food subsidies are less popular than in Africa or Asia and have lost support over time during the reference period: the proportion of LAC countries with direct subsidy programmes declined from 70 percent in 2007/08 to 55 percent in 2011/12. Food subsidies and particularly price control measures were used mainly during the 2007/08 crisis. Some countries continued to use them after the crisis, often as a temporary or more long-term policy. Countries like **Colombia** and **Mexico** (in 2008), **Honduras** (in 2007 and 2010) and **Ecuador** (in 2008, 2009 and 2010) only temporarily fixed the prices of several products included in the basic food basket (*canasta básica de alimentos*). Others regularly set the price of the main food items, such as **Costa Rica** and **Dominican Republic** for rice and **Ecuador** for *pan popular* (popular bread). Since 2007, **Argentina** has also implemented a system of compensations to producers (initially targeting only wheat and maize mills) to guarantee domestic supply and influence retail prices of staple food commodities. Currently, subsidies are provided for several food products, although the biggest share of payments goes to wheat mills and meat producers. Other countries, such as **Bolivia, Honduras, Nicaragua** and **Venezuela** intervene in food markets through articulated public systems in charge of the procurement, storage and distribution of subsidized food items.[29] In 2007, **Bolivia** created the public *Empresa de Apoyo a la Producción de Alimentos* (Company for Support of Food Production) with the aim of supporting food production and supplying internal markets under the principle of fair prices. In the same year, **Nicaragua** reactivated the *Empresa Nicaragüense de Alimentos Básicos* which also operates along the entire supply chain buying the production from local farmers, creating food stocks and selling products at affordable prices to consumers in the entire country. **Venezuela** has implemented price controls on staple foods since 2003 using the state-run company called *Mercados de Alimentos, C.A.*, selling subsidized products through a nationwide chain of stores. The *Productora y Distribuidora Venezolana de Alimentos* (Venezuelan Food Producer and Distributor) was also established in 2008 to serve the entire supply chain and handle the final sale of basic food items at fixed prices.

Indirect food subsidies

The number of countries using indirect food subsidies has generally increased over the study period but VAT or sales tax exemptions or reductions served only a temporary objective in many instances[30]. In **Africa,** reducing domestic taxes on food is a more popular policy instrument than in **Asia** or **LAC**. A number of countries maintained exemptions or reductions which were already in place (before 2007), while some other countries introduced the measure in response to the 2007/08 crisis. The measure was applied either

28 Iran is currently implementing a food subsidy reform approved in October 2010 that foresees a phase out of all subsidies by the end of 2014.

29 See also section 4.2.1 Foodgrain Stock Management.

30 Information on VAT exemptions/reductions was not available for 10 countries: Burkina Faso, Azerbaijan, Iraq, Kazakhstan, Oman, Saudi Arabia, Syria and Tajikistan for all the period (2007/08; 2009/10; 2011/12) and for Togo and Tunisia (2007/08; 2009/10).

on a temporary basis (e.g. **Ethiopia** in 2008 and **DRC** 2012), or with a longer-term perspective (such as **Cameroon**, **Mauritania** and **Sierra Leone**) (Table 8).

In **Asia,** the use of VAT or sales tax adjustment to mitigate the impact of high food prices is limited; only a few countries were reported to have used VAT/sales tax adjustments during the reference period (Table 8). **China** and **Indonesia** both introduced and sustained a VAT reduction/exemption policy on basic food items, while **Cambodia** adopted a VAT exemption policy (on agricultural products) only temporarily in 2008.

In **LAC**, a few countries introduced VAT adjustments during the period under consideration while several countries had VAT exemptions already in place before 2007 (Table 8). **Ecuador** and **Venezuela** approved a VAT exemption on basic food items in 2007, and the measure was in place until 2012. In 2008, **Brazil** reduced domestic taxes on staples such as wheat, wheat flour and bread and maintained the policy until 2012. **Uruguay** temporarily suspended VAT on some commodities from 2008 to 2009, and again in 2011.

TABLE 8. **VAT EXEMPTIONS/REDUCTIONS ON BASIC FOOD ITEMS (2007-2012)**

Region	Exemptions /reductions introduced	Exemptions/reductions already in place (before 2007) and retained
Africa	Cameroon (exemptions from 2007), Ethiopia (temporary suspension in 2008), Mauritania (exemptions from 2008 and 2009), Sierra Leone** (exemptions from 2010), DRC** (temporary suspensions in 2012)	Algeria, Chad, Ghana, Kenya*, Lesotho, Mali, Morocco, Nigeria, Rwanda, Uganda, Malawi, Senegal, South Africa, Tanzania, Zambia, Zimbabwe
Asia	China (temporary suspensions in 2008), Cambodia (temporary suspensions in 2008), Indonesia (exemptions from 2007)	Nepal, Sri Lanka, Thailand
LAC	Ecuador (exemptions from 2007), Venezuela (exemptions from 2007), Uruguay (temporary suspensions in 2008, 2009 and 2011), Brazil (reductions from 2008)	Argentina, Colombia, Costa Rica, Dominican Republic, Honduras, Mexico, Nicaragua, Panama, Paraguay

* The new VAT Bill 2012 foresees a 16 percent VAT for some products which were previously exempted, such as wheat, wheat flour, bread and processed milk.

**The VATs, or Goods and Services Tax (GST), in Sierra Leone and DRC were introduced in 2010 and 2012 respectively.

Source: FAPDA

3.1.2 Fuel subsidies

Key Findings

- The proportion of countries using direct fuel subsidies remained high and steady (over 80 percent) between 2007 and 2012. Provision of fuel subsidies in favour of both consumers and producers is common policy in all **Asian** countries.
- A number of countries used indirect support mechanisms such as price control and stabilization funds to lower fuel prices. Price adjustment mechanisms in **Latin America and the Caribbean** were more widely applied than direct price subsidies or tax subsidies.
- A growing number of countries have attempted to reduce or reform their fuel subsidy programmes during the study period. Rationalization and attempts of reform seem to be at more advanced stage in **Asia** than in other regions, while many **African** governments started to liberalize their fuel markets.

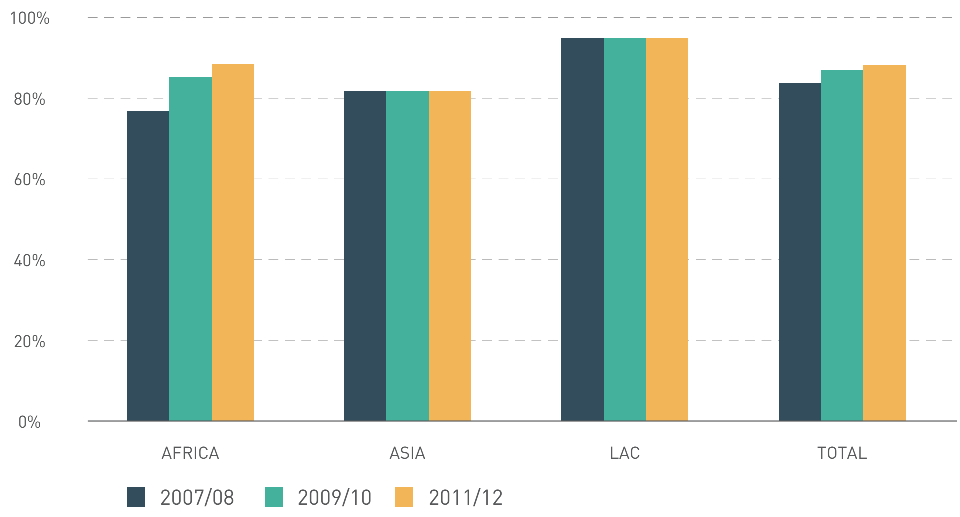
Nearly all countries monitored have been affected by sharply rising oil prices on the world market in recent years. For this reason, fuel subsidies are commonly used, often as universal subsidies benefiting all consumers in a country in order to lower the price of energy used for cooking, heating, lighting and personal transport as well as energy used as an input for production of goods and services. Fuel subsidies include direct price subsidies,[31] when the price paid by firms and households is below supply price, and tax subsidies, when taxes are below their efficient level (IMF, 2013). Price control mechanisms, such as price ceilings, set or freeze prices, and price adjustment measures, such as stabilization funds mechanisms, are indirect support mechanisms in favour of consumers (Kojima, 2013).

In 2007, international oil and oil product prices rose sharply, challenging countries and causing their energy bills to surge. The increase in the global amount of consumer subsidies closely followed the sharp rise in international fossil fuel prices (IMF, 2013). Over 80 percent of the countries monitored implemented direct fuel subsidies between 2007 and 2012 (Figure 7). The proportion of countries with fuel subsidy programmes remained high and steady between 2007 and 2012 (Figure 7) despite the fact that many countries in all the three regions have attempted to reduce or reform their subsidy systems (Annex 1) in order to reduce the burden on government expenditure, improve energy efficiency and security, boost investment in clean energy sources and address climate change.[32]

31 Fossil fuel subsidies from governments fall into two broad categories: 'producer subsidies' that constitute financial transfers to the fossil fuel industry - mainly large oil and gas multinationals involved in extraction, processing and distribution, and 'consumer subsidies' that are mainly provided to reduce the end-use prices of fossil fuels. The information analysed in this section is limited to consumer subsidies.

32 It is known that one of the by-products of fossil fuel burning, carbon dioxide (CO2), is released into the atmosphere, causing the global climate to change.

FIGURE 7. PROPORTION OF COUNTRIES IMPLEMENTING FUEL SUBSIDIES (2007-2012)[33]



Source: FAPDA

In **LAC,** a number of countries maintained direct subsidies or price control mechanisms to lower fuel prices for consumers during the reference period. Reforms to reduce subsidies were introduced in the region in the 1990s (e.g. **Argentina, Brazil, Chile** and **Mexico**) but price control and adjustment mechanisms are still in common practice. In **Argentina,** the energy sector was deregulated in 1989, but in recent years the government has kept prices of fuel low through indirect price control measures on petroleum products, and heavy export taxes on oil (Kojima, 2013). Prices were deregulated in **Brazil** by law in January 2002, but in practice the national oil company, *Petrobras* (which owns 98 percent of the country's refining capacities), has frozen ex-refinery prices for years. Price freeze mechanisms were also used in recent years in **Bolivia** and **Venezuela,** while funds to lower and stabilize fuel prices have been put in place in **Colombia** and **Peru**. Attempts to reduce or reform fuel subsidies have been reported in countries like **Chile**, **El Salvador**, **Mexico** and **Peru** (Annex 1).

In **Asia,** direct fuel subsidies and price control measures were in place in most of the surveyed countries between 2007 and 2012, although some of them have attempted to reduce or rationalize their fuel subsidy systems. Southeast Asian countries have a high average subsidization rate (as a share of the GDP): **Indonesia** and **Thailand** are in the world's top 20 largest fuel subsidizers in dollar terms.[34] Fuel markets in South Asian countries are more deregulated than Southeast Asia countries, but subsidies are widely used in **Bangladesh**, **Nepal** and **Sri Lanka**. In the Middle East**,** subsidies are high for both oil-exporter and importer

33 Information on fuel subsidies was not available for three countries: Azerbaijan (2007/08; 2009/10), Kazakhstan (2007/08; 2009/10) and Haiti (2007/08; 2009/10; 2011/12).

34 For more information see: http://www.iea.org/subsidy/

countries: the highest subsidy rates are represented by oil exporting countries such as **Iraq** (14.30 percent of GDP) and **Saudi Arabia** (13.27 percent of GDP)**.** Price control measures to lower fuel prices had been reported by several Asian countries, including **Bangladesh, India, Indonesia, Iran, Iraq, Kazakhstan, Nepal, Sri Lanka, Syria** and **Yemen. Thailand** and **Viet Nam** manage oil funds for lowering prices in times of high world prices. Among the countries surveyed, **Bangladesh**, **China**, **India**, **Indonesia**, **Iran**, **Lebanon**[35] and **Syria** have taken measures to reduce fuel subsidies. In **Indonesia**, since the economic crisis of 1997, the government has made several attempts to reform its fossil-fuel subsidies. In 2008, along with the adjustment of fuel prices, a number of compensation measures were introduced in the form of unconditional cash transfers, rice distribution to the poor, financial support for the children of the lowest ranks of civil servants and interest subsidy loans for small and medium enterprises (SMEs) (APEC, 2012).

In **Africa,** most of the countries surveyed relied on direct subsidies or price control mechanisms to lower fuel prices. Countries such as **Cameroon**, **Egypt**, **Ethiopia**, **Ghana**, **Malawi, Morocco**, **Mozambique**, **Nigeria** and **Rwanda**, have frozen prices of gasoline, diesel or both for several months or longer. Others, like **Kenya**, **Rwanda** and **Senegal**, reduced taxes and fees levied on diesel and kerosene. However, in recent years, some Sub-Saharan African countries have attempted to reform their fuel subsidy policies. In **Ghana**, **Nigeria** and **Mozambique**, reforms were accompanied by the expansion of targeted social spending programmes to protect lower-income households from fuel price increase. In **Nigeria,** the reduction of gasoline subsidies was announced in mid-2011 and the *Subsidy Reinvestment and Empowerment* (SURE) programme was subsequently adopted to offer a variety of social safety net initiatives to mitigate the impact of removing the subsidy on the poor (IMF, 2013). In January 2012, the Nigerian government ended the fuel subsidy for gasoline, which caused prices to more than double. However, this price shock primarily affected low-wage Nigeria and resulted in riots, forcing the government to back down (Hickey, 2013).

35 In Lebanon fuel price subsidies were de facto eliminated in October 2008 with the reintroduction of fuel excise taxes but in early 2011, the Lebanese government reduced fuel excise taxes in response to high world market prices and increasing domestic political tensions (Fattouh & El Kattiri, 2012).

3.2 Food-based safety net programmes

Key Findings

- Food distribution measures were widely used and expanded during the reference period.
- Food aid to vulnerable people attracted growing attention throughout the period. In most cases distributions were made on an ad-hoc basis after emergencies, but some countries, mainly in **LAC**, have institutionalized them through the creation of programmes such as child and mother national nutritional programmes.
- School feeding has gained popularity but there is a large discrepancy among the regions, with all **LAC** countries operating such programmes, compared to only 40 percent in **Africa** and 50 percent in **Asia**.
- Food-for-work programmes were implemented in only a few countries and were often restricted to a few specific locations or a limited period of time.

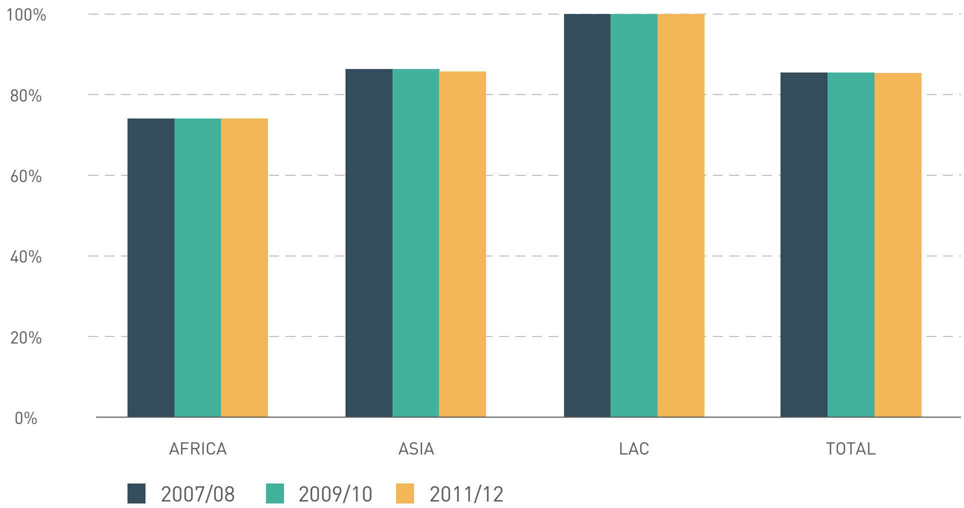
Food-based safety net programmes, which support adequate consumption to combat hunger and malnutrition, are implemented in different forms. Three kinds of food-based safety nets are considered in this section: free food distribution and nutritional support to vulnerable people, school feeding and food-for-work programmes. Free food distribution typically involves direct distribution of food and supplementary feeding interventions for vulnerable groups (usually targeted). To maximize the nutrition impact of this type of support, explicit nutrition interventions may be included. School feeding is a form of supplementary feeding that involves the provision of free food (with the exception of a few cases where governments may request small contributions) for children at school. Food-for-work is the direct provision of food rations in exchange for a predetermined amount of work (usually self-targeting).

These schemes are different and vary in terms of duration, scale and objectives. While distribution of food aid to vulnerable people is mostly implemented under emergency contexts with a short-term objective, school feeding and food for work programmes are usually more elaborate policies with a medium- to long-term objective. Only government-led programmes, or programmes in which government has an active role, are reviewed below, excluding the analysis of donor-funded food distributions.

Over 80 percent of countries monitored used food based safety net programmes during the reference period. These approaches are common practice in all regions more popular in **LAC** (where all countries monitored implemented some permutation of this type of programme over the reference period) than in **Africa**

or **Asia**. The evidence shows that countries have not changed their policy of food-based support between 2007/08 and 2011/12 (Figure 8).

FIGURE 8. PROPORTION OF COUNTRIES IMPLEMENTING FOOD DISTRIBUTION (2007-12)[36]



Source: FAPDA

Overall, food aid to vulnerable people and school feeding are more widely practiced than food for work programmes (Table 9). Moreover, the approaches and practices of implementing food-based support programmes vary from region to region or from country to country.

36 Information on food distribution was not available for three countries: Azerbaijan and Tajikistan over the study period and for Syria in 2011/12.

TABLE 9. FOOD-BASED SAFETY NET PROGRAMMES IMPLEMENTED IN SELECTED COUNTRIES (2007-2012)

Region	Free food distribution to vulnerable people	School feeding programmes	Food for work programmes
Africa	Egypt, Tunisia, Mauritania, Cameroon, Chad, Senegal, Togo, Burkina Faso, Ghana, Mali, Nigeria, Lesotho, Malawi, Tanzania, Zimbabwe, Ethiopia, Kenya	Mauritania, Morocco, Cameroon, Senegal, Togo, Burkina Faso, Ghana, Mali, Kenya, Rwanda, South Africa, Zambia	Mauritania, Ethiopia, Kenya
Asia	Oman, Yemen, Iraq, Syria, Bangladesh, Cambodia, China, India, Indonesia, Nepal, the Philippines, Sri Lanka, Thailand, Viet Nam	Saudi Arabia, Yemen, Syria, Bangladesh, Bhutan, China, India, Indonesia, Lao PDR, Nepal, Sri Lanka, Thailand, Viet Nam	Bangladesh, Bhutan, Cambodia, India, Nepal
LAC	Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama	All countries	Haiti, Nicaragua, Bolivia, Guatemala

Source: FAPDA

3.2.1 Free food distribution and nutritional programmes for vulnerable people

Most of the countries surveyed provided free food distributions to vulnerable people over the reference period (Table 9). In most cases distributions were targeted and implemented on an ad-hoc basis. The **African nations** of **Cameroon** (after 2008), **Mauritania** (2009 and 2010), **Chad** (throughout the reference period) and **Togo,** among others, provided in-kind food transfers to support people and regions affected by natural disasters or chronic malnutrition. In **Kenya**, the *General Food Distribution* programme for relief and recovery absorbed about 53 percent of all safety net spendings between 2005 and 2010; although the programme was largely financed by development partners (71 percent).[37] Several **LAC** countries distributed free food in response to disasters, including **Chile** (2010), **Paraguay** (2012) and **Mexico** (2012). In **Brazil**, large-scale food aid was also provided to specific groups, such as indigenous as well as people affected by natural disasters. In emergency contexts or in response to high food prices over the period of analysis, free food distribution was also common among **Asian countries**, including **Syria** (2008, 2009), **Cambodia** (2008, 2011), **Sri Lanka** (2007-2012), **Pakistan** (2010), **China** (2012), **Thailand** (2011) and **Viet Nam** (2011). **Bangladesh** has been running free food distributions to vulnerable groups under the *Vulnerable Group Feeding* and the *Gratuitous Relief* programmes which support the poor to cope with natural disasters. The allocation of food under these schemes increased by 48 percent in the 2008/09 budget year.

37 Kenya Social Protection Sector Review: Executive Report (June 2012). Ministry of State for Planning, National Development and Vision 2030.

As part of medium and long-run poverty alleviation strategies, some countries are mainstreaming food and nutrition interventions in their social safety net programmes. Among **LAC** countries, **Brazil's** well-known *Restaurantes Populares,* or *Community Kitchens* (established in 2003 and reinforced during the reference period), provide free or subsidized food for those on a low income. The budget for these community kitchens continuously increased over the period. Brazilian authorities also continued to implement the *Programa de Alimentación del Trabajador* – Worker Feeding Programme (in place since 1975) – to provide free meals to workers below minimum wage. In **Ecuador** (since 2009) and in **Guatemala** (since 2008), national programmes were created to institutionalize ad-hoc free food distributions. Several LAC countries have also institutionalized explicit long-term nutritional interventions into their national programmes to address hunger, targeting children and mothers. Such programmes are often implemented as mother and child health care, delivery of food and micronutrients, nutritional extension and education (Box 4).

A few countries in **Asia** have established and expanded national programmes aimed at combating hunger and malnutrition. **Viet Nam** has a strong public health and nutrition system that includes community health workers and a specific cadre called 'nutrition collaborators'. These health and nutrition workers screen children for malnutrition and counsel mothers about breastfeeding, balanced diet, hygiene and sanitation. As a result, Viet Nam is almost certain to attain the targets set by MDGs 4 and 5 related to child and maternal mortality by 2015 (Save the Children, 2012).

In **Africa**, **Mali**'s government has continued using community health workers with training on several nutrition-related interventions to improve child survival by delivering vitamin A to women and children under five years old. **Malawi** has also put significant energy and resources into improving nutrition and health services for its people, especially those living in rural areas (Save the Children, 2012).

BOX 4. NUTRITIONAL PROGRAMMES IN LAC

With the aim of eradicating hunger, and in particular child malnutrition*, over the last few years a number of governments in LAC** established specific long-term nutritional plans which are additional to the already existing food distribution programmes. These programmes are generally implemented through three channels***:

1. Mother and children health interventions: initiatives of health care focused on pregnant women and children are diffused in the region (e.g. *Programa Materno-Infantil* in **Argentina**, a universal programme with health-monitoring and milk delivery components directed to mothers, new-born and children aged under six years; *Acción Nutrición* in Ecuador, a multi-ministerial programme providing complete nutritional monitoring and health assistance to vulnerable mothers and children, among other components);

2. Delivery of fortified food and micronutrients: actions related to fortification of some important food products and delivery of micronutrients to vulnerable groups (e.g. **Costa Rica** implements fortification of rice, milk, salt, wheat and maize flour with micronutrients, while in **Bolivia** the *Desnutrición Cero* programme delivers micronutrients and fortified food to vulnerable families in risk of malnutrition;

3. Nutritional extension and education: training and extension activities on healthy nutritional habits to prevent malnutrition and its effects (e.g. the *De Cero a Siempre* programme in **Colombia** focuses on the proper growth of children up to five years old with nutritional guides to promote good-health habits).

** Latest estimations from PAHO (2011) indicate that 7.1 million children under five years old were affected by stunting in 2011.*
*** At least nine countries in the region have nutritional plans in place. Other countries integrated this field of action into their food security or health assistance plans.*
**** Generally nutritional programmes combine more than one of these components.*

3.2.2 School feeding programmes

In **Africa**, school feeding programmes were put in place or reinforced in several countries in response to the 2007/08 food crisis. For instance, the **Cameroon** government increased school feeding expenditure by 51 percent in 2009 compared to 2008. In **Ghana**, the school feeding programme started before the crisis, on a pilot basis, in September 2005, but was expanded nationwide during the 2007 crisis, with the government accounting for about 75 percent of the total cost. **Kenya** enlarged its school feeding programme in 2011, and **Rwanda**'s school feeding programme was also scaled up to cover 50 percent of the children in primary and secondary schools in 2012, from 14 percent in 2011 (Anand et al., 2012). **South Africa**'s school feeding programmes, which have been in place since 1994, have recently been expanded, increasingly focusing on

nutritional components of meals and covering up to 30 percent of daily nutritional requirements (Anand et al., 2012). South African school feeding programmes contributed to generate spill-over effects for local economies, creating employment opportunities for women, encouraging them to form small businesses that supply food for the school feeding programme in a given area (Bundy et al., 2009).

In **LAC**, many school feeding programmes, which have been in place for decades, were reinforced during the reference period. In 2009, **Brazil** expanded its national school feeding programme, *Merienda Escolar*, which has been in place since 1955. Coverage was extended to children and adult students (of all basic education) enrolled in public schools, benefitting 45 million students in 2012. Moreover, in 2009, a national law declared that 30 percent of the total school feeding budget has to be invested in directly purchasing products from family farms (see Box 1), thus benefitting small production and local economies as well as granting high quality food. In **Chile**, the *Programa de Alimentación Escolar* (in place since 1964) targets children from vulnerable and poor families, while in **Ecuador**, the *Programa de Alimentación Escolar* (launched in 1999) was reinforced in 2011. **Colombia** also reinforced its programme in 2007 and introduced a new one, *Programa Leche para Todos* ('Milk for all'), in 2008, distributing milk to schools and to families in poor areas. A school feeding system in **Paraguay** that was initiated in 2007 was interrupted in 2008 (due to budgetary constraints) but re-introduced in 2009 to distribute a glass of milk to school children. **El Salvador** (in 2010) and **Honduras** (in 2011) launched a new initiative called *Vaso de Leche* ('Glass of Milk') to deliver milk to students. Like the Brazilian experience, milk is purchased from small domestic producers for the programmes. An element that gives a strong sustainability to these programmes in the **LAC** region is that they are run through specialized institutions or units (often under the Ministry of Education) dedicated to the programmes' management. With the exception of **Argentina** and **Bolivia,** where school feeding is carried out by provinces or municipalities, school feeding in LAC is delivered through massive national programmes through which governments seek to fulfill their obligation to guarantee the right to education, the right to food and affirm the right to health of school children at the same time.

Most of the **Asian** countries had a public school feeding programme in place over the reference period, and in some of them (e.g. **India, China, Thailand** and **Bangladesh**), the coverage is particularly broad with significant expansion in recent years. **China** launched its *Nutrition Improvement Plan for Rural Compulsory Education* in 2007. Its coverage is the third largest in the world, second only to the school feeding programmes in **India** and **Brazil**. The programme of **Bangladesh** distributes micronutrient-fortified energy biscuits to primary school children, while the school lunch programme in **Thailand** provides free lunch to all children in remote areas, and to poor or underweight children in suburban schools, middle-income communities or semi-rural areas. **India** has the largest school feeding programme of the world. The *Mid Day Meal*, which has been in place since 1995, reached 113.6 million school children in 2011. Its aim is to ensure that all children are adequately fed and receive primary education.[38]

38 The scheme is implemented through two separate procurement processes: one for food grains (subsidized centrally through the government-owned Food Corporation of India) and one for other foods like fresh fruits or vegetables (for which procedures are established at the state level).

3.2.3 Food-for-work programmes

Government-based food for work programmes have become less popular compared to nutrition or school feeding programmes. Only about 17 percent of the countries covered (Table 7) implemented such programmes, often in fragile, chronic poverty or post-conflict settings for a limited period of time or part of the year. Recent debate over the use of cash rather than food regularly raises concerns over the impact of food distribution on local food markets, the transaction costs involved as well as preferences of beneficiaries (Alderman, 2002). Food-for-work programmes have the potential of attracting labour away from recipients' own farms, distorting the food markets or changing consumption patterns (Barrett, 2006).[39]

In **Africa**, food-for-work programmes are implemented in response to emergency or chronic food insecurity situations. In **Ethiopia**, the *Productive Safety Net Program*, which saw a 33 percent increase in funding in 2008, provides food and cash transfers through public works (at a rate of 15kg of cereal in cash or grains, for five working days a month) in drought prone parts of the country. In **Kenya**, the food for work programme, in place since 2000, was suspended in 2009 and replaced by a *Food-For-Asset* programme, which effectively started in 2011, providing food to rural households and helping rural communities to build assets. This program was primarily implemented in arid and semi-arid lands (ASALs), to soften the impacts of likely hazards (floods, droughts), while national food for work programmes were in place in **Mauritania.**

In **LAC**, a few countries have relied on food-for-work to address serious poverty emergency situations. **Bolivia** implemented the *Programa de Seguridad Alimentaria y Desarrollo Vial Urbano* (Food Security and Urban Road Development Program) in the city of El Alto in 2011. Among other food for work programmes in the region are the *Alimentos por Trabajo* programme of **Guatemala** and similar schemes in **Haiti** and **Nicaragua**. Some of these programmes, which have been in place since the last one or two decades, played an important role during the reference period.

Of the **Asian countries**, **Bangladesh** has two programmes, namely the *Food-for-work* and *Test Relief*, which distribute food grains (rice and wheat) as wage payment to both male and female workers in labour-intensive public work programmes. Food for work schemes also exist in **Cambodia** and **Bhutan. Nepal** implemented seasonal food for work schemes during slack agricultural seasons, when rural people are waiting for the next harvest and wage labourers begin to face food shortages. **India** has implemented a countrywide food for work programme since 2005 in the poorest rural districts (renamed *Mahatma Gandhi National Rural Employment Guarantee Act* in 2009). The programme, which is 100 percent centrally sponsored, provides resources in the form of cash and food grains to the rural poor in exchange for manual or unskilled labour.

39 Nevertheless, food-for-work programmes are one of the preferred instruments of NGOs and WFP to address temporary work shortages brought on by a slack agricultural season or after a shock, providing assistance in both post-disaster and post-conflict situations (Subbarao, et al., 2013).

3.3 Cash-based consumer support programmes

Key Findings

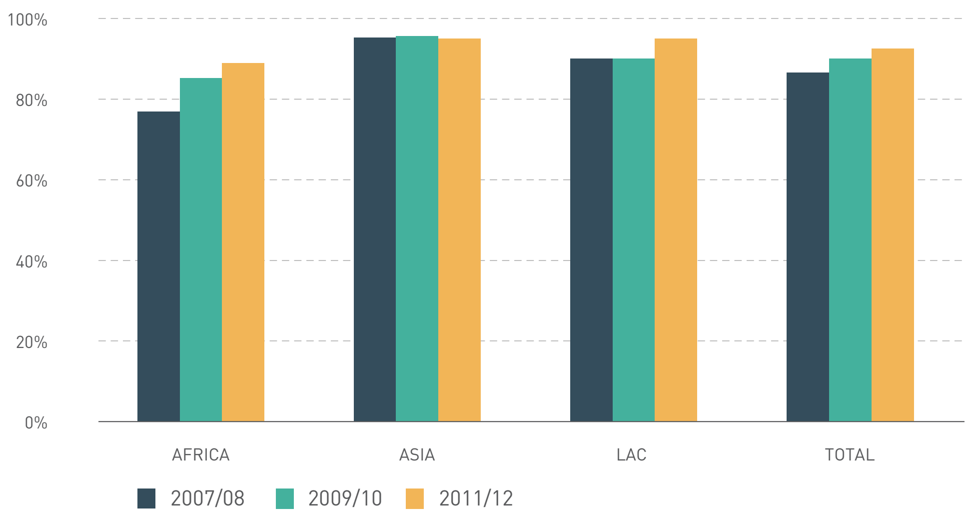
- The majority of the countries surveyed (80 percent) implemented cash transfer programmes during the reference period (2007-2012).
- Several countries in **LAC**, **Africa** and **Asia** have launched new cash transfer programmes in the study period, while others have expanded existing programmes and/or institutionalized them.
- Cash vouchers are less popular in all regions, while cash for work programmes are relatively more common in **Africa** and **Asia** than in **LAC**.

Cash-based transfer programmes "include the provision of assistance in the form of cash and other instruments almost like cash that can be used to transfer resources to the poor or to those who, in the absence of the transfer, face a probable risk of falling into poverty" (Grosh et al., 2008). FAO defines cash transfers as "payment of money or vouchers provided to vulnerable individuals, households, or private sector entities" (FAO, 2012b). These transfers often refer to regular non-contributory payments of money provided by government (sometimes in partnership with donors) to individuals or households. Contributory pensions, which require the beneficiary to make matching contributions, are not addressed in this report. Only government-led programmes, or schemes in which government has an active role, are reviewed below.

Cash-based transfer programmes have been implemented to support the poor in over 90 percent of the **Asian** or **LAC countries** surveyed and in about 80 percent of the **African countries** monitored. The growing use of cash transfers is evident from the larger proportion of countries applying the measure in 2011/12 compared to 2007/08 (Figure 9). Among the frequently mentioned main advantages of a cash transfer is the choice it gives to beneficiaries in using additional income compared to other transfers and the reduced administrative requirements or lower operating costs (Grosh et al., 2008).

Cash-based transfer programmes appeared first as a consumer support tool in middle income countries in the 1990s and rapidly expanded throughout the world. In recent years, low income countries are increasingly implementing cash transfer programmes, in some cases with aid from donors, in the form of conditional and unconditional cash transfers, cash vouchers (for food) and cash-for-work programmes. Cash transfers (conditional or unconditional) are more popular than cash vouchers or cash-for-work programmes (Table 11).

FIGURE 9. PROPORTION OF COUNTRIES IMPLEMENTING CASH-BASED TRANSFER PROGRAMMES (2007-12)[40]



Source: FAPDA

3.3.1 Conditional and unconditional cash transfers

Non-contributory cash transfers (NCT) can be conditional or unconditional. Conditional cash transfer (CCT) programmes are designed to provide money to poor people in return for fulfilling specific behavioural conditions, which can include children school attendance and regular visits to a health care facility by pregnant women, etc. The focus of these programmes is promoting human development, attainment of human capabilities, and enhancing economic productivity and growth. Unconditional cash transfers provide cash to vulnerable families or individuals based on their income without any conditionality (e.g. social assistance) or to targeted beneficiaries, such as child support grants (Annex 2).

In **LAC**, cash transfer programmes are widespread and often implemented as CCTs. In 2011/12, out of 20 countries surveyed, 19 had at least one type of cash transfer programme in place (Figure 9). New cash transfer programmes (e.g. grants to mothers, children and the elderly) have been introduced or expanded in recent years, since governments in LAC consider cash transfer programmes as the main policy instrument against poverty and food insecurity (Table 10). Many conditional CCTs are designed in the course of school assistance and compliance of medical checks for pregnant women and children. **Argentina**, for example, launched in 2011 a social programme called *Asignación por embarazo para protección social*, which provided a conditional pregnancy allowance for women from 12 weeks of gestation, upon completion of regular medical checks. Prior to that, in 2004, the government had launched the programme *Familias Por Inclusión Social*, a CCT to poor families with children (under the age of 19), which was replaced in 2010 by

40 Information on cash transfers was not available for seven countries out of 71 monitored: Azerbaijan (2007/08; 2009/10; 2011/12), Kazakhstan (2011/12), Iran, (2007/08), Iraq (2011/12), Mauritania (2007/08) and Syria (2007/08; 2011/12).

the *Asignación Universal por Hijo*, a universal child allowance. **Bolivia** has also implemented several cash transfer programmes: in 2008 it introduced the *Renta Dignidad*, a non-contributory state pension for poor citizens over 60 years old; in 2009 the country launched the *Bono Madre Niño-Niña 'Juana Azurduy de Padilla'*, a CCT for children aged 0-2 years, and in 2012 it introduced the *Renta Solidaria*, a non-conditional cash transfer programme to people with severe disabilities. In 2012, **Peru** replaced the *Gratitud* monthly bonus programme, for adults aged over 75 years living in extreme poor conditions, with *Pensión 65*, where the age was lowered to 65 years. In 2012, **Colombia** redesigned *Familias en Acción* (2001) and renamed it as *Más Familias en Acción* in order to increase the amount of the transfers directed to recent graduates from school, promoting higher education enrollment. Most countries of LAC registered an increase in GDP during the reference period (benefiting from high prices of raw and agricultural commodities) and were able to increase their budget dedicated to social protection, tackling the region's long-standing concerns of income distribution and food insecurity (FAO, 2012a).

The best known and probably the biggest of all conditional cash transfer schemes in the developing world is the *Bolsa Família* in **Brazil**. The *Bolsa Família* provides financial support to poor families, who are required to ensure that their children attend school and are vaccinated. The objective is to both reduce short-term poverty by direct cash transfers and fight long-term poverty by increasing human capital among the poor through linking education and health services to cash transfers. Accordingly, the Brazilian government has continuously increased the budget and signed up new recipients to the programme over the years,[41] reaching 13.7 million poor households in 2012 (the amount of transfer also increased by 45 percent).[42] In 2011, *Bolsa Família* designed a new sub-programme of CCTs, *Bolsa Verde* ("Support to Environmental Conservation"), to support families who participate in conservation activities in national forests as well as indigenous peoples, afro-descendants and other traditional communities.

In **Africa**, support for cash transfer programmes is growing. They are often implemented as unconditional cash transfers and are attracting attention due to their 'protective' dimension in providing support to families that care for orphans and other children affected by AIDS (UNDP, 2008). Among the countries analysed, 14 introduced cash transfer programmes during the study period, while in others, existing cash transfer programmes were expanded (Table 10). The government of **Ghana,** for example, introduced the *Livelihood Empowerment Against Poverty* (LEAP) programme in 2008. LEAP is a pioneer non-contributory cash transfer in West Africa. It provides cash and free health insurance to extremely poor households. **Kenya's** NCT programme, the *Orphan and Vulnerable Children* programme, increased its transfer value by 33 percent in 2011, and by 2012 the programme reached 150,000 households nationwide.

In **Asia**, national unconditional and conditional cash transfer programmes were either introduced or

41 Bolsa Familia integrates the Plan Brasil Sem Miséria, which has its focus on the 16 million Brazilians with per capita income below R$70 monthly, and is based on income security, productive inclusion and access to public services.

42 See more at CEPAL web-based repository on cash transfer programmes in LAC: http://dds.cepal.org/bdptc/programa/?id=6

expanded in 2007/08 in response to the food crisis (Table 10). **China's** Minimum Livelihood Guarantee Scheme (the urban *Di Bao* programme) raised the maximum income threshold level (below which people become eligible for payments) by 23 percent in 2007. This programme, which was originally created to serve urban residents, was expanded to rural areas, reaching a total of 53 million recipients in 2011 (Qian Jiwei, 2013). In **Viet Nam,** a monthly cash transfer programme, introduced in 2004 to support elderly people aged 90 and above with no contributory pension, was expanded in 2007: the minimum eligible age was reduced to 85 years old, and the minimum monthly benefit increased. In 2010, the minimum eligible age was reduced again to 80, and the minimum monthly benefit was increased further. The **Philippines** introduced a conditional cash transfer programme in 2007: the *Pantawid Pamilyang Pilipino* programme provides cash grants to beneficiary households, subject to compliance with education and health conditionality (e.g. children regularly attending school, pregnant women and children visiting health facilities for regular health monitoring). This programme has grown over the years to become the Philippines' largest social assistance scheme: it started in 2007 with 360,000 household beneficiaries and reached 2.3 million in 2012, representing about 44 percent of poor households.

TABLE 10. CASH TRANSFER PROGRAMMES RECENTLY INTRODUCED AND EXPANDED OR RETAINED IN SELECTED COUNTRIES (2007-2012)

Regions	Recently introduced cash transfer programmes	Cash transfer programmes expanded (resources and new vulnerable groups) or retained
Africa	Morocco, Ghana, Lesotho, Zambia, Malawi, Zimbabwe, Nigeria, Mozambique, Tanzania, Uganda, Rwanda, Senegal, Burkina Faso, Sierra Leone	Zambia, Mozambique, Zimbabwe, Uganda, Kenya, Malawi, South Africa, Morocco, Tunisia, Ethiopia, Tanzania, Nigeria, Egypt, Algeria, Mauritania, Liberia, Cameroon
Asia	Indonesia, Pakistan, the Philippines	Pakistan, Afghanistan, Bangladesh, the Philippines, Indonesia, Bhutan, Sri Lanka, China, Iran, Iraq, Saudi Arabia, India, ,Cambodia, Lao PDR, Nepal, Tajikistan, Viet Nam, Kazakhstan, Oman, Yemen, Syria
LAC	Haiti	Argentina, Bolivia, Brazil, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Guatemala, Honduras, El Salvador, Mexico, Chile, Costa Rica, Dominica Republic, Nicaragua, Panama

Source: FAPDA and World Bank

3.3.2 Cash vouchers (for food)

Cash vouchers are designed to increase the purchasing power of vulnerable groups who spend a big portion of their income on food. Vouchers tend to increase food consumption more than cash transfers (because of the link to food). However, they involve a functioning system of banks and/or post offices or local stores to exchange vouchers for cash. The absence of an operational system for redeeming vouchers can undermine the success of such programmes (Fiszbein and Schady, 2009). This is probably one of the reasons why few

countries in the three regions are using voucher systems (Table 11).

In **LAC, Uruguay, Panama** and **Dominican Republic** implemented cash voucher programmes offering debit cards to be used in allotted shops with the objective of guaranteeing that the transfer is used only for food purchases. In 2006, **Uruguay** introduced *Tarjeta Uruguay Social*, a magnetic card charged by the government for the purchase of basic food in enabled shops nationwide by poor people.

The **African** nations of **Mozambique, Zimbabwe** and **Senegal** used vouchers during the period under consideration. A monthly cash transfer programme in **Mozambique**, *Programa Subsídio de Alimentos*, assists recipient households to buy food. Vulnerable people living with HIV in **Zimbabwe** have benefited from an electronic voucher scheme designed to fight malnutrition among people on antiretroviral therapy (IRIN, 2011).

Fewer countries in **Asia** have a voucher system and this may be partly attributed to the control of the food marketing system and of consumer prices, which are a more common way of providing affordable food. **China** uses vouchers as a means of distributing food supplies to poor households but a 'pure' food stamps system, where stamps/vouchers are used to purchase food at market prices from private retailers, is not common (Josling, 2011).

3.3.3 Cash-for-work programmes

Cash-for-work programmes provide temporary employment in public projects (such as repairing roads, clearing debris or re-building infrastructure) to the most vulnerable segments of the population. These kinds of activities enable poor households to access paid employment, hence improving their access to food. In some public work programmes, a combination of cash (cash-for-work) and in-kind (food-for-work) modalities of payment is used, although cash payment has become the most common form of payment in recent years (Subbarao et al., 2013).

In **Africa**, cash for work programmes are relatively more popular than in LAC or Asia**.** A growing number of African countries (e.g. **Ethiopia, Rwanda, Malawi, Tanzania,** and **Mozambique**) implemented cash for work programmes over the reference period. **Ethiopia**'s *Productive Safety Net Program* (PSNP) provides food and cash transfers through its public works. The government is paying close attention to cash payments as the larger part of the PSNP's budget is dedicated to cash for work. In **Rwanda**, the *Vision 2020 Umurenge Program* (VUP) was launched in 2008 as a cash for work programme. It was scaled up in 2009 and extended to cash transfers for the most vulnerable through two main mechanisms: public works and direct support. Under the public works component, selected beneficiaries receive a daily wage in exchange for their work on labour intensive community construction or rehabilitation projects. Labour scarce households (e.g. elderly and disabled people) receive direct support in the form of a monthly cash transfer.

India, Yemen and **Afghanistan** are among the **Asian countries** with cash for work programmes. **India** has a long history of using cash for work programmes to fight chronic poverty, deliver humanitarian assistance and address unemployment/underemployment problems during slack agricultural seasons. Moreover, the public work programme implemented under the *Mahatma Gandhi National Rural Employment Guarantee Scheme* (see 3.2.3 above) provides both cash and food grains as payment for labour and is available to almost 56 million households, the largest of its kind in the world (Subbarao, 2013).

In **LAC**, **Argentina** and **Paraguay** implemented cash-for-work programmes during the reference period. After the country was hit by an economic crisis, **Argentina** launched the *Jefes y Jefas de Hogar Desocupados* (Unemployed Heads of Household programme) in 2002, which was in place until 2009. Meanwhile, **Paraguay** launched the *Ñamba'apo* programme at the national level in 2010. The beneficiaries are vulnerable unemployed people, with low level of education and with families of at least three members. The programme employs beneficiaries for a maximum six-month period, working in infrastructure and community work. The programme also offers job training for the beneficiaries, in order to facilitate their employment principally (but not only) in big public infrastructure works.

TABLE 11. CASH TRANSFER TYPOLOGY IN SELECTED COUNTRIES

Regions	Non- contributory unconditional cash transfers	Non- contributory- conditional cash transfers	Cash for work	Cash vouchers
Africa	Ghana, Lesotho, Tanzania, Zambia, Zimbabwe, Ethiopia, Rwanda, Uganda, Tunisia, Algeria, Mauritania, Egypt, South Africa, Sierra Leone, Mozambique	Nigeria, Malawi, Tanzania, Ethiopia, Kenya, Morocco, Tunisia, Senegal	Burkina Faso, Cameroon, Ethiopia, Rwanda, Malawi, Mozambique, Liberia, Lesotho	Mozambique, Zimbabwe, Senegal
Asia	Bangladesh, Bhutan, Cambodia, China, India, Nepal, Pakistan, Sri Lanka, Thailand, Viet Nam, Kazakhstan, Tajikistan, Oman, Saudi Arabia, Iraq, Iran, Syria	Afghanistan, Bangladesh, Cambodia, India, Indonesia, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand, Yemen	India, Yemen Afghanistan, Indonesia, Cambodia, Sri Lanka, Lao PDR, Bangladesh	India, Bangladesh, Pakistan, Sri Lanka, China
LAC	Bolivia, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela, Guatemala, Honduras, Mexico, Nicaragua	Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Uruguay, Venezuela, Costa Rica, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama	Argentina, Paraguay	Uruguay, Panama, Dominican Republic

Source: FAPDA and World Bank

Conclusion

The consumer support measures analysed in this section were used by countries in Africa, Asia and LAC to mitigate the impact of the 2007-2009 food, fuel and financial crisis on the poorest and most vulnerable groups. However, the implementation of these policy measures between 2007 and 2012 has followed different trends, approaches and practices, with some common features and emerging patterns.

Food and fuel subsidies have remained a popular measure but reforms to improve their effectiveness and reduce their strain on the budget have emerged as a major area of policy debate. A number of countries are seeking to rationalize their public spending by gradually moving from generalized, universal subsidies for food and fuel, which benefit all consumers in a country, towards more targeted interventions directed at vulnerable households. Although attempts to phase out subsidy regimes have often proved challenging, there is a growing recognition that universal price subsidies represent a burden on public finances, benefit the rich more than the poor and distort the market.

Food-based safety net programmes have been widely utilized to protect vulnerable people from hunger and malnutrition. A growing number of countries in all the three regions are shifting from short-term, ad-hoc food-based interventions, in most cases implemented in response to emergencies, towards mainstreaming and institutionalizing free food distributions, nutritional support initiatives and school feeding into their national social safety net programmes. Africa is lagging behind LAC and Asia but an increasing number of African countries have moved towards institutionalized food-based programmes in recent years.

Cash-based transfer schemes have emerged as a preferred policy instrument against poverty and food insecurity in LAC (mainly as conditional cash transfers) as well as Africa and Asia (mainly as unconditional transfers). Among the major attractions of cash transfer schemes for many governments is their high cost-effectiveness due to the fact that transaction costs can be kept at a minimum and logistics are easier to manage. A growing number of countries are also institutionalizing cash transfers as well as cash-for-work programmes.

4

4. Trade and market development policy measures

In response to the global food, financial and fuel crises of 2007 to 2009, governments in developing countries have been using trade and market development policies to mitigate the impact of high and volatile food prices. However, because international trade in foodstuffs (along with agricultural products and natural resources) is at the centre of several emerging challenges to the multilateral and regional trade systems, trade policies have undergone several changes and even reversals in recent years. While adopting restrictive trade measures as short term response (i.e. 2007/08), many countries elected to relax trade restrictions and improve the efficiency of local markets; their general objective was to enhance national food security in the medium-term (i.e. over 2009/10 and 2011/12). The various trade policies and market-related measures, such as foodgrain stock management and development of market institutions, pursued between 2007/08 and 2011/12 are reviewed in this section.

4.1 Trade policies

When governments intervene in the trade sector, they generally aim to influence prices in favour of either producers or consumers. In 2007/08, policy decisions to benefit consumers, by increasing imports and decreasing exports were more popular than measures to benefit producers by imposing import restrictions and export bans. However, over the 2009/10 to 2011/12 period, an increasing number of countries continued to reduce import tariffs with an aim to secure domestic food supply and/or relax export restrictions to favour producers. In this section we consider trade policies related to the main staple food crops, namely wheat, maize and rice.

4.1.1 Import policies

Key Findings

- Overall, removal, suspensions and/or reductions of import tariffs on wheat, rice and maize were widely practiced during the 2007/08 crisis.
- Over the 2009/10 to 2011/12 period, while **Asian** and **African countries** pursued a changing policy of tariff reduction/suspension, **LAC countries** reduced/suspended their tariffs on staples.
- Import quotas, often applied as tariff-rate quota systems, were more widely utilized in **LAC** and **Asia** than in **Africa**.
- Import bans were only marginally adopted during the reference period.

Two groups of countries have been identified in terms of their policies towards staple grain imports: those maintaining their pre 2007/08 policies and those changing their import policies during the period under consideration. The information collected in several food import-dependent countries from all three regions (Table 12) and some major food grain exporting countries (e.g. **Argentina**) suggests that there was no real political or economic reason to change import policies in response to the 2007/08 crisis. Countries that modified their policies adopted variable import tariffs, imposed import bans or pursued import quotas (Table 12) to influence grain prices in favour of consumers or producers.

Import bans

Following the high food prices of 2007/08, import bans on basic food items were imposed only marginally among those countries where information was available[43]. A large number of countries did not ban imports: only seven out of the 71 countries surveyed imposed import bans on any of the three staples. The bans were often applied as ad-hoc, short-term measures with the objective of protecting domestic producers from unfair trade, external competition or dumping of cheap food from overseas.

In **Africa**, only three countries, namely **Algeria, Nigeria,** and **Zambia**, had import bans in place during the reference period (Table 12). **Algeria**, for instance, imposed a ban on wheat imports in April 2009 citing a good domestic harvest as the main reason.[44] The import ban was lifted in 2011 as the country returned to

43 Information on import bans was not available for six countries: Mauritania (2007/08; 2009/10; 2011/12), Tunisia (2007/08; 2009/10; 2011/12), Iran (2007/08; 2011/12), Syria (2007/08; 2009/10; 2011/12), Cuba (2007/08; 2009/10; 2011/12) and Venezuela (2007/08; 2009/10).

44 Cited by the Office Algerien Interprofessionnel des Céréales (OAIC).

international markets to meet its durum wheat requirements. **Nigeria** had import bans in place on maize and wheat flour until September 2008. It banned imports of cassava flour in March 2012 to encourage the substitution of wheat flour with domestic, high quality cassava flour in bread-making.

In **Asia**, only **Thailand**, **Indonesia** and **Iran** implemented import bans during the study period. In November 2008, **Thailand** suspended maize imports for a few months from the *Ayeyawady-Chao Praya-Mekong Economic Cooperation Strategy* countries (**Thailand, Lao PDR, Viet Nam, Cambodia** and **Myanmar**) to protect farmers from declining domestic prices. **Indonesia** imposed periodic rice import bans, typically one month before and two months after the harvest season (March to June), to ensure better prices for producers in a period of abundant supply. **Colombia** was the only country in **LAC** that introduced a temporary import ban on one of the selected staples during the study period (Table 12). In August of 2010, the Colombian government implemented a temporary import ban on rice with the objective of ensuring higher prices for producers.

Import tariffs

The most common responses to the 2007/08 global food crisis were the reduction and/or suspension of import tariffs on staples**:** almost 60 percent of the surveyed countries with information available suspended import tariffs with the objective of lowering prices for consumers. A number of these countries maintained the suspension/reduction after the crisis, while others reintroduced import tariffs to support domestic production. A third group of countries maintained a variable approach, intermittently introducing and suspending tariffs (Table 12).

In **Africa,** the trend in adoption of tariff measures has varied: many countries maintained the suspension/reduction introduced during the 2007/08 crisis; others reintroduced tariff protection to support domestic producers, while a few countries maintained a variable tariff policy (Table 12). For instance, in 2008, **Tanzania** first reduced (from 35 to 10 percent) import tariffs on wheat and then, three years later in 2011 lifted them completely. **South Africa** zero-rated the two percent import duty on wheat and wheat flour in January 2009. While the *International Trade Administration Commission of South Africa* has abolished the duty, it reinstated the 1999 variable tariff with the condition that the tariff takes effect only if the wheat price falls below US$157 a tonne. In contrast, **Senegal** and **Burkina Faso** temporarily suspended import tariffs on rice in 2008. Both countries restored import tariffs a few months later. **Mali** and **Nigeria** both followed a variable approach. **Mali** periodically suspended import tariffs and taxes on rice in 2008, 2009 and 2012, often during the lean season (generally from March to May).[45] Similarly, **Nigeria** temporarily suspended its rice import tariff for three months in 2008 and then drastically reduced it (from 109 to 30 percent). Subsequently, in 2012, import tariffs on rice, as well as wheat and wheat flour, were raised. The

45 In 2008 the suspension lasted from April to September.

tariff policies of some countries (e.g. Nigeria), suggest a high degree of unpredictability and point to a discretionary approach, which may limit the scope for private participation in trade.

In **Asia**, many countries did not change their import policies in response to the 2007/08 food crisis. Among those that did, however, the majority changed their approach to suit the circumstances while a small number of countries either maintained their 2007/08 tariff reduction/suspension policies or reintroduced import tariffs (Table 12). **Afghanistan** and **Bangladesh** maintained their 2007/08 policy that removed import tariffs on wheat and rice, respectively. **Pakistan** reintroduced import tariffs on rice in 2011 having previously suspended them. **Indonesia**'s tariff policy on staples has tended to vary from one year to the next: the country re-imposed tariffs on wheat (2009/10), after their removal in 2008, while rice tariffs were first reduced, increased and then reduced again during the reference period.

In **LAC,** many countries suspended or reduced import tariffs while others did not change their import policies as a result of the 2007/08 food crisis (Table 12). Of those that introduced changes, **Brazil** first reduced (2008) and then permanently suspended (2009) import duties on yellow maize. **Bolivia** suspended import tariffs (2008) on many staple foods (such as wheat, wheat flour, maize and rice), then permanently lifted import tariffs on wheat flour (2010). Conversely, **Ecuador** first reduced (May 2008), then lifted (2009) and finally reintroduced (2012) import tariffs on wheat.

Import quotas and tariff rate quota (TRQ) regimes

Import quotas have often been associated with tariff systems to form tariff-rate quota (TRQ) regimes[46] with a lower (sometimes zero) tariff charged on imports below a quota threshold, and higher tariffs applied once a specified quota threshold is exceeded.[47] The main objective is to protect domestic producers from cheap imports while making sure there is adequate supply of staple grains at a reasonable price for consumers. Import quotas, often applied as tariff-rate quota systems, were more widely utilized in **LAC** and **Asia** than in **Africa**.

TRQ regimes were widely utilized in many **LAC countries**, including **Brazil, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Nicaragua** and **Panama** (Table 12). Other LAC countries adopted only quota systems (e.g. **Ecuador**). In **Asia**, **China** (wheat, maize and rice), the **Philippines** (rice) and **Thailand** (maize) adopted TRQs while other countries, such as **Bangladesh**, **India**, **Sri Lanka,** used only a quota system. No **African country** has implemented a TRQ for basic food items, but **Zambia** and **Kenya** adopted some import quotas during the study period.

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46 TRQ regimes started developing in the wake of Uruguay Round Agreement on Agriculture to facilitate the tariffication process, i.e. converting non-tariff barriers to tariffs. The 8th round (1986-1994) of multilateral trade negotiations (MTN) conducted within the framework of the General Agreement on Tariffs and Trade (GATT) which led to the creation of the World Trade Organization (WTO). The Uruguay Round provides for converting quantitative restrictions to tariffs and for a phased reduction of tariffs.

47 See http://www.wto.org/english/tratop_e/agric_e/negs_bkgrnd10_access_e.htm#ft1

TABLE 12. CHANGES IN IMPORT TARIFF POLICIES (2007-2012)[48]

Region	No change in import policies - Pre-2007/08 policies sustained	Changed import policies in response to the 2007/08 food crisis				
		Import tariffs			Imposed import ban (ad-hoc)	Pursued quota systems
		Tariffs reduction/ suspension maintained after 2007/08	Variable trends after 2007/08	Import tariffs reintroduced after 2007/08		
Africa	Lesotho* Togo** Ethiopia* Egypt Mozambique**	Algeria (durum wheat), Sierra Leone (rice), Liberia (rice), South Africa (wheat and wheat flour), DRC (basic food items such as wheat), Rwanda (wheat, maize), Tanzania (wheat, cereals), Uganda (wheat), Tunisia****	Mali (rice), Nigeria, Morocco,	Burkina Faso (rice), Senegal (rice, wheat), Mauritania*** (rice),Ghana (rice, maize, whet), Cameroon (wheat, wheat flour, rice), Kenya (wheat, maize), Zimbabwe (maize), Chad, Malawi (wheat flour)	Nigeria, Algeria, Zambia	Zambia, Kenya
Asia	Bhutan* Cambodia** Lao** Nepal** Lebanon Oman** Yemen** Iraq** Tajikistan	Afghanistan (wheat), Bangladesh (rice, wheat), Saudi Arabia (wheat), Kazakhstan (wheat),	India, the Philippines, Thailand, Indonesia, Sri Lanka, Syria (wheat maize)	Pakistan (rice) Viet Nam Azerbajan (wheat)**** China (staples)	Thailand, Indonesia, Iran	Bangladesh, China***** India, the Philippines***** Sri Lanka Thailand*****
LAC	Chile, Uruguay, Paraguay, Argentina, Costa Rica, Dominican Republic	Bolivia (wheat flour), Brazil (maize, basic food items), Peru (maize, rice), El Salvador (wheat flour, maize), Mexico (wheat, rice, maize), Nicaragua (beans), Panama (basic food items, such as rice), Honduras (wheat flour)	Ecuador (wheat)	Guatemala (wheat flour)*** Colombia (rice)	Colombia	Panama***** Nicaragua***** Mexico***** Honduras***** Guatemala***** Brazil***** Costa Rica***** Ecuador Colombia*****

No tariff system for basic food items; **Tariff system in place and maintained throughout the reference period; ***Tariffs maintained at a lower level; ** Import VAT suspension; ***** TRQ in place.*

Source: FAPDA

48 Information on import tariffs was not available for 11 countries: Algeria (2007/08), Chad (2011/12), Egypt (2011/12), Iran (2007/08; 2009/10; 2011/12), Kazakhstan (2007/08), Yemen (2009/10), Syria (2011/12), Cuba (2007/08; 2009/10; 2011/12), Dominican Republic (2007/08), Haiti (2007/08; 2009/10; 2011/12) and Venezuela (2007/08; 2009/10; 2011/12).

4.1.2 Export policies

Key Findings

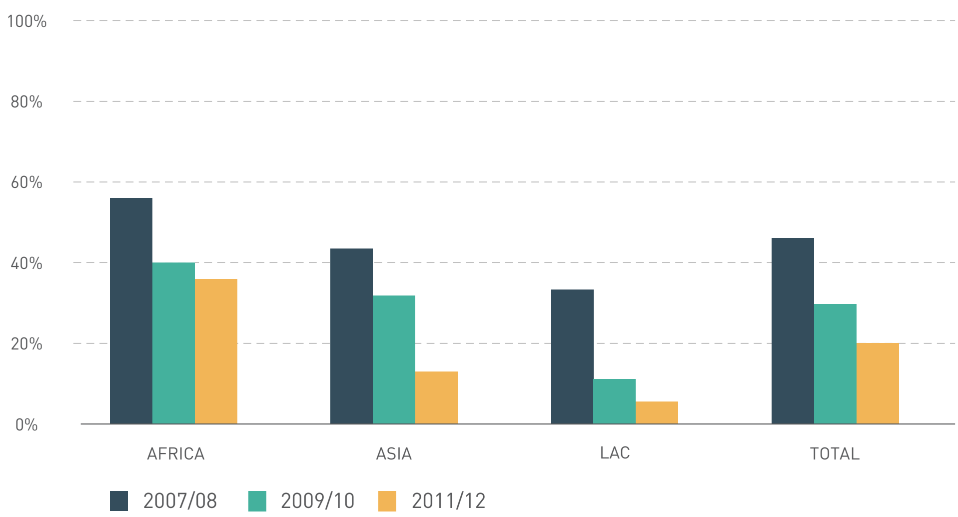
- Export bans on wheat, maize and rice were widely utilized during the 2007/08 global food crisis but the proportion of countries applying such measures declined sharply over the subsequent periods (2009/10 and 2011/12).
- Export restricting measures were more popular in **Africa** and **Asia** than in **LAC**.
- Export quota licensing systems have been more widely used in **Asia** than in **Africa** or **LAC**.

Export-related measures on basic food items refer to: (i) export bans, and (ii) export restrictions (export taxes, minimum export prices and quotas).

Export Bans

Export bans on wheat, maize and rice were widely applied during the 2007/08 global food crisis. However, the use of export bans to keep prices low for consumers has decreased over time. The proportion of countries banning exports decreased in both 2009/10 (to around 30 percent) and 2011/12 (reaching about 20 percent) (Figure 10). This trend shows that public support to export bans has faded over time partly due to the realization that such measures negatively affect any incentive to expand production.

FIGURE 10. PROPORTION OF COUNTRIES ADOPTING EXPORT BANS (2007-2012)[49]



Source: FAPDA

49 Information on export bans was not available for eight countries. In Africa: Mauritania and Tunisia (2007/08; 2009/10; 2011/12); in Asia: Yemen (2009/10), Iran (2007/08), Iraq (2007/08; 2009/10; 2011/12), and Syria (2009/10; 2011/12); in LAC: Cuba and Venezuela (2007/08; 2009/10; 2011/12).

In **Africa**, more than half of the countries monitored (around 56 percent) banned the export of staple grains in 2007/08 but this proportion decreased to around 36 percent in 2011/12. Many countries used export bans only on a short-term basis. For instance, **Burkina Faso** (on cereals), **Mali** (on rice, maize and other cereals) **Sierra Leone** (on rice) and **Togo** (on maize and others) imposed ad-hoc, short-term export bans in 2008 only. Some countries, including **Tanzania**, **Malawi, Chad** and **Sierra Leone**, intermittently imposed export bans. In **Egypt**, the prohibition of rice exports lasted for four years with only short interruptions during the study period. **Nigeria** has maintained an export ban on maize since 2009.

In **Asia**, more than 40 percent of the countries imposed export bans during the 2007/08 global food crisis but the percentage declined to around 13 percent by 2011/12. Several Asian countries are large food exporters (**Cambodia, India, Kazakhstan, Pakistan, Thailand** and **Viet Nam**) and all of them, except **Thailand**, used export bans for a short period of time, and only as a response to a major threat. For instance, **Kazakhstan** introduced export bans from April to September 2008 due to an unusually low level of stocks. Export bans were used intermittently in other countries. **India,** for instance, used export bans sometimes in combination with quotas and minimum export prices. Export of non-basmati rice was first banned (in 2007/08 and 2009/10) and then lifted (in 2011). With regards to wheat, a ban was applied in 2007, partially lifted in 2009, fully re-imposed and finally lifted in 2011. Maize was also subject to a temporary ban for three months in 2008. **Bangladesh** imposed rice export bans intermittently throughout the reference period, allowing from time to time small quantities to be exported.

Export bans were generally less popular in **LAC** than in Africa or Asia. In LAC, only six out of the twenty countries monitored imposed export bans in 2007/08 and their number declined to just one (**Brazil** on rice in April 2011) by 2011/12 (Figure 10). **Argentina** (maize and wheat) and **Ecuador** (rice) adopted temporary export bans in 2007/08 only. In contrast, **Bolivia** (maize) and **Brazil** (rice) intermittently adopted export bans during the period 2007-2012.

Export restrictions: export taxes, minimum export prices (MEPs) and quotas

Some countries switched from a policy of banning exports to restricting them by using measures such as export taxes, MEPs and quotas in order to ensure adequate domestic supply and keep domestic prices down. Among those countries for which information is available[50], export taxes on staples were found to be less common in **Africa** (only one country, **Egypt**, applied the measure) than in **Asia** or **LAC,** while export quotas were relatively more popular in **Asia** than in **Africa** or **LAC**.

In **Asia**, export taxes were commonly applied on a short-term, ad-hoc basis, sometimes in combination with

50 Information on export restrictions was not available for 12 countries: Tunisia (2007/08; 2009/10; 2011/12), Zambia (2007/08), Azerbaijan (2007/08; 2009/10; 2011/12), Iran (2007/08; 2009/10; 2011/12), Iraq (2007/08; 2009/10; 2011/12), Kazakhstan (2007/08; 2009/10; 2011/12), Syria (2007/08; 2011/12), Tajikistan (2007/08; 2009/10; 2011/12), Dominican Republic (2007/08; 2009/10; 2011/12), Haiti (2007/08; 2009/10), Mexico (2007/08), Venezuela (2007/08; 2009/10; 2011/12).

MEPs and/or quotas. **Viet Nam** shifted from a policy of a rice export ban to an MEP system, combined with tax increases and quota systems during the reference period. **India, Lebanon, Pakistan** and **Syria** also lifted their export bans imposed at the peak of the food crisis, and started applying quotas and MEPs to control export flows. In **Pakistan**, export taxes were applied in combination with a quota system and MEPs in 2010 when the export ban was lifted. **China's** government policy on grain export tax has changed several times: an export VAT rebate was removed in 2007/08; export taxes were increased in early 2008 (from five to 25 percent) but were largely removed in December 2008; some grain export taxes were removed in June 2009; an export tax rebate on maize flour was removed in 2010 and an export quota introduced; and a grain export quota/tax policy continued in 2011/12.

In **LAC**, there was no common trend among countries in the use of export taxes or export quotas. **Argentina** increased export taxes on several food items, including wheat and maize, over the reference period, while **Uruguay** removed a five percent rice export tax (in place since 2004) in July 2008. **Argentina** (on maize and wheat) (Box 5) and **Ecuador** (on maize) maintained export quotas throughout the whole period, whereas **Bolivia** adopted its export quota system in 2009/10 and 2011/12.

In **Africa,** the majority of countries have not used export restricting measures. Export quotas were applied only in **Ethiopia, Egypt, Malawi, Tanzania, Zambia** and **Zimbabwe**. **Egypt** used export taxes to influence the price and supply of selected staple grains on a number of occasions: grain export taxes were imposed in 2007; export taxes increased in February 2009; and in July 2009 an export ban was lifted as an export tax was introduced. However, Egypt also combined export bans and taxes on rice with limited monthly export quotas in October 2009.

BOX 5. QUOTAS AND COMPENSATION SYSTEM FOR MAIZE AND WHEAT IN ARGENTINA[51]

In 2007, the government of **Argentina** established the *Registro de Operadores del Comercio de Granos – ROE Verde* ('Grain Trade Operators Registry'), to guarantee the domestic supply of grains. The implementation of ROE Verde meant the creation of a quota system, through which the state authorizes a volume of grain exports exceeding the annual domestic requirement plus 20 percent retained as emergency reserves.

At the same time, a compensation system for small and medium producers of wheat and maize was established to offset the negative impact of the quota system on production incentives. The system intends to pay the difference between the Free on Board official price and the Free Alongside Ship theoretical price.

51 For more details regarding the effects of the compensation system into internal prices, please see the price support section of the consumer support chapter.

Finally, the system provides a compensation scheme for millers as consumer prices are kept lower. Millers are compensated for the differential between domestic and international prices, thus preventing an excessive increase in consumer prices. The system applies to production destined for the domestic market only.

4.2 Market development policies

Governments have attempted to influence local grain markets using various policy instruments since the 2007 to 2009 food, fuel and financial crises. Greater emphasis has been given to the management of public grain stocks and development of market institutions at both national and international levels. Public stock policies have aimed at addressing market failures in stock management and securing food supplies to prevent price volatility, while 'modern' market development institutions have generally aimed to reduce information asymmetries which in turn contribute to reducing transaction costs for producers, consumers and other economic agents.

4.2.1 Foodgrain stock management

Key Findings

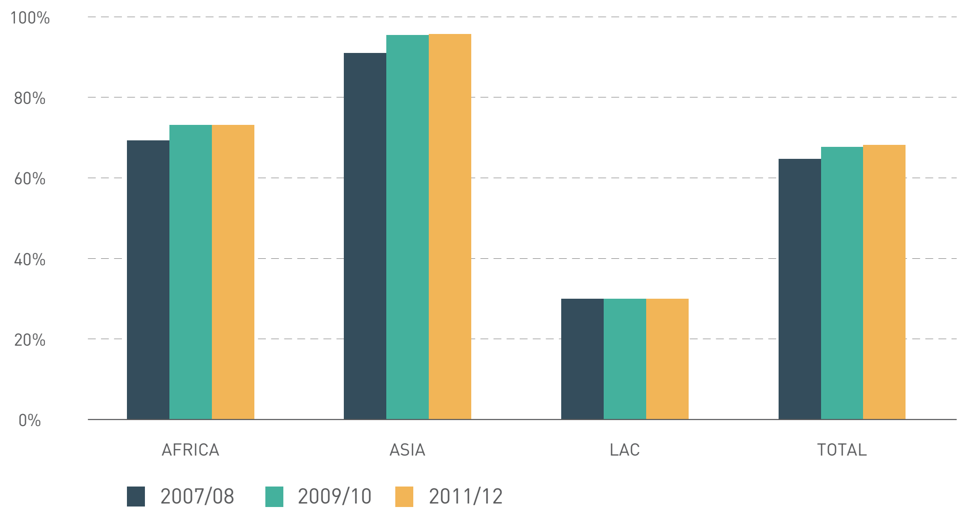
- Since 2007/08, there has been renewed interest in public food reserves in **Africa** and **Asia**, with an increasing role of public stock as a price stabilization tool.
- More than 65 percent of the surveyed countries maintained public grain stock during the reference period.
- Many governments in **Asia** and **Africa** have been expanding their food stock capacities, whilst at the same time ensuring that the private sector remains a key partner, especially in building modern storage facilities.
- In **LAC**, only a few countries have public food stocks that in some cases involved integrated systems of procurement, storage and distribution of food items at subsidized prices. Other countries have subsidized grain storage by private companies or producers.

Since the 2007/08 global food crisis, there has been renewed interest from both governments and development partners in public food reserves in developing countries. More than 65 percent of the sample countries maintained public grain stock during the period under consideration. The practice has also been expanded

in some cases after 2007/08 (Figure 11). Historically food grain reserves have been used for two main purposes: price stabilization in domestic markets[52] and emergency response in situations of extreme weather or other disasters.[53]

In dealing with price volatility and food security, the role of food stocks has become the subject of an on-going policy debate and has been discussed at high-level forums such as the G8 and G20 summits and the United Nation's High Level Panel of Experts on Food Security and Nutrition (HLPE, 2011), as well as analysed in a large number of publications[54]. Moreover, within the ongoing discussion about including food stockholding in the agenda of WTO Ministerial Conference in December 2013 in Bali, the G-33 group of developing countries have proposed to remove the trade distortive status of the provision of price support to producers as these types of measures enable government to stock grains for food security purposes or for distribution as food aid.[55]

FIGURE 11. PROPORTION OF COUNTRIES WITH NATIONAL FOOD RESERVE SYSTEM IN PLACE (2007-2012)[56]



Source: FAPDA

In **Africa**, most of the countries (about 70 percent of the countries analysed) maintained public food reserve systems over the reference period (Figure 11). A number of countries have been reluctant to completely

52 Price stabilization reserves are intended to affect price transmission from international to domestic markets, but also to lower inter-seasonal price fluctuations. They are usually built through domestic procurement at the time of harvest when prices are low, or via imports, and released during the lean season, to lower price spikes.

53 In countries where there is a chronic need for food relief, emergency food reserves could be transformed gradually into food-security reserves that support all relief distributions. For more information, refer to NEPAD, 2004.

54 For more detailed information, see: Murphy 2009; Wright 2009; G20 2011; World Bank 2012e

55 World Trade Organization's website accessed on August 05,2013 https://www.wto.org/english/news_e/news13_e/agng_23may13_e.htm

56 Information was not available for three countries: Tajikistan (2007/08; 2009/10), Syria and Tunisia (2007/08; 2009/10; 2011/12).

give up the price stabilization objective of their food reserves and continue to intervene in grain markets with varying degrees of success.[57] For instance, **Zambia**'s *Food Reserve Agency* has remained an active player in buying maize surplus in the country (holding a reserve of over 350,000 tonnes) over the reference period. In 2010, the country had a surplus of one million tonnes that could neither be adequately stored nor exported, resulting in a price collapse.[58] New public entities have been recently established to manage food reserves and intervene in grain markets in some countries. **Nigeria** established the *National Food Reserve Agency* in 2007 and adopted a policy that 15 percent of the total annual grain harvest should be held in reserve. The agency is to hold five percent as a core strategic grain reserve, and individual states are to hold another 10 percent, known as 'state buffer stocks', to ensure supply in the event of a food crisis. In 2010 **Ghana** also established a parastatal under the Ministry of Agriculture, with the aim of reducing post-harvest losses, ensuring price stability and establishing emergency grain reserves. Other African countries have decided to strengthen their grain reserves: **Kenya** planned to double its reserve capacity from four to eight million sacks of 90 kg in 2011; **Malawi** decided to increase its food reserve from 60,000 to more than 100,000 tonnes in 2009; and **Rwanda**, which had dismantled its parastatal during the era of structural adjustment programmes, initiated measures to re-establish strategic reserve activities in 2010. The *Post-Harvest Taskforce* within the Ministry of Agriculture of Rwanda entered into agreements with private entities to store 7,000 MT of maize and 3,000 MT of beans purchased from local farmers. The government intends to permanently establish a strategic food reserve (based on maize and beans), potentially reaching 200,000 MT. North African countries, including **Algeria, Mauritania** and **Morocco**, have also invested to expand public storage capacities.

Over 90 percent of countries in **Asia** maintained food stocks (Figure 11), and private sector involvement in the management of stocks increased throughout the reference period.[59] Some countries (namely **Bangladesh**, **China, India**, **Indonesia**, **Pakistan**, the **Philippines** and **Viet Nam**) traditionally hold large public grain reserves to stabilize domestic prices. In **Indonesia, China,** the **Philippines, India** and **Bangladesh**, state-owned agencies have been regulating maize and rice markets for decades by building public reserves (through procurement from farmers or via imports), especially at times of high prices and releasing stocks into the market to ensure that food prices are affordable to the most vulnerable. **Sri Lanka** resumed its *Paddy Marketing Board* to maintain buffer stocks in 2008. Private sector involvement in the management of stock has increased in Asia. **Lao PDR,** for instance**,** set up a pilot *National Rice Reserve* in 2009 as a public-private partnership, providing subsidized credit to millers through state-owned banks to maintain a minimum rice stock. In **India**, the government is implementing the *Private Entrepreneurs Guarantee* scheme for construction of storage 'godowns' (warehouses). The *Food Corporation* of India provides guarantee to

57 Some of the countries which used food reserves to stabilize prices are: Ghana, Kenya, Malawi, Nigeria, Tanzania and Zambia.

58 David Mackee, "Strategic Grain Reserves", World-Grain, 24 May 2011, http://www.davidmckee.org/2011/06/03/strategic-grain-reserves/

59 Many developing countries have inadequate storage and logistics systems, and the introduction of private sector participation in grain-storage sector allows governments to: (i) improve operational efficiencies; (ii) reduce wastage/damage, (iii) introduce latest technology and international best practices, and allow better quality control over the grains stocked (IFC, 2012).

rent warehouses constructed under the scheme for a period of 10 years, thereby ensuring a fair return on investment for entrepreneurs. **Pakistan** also implemented some pilot public-private partnerships in grain storage projects, under which the government pays storage rent to owners of storage facilities.

In the Middle East, the common trend over the reference period has been a greater state involvement and increased investments in strategic grain holdings. Most Middle East countries are heavily dependent on food imports and the role of government in the procurement, storage and distribution of food grains has increased in recent years. Some countries (e.g. **Oman**, **Saudi Arabia** and **Iraq**) have plans to expand their storage capacities (from six months to one year of consumption) (Larson et al., 2012). An exception in the region is **Iran,** which has deregulated most of its wheat sector and allowed private milling companies to buy most of the over 15 million tonnes per annum of wheat produced in the country directly.[60]

In **LAC**, only a few countries maintained public food stocks while others subsidized private companies or producers to store grains. Government involvement in the foodgrain market has been substantially reduced under structural adjustment policies and market liberalization agreements (e.g. NAFTA) but a few countries have introduced measures to establish or re-establish public grain stocks or support private stock operations, mainly in response to the recent high and volatile prices. **Bolivia**, **Honduras**, **Nicaragua** and **Venezuela** maintained food stocks as part of an integrated public system in charge of procurement, storage and distribution of food items at subsidized prices.[61] **Brazil** reintroduced public stocks in 2003 and revitalized the national food supply agency, CONAB, to manage food reserves for both emergency purpose and price stabilization. CONAB replenishes its stocks through the *Programa de Aquisição de Alimentos* (Food Procurement Programme) which purchases food products from smallholders at guaranteed minimum prices. In 2007, **Ecuador** created the *Unidad Nacional de Almacenamiento* (National Storage Unit), a public agency in charge of managing silos for strategic food reserves, purchasing grains from farmers at guaranteed prices. Some countries, namely **Chile**, **Colombia** and **Dominican Republic**, did not have public food stocks, but intervened in domestic markets with the objective of subsidizing the storage of grains by farmers or private companies at the time of harvest when prices are low, and subsequently releasing stocks during the lean season. In **Chile**, a partnership was established in 2009 between the Ministry of Agriculture and the public-private company *Cotrisa* to ensure that the storage of grains on behalf of wheat farmers is subsidized. Also, **Colombia** implemented the *Incentivo al Almacenamiento de Arroz* (Incentive for Rice Storage) throughout the period with the objective of promoting storage of rice by private companies or the producers themselves. Since 2005, the **Dominican Republic** has run the *Programa Nacional de Pignoraciones*, supporting storage of rice at times of lower producer prices (the government fixes a price band every year).

60 David Mackee, "Strategic Grain Reserves", World-Grain, 24 May 2011, http://www.davidmckee.org/2011/06/03/strategic-grain-reserves/

61 See also section 3.1.1 on Food Subsidies

4.2.2 Market institutions

Key Findings

- Overall, several countries showed increased interest in the development of warehouse receipt systems and governments have focused on addressing the challenges in the form of regulatory frameworks and contract enforcement, especially in **Asia** and **LAC**.
- Despite growing interest, fully-functioning agricultural exchange markets are rare in **Africa** while many **Asian** countries and regional bodies are exploring the feasibility of rice futures markets. More market friendly policies have encouraged transactions through commodity exchanges in **LAC**.
- Global and national interests in market information systems have increased as a result of spiking and volatile prices following the 2007/08 food crisis. Many countries have taken advantage of the dramatic increase in affordable mobile phone networks and other ICTs for market development.

Nearly all the surveyed countries with available information[62] have taken measures to develop 'modern' market institutions. Among the major areas of growing policy interest are warehouse receipt systems (WRSs), commodity exchanges and market information systems.

Warehouse receipt systems

While progress in their utilization has been mixed over the reference period, overall interest in warehouse receipts systems (WRSs) has grown. The expected benefits include improved access to credit for farmers, creating cash and forward markets (hence enhancing price discovery and competition), and reducing risks by stabilizing prices for producers as well as consumers. WRSs provide the holder with the ownership rights to a certain quantity of product of a specified quality at a certain location. As this right can be bought and sold and used as collateral,[63] WRSs facilitate access to credit, support the development of grades and standards, and play a critical role in price stabilization and the emergence of futures and derivative markets, which manage risks. For WRSs to be successful, the trust of stakeholders and operators in these institutions, i.e. in

62 Information on market institutions was not available for 14 countries: Mauritania (2007/08; 2009/10; 2011/12), Togo (2007/08), Cameroon (2007/08; 2011/12), DRC (2009/10; 2011/12), Lesotho (2007/08), Zimbabwe (2007/08), Iran (2007/08), Syria (2011/12), Costa Rica (2007/08), Cuba (2007/08; 2011/12), Guatemala (2007/08), Mexico (2007/08), Nicaragua (2007/08) and Panama (2007/08).

63 WRS can be either 1. negotiable, i.e. they cannot be transferred or sold and the sale of the commodity requires cancellation and re-issue or 2. non-negotiable, i.e. can be transferred with legal protection against claims by previous owners.

the legal and regulatory (including licensing) framework, is an essential element.

Several **African** countries have shown interest in the development of WRSs during the study period but lack of trust and enforceable regulations in the system means that progress has been slow. National commodity exchanges are often designed as WRS regulators. For instance, the government in **Uganda** designated the *Uganda Commodity Exchange* (UCE), a private registered company, as WRS regulator under the 2006 WRS Act and the 2007 WRS Regulations. By 2012, UCE licensed six privately owned warehouses (mainly for grains) but the warehouses were found to be operating at less than 20 percent capacity in the same year[64] because of inadequate regulatory frameworks and a weak contract enforcement mechanism[65]. In **Zambia**, the *Zambian Agricultural Commodity Exchange* (ZAMACE) was established as a private corporate entity in 2007. Its mandate is to certify and inspect warehouse operators. ZAMACE certified eight district warehouses in 2010 alone (Tembo, 2011) but inadequate legislative framework to enforce contracts, thin markets and the failure of the commercial banks to accept the receipts for the deposited grain as 'commercial paper' (negotiable and transferrable instruments) are among the major challenges (Sitko and Jayne, 2011).

Tanzania has passed a *Warehouse Receipt Act* and established a *Warehouse Licensing Board* but only export crops such as coffee, cotton and cashew have so far benefited from the initiative (Onumah, 2010). The governments of **Kenya** and **Rwanda** are collaborating with the *Eastern Africa Grain Council* (EAGC) to develop WRSs, but moving beyond the pilot activities of the Council has proved to be difficult. **South Africa** has no warehouse act but the *South Africa Future Exchange* (SAFEX) provides regulatory supervision of SAFEX-backed silo certificates that commonly serve big commercial farmers (Box 6). The *Ghana Grains Council* has so far certified only five warehouses in **Ghana** and a task force was formed in 2012 to prepare the groundwork for a warehouse receipt law and related regulations (World Bank 2012d). Several West African countries utilize warrantage[66] or inventory credit (**Ghana, Burkina Faso, Niger** and **Senegal**) and contracts *de tierces detention* (**Mali**) (USAID, 2012a).

WRSs have also attracted public attention in many **Asian** countries and governments have focused on improving the regulatory environment. In **Thailand**, under the paddy (rice) mortgage programme (first put in place until 2008 and reintroduced in late 2011), farmers obtained loans by pledging their rice (deposited in one of the government-run warehouses or with private millers) to the *Bank for Agriculture and Agricultural Cooperatives*. However, the programme led to extensive corruption due to inadequate regulatory frameworks (Jessop et al., 2012). In **Cambodia**, the government (through Cambodia *HARVEST*, a project supported by

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64 For more information, see the Uganda Commodity Exchange website at: http://www.uce.co.ug/page.php?tb=news&id=11

65 The CEO Magazine. (available at http://www.theceomagazine-ug.com/news/bumpy-ride-for-the-maize-warehouse-receipt-system.html).

66 Warrantage in its simplest form is the storage by depositors (farmers) storing thereof a commodity along-side other depositors (farmers of the same group) in a small general store. These systems have extended to include inventory credit, which is the financing of a proportion of the commodity's value in the store. Often the financier, the store owner, and the farmer group representative will each control a key to the door padlocks and therefore control the movement of the commodity from the store. In Mali the 'tierce detention' (third party holding) works in a similar manner with the banks controlling the release of traders' goods stored in a third party warehouse.

USAID) is working on introducing the country's first paddy warehouse receipt system, which will help rice millers to expand their operations and allow Cambodia to process more rice domestically (USAID, 2012b). **India** established the *Warehousing Development and Regulatory Authority* in October 2010 and formally launched the *Negotiable WRS* (NWRS) in April 2011 (GoI, 2011). **Kazakhstan's** well-structured and efficient regulatory agency has contributed to building and maintaining trust in the system (UNCTAD, 2009).

In **LAC**, warehouse receipts systems (WRSs) operate in different forms but smallholders have difficulty accessing the system. Major grain exporting countries such as **Argentina, Brazil** and **Uruguay** have seen increased investment and public support (e.g. subsidies and tax incentives) for warehouses and grain elevators owned by cooperatives, domestic agribusiness companies and big international trading houses, such as *Bunge and Cargill* (Ordoñez et al., 2001; Murphy et al., 2012), but smallholders have limited access to these new commercial opportunities (Murphy et al., 2012). In **Brazil**, general warehousing services are provided by registered grain warehouse operators but the quality of the service was found to be poor as these systems were created quickly to mainly manage large public emergency stocks (UNCTAD, 2009).

The ownership of licensed warehousing companies in **Colombia** is largely held by wealthy banks and the state, which helped in protecting depositors from fraud-related losses. Moreover, the most profitable business in the country is field warehousing (providing warehousing services on the client's premises)[67] (UNCTAD, 2009).

Commodity exchange systems (CESs)

Many countries have put policy emphasis on developing and strengthening agricultural commodity exchanges as a medium-term response to high and volatile food prices. Successful commodity exchange systems, in combination with WRSs, have the potential of improving the functioning of agricultural markets by improving price formation, enabling the management of risk, market transparency and regional trade, thereby raising farm output and rural incomes as well as enhancing food security (UNCTAD, 2009).

In **Africa**, there has been a growing interest in commodity exchanges but the number of fully functioning exchange markets is still limited. The ***Zambia*** *Agricultural Commodity Exchange* has undergone several transformations since its creation in May 2007, and has not operated as an exchange since January 2011 (USAID, 2009). The role of the ***Malawi*** *Agricultural Commodity Exchange* has so far been limited to providing price information and facilitating procurement for the World Food Program. The ***Kenya*** *Commodity Exchange* only operates as provider of price information. The ***Uganda*** *Commodity Exchange* has been restructured since 2006 but the restructuring process has yet to achieve operational viability (Onumah,

67 A field warehouse is an arrangement where a collateral management or credit support company takes over the warehouse of a depositor (producer/ customer) or a public warehouse by leasing it (or part of it) for a nominal fee, and becomes responsible for the control of the commodities to be used as collateral.

2012). More positively, the ***Ethiopia*** *Commodity Exchange*, which was established in 2007 and is owned by the government, has seen an expansion of its export commodity trading activities, especially coffee and sesame. Maize, wheat and beans are also listed for trading but the exchange is unable to attract a significant volume of these commodities and traded is limited to spot/cash exchange (Rashid et al., 2010). The ***South Africa*** *Futures Exchange* (SAFEX) is by far the most successful exchange in Africa (Box 6). On average, SAFEX trades futures and options contracts amounting to 200,000 tonnes of white maize per day. Most large-scale farmers in South Africa sell their grains through SAFEX, usually through brokers (Rashid et al., 2010). With the exception of SAFEX, exchanges in **Africa** have yet to include futures market and sufficient trade volumes of staples to offer an effective price discovery system.

In **Asia**, regional organizations and several countries have been exploring whether rice futures would help bring down price volatility. As shown below in chapter five, member states of the Association of Southeast Asian Nations (ASEAN), are considering the feasibility of establishing a rice futures market in the region. A few countries (e.g. **China, India, Pakistan** and **Thailand**) have one or more commodity exchanges trading in rice and other staple grains but face several challenges. **China** began early in trading rice futures contracts in 2009 on the *Zhengzhou Commodity Exchange* with the goal of improving domestic grain pricing and providing grain traders with more risk control measures.[68] But trading volumes have shown large variations and prices of the *Zhengzhou* rice futures contract are not well correlated with other Asian rice prices, implying significant basis risk (McKenzie, 2012). ***Pakistan*** *Mercantile Exchange Limited* began its operations in May 2007 (with rice and wheat among the commodities traded) but trading volumes are small and the exchange is faced with the challenge of engaging stakeholders.[69] *The Agricultural Futures Exchange of* ***Thailand*** launched the first white rice futures contract in March 2007 but government involvement in the marketplace (e.g. warehousing) has crowded out private storage and removed the need of the private sector to use futures markets (McKenzie, 2012). The government in **India** banned futures trading in some food commodities in May 2008 in an attempt to contain the price rise in essential commodities but lifted the ban later in 2008.[70]

In **LAC**, market-friendly policies have encouraged transactions through commodity exchanges (Arias et al., 2011). At least 10 countries in the region (including **Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Nicaragua** and **Venezuela**) had at least one functioning agricultural commodity exchange. The *Bolsa de Mercadorias & Futuros* (BM&F) of **Brazil** stands out as one of the most successful cases, and in 2008 the exchange was ranked twelfth globally for the number of futures traded and/or cleared (Arias et al., 2011). BM&F has also introduced several innovative mechanisms in recent years, which serve as models

68 See: http://oryza.com/content/china-launches-early-rice-futures

69 See: http://www.pakistantoday.com.pk/2012/07/18/news/profit/pmex-is-the-trailblazer/ and http://www.agricorner.com/seminar-on-physical-trading-of-agriculture-commodities-on-pmex/

70 See: http://www.rupe-india.org/51/commodity.html

for increasing the participation of small-scale farmers in futures markets (UNCTAD, 2009). Other countries, notably **Mexico** and **Uruguay**, do not have an agricultural commodity exchange but rely on neighbouring ones (the United States for Mexico and Argentina for Uruguay) for price information and hedging.

BOX 6. **AGRICULTURAL COMMODITY EXCHANGE IN SOUTH AFRICA**

The *South Africa Futures Exchange* (SAFEX) was established by private sector players in 1996 and is by far the most successful exchange in Africa. Most large-scale producers in **South Africa** sell their grains through SAFEX. Small producers benefit mainly from SAFEX's role as an effective price discovery system. Where producers wish to defer sale, they can obtain finance against the SAFEX-backed silo certificates (SCs). In such cases, the borrower is usually required to hedge against any downside price risks using futures and options traded on the exchange. The main commodities traded by SAFEX are maize (white and yellow), wheat, sunflower seeds and soybeans. SAFEX has expanded into a vehicle for speculation by hedge funds and others. When it began, 50 percent of contracts on the exchange resulted in physical deliveries via transfer of a warehouse receipt; by 2010 less than two percent of contracts resulted in physical deliveries.

Market information systems

Global and national interest in market information has increased as a result of spiking and volatile prices following the 2007/08 food crisis. Globally, the Committee on World Food Security (through its *Global Strategic Framework*, 2012) and the G20 (Seoul Summit, November 2010) have supported the *Agricultural Market Information System (AMIS)*[71] to improve food market transparency and encourage coordination of policy action to reduce price volatility. Improved access to new information and communication technologies (ICT), using, for example, mobile phones and internet-based applications, has made a significant contribution to the stabilization of staple food prices at national and regional levels.

In **Africa**, government-run market information services have been criticized for their irregularity and poor accuracy but, in recent years, the policy environments in many countries have encouraged the private sector to take advantage of the dramatic increase in affordable mobile phone networks and other ICTs to disseminate market information. In East Africa, most countries have a variety of models for market information systems: some are government-owned, some are private initiatives and a few are public-private partnerships. Both public and private initiatives in **Kenya, Uganda** and **Tanzania** saw an expansion of mobile technology

71 For more information, see AMIS webpage at; http://www.amis-outlook.org/

and other ICTs to disseminate market information and provide matching (buyer with seller) services. **Kenya**, for example, is one of the countries where the use of ICT-based market information systems has grown rapidly and become common practice. At the end of 2011, Kenya was the leading country in East Africa in terms of mobile usage with a 67.2 percent mobile penetration rate.[72] The new technology has allowed farmers, traders and other beneficiaries to access information on the pricing of inputs and outputs and on finding and connecting suppliers, buyers or logistics providers (e.g. storage) and transport companies. Several West African countries, including **Burkina Faso, Ghana, Mali** and **Nigeria**, have also benefitted from the expansion of ICT-based market information systems. In North Africa, **Morocco** developed a public MIS known as *Asaar* (prices in Arabic) in 2011, to provide accurate data on agricultural product prices, using hi-tech data collection and transmission tools.

Asian governments have developed ICT programmes and encouraged the private sector and NGOs to develop various schemes that provide various marketing services.[73] For instance, **Bangladesh** has ICT-based projects that provide market information as well as matching buyer and seller services through mobile phone, SMS or IVR (interactive voice response). In **China**, a government scheme (established in 2006/07) uses mobile, SMS and IVR to provide market price information and technical production information to millions of farmers. Among the Asian countries, **India** has one of the largest numbers of private and public owned ICT-based markets and other information-providing schemes. There is a multitude of services that seek to increase access to agricultural markets via mobile phones, Internet, tele-centres and IVR (Box 7).

BOX 7. INDIA ICT APPLICATIONS IN MARKET INFORMATION AND RELATED SERVICES

Agriwatch (established in 2000) is a private MIS service-provider whose subscribers have access to information on agricultural markets through newspapers, magazines, SMS and a website.

E-Choupal (established in 2000) is a private initiative which became the largest private sector initiative among all Internet-based interventions in rural **India**, reaching out to more than four million farmers growing a range of crops, including rice, wheat and soy bean.

BSNL & NFL (established in 2010) is a public-private partnership project which provides subscribers with a free SMS or voicemail, five times daily in the local language of the region of the subscriber. Users have access to information on big market prices, soil testing, farming techniques, dairy and weather forecasts.

e-Krishi (established in 2006) is a public scheme aimed at: (i) providing web-based services for facilitating and enabling farmers and other stakeholders through Agribusiness Centres, (ii) and interacting with agricultural service providers in the private, government and non-government sectors.

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72 This was followed by Tanzania with 56% mobile penetration and finally Uganda with 38.4%. See: http://www.ihub.co.ke/blog/2012/05/mobile-technology-in-east-africa/

73 For more information, see: http://markets.ischool.berkeley.edu/projects/

In **LAC**, nearly all countries have taken steps to improve farmers' access to market information. Several countries, including **Bolivia, Chile, Colombia, Costa Rica, Ecuador, Paraguay,** and **Peru**, have introduced or expanded a website or mobile-based market information service. **Bolivia** maintains a production and markets monitoring system, *Sistema de Información a la Producción y los Mercados Nacionales* (SISPAM), which tracks the wholesale and retail prices of agricultural products at country level. In the wake of the 2007/08 global food crisis, SISPAM enabled the government to apply price bands and thus stabilize domestic prices of food items, such as chicken, potatoes, maize and soybeans (Bosch et al., 2012). **Ecuador** and **Paraguay** introduced an online national information system for main staple prices in major markets (through their Ministries of Agriculture, Livestock and Fisheries) in 2009 and 2008, respectively. **Peru** introduced a supply and pricing system (*Sistema de Abastecimiento y Precios*) in 2008, providing real-time access to information related to volumes, prices and sources of major agricultural and agro-industrial products in the country.

Conclusion

Various trade and market development policy measures were used to mitigate the impact of high and volatile food prices on consumers, producers and other value chain operators throughout the reference period with varying degrees of intensity and policy combinations. Some policies were adopted on an ad-hoc and short-term basis while others were applied more consistently and with a longer-term perspective.

A number of governments adopted more open or non-restrictive import policies but imposed export bans and restrictions in the immediate aftermath of the 2007/08 food crisis to ensure domestic availability of food staples at affordable prices. Over the 2009/10 to 2011/12 period, however, an increasing number of countries removed export bans, relaxed export restrictions, and modified import tariffs, with the goal of either securing food for consumers or protecting producers.

The new trend in trade policies was combined with a renewed public interest in food grain stocks (especially in Asia and Africa), warehouse receipt systems (WRSs), agricultural commodity exchanges and market information systems as a more long-term solution to manage price fluctuations, enhance farmers' income and promote market efficiency. Many of the countries reviewed increasingly promoted public-private partnership, particularly in stock management and market information systems. Measures to address regulatory and legislative challenges in the operation of WRSs and commodity exchanges have also attracted a growing attention. Many African, Asian and LAC countries have seen a rapid expansion of mobile phone networks and other ICTs to provide pricing as well as matching (sellers with buyers) services (virtual trading floors).

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5. Policy coherence, integration and harmonization at national and regional levels

Policy coherence is achieved when policies across a range of different domestic policy areas, various institutions, organizations, systems and actors complement each other. The systematic promotion of mutually reinforcing actions and coordination is necessary to achieve predetermined food-security related or agricultural transformation goals at national or regional levels more effectively (OECD, 2012). This chapter addresses issues such as national food self-sufficiency and regional food security that require actions beyond specific policies described in the previous chapters (national policies in favour of producers, consumers and trade and domestic markets). The first section of the chapter is dedicated to the analysis of two different integrated approaches adopted by states in response to the food crisis. Several governmental agencies and institutions are involved (e.g. Ministries of Agriculture, Social Affairs, Education, Health and Trade) in the formulation of coherent[74] and integrated[75] policies to achieve food self-sufficiency or pursue a food export strategy. The implications of these national policies for regional policy harmonization, regional food security and intra-regional free trade agreements are also discussed. The second part of the chapter looks at policy measures enacted by groups of countries in selected[76] Regional Economic Communities (RECs) following the food, fuel and financial crises, examining trade policy harmonization[77] between national policies and regional commitments and recent regional stock initiatives to achieve regional food security.

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74 Policy coherence is defined by OECD as "the systematic promotion of mutually reinforcing policy actions across government departments and agencies creating synergies towards achieving the agreed objectives. Within national governments, policy coherence issues arise between different types of public policies, between different levels of government, between different stakeholders and at an international level" (OECD, 2012).

75 "Policy integration concerns management of cross-cutting issues in policy making that transcend the boundaries of established policy fields. It also includes management of policy responsibility within a single organization or sector. Integrated policy making refers both to horizontal integration between policy sectors (different departments and/or professions in public authorities) and vertical intergovernmental integration in policy making (between different tiers of government), or combinations of both" (EAUE, 2007).

76 The selection is based on data availability as well as relevance with respect to the surveyed countries.

77 Policy harmonization is interpreted as "the process of introducing uniform or essentially similar regulations in different countries". This could be the result of "two different processes: the enactment of common policy instruments, by agreement between the countries, and the use of similar instruments within a common framework" (Josling, 1997).

5.1 National level policy coherence and integration

The 2007/08 food price crisis was a critical turning point for several countries' decisions on food and agriculture policies. Some policies which were abandoned during the period of market and trade liberalization and structural reforms regained attention after the crisis broke out. Government interventions in food and agricultural production, trade and consumption have increased. This section focuses on two approaches adopted or revamped by certain countries to (i) achieve food self-sufficiency, and (ii) boost key agricultural commodity exports.

5.1.1 Policy coherence and integration to achieve food self-sufficiency

Key Findings

- Many governments have pursued integrated production and trade policies with the goal of increasing national production and becoming food self-sufficient especially following the food crisis.
- In **Asia**, some countries launched comprehensive programmes of food self-sufficiency during the reference period. Each package combined the use of subsidized technological inputs and services, price support, import tariffs to protect domestic producers, and increased public spending in agriculture (e.g. the **Philippines** and **China**).
- In **Africa** and **LAC**, the integrated approach, adopted since 2007/08, included various production, trade and price policies to modernize agriculture and increase the production of food and other commodities (e.g. **Morocco**, **Zambia** and **Ecuador**).
- Implementing integrated policy packages to attain food self-sufficiency entails less dependence on trade with negative implications for regional food security and intra-regional food trade.

Since 2007/08, the food self-reliance approach[78] (including food imports to achieve national food demands) has lost its appeal and the food self-sufficiency[79] strategy has grown in popularity (Demeke et al., 2009). For some countries with a large gap between production and consumption, relying on food imports has

78 The 'food self-reliance' approach implies a certain degree of dependency on food imports which can be financed by producing and exporting other high-value agricultural commodities or no-food commodities (Clay et al., 1989).

79 One notion of self-sufficiency is the situation of autarky in which all imports and exports are ruled out and the market-determined demand is met by domestic production. The other notion of self-sufficiency implies a level of production which meets not only the market-related effective demand, but also the nutritional requirement of the population. While some notions of food self-sufficiency imply self-sufficiency of food grains, others relate to self-sufficiency of all or broad range of food items (Clay et al., 1989).

become a challenging option due to soaring costs of imported food, deteriorating balance of payments and supply uncertainty due to export restrictions imposed by major grain exporters. Many governments have thus integrated their production and trade policies with the goal of becoming food self-sufficient. The different measures aim to ensure high returns for farmers while safeguarding consumers against high prices in many cases (Annex 3).

In **Asia**, the comprehensive programme for self-sufficiency of the **Philippines**, namely the *Food Staples Self Sufficiency Road Map* (2011-2016), is one of the most well-known examples. It aims to: (i) increase grain production, through technology improvement, extension and irrigation facilities, price support to farmers, increased credit guarantee fund and greater coverage of crop insurance; (ii) enhance farm mechanization and reduction of post-harvest losses; and (iii) stabilize *per capita* rice consumption through the reduction of table waste and incentives to encourage diet diversification (non-rice production set to be increased by 3.5 percent annually).[80] The previous agriculture department's programme, named FIELDS (2008-2010), utilized a similar approach by covering several areas of intervention, including inputs improvement (organic fertilizers and certified seeds), irrigation development, formal credit facilities and technical assistance to farmers.

Seeking to maintain a self-sufficiency rate of at least 95 percent for major grain crops, **China** undertook a major reform programme to reduce agricultural taxation and implement massive subsidies and other support programmes in 2006. The sector benefits from the so-called *Four Subsidies* policy: Chinese farmers receive subsidies according to their cultivated area, inputs and improved seeds used and machinery and equipment employed. China, despite being one of the most open economies in Asia (overall tariff regimes have been liberalized over the last decade), protects the food grain sector through a tariff-rate quota system. China has thus entered a new era in its approach to agricultural policy, as it began to subsidize rather than tax agriculture. It has also increased spending on rural infrastructure. China's new policy considers agriculture as a sector needing a helping hand. **Indonesia** also supported prices, restricted imports and increased public spending in agriculture, among others, to achieve food self-sufficiency (Annex 3).

Morocco's *Plan Maroc Vert,* launched in 2008, is a good example of an **African country**'s integrated package containing a broad range of measures to accelerate and modernize agriculture. It offered finance and credit facilities, stimulated private sector participation and adopted leveraging partnerships (value chain partners) with banks in order to offer long-term credit and help farmers build their asset base and manage production related risks. Morocco also imposes high import tariffs and duties on a vast range of agricultural products, including staple food items. **Zambia** has provided support to farmers through the *Farmer Input Support Programme* (FISP) since 2002. This self-targeting initiative provides farmers' organizations with a mechanism through which subsidized inputs are distributed to their members. Throughout the reference

80 For more information on the Philippines' programmes for self-sufficiency see: http://www.gov.ph/2011/04/12/briefer-on-the-food-staples-self-sufficiency-roadmap-2011-2016/ and http://www.grain.org/article/entries/1654-philippines-fields-ushers-a-field-day-for-seed-companies; http://ati.da.gov.ph/rtc1/agri-info/fields-program

period this mechanism has increased the number of beneficiaries reached, the allocated budget (from ZMW 193.1 billion in 2007 to ZMW 485 billion in 2011) and varieties of crops covered (soya, cotton, sunflowers and rice have been added to maize). FISP is complemented by a public procurement system managed by the *Food Reserve Agency* which has managed large maize purchasing operations through a guaranteed minimum price. This procurement/price support system has contributed to a large increase in maize production in the last few years.

In **LAC, Ecuador**'s agricultural policy has undergone a deep transformation since 2007, as part of a broader economic, productive and agrarian revolution, which identifies agriculture as the cornerstone of its rural development, food security and environmental preservation. The 2008-2011 *Plan Nacional para el Buen Vivir* (National Plan for Good Living) and the 2010 *Agenda para la Transformación Productiva* (Agenda for Productive Transformation*),* set two main objectives: (i) a shift from a primary export model economy to a knowledge-based economy with high value-added exports, in harmony with environmental and social protection considerations and (ii) a reduction of 40 percent of the share of imports of maize, soybean, wheat and barley in domestic consumption by 2013 and the achievement of 'food sovereignty'.[81] To this end, the government pursued coordinated policies in support of producers, consumers and trade.

Some of the policy measures seeking food self-sufficiency, especially import restrictions and price subsidies, may impose costs on consumers *via* sharp price increases. To counter this adverse effect, the countries considered generally grant pro-consumer subsidies and implement other safety nets schemes to ensure food security for the most vulnerable. The *RASKIN* programme in **Indonesia** provides poor households with rice and other commodities at a subsidized price. In **Morocco** subsidies are granted right along the value chain, from millers to retail consumers, to make wheat products cheaper. Whereas in **Ecuador** a system of price control on staples is in place and strategic food reserves are held by a national storage unit which intervenes for price stabilization purposes as well. Food subsidies in **Zambia**, together with price control measures, are used to provide cheap and affordable staple food (i.e. maize meal) especially to low income groups.

Food self-sufficiency policies entail protectionist measures such as import and export restrictions and non-tariff barriers to insulate domestic food markets from regional and international price fluctuations. Limiting or banning trade, however, undermines free intra-regional trade agreements and regional food security goals (see also section 5.2 below). The policy of food self-sufficiency is particularly at odds with harmonization policies at regional levels to achieve regional food security. For instance, some RECs in **Africa** (e.g. East African Community, EAC, and Common Market for Eastern and Southern Africa, COMESA) have shown interest in a strategy of 'maize without borders' to achieve regional food security. However, the strategy is effective only

81 Food sovereignty, a concept developed at the World Food Summit of 1996 by *La Via Campesina* movement and now embraced by several governments around the world, is defined as the right of peoples and sovereign states to democratically determine their own agricultural and food policies. In September 2008, Ecuador became the first country to embed food sovereignty into its constitution. Since then another six countries have integrated food sovereignty into their national constitutions or laws including: Venezuela, Nicaragua, Mali, Bolivia, Nepal and Senegal.

if tariffs are removed and the free trade policy is accompanied by harmonized policies and regulatory frameworks as well as commitments to eliminate all non-tariff barriers to regional trade (COMESA and EAC, 2003).

The cost of a food self-sufficiency strategy can also be very high. Unlike the examples mentioned here, other poorer countries face enormous challenges in pursuing comprehensive and harmonized producer support policy strategies. These countries often provide limited support to agriculture with no protection against cheap and subsidized imports. Many poor countries even adopt contradictory or non-harmonized policies by using different measures to keep prices lower for consumers without considering the disincentive impact of such policies on producers. For instance, many **African countries** offer direct and indirect grain price subsidies to protect consumers against high prices (section 3.1.1) but have limited and inadequate producer price support programmes (section 2.3). A recent OECD study (OECD, 2013) has also shown that, based on a sample of 47 developed and developing countries, the level of support to producers tends to be higher in countries with higher income levels. Only relatively better-off countries can afford the cost of setting up effective support programmes for producers while offering subsidies and other social protection programmes to consumers.

5.1.2 Integrated policies to stimulate exports of key commodities

Key Findings

- With the goal of taking advantage of high international prices and conjugating trade liberalization and agriculture growth, some countries have adopted integrated and coherent policy packages to stimulate the export of selected food commodities.
- In **Asia**, **LAC** and **Africa**, countries with comparative advantages in producing specific commodities have recently launched an export promotion policy that includes measures to facilitate trade (by easing export procedures), along with integrated programmes to boost production and enhance private sector participation.
- The export strategy is consistent with trade and food security policies of many RECs since most countries are food-deficit and would benefit from having adequate and reliable sources of food within the REC.

The post 2007/08 period has prompted some countries to aim beyond national food security. With the goal of taking advantage of high international prices, some food-producing countries adopted integrated and harmonized policy packages to stimulate the production and export of selected commodities, for which

some countries have comparative advantages.[82] The overall strategy includes a set of complementary interventions to: provide incentives to farmers to increase production especially through technical and financial assistance; create an enabling environment for trade (post-production infrastructure, storage facilities, roads, etc.) and for private investments, especially in R&D and on new technologies; and to facilitate exports by easing restrictions (quotas and licenses) and procedures (testing and certification, packaging, compliance with international standards etc.). (See Annex 4 for details of pro-export policies adopted by selected countries).

In **Asia**, a comprehensive export strategy has been implemented by **Viet Nam** and more recently by Cambodia, among other countries. In 2010 **Cambodia** launched its *Rice Export Policy* which includes measures to facilitate trade by easing export procedures along with programmes to boost rice production. The latter entails provision of inputs, infrastructure expansion as well as land titling enhancement to secure land tenure for rice farmers. In **Viet Nam,** a country which changed its status from food importer to one of the world's major exporters (second largest rice exporter) in less than two decades, a recent decree by the Prime Minister replaced the food security objective by a policy of "implementing international trade commitments and ensuring efficient export supplies" (Government of Viet Nam, 2010).[83] The government is strongly committed to supporting domestic production (especially rice) trough credit and finance facilities, improved land management and investments in R&D (rather than direct price support and input subsidies). Additionally, the growing trade liberalization, while ensuring adequate supply to meet domestic demand, has encouraged exports: the country has abandoned the export quota policy in favour of a less restrictive *Minimum Export Price policy*.[84]

In **LAC**, **Peru,** among other countries, has recently enhanced its export promotion and trade openness policy (already in place since the 1990s) with an integrated and coherent approach. With its *Plan Estratégico Nacional Exportador 2003-2013* (National Strategic Exporting Plan 2003-2013), the Ministry of Foreign Trade and Tourism has argued for "developing trade aggressively based on the efforts of the state and the private sector to increase and diversify exports and achieve a competitive insertion in international markets". This view firmly subscribes to the belief that major advantages (for both national producers and consumers) are generated by an open trade policy, while supported by a concurrent role of the state in granting

82 Export-oriented agriculture is one of the pillars of neoliberal economic development plans. It promotes the expansion of traditional (e.g. maize, wheat, rice and sugar) and non-traditional (e.g. asparagus, strawberries and palm oil) agricultural exports in order to increase capital flows between countries and economic growth in the long run. Foods that are exported are replaced in national diets by imports from other exporting countries, which citizens are expected to purchase with cash income earned from participation in export-oriented agribusiness or industry. Some criticalities of the export-based approach reveal that this strategy may take the form of excessive encouragement to promote export crops to the detriment of food crops intended for domestic consumption (food staple), also leading to less diversification in production. In addition, an export oriented economy exposes countries to international shocks and price volatility as the system mainly relies on international markets to sustain its growth (Gakou, 1987).

83 Viet Nam's success in achieving rapid agricultural growth since the implementation of policy reforms in the late 1980s was mainly fuelled by growth in rice productivity following the rapid adoption of modern varieties, increased fertilizer use, and increased cropping intensity. The policy reforms created the right economic incentives for farmers to adopt yield- increasing technologies. Rice production grew at more than five percent per annum during the early 1990s and Viet Nam rapidly achieved the status of a major exporting country (Tran Manh Hung, 2009).

84 Given the importance of rice in the Vietnamese economy and society, the government has maintained a certain degree of control over rice exports, by adjusting rice export targets throughout the year (subject to changes in domestic supply and demand) and regulating the minimum export price to ensure at least 30 percent profit for farmers. The government, at its discretion, can also suspend rice exports whenever deemed necessary, while state-owned enterprises have control over a big share of the rice exports.

equitable market access to all citizens.[85] To this end, the government implemented an integrated approach, complementing its policy of opening and facilitating trade with producer support measures, such as credits, technical assistance or infrastructure construction.[86]

Among **African countries**, in 2007 **Uganda** launched the *National Export Strategy 2008-2012 (NES)* to serve as holistic national medium-term plan to revamp the country's export sector. Priority commodities included in the strategy are coffee, fish, tea, cotton, flowers and services. Peculiarities of the NES are the high involvement of the private sector in the strategy and the focus on the gender dimension to create a dynamic and competitive export sector with more participation by women. The government is expected to enhance the competitiveness of Uganda's exports through developing supply-side capabilities, improving the business environment and reducing the cost of doing business. Among the key measures identified to improve the overall environment are: providing effective trade support services (market information, trade finance development, trade promotion and quality management) and enhancing coherence of export support policies, by improving institutional capacity and inter-institutional coordination.[87] Furthermore, **Morocco** is pursuing an export strategy through its *National Plan for the Development and Promotion of Exports*.

The adoption of complementary policy measures (trade, production, post-production infrastructure and the overall business environment) to promote agricultural exports appears feasible only for countries with adequate resources as well as comparative and competitive advantages. Nonetheless, the strategy of export promotion is consistent with trade and food security policies of many RECs. As most countries are food-deficit, adequate and reliable sources of food within REC member countries could encourage more open trade policies rather than food self-sufficiency strategies. It is generally argued that national food self-sufficiency is less efficient than free regional trade which increases the availability of food for deficit regions, stabilizes market prices and offers incentives for surplus producing regions.

5.2 Harmonization of country level policy decisions with Regional Economic Communities

Regional Economic Communities (RECs) are established to foster economic development by facilitating trade. Closer trade links among REC members allow countries to overcome obstacles caused by the relatively small size of domestic markets. Regional trade with food staples enhances food security by increasing the availability of food through the free movement of food commodities from a surplus to a deficit area. The free movement of food within a region can reduce the volatility of food prices by absorbing external or internal

85 See the Peru's Ministerial vision on foreign trade at: http://www.mincetur.gob.pe/newweb/Default.aspx?tabid=124

86 In 2011, four percent of the food and agricultural exports in LAC were from Peru (FAO, 2012a).

87 NES specific targets include (i) at least USD 5 billion per year in revenues from the export of goods and services; (ii) more than 16 percent contribution to GPD and (iii) per capita export ratio of USD 200 by 2012. The NES development and implementation was coordinated by the Uganda Export Promotion Board.

price shocks. This section analyses policy harmonization between national and regional levels with respect to trade-related policies for staples and regional grain stock initiatives. The first sub-section complements the analysis of trade measures carried out in chapter four and assesses harmonization and the degree of alignment or misalignment between country level policy decisions and RECs,[88] specifically export and import measures related to wheat, maize and rice, while the second examines recent regional stock agreements[89].

5.2.1 Trade-related policy harmonization

Key Findings

In **Africa**:

- Export restrictions were widely implemented by members of all selected RECs (ECOWAS/UEMOA, SADC and EAC) particularly in 2007/08, causing misalignment with regional commitments, while pursuing import tariff reductions or suspensions to facilitate grain import.
- Food deficit African countries have pursued different export and import policies essentially to augment domestic food supply and reduce consumer prices.

In **Asia**:

- Export restrictions have been imposed by members of both RECs: only temporarily in 2007/08 in AFTA, but for a prolonged period in SAFTA. In contrast, import tariffs have been reduced although some non-tariff barriers still exist in some SAFTA member countries.
- Trade opportunities in staple grains are high for exporting countries as there are several food-deficit countries in the region where tariff and non-tariff barriers are being reduced or suspended.

In **LAC**:

- Protectionist export bans by MERCOSUR main grain exporting countries in the first period (2007/08) were subsequently transformed into quotas and high export taxes, while CAN members pursued different policies, with some favouring open trade and others opting for greater state intervention and control over trade.
- Trade policies were more aligned in MCCA countries than in MERCOSUR or CAN. Minimal trade restrictions have boosted trade among MCCA members during the reference period.

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88 The selection of the seven RECs is based on data availability as well as relevance with respect to the surveyed countries. In Africa, three RECs are selected: 1) the Economic Community of West African States (ECOWAS)/West African Economic and Monetary Union (UEMOA); 2) the Southern African Development Community (SADC), and 3) East African Community (EAC). In Asia, two RECs are selected: 1) the ASEAN Free Trade Area (AFTA), and 2) the South Asian Free Trade Area (SAFTA). In LAC, three main free trade agreements were analysed: 1) the Southern Common Market (MERCOSUR); 2) the Andean Community (CAN), and 3) the Central American Common Market (MCCA).

89 This report does not intend to provide an exhaustive analysis on other important aspects on regional policy harmonization.

Africa

The extent to which national trade policies are aligned with regional trade agreements is examined taking the case of three RECs in Africa, namely ECOWAS/UEMOA, SADC and EAC.

Economic Community of West African States and the West African Economic and Monetary Union

The major regional economic organizations in West Africa are the *Economic Community of West African States* (ECOWAS) and the *West African Economic and Monetary Union* (WAEMU, also known by its French acronym UEMOA). ECOWAS was created in 1975 to foster cooperation and economic integration and to promote a free trade area[90] under the *ECOWAS Trade Liberation Scheme* (ETLS), launched in 1990.[91] UEMOA was established in 1994 by eight French-speaking countries of Western Africa,[92] which are also all members of ECOWAS, to promote economic integration among countries sharing the CFA Franc as a common currency. UEMOA is both a customs[93] and monetary union[94].

ECOWAS and UEMOA have developed a common plan of action on trade liberalization and macroeconomic policy convergence. Since 2001, ECOWAS heads of state required member countries to harmonize their import tariffs with the existing UEMOA's common external tariff (CET), which was adopted in 1998. However, the UEMOA-ECOWAS joint technical committee was only launched in December 2012, and ECOWAS countries will adopt UEMOA's external tariff system after having gone through a transition period (it will enter formally into force in January 2014) and applying some modifications.[95]

Policy alignment and misalignment: temporary export restrictions were adopted by some member countries, while relatively more harmonized policies were registered with regard to imports during the period under consideration.

ECOWAS/UEMOA members adopted some export restrictions which conflicted with their regional agreements. However, most of these restrictions were temporary (Table 14). In 2007/08, **Senegal, Togo, Sierra**

90 A free trade area (FTA) is an area within which members agree to impose no import or export restrictions of any kind (tariffs, quotas nor bans) on goods and services among them, and thus the circulation of goods and services is theoretically free within the bloc.

91 There are currently 15 ECOWAS members in total. However, for the purposes mentioned above, only nine are covered in this section: Burkina Faso, Ghana, Liberia, Mali, Mauritania, Nigeria, Senegal, Sierra Leone and Togo.

92 UEMOA members are: Benin, Burkina Faso, Cote d'Ivoire, Mali, Niger, Senegal and Togo. Guinea-Bissau joined the organization in 1997, becoming the eighth (and only non-Francophone) member.

93 A customs union (CU) is a further integrated form of FTA: besides the free movement of goods and services within the bloc, members set a common external tariff (CET) to be applied to goods originating from non-members.

94 A monetary union is an agreement thorough which a group of states chooses to adopt a single currency. It doesn't necessarily imply further forms of integration.

95 UEMOA's CET is composed of four bands ranging from 0 to 20 percent. However a fifth tariff band of 35 percent will be included to protect 'sensitive products', i.e. specific goods that contribute to the promotion of the region's economic development.

Leone, Burkina Faso and **Mali** adopted short-term export bans on cereals, including rice and maize, to ensure food supply to domestic markets. **Nigeria** has retained an export ban on maize since 2009.[96] Informal export restrictions have been in place in **Burkina Faso** and **Mali** on some staple food grains, which are strategic for the countries' food security. These restrictions are in the form of instructions passed to customs (export red tape) (MAFAP, 2013b).

In general, there is an alignment of national import policies with regional commitments, with misalignment recorded in only a few cases. **Nigeria** imposed, throughout the reference period, various import tariffs following the removal of import bans on staple foods in 2008.[97] Just recently, in July 2012, Nigeria raised the effective duty on wheat grain imports from 5 to 20 percent, and imposed a supplementary levy of 65 percent on wheat flour imports, taking the effective duty to 100 percent.[98] **Ghana** at times blocked the duty-free importation of goods originating in ECOWAS by applying a wide range of additional taxes and fees on all imports (MAFAP, 2012).

Southern African Development Community

The *Southern African Development Community* (SADC) was created in 1992 with the objective of achieving regional integration and eradicating hunger within the 15 member states,[99] eight of which are among the countries covered in this report.[100] Several protocols (binding agreements) were signed between members, including the *1996 Protocol on Trade* that aimed to achieve an FTA among members by 2000, with a phased liberalization programme. The SADC protocol on trade was later amended in 2005, postponing the establishment of the FTA[101] to 2008.[102]

Policy alignment and misalignment: export restrictions such as intermittent export bans were more commonly applied than import restrictions (e.g. (re)introduction of import tariffs) during the period 2007-2012. Members' export policies were misaligned with SADC FTA in many cases. In 2009/10 and 2011/12 **Malawi, Tanzania, Zambia** and **Zimbabwe** imposed temporary export bans on basic food items (such as maize

96 It is unclear whether the prohibition was in place even previously (MAFAP, 2013a).

97 The Federal Government of Nigeria prohibited the importation of a number of agricultural commodities in 2004, as an incentive for the development of local production. In September 2008, import bans were removed on maize and wheat flour (MAFAP, 2013b).

98 The Nigerian government sees tariff and non-tariff restrictions as a central component of the policy framework aimed at stimulating investments in the transformation of the domestic agricultural sector.

99 SADC members are: Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

100 The SADC members covered in this report are: Democratic Republic of Congo, Lesotho, Malawi, Mozambique, South Africa, Tanzania, Zambia and Zimbabwe.

101 Twelve SADC member states signed the protocol on trade and are therefore part of the FTA, with only Angola, the Democratic Republic of Congo and Seychelles remaining outside.

102 For more information see Southern African Development Community website at: http://www.sadc.int/about-sadc/integration-milestones/free-trade-area/

and other grains). In 2009/10 **Malawi, Tanzania** and **Zambia** also utilized other export restrictions, such as export quotas and licensing systems. On the other hand, export policies of some countries, including **South Africa** and **Lesotho,** were more in line with SADC FTA. Import policies were misaligned only in some cases during the reference period. Some members reinforced (e.g. **Malawi**) or reintroduced (e.g. **Zimbabwe** and **Mozambique**) tariffs that were initially suspended/reduced. Other members, such as **Tanzania**, either reduced (maize) or waived (wheat) import tariffs, in line with SADC FTA.

East African Community

The *East African Community (EAC)* is a regional intergovernmental organization among five Eastern African countries, namely **Burundi, Kenya, Rwanda, Tanzania** and **Uganda**, established in 1999.[103] Overall, the EAC aims to strengthen cooperation and attain food security among member states; a customs union (CU) and a common market were created in 2005 and in 2010 respectively. The CU applied a common external tariff (CET) based on a three-band tariff frame: 0, 10 and 25 percent. Yet, the free trade area in EAC is still not fully in place and is impeded by numerous border checks and fees for cross country trade (MAFAP, 2013d).

Policy alignment and misalignment: export restrictions on strategic commodities of some member countries violated EAC agreements, whereas import tariffs were largely aligned. In the wake of the 2007/08 global food crisis, nearly all member countries implemented export restrictions. **Kenya** maintained an export ban on maize between 2008 and 2012; similarly, **Tanzania** imposed protectionist export bans and other restrictions (as shown above – Tanzania is a member of both SADC and EAC). Conversely, **Uganda** maintained a less restrictive approach on exports, i.e. issuing a temporary export ban on maize only once, while **Rwanda** maintained a free export policy.

Import liberalization was common among member countries. Tariffs on wheat: **Tanzania** and **Rwanda** reduced tariffs to zero in 2007 and 2010 respectively. Similarly, **Uganda** (2011) and **Kenya** (2011) gradually reduced them to zero. In 2012, **Kenya** was allowed by the EAC secretariat to impose a 10 percent import duty on wheat. Regarding tariffs on rice, member countries were granted a lower level of CET. However, Kenya created a preferential rate for Pakistani rice imports in 2007, and then aligned its policy with the agreed CET in 2010. For tariffs on maize, **Kenya** waived its CET on maize, while **Tanzania, Rwanda** and **Uganda** continued to align their policies with EAC's maize policy.

Overall, the response of **African countries** to the 2007/08 food price crisis resulted in policy misalignments, especially relating to export restrictions, which were continued over the analysed period in some cases (particularly for SADC and certain EAC members). In contrast, import restrictions have been less common

103 Among the EAC members, Burundi is the only country not covered in this report.

and tariffs have been in many cases reduced, denoting a better alignment of national policies with regional commitments. The results show that food-deficit African countries have imposed restrictions on exports while encouraging imports (through the removal of restrictions), essentially to augment domestic supply and keep prices lower for consumers. Although national food security concerns appear to override regional food security commitments, countries pursuing export strategies can succeed in the region (because of the limited restrictions on imports and large deficit levels).

TABLE 13. **COUNTRY LEVEL TRADE POLICY ALIGNMENT VS. REC ON SELECTED STAPLES (2007-2012)**

Region	Selected REC	Covered Members	Agreements	Misalignment
Africa	ECOWAS/ UEMOA	Burkina Faso, Ghana, Liberia, Mali, Mauritania, Nigeria, Senegal, Sierra Leone, Togo	• Free Trade Area (FTA)* • Customs Union (CU)** in force from January 2014.	Export restrictions: Senegal, Togo, Sierra Leone, Burkina Faso, Mali, Nigeria Import restrictions: Nigeria, Ghana
	SADC	Democratic Republic of Congo (DRC), Lesotho, Malawi, Mozambique, South Africa, Tanzania, Zambia, Zimbabwe	• FTA by 2008 (DRC did not sign it)	Export restrictions: Malawi, Tanzania, Zambia, Zimbabwe Import restrictions: Malawi, Zimbabwe, Mozambique
	EAC	Kenya, Rwanda, Tanzania, Uganda	• CU • Common Market*** from 2010	Export restrictions: Kenya, Tanzania, Uganda Import restrictions: Tanzania
Asia	AFTA	Indonesia, the Philippines, Thailand, Viet Nam, Cambodia, Lao PDR	• FTA	Export restrictions: Indonesia, Lao PDR, Viet Nam, Cambodia Import restrictions: Thailand
	SAFTA	Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka	• FTA by 2016 • Agricultural products are among "sensible" items and a 20% tariff line is applied	Export restrictions: India, Pakistan, Nepal, Bangladesh Import restrictions: none
LAC	MERCOSUR	Argentina, Brazil, Paraguay (suspended since July 2012), Uruguay	• CU • Possibility of CET temporary exemptions from 2007	Export restrictions: Argentina, Brazil Import restrictions: Argentina, Brazil (non-automatic licenses and informal barriers)
	CAN	Bolivia, Colombia, Ecuador, Peru	• CU • Andean Price Band System (APBS) for agricultural products	Export restrictions: Ecuador, Bolivia Import restrictions: Colombia
	MCCA	Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua	• CU	Export restrictions: Honduras Import restrictions: none

** Free Trade Area (FTA): no import or export restrictions of any kind (tariffs, quotas, bans) among members.*
*** Customs Union (CU): FTA + common external tariff (CET) in place for non-members.*
**** Common Market: CU + coordination of various social, fiscal and monetary policies among members.*

Source: FAPDA

Asia

The cases of two RECs in Asia, AFTA and SAFTA, have been studied to assess the degree to which national trade policies are aligned with regional trade agreements.

Association of Southeast Asian Nations (ASEAN) Free Trade Area

The *Association of Southeast Asian Nations (ASEAN)* established the *ASEAN Free Trade Area (AFTA)* in 1992[104] in order to promote the free movement of goods and services within the bloc. For goods originating within ASEAN, members are expected to apply an import tariff rate of zero to five percent, called the *Common Effective Preferential Tariff* (CEPT), with no quantitative restrictions (non-tariff barriers). AFTA does not apply a common external tariff and each member may impose tariffs on goods from outside the bloc based on its national schedules. Options for excluding products from the CEPT are envisaged for ASEAN members and include, among others, sensitive agricultural products such as rice.

Policy alignment and misalignment: the response to the 2007/08 food crisis at the national level temporarily affected sub-regional trade of some staple commodities, given the introduction of temporary export restrictions by major rice exporters of the region. Some short-term misalignments were recorded, especially in the rice sector, considered to be the primary agricultural commodity with high levels of political sensitivity. A few countries imposed temporary export restrictions in 2008; **Indonesia**, **Lao PDR**, **Viet Nam** and **Cambodia** temporarily banned rice exports (the last two countries being large rice exporters).[105] The restrictions were removed in the subsequent years. On the other hand, tariff reductions on most agricultural products have signaled a certain degree of policy harmonization between national and REC commitments. Only one incidence of an import restriction, an import ban on maize, was recorded for **Thailand** in 2008.

South Asian Association for Regional Cooperation Free Trade Agreement

In the framework of the *South Asian Association for Regional Cooperation (SAARC)*, the *South Asian Free Trade Agreement (SAFTA)* was implemented in 2006 among **Bangladesh, Bhutan, India, Nepal, Pakistan** and **Sri Lanka**.[106] Under the Agreement, the South Asian region will move to a free trade area with the implementation of the tariff liberalization programme by 2016. The agreement differentiates least developed

104 The Association of Southeast Asian Nations was established in 1967. Its members are Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Viet Nam, Cambodia, Lao PDR and Myanmar. This section does not cover Malaysia, Singapore, Brunei or Myanmar, as they are not among the countries surveyed in this report.

105 Two other ASEAN members, Malaysia and Myanmar (not included among the countries analysed in this report), temporarily banned rice exports in 2008 as well.

106 SAFTA superseded the SAARC Preferential Trade Agreement (SAPTA) that was introduced in 1995 as a first step to begin closer relations among the eight SAARC countries. All members are covered in the section except for the Maldives.

countries (LDCs)[107] from non-LDC member states,[108] envisaging special and differential treatments for the first group, which would include lower tariff reductions and longer periods of implementation.[109] One of the most critical provisions in the agreement refers to the 'sensitive' sectors, which include agricultural products, to which a 20 percent tariff line is applied without mandatory reduction of the country list.[110]

Policy alignment and misalignment: some important producer countries extensively used export restrictions during the recent food price escalation. In 2007/08, **India** responded to the high international food prices by banning exports of rice, wheat and maize. Exports were only fully resumed after a bumper harvest in 2011. **Pakistan** imposed an export tax and subsequently a ban on wheat in 2007; the ban was lifted in 2010 and replaced by export quotas. In 2008, **Nepal** banned exports of all food grains and **Bangladesh** did the same for rice exports, with the exception of the wheat ban in **Nepal** (lifted in 2010), prohibitions remain in place in both countries today, with only few export quotas allowed.

In contrast to the export bans, no member country applied any import bans. In general, an alignment is noted on import tariffs, with the exception of **Pakistan,** which reintroduced import tariffs on rice in 2011. However, a misalignment is visible in relation to several specific policies on agriculture products, which are included in the sensitive products group (negative-list). Policies to restrict the list are 'voluntary' (only **India** made relevant attempts to reduce the list in recent years) and non-tariff barriers (technical, sanitary and phyto-sanitary barriers and licensing systems) in many SAARC countries are still considerable. In addition, a proliferation of competing bilateral trade agreements in the region has encouraged some countries to grant concessions and preferences to specific trade partners in the framework of those agreements, rather than complying with provisions mandated by SAFTA[111] (FAORAP, 2012).

In general, some major producer/exporter countries in both RECs introduced temporary export restrictions, particularly for rice, which is the primary staple in **Asia**. The restrictions were more short-lived in AFTA than in SAFTA. Explicit and implicit import restrictions were also relatively more widespread in SAFTA than in AFTA. Nevertheless, trade opportunities in staple grains are high for exporting countries as there are several food deficit countries in the region as tariff and non-tariff barriers are being reduced or suspended.

107 LCDs: Bangladesh, Bhutan, the Maldives and Nepal.

108 Non-LCDs: India, Pakistan and Sri Lanka.

109 During phase one (achieved in 2006), non-LDC member states were to reduce their tariffs to 20 percent, and LDC members to 30 percent. In the second phase, non-LDCs were to reduce their tariffs below five percent on imports from LDCs by 2009, and to complete the full implementation of zero tariffs by 2012 (2013 for Sri Lanka). LDCs are to reciprocate by January 2016.

110 According to the country sensitive products list, more than 50 percent of the total imports trade among South Asia countries is excluded from the tariff liberalization plan proposed under the SAFTA Treaty (with Bangladesh and Nepal the most protectionist countries and Pakistan the least trade restricting).

111 Bilateral trade agreements within SAARC countries include: the India-Bhutan Agreement on Trade and Commerce, the India-Nepal Treaty of Trade, the India-Afghanistan Preferential Trade Agreement, the India-Sri Lanka FTA and the Pakistan-Sri Lanka FTA.

Latin America and the Caribbean

Among the RECs within LAC, MERCOSUR, CAN and MCCA were selected to examine the extent to which national trade policies are aligned with regional trade agreements.

Southern Common Market

The *Southern Common Market* (MERCOSUR) is the most important trade bloc in South America (in terms of aggregate GDP), comprising two major regional[112] and global food producers.[113] MERCOSUR was created in 1991 by **Argentina, Brazil, Paraguay** (suspended since July 2012) and **Uruguay**, as an FTA, becoming a customs union with a CET in 1994. **Venezuela** joined the bloc in 2012 and **Bolivia** is on its way to joining the block.[114] In 2007, MERCOSUR members decided to allow temporary exemptions to the CET on some sensitive items, including agricultural goods.[115]

Policy alignment and misalignment: during the period of analysis, country level export and import policies have often contrasted with the FTA of MERCOSUR. **Argentina** and **Brazil,** the biggest members of the bloc, have mostly adopted protectionist measures and controls on agricultural products.[116] **Argentina** imposed an export ban on wheat and maize in 2007/08; the bans were then transformed into quotas (opening the *Registry of Grains* in June 2008 for wheat and in February 2009 for maize, and export licenses were accorded on an *ad-hoc* basis).[117] **Brazil** adopted a temporary rice export ban in 2008 to safeguard domestic supplies. **Argentina** sharply increased export taxes for maize and wheat from November 2007 to March 2008, but gradually reduced them in the subsequent period.

Non-automatic licenses and informal barriers on imports have been recorded. In 2009, **Brazil** adopted non-automatic licenses for some important Argentinean products like wheat flour, wine, oil, processed foods and other agricultural items, in response to a similar measure adopted by **Argentina** in 2008**.** Alternatively, the two minor partners of the bloc, **Paraguay** and **Uruguay**, had an aligned policy regarding trade (export and import) of the three considered staples.

112 Namely Argentina and Brazil, the biggest producers in the region of maize, soybeans and wheat. Agriculture accounts for 32 percent of total exports in Brazil and for 37 percent of total exports in Argentina in 2011. Both countries are net exporters of agricultural products with large surpluses.

113 After the EU, ASEAN and NAFTA (OECD, 2009).

114 All MERCOSUR members are included in this research, except for Venezuela, for which official data on trade are difficult to access.

115 *Consejo del Mercado Común* Decision no. 59/07 at http://www.mercosur.int/t_generic.jsp?contentid=3964&site=1&channel=secretaria

116 Whereas, the two minor partners of the bloc, Paraguay and Uruguay, have pursued a more open trade policy, in line with the agreements, also due to their large dependence on imports from the bigger members (Argentina and Brazil).

117 Argentina's trade policy has focused mainly on guaranteeing its domestic supply at low prices, setting this issue above any other, including above MERCOSUR's principles.

The conflicting policies have generated tensions among the partners, requiring diplomatic negotiations to resolve them. Governments attempt to settle their disputes through their national diplomacy and bilateral agreements, rather than through MERCOSUR bodies, undermining the bloc's supranational capacities (Klonsky et al., 2012).

Andean Community

The *Andean Community (CAN)* is a customs union comprising South American countries **Bolivia, Colombia, Ecuador** and **Peru**, and was established with the *Cartagena Agreement* in 1969.[118] The Andean customs union has four basic tariff levels: 5, 10, 15, and 20 percent determined according to the products' degree of processing, with raw materials subject to lower tariffs. There are some exceptions to this common external tariff: since 1994 a price band system (the Andean Price Band System) has been adopted for agricultural products, to protect Andean agricultural products from price variations in the international market and agricultural tariffs are normally higher compared to non-agricultural products.

Policy alignment and misalignment: governments of the bloc responded very differently to the 2007/08 crisis, with some countries adopting trade restricting measures during and after the crisis. Export restrictions were adopted particularly in the first period (2007/08) by two countries. **Ecuador** temporarily banned rice exports from September 2007 to March 2009, whereas **Bolivia** extensively banned maize exports from August 2007 to October 2008, imposing again a temporary export ban on maize in 2010. After the removal of the bans, exports of these goods were restricted through imposition of quotas by both countries.

Import bans were rarely recorded, while import tariffs were reduced by all members. Only **Colombia** adopted a temporary import ban on rice in 2010. Import tariffs were reduced by all CAN countries, allowing duty-free import of: almost all staple food items by **Bolivia** in 2008, wheat and wheat flour by **Ecuador** from 2009 to 2011, rice by **Colombia** in 2007, and lifting tariffs on staples in 2007 (wheat) and 2011 (maize and rice) by **Peru**.

CAN members generally pursued different policies, with **Peru** and **Colombia** trying to maintain an adequate food supply through open trade,[119] whereas **Bolivia** and **Ecuador** responded with greater state intervention and control over trade. CAN countries also shifted their attention from trade matters to social issues[120] following the 2007/08 food crisis.[121]

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118 Chile and Venezuela were former members of CAN: Chile withdrew in 1976 and Venezuela in 2006. All of the current CAN members are included in this research.

119 Peru and Colombia, together with Chile and Mexico, signed the *Alianza del Pacífico* (Pacific Alliance) in 2012, aimed at economic integration and free trade within the area.

120 For example, in 2010 the bloc enacted the *Decisión 742*, creating the *Programa Andino para Garantizar la Seguridad y Soberanía Alimentaria y Nutricional* ('Andean Programme to Ensure the Food and Nutritional Security').

121 See the Andean Community website at: http://www.comunidadandina.org/Quienes.aspx

Central American Common Market

The *Central American Common Market (MCCA)* was created in 1960 by **Guatemala, El Salvador, Honduras, Nicaragua** and **Costa Rica**,[122] and is now integrated into SICA (Central America Integration System).[123] The MCCA includes an FTA for 96 percent of the products marketed, and a CET for goods and services.

<u>**Policy alignment and misalignment**</u>: trade policies have generally been aligned within the bloc, with only one export ban recorded and some deviations from the CET. Export restrictions were minimal. The only registered case was the export prohibition for maize in **Honduras** in 2007/08. Import bans were not imposed by any member country, whereas zero tariffs or temporary lifting of tariffs for some key products were commonly used by all member countries during the study period. **Costa Rica** lifted tariffs on maize (2010 and 2012) and on rice (2011); **El Salvador** lifted tariffs on maize (2010) and on wheat flour (2008 and 2012); **Guatemala** lifted tariffs on maize (2008, 2009 and 2011), wheat flour (2008, 2009 and 2011) and rice (2008); **Honduras** on wheat flour (2008 and 2009), maize (2011) and rice (2011); and **Nicaragua** on wheat flour (2008) and white maize (2011).

Trade volumes among **Central American countries** are high: in 2010, 49 percent of agricultural imports in **El Salvador** and **Nicaragua** came from MCCA members; the corresponding figures were 40 percent for **Honduras**, 24 percent for **Guatemala** and 15 percent for **Costa Rica** (FAO, 2011b). Trade restrictions and limitations have been minimal, even after the crisis.

Overall, harmonization of trade policies shows mixed results among RECs in **LAC:** protectionist export policies and import bans were pursued by the major food exporting members of MERCOSUR and by some CAN members, compared to more open and aligned trade policies among MCCA countries. Conflicting policies have resulted in trade disputes and undermined regional trade in MERCOSUR and led to increased state control over trade in CAN. By contrast, minimal trade restrictions have led to an expansion of trade among MCCA countries during the reference period.

122 All MCCA members are covered in this research.

123 The Central American Integration System (SICA) is a political agreement between Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama, created in 1991. Not all SICA members are part of the common market; but all country members are covered in this research.

5.2.2 Policy convergence[124] on regional grain stocks[125]

Key Findings

- The extraordinary food price surge of 2007/08 revamped policy debates on strategic stocks at global and regional level; a few RECs in **Asia** and **Africa** have shown greater interest in regional stocks.
- In **Africa**, ECOWAS is taking the lead (2011/12) in coordinating the establishment of a West African regional reserve but it is not clear how national commitments for regional reserves are ensured, given that some member countries are making policy decisions and stepping up their investment to establish or expand national stocks.
- In **Asia**:

  - The *ASEAN Plus Three Emergency Rice Reserve* (APTERR) intends to meet the emergency rice requirements of East Asia but concerns over implementation procedures, financial sustainability and implications for free trade remain serious.

  - The *SAARC Food Bank* (SFB) acts as a regional food security reserve for SAARC member countries; despite the convergence in needs and policies adopted at the country level the SFB could not help any member country in the 2007 to 2012 period.
- In **LAC**, no REC has shown interest in regional stocks. Resorting to bilateral and regional trade agreements rather than to regional reserve may be perceived as a better solution to acquire food in times of food production shortages in the region.

Since the extraordinary food price surge of 2007/08, policy debates have intensified[126] on maintaining strategic reserves at national, regional and global levels. A coordinated response at supra-national (regional or international) level has gained new attention among the international community, with the argument that such measures could better address emergency situations, especially in cases of large-scale or catastrophic crises that overcome national borders. While stocks at the global level are more difficult to manage, since

124 Policy convergence: "Any increase in the similarity between one or more characteristics of a certain policy (e.g. policy objectives, policy instruments, policy settings) across a given set of political jurisdictions (supranational institutions, states, regions, local authorities) over a given period of time. Policy convergence thus describes the end result of a process of policy change over time towards some common point, regardless of the causal processes." (Holzinger et al, 2008).

125 Three regional stock agreements are considered in this section: the ECOWAS Regional Food Stock in Africa, and the ASEAN Plus Three Emergency Rice Reserve and South Asian Association for Regional Cooperation Food Bank in Asia. The LAC does not have a stock initiative at regional level.

126 Refer to section 4.2.1 for stocks at national level.

they respond to the needs of very different groups of countries,[127] a more viable option appears to be represented by regional food stocks, which have to deal with fewer countries with more similarities, often already linked by a cooperation agreement.

Setting up regional food stock has three positive aspects compared to national reserves: (i) economies of scale can save costs, (ii) independent management could prevent governments from using reserves for political gains, and (iii) the provision of forums for collective agreements could help avoid trade restrictions during major food crises (World Bank, 2012f).

However, a number of policy harmonization and technical issues have constrained the establishment of regional stocks. Among the major issues that need to be addressed are: (i) procedures and guidelines for storage and release of stocks (requiring efficient organization, agreement and coordination among members, relating to: terms of definition of volumes to be provided by each country; timing and location of storage; and modalities of stock release during crises); (ii) costs of creating and maintaining a regional stock (which are sometimes on top of already existing national reserve costs and entail mobilizing continuous funding support by all member countries); and (iii) implications of stocks to free trade (it is argued that grain reserves aimed at price stabilization cause trade distortions in markets and domestic prices). In the past, a lack of strong and shared political support has hindered the establishment of stocks at the regional level. In recent years, however, some RECs from **Asia** and **Africa** have shown keen interest in regional stocks. In contrast, there has been no regional stock initiative in **LAC**. The main issues that regional stock agreements in **Africa** and **Asia** currently face are discussed below.

Africa: the example of the ECOWAS Regional Food Stock Strategy

In 2009, ECOWAS members launched the *Regional Agricultural Investment Plan 2011-2015 (RAIP)*. As part of the RAIP, ECOWAS members approved a *Regional Food Stock Strategy,* mainly for two purposes: to regulate the market of major food crops and to serve as an emergency reserve and promote food safety nets in the region. Following the different attempts by close allies of ECOWAS to establish a regional grain reserve, ECOWAS formed a task force to manage the process and bring together the different initiatives. Building on concrete proposals of a feasibility study on regional food stock capacities that was completed in September 2012 (ECOWAS, 2012), the *ECOWAS Task Force* officially endorsed the creation of the reserve and laid out the next steps towards making it operational by mid-2013. Member states agreed that ECOWAS would lead the coordination of the reserve in close collaboration with UEMOA and CILSS, the Permanent Inter-State Committee for Drought Control in the Sahel.[128] Technical management of the reserve would be handled by a specialized ECOWAS agency, the *Regional Agency for Agriculture and Food*, in close collaboration with

127 Only one international stock was attempted but failed: the International Emergency Food Reserve initiated in 1975 under WFP with the aim of addressing an efficient response to international food crises. Donors did not fully contribute to it and it actually relies on minimal reserves.

128 CILSS includes: Benin, Burkina Faso, Cape Verde, Ivory Coast, the Gambia, Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Senegal and Togo.

RESOGEST (Stocks Offices Management Network).[129] The task force agreed to start operations with an initial capacity of 180,000 tonnes of stocks; one third of this reserve will be stored in physical reserves, and the remainder in financial reserves. By its eighth year, the reserve is envisioned to grow to a capacity of 410,000 tonnes of physical and financial reserves. The release of stocks is to be determined based on the *Enhanced Harmonised Framework*, the consensus tool for the analysis of food insecurity in the sub-region (ECOWAS, 2012).

At national level, as discussed earlier (chapter four), many West African governments have taken measures to strengthen their national food reserves (following the food crisis of 2007/08) while striving to build a regional stock through ECOWAS. It is not clear how the management of the regional stock is coordinated with national stocks and how national commitment to the regional stocks initiative is guaranteed when member countries are stepping up their investment to establish or expand national grain reserves at the same time. Countries with different levels of national stocks and with considerable difference in exposure to natural disasters (e.g. Sahelian countries have drier weather than others) may not show the same level of commitment to regional grain reserves.

Asia

(i) The East Asia Emergency Rice Reserve and the ASEAN Plus Three Emergency Rice Reserves

The practice of a regional rice emergency reserve has a long history in East Asia. As early as 1979, ASEAN countries established the ASEAN Emergency Rice Reserve (AERR) to build up physical rice reserves, based on voluntary contributions from member states, that could be used if a member was unable to meet its people's needs through its own production or through rice purchases in international markets. However, the system was never made operational,[130] and the idea was revamped in 2003, under the framework of the ASEAN+3 agreements. The new East Asia Emergency Rice Reserve (EAERR) is a pilot project established with the purpose of: (i) coping with food emergencies; and (ii) ensuring long-term food security and improving livelihoods of farmers in ASEAN member countries. Although the EAERR's secretariat was established to operate independently and facilitate rice trade between countries facing an emergency food requirement and countries holding reserves, no country resorted to the EAERR over the past decade. In reaction to soaring and volatile prices in late 2011, the ASEAN+3 countries agreed on an improved model, the ASEAN Plus Three Emergency Rice Reserve (APTERR), which came into force in July 2012 (see Box 8 for details on the

129 RESOGEST (Réseau des Structures Publiques en charge de la Gestion des Stocks nationaux de sécurité alimentaire au Sahel et en Afrique de l'Ouest) includes the 15 ECOWAS member countries as well as Mauritania.

130 AERR was unable to respond to any crisis that occurred in a member country and never made releases from its stocks. The main deficiencies were due to: excessively small reserves made available by members; a complicated procedure of implementation (which merely duplicated government-to-government transactions); lack of funds within the secretariat.

operational mechanism). The reserves consist mostly of 787,000 tonnes of rice stocks that have been designated (physically) or earmarked by ASEAN+3 countries to meet emergency food requirements in the region plus rice stocks that have been voluntarily donated to the reserve (unspecified quantities from Japan, China and Thailand) to be used as a humanitarian response to acute emergencies.[131] In the period of reference, at the national level, all member countries tended to increase their national reserves (as discussed in chapter four) to cope with price shocks: the ASEAN+3 countries generally pursued this type of policy. Therefore, it appears that the cooperation framework of this emerging regional rice reserve initiative is still too weak to enforce. As a matter of fact, despite the relatively increased commitment of countries to contribute to the reserve, the earmarked quantity is insufficient to contain a potential domestic crisis in larger countries (e.g. **Indonesia** or the **Philippines**).

There are still some serious concerns and weaknesses to be addressed, which have been derived from the two previous attempts to create a rice emergency reserve on a regional basis:

- Implementation challenges: similar past initiatives had limited success due to coordination difficulties, and unclear stockpiling programmes and sharing of costs between countries. Administrative and technical issues (on terms, prices and conditions) remain a challenge to APTERR as well.
- Financial sustainability concerns: under the mechanism of voluntary contributions, the Plus Three countries[132] are currently by far the largest contributors.
- 'Trade non-interference' challenges: despite being a trade facilitating mechanism (see Box 8), the system is not designed or empowered to replace rice trade among member countries. In addition, it has to comply with WTO agreements which prohibit trade distortions and has to be used only in emergency situations. In this context, in a region that comprises the biggest rice producers and importers in the world, as well as the biggest rice deficit and exporting countries, resorting to bilateral and regional trade agreements rather than to the regional reserve could still be perceived as a better solution to acquire food in times of food production shortages (Trethewie, 2013).

131 To put this in perspective, Southeast Asia and East Asia combined consumed 542,000 tonnes of rice per day. Earmarked pledges form the major part of the APTERR: China has pledged to earmark 300,000 tonnes, South Korea 250,000 and Japan 150,000, with ASEAN member countries pledging a collective total of 87,000 tonnes initially. As of February 2013, two releases of APTERR stockpiled rice have taken place since the soft implementation of the APTERR in 2010: Thailand donated 520 metric tonnes of rice to the Philippines for those affected by typhoons and La Niña; and Japan donated 347 tonnes to Lao PDR for the victims of Typhoon Ketsana.

132 The Plus Three countries are Japan, China and South Korea.

BOX 8. **APTERR OPERATIONAL MECHANISM**

The APTERR three-tier system to meet emergency demand for rice envisages:

Tier One: Release of earmarked APTERR reserves through specialized commercial contracts between supplying and receiving countries. The supplying country agrees to supply a specific quantity of rice of a specific grade, out of its earmarked stock, to the recipient country in the event of an emergency.

Tier Two: Release of earmarked APTERR reserves under long-term loan agreements or grants between supplying and receiving countries. It is similar to Tier One but there is no prearranged delivery scheme, and it is voluntary.

Tier Three: This tier provides for the release of physical APTERR reserves to meet acute and emergency needs for food aid. Stocks will be released when a recipient country makes a request or via an automatic trigger system managed by the APTERR Secretariat. Recipient countries will be responsible for the distribution of the rice.

Member countries will be responsible for maintaining the reserves; in many cases, the stock comes from existing national rice reserves. They will also be responsible for funding costs of procurement and storage management.

(ii) South Asian Association for Regional Cooperation Food Bank

The *South Asian Association for Regional Cooperation Food Bank (SFB)* was created in April 2007 with two objectives: (a) to act as a regional food security reserve for SAARC members during normal times, food shortages and emergencies; (b) to provide regional support to national food security efforts, to foster inter-country partnerships and regional integration, and tackle regional food shortages through collective action.[133]

The SFB started functioning with stocks of 241,580 tonnes of rice and wheat and the stocks later doubled to 482,000 tonnes (the contribution of each country has doubled accordingly).[134] Countries are entitled to withdraw the needed grains in the event of natural or man-made emergencies during periods of food shortages. Food grains are released in emergency circumstances only after negotiations between the concerned member countries regarding the price of grains (requesting and releasing) have taken place. Negotiations are based on existing guidelines, and prices offered to members will be at a discount rate, compared to food grain prices offered to non-members.

133 A first attempt to set up a SAARC Food Security Reserve was made in 1988 but it essentially failed to accomplish its end purpose because it was never actually put in place beyond the signing of an agreement.

134 India was to contribute 153,200 metric tonnes, Bangladesh and Pakistan 40,000 tonnes each, Nepal and Sri Lanka 4,000 tonnes each and Afghanistan, Maldives and Bhutan 1,420 tones, 200 tonnes and 180 tonnes respectively.

Similar to Southeast Asia, SAARC member countries promptly increased national stockpiles in 2007/08; also through public-private storage facilities schemes, as in the case of **India** and **Sri Lanka**. Despite the convergence in needs and policies adopted at the country level, between 2007 and 2012, the SFB could not help any member country to tide over any supply shock.

As underlined in the case of APTERR, it is challenging to ensure commitment from very different countries (with different economic statuses, poverty levels, production patterns and food deficit levels) to voluntarily contribute to a regional food reserve. SFB operations are also faced with the challenge of actually storing food and delivering it when needed: some studies noted that grain storage facilities in South Asian countries are currently inadequate to store the required buffer stock of grains. Without storage facilities in place, the food bank *de-facto* does not exist, regardless of any signed policy frameworks. Moreover, procedures regarding timely and effective distribution of grains and price negotiations are still unclear (Robinson, 2011). Lastly, design and implementation of the mechanism seem to be vulnerable to bureaucratic and political issues: lack of political will to quickly ratify decisions in times of emergency (when the bank should intervene) is still a big constraint (SAARC Summit, 2011).

Conclusion

Policy coherence or a systematic promotion of mutually reinforcing actions and coordination is required to achieve food security-related goals at national or regional levels. At national level, goals such as food self-sufficiency and food export promotion have required an integrated and coordinated approach. Since 2007/08, a few countries in Asia, Africa and LAC have shifted from a policy of food self-reliance (this includes food imports to achieve national food demands) to food self-sufficiency. A comprehensive programme, which entailed a package of subsidized technological inputs and services, price support, import tariffs to protect domestic producers, and increased public spending in agriculture, was thus launched during the reference period. The strategy of national food self-sufficiency, however, would mean less dependence on trade with negative implications for regional food security and intra-regional food trade.

High international prices, on the other hand, have motivated some countries to adopt integrated policy packages to stimulate the export of selected food commodities. A few countries (from all three regions) with comparative advantages have recently launched export promotion policies that included measures for facilitating trade (by easing export procedures) along with integrated programmes to boost production and enhance private sector participation. The export strategy is consistent with trade and food security policies of many RECs since most countries are food-deficit and would benefit from having adequate and reliable sources of food within the REC. It can also encourage member countries to pursue a more open trade policy rather than a food self-sufficiency strategy.

At the regional level, attempts have been made to harmonize trade and stock policies to achieve regional food security. However, export restrictions were widely practiced by members of most of the selected RECs, particularly in 2007/08, causing misalignment with regional commitments, while pursuing a policy of import tariff reductions or suspensions. Food deficit countries have restricted export and facilitated import with the objective of increasing domestic food supply and keeping prices lower for consumers. Most RECs appear to run into difficulties in attaining collective food security because of divergent interests among member countries. At least in one particular case (the Central American Common Market - MCCA), however, trade policies seem to have been better aligned with minimal trade restrictions and thus boosted trade among REC members and enhanced regional food security.

The food price surge of 2007/08 has revamped policy debates on strategic stocks at global and regional level and a few RECs in Asia and Africa have shown greater interest in harmonizing their policies to establish regional stocks during the study period. ECOWAS from Africa as well as the ASEAN Plus Three Emergency Rice Reserve and the SAARC Food Bank from Asia are working to set up such mechanisms to constitute regional food reserves. However, establishing procedures and guidelines for storage and release of stocks as well as allocating costs of regional stocks among member countries have emerged as a major policy-harmonization challenge. The costs of regional stock come on top of already existing national reserve costs for many countries. It is thus unclear how such countries remain committed to regional reserves while simultaneously enacting policy decisions and stepping up investment to establish or expand their own national stocks. It is also not evident whether regional stocks could be a useful and effective solution for tackling future food emergencies, or whether stocks at the national level or open trade policies could represent the best and most viable option for countries to deal with unexpected food shortages. Alternatively, RECs and national governments could agree on a combination of regional and national stocks benefiting from the merits of maintaining national as well as regional stocks.

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Annexes

Annex 1:
Country examples of fuel policy changes and decisions over the period 2007-2012

	Policy Changes			**Price control and price adjustment mechanisms**	
	Direct Price Subsidy		**Tax Subsidy**		
LAC	Argentina ↓ Bolivia ↓ Chile ↓ Dominican Republic	El Salvador ↓ Mexico ↓ Peru ↓	Brazil ↑ El Salvador ↑ Costa Rica ↑	Argentina Bolivia Chile Brazil Colombia Honduras	Nicaragua Panama Peru Uruguay Venezuela
	7		3	11	
Asia	Bangladesh ↓ China ↓ India ↓ Indonesia ↓↑ Iran ↓ Iraq ↓ Lao PDR↓	Nepal ↓ Oman ↑ Syria ↓ Yemen ↓	China ↑ Pakistan ↑ Lebanon ↓	Bangladesh India Indonesia Iran Iraq	Kazakhstan Nepal Sri Lanka Syria Yemen
	11		3	10	
Africa	Cameroon ↑↓ Egypt ↑↓ Ghana ↓ Malawi ↓ Mauritania↓ Morocco↓ Nigeria ↓	Togo ↑ Uganda↑ Sierra Leone ↑ Zambia ↑	Dem Rep of Congo ↓ Kenya ↓ Mozambique ↓ Rwanda↓ Senegal↓ Tanzania ↓ Tunisia ↓ Zimbabwe ↓	Algeria Cameroon Chad Egypt Ethiopia Ghana Kenya	Algeria Cameroon Chad Egypt Ethiopia Ghana Kenya
	11		8	13	
↓ Decrease and/or attempt to reform ↑Increase					

Source FAPDA, IMF, IEA, WB

Annex 2:
Cash Transfers Typology

Programme	Description	Objective
Non-Contributory Unconditional Cash Transfers (UCT)	- Cash is given to recipients without stipulation. - Provision of assistance in the form of cash to the poor or to those who face a probable risk of falling into poverty in the absence of the transfer without any conditionality. This may take the form of • Child support grant • Transfer to mothers (expecting woman) • Transfer to elderly (with age limit) • Transfer to disabled • Transfer to indigenous people	- Increase the households' real income. - Improve livelihoods of vulnerable groups and enhancing human capital (e.g. education, health or nutrition).
Non-Contributory Conditional Cash Transfers (CCT)	- Cash is given to recipients based on a stipulation (e.g. school attendance or an immunization). - Cash transfer programmes in which payment of the transfer is made conditional upon certain behaviors of the beneficiaries (usually targeted households with children and/or mothers), such as regular school attendance of their children or regular health centre visits.	- To reduce poverty with the cash transfer part addressing poverty in the short-run, - To enhance capabilities of the poor with conditionality component addressing poverty in the long-term through building of human capital and human capabilities.
Cash for work	Temporary employment programmes that are created for a specific population group that is able to work.	Employ people to contribute to public works programmes, providing workers with income with which they can then buy higher quantities of food and/ or higher quality food.
Cash Vouchers	Distribution of vouchers which entitle recipients to buy a specific value of commodities or services (usually food) at assigned shops.	Increase purchasing power, especially among vulnerable groups.

Annex 3: Examples of policy coherence and integration to achieve self-sufficiency (only selected measures)

Country	Policy direction	Producer	Trade	Consumer
The Philippines	Protection for rice, sugar and maize sectors; rice self-sufficiency policy	• Production support (biased towards rice): FIELDS programme (2008-2010) and Food Staples Self Sufficiency Road Map (2011). Focus on irrigation. • Credit reform assigning a bigger role to the private sector.	• Reintroduction of import restrictions (tariffs) from 1992 • Import monopoly of the National Food authority which has determined annual quotas based on domestic supply since the 1970s.	• Subsidized rice distribution
China	Policies in favour of grain production, the self-sufficiency rate to be maintained above 95 percent.	• Agricultural taxation reform (tax elimination in 2006). • 'Four subsidies' policy: (i) to producers according to cultivated area, (ii) for inputs, (iii) for improved seeds, (iv) for machinery. • Price support (minimum purchase prices).	• Overall tariff reduction (process of accession to WTO). • TRQ applied to main food staples allocated both to state trading enterprises and private traders.	• Price control measures and subsidies from time to time.
Indonesia	Concerns on self-sufficiency, food consumption and production diversification; seek balance between supporting producers and ensuring affordable prices of essential foods for poor consumers.	• New input (including water and fuel) packages from 2007 and new credit schemes for farmers. • Price support in place for rice and sugar. • Increased public spending on agriculture. • Role of BULOG to manage procurement stockpiling and distribution of rice.	• Control over imports. • Seasonal ban on rice imports (rice imports allowed only during off-season to importers approved MoT). • New import regulations (April 2008) on a licensing system create categories of rice imports. • Ad-hoc tariff reductions in times of increasing food prices.	• RASKIN programme: rice at a subsidized price for the poorest households.

Country	Policy direction	Producer	Trade	Consumer
Morocco	Attain food security, and to make agriculture the engine of economic growth in 10-15 years.	• *Plan Maroc Vert* (2008): seeds subsidies, mechanization, extension services. • Reference producer prices. • Finance post production infrastructures (National Rural Roads Program). • Finance and credit facilities.	• Import controls through tariffs (high average tariff) and tariff rate quotas. • To protect the cereals subsector, ad valorem duties of up to 172 per cent (as compared with 53.5 per cent in 2003) are applied (temporary suspensions during periods of price surge).	• Subsidies to millers, bakeries consumers; ration card system.
Zambia	National Agricultural Policy (2004-2015) increase production, sector liberalization, commercialization, public/ private partnerships.	• Farmer Input Support Programme (FISP), in place since 2002 and expanding over the reference period (2007-2012). • Public procurement through guaranteed minimum price by Food Reserve Agency (FRA). • Mainstream the electronic input voucher system to strengthen the private sector's role in supplying agricultural input through agro-dealers (2012/13). • Agricultural markets & infrastructure development by setting up institutions (e.g. Zambian Agricultural Commodities Exchange, ZACE (2007).	• Centralized issuance of maize export permits. • Temporary maize export bans. • Intermittent import/ export bans on wheat (import allowed occasionally to forestall shortages).	• Food subsidies and price control measures. • Strategic Food Reserve Programme (FSRP).
Ecuador	2009-2013 *Plan Nacional para el Buen Vivir*: (i) Food sovereignty and redistribution of productive assets (ii) shift from primary export model to economy with high value-added exports.	• Input distributions, price control and import subsidies. • Large credit provisions to micro, small and medium farmers. • Subsidized agricultural insurance for small and medium farmers (AGROSEGURO, 2009). • Major land reform and distributions to landless, micro, small and indigenous farmers (*Plan Tierras*, 2009). • Minimum support prices for major staples throughout the period. • Technical training and infrastructure improvements.	• Exports of staples limited (through bans or quotas) on ad-hoc basis for ensuring domestic supply. • Import quotas and other restrictions (conditional licenses system, 2011). • Ad-hoc import tariffs reduction on staples in the first period, tariffs reintroduced in 2012. • Creation of Institute for Exports and Investments Promotion (PRO ECUADOR, 2011) for opening of foreign markets to Ecuadorian products.	• Price control on staples. • Zero VAT on basic food from 2007. • Strategic food reserves (*Unidad Nacional de Amacenamiento*, 2007).

Annex 4:
Examples of policy packages to boost agriculture exports (only selected measures)

	Policy direction	Trade and markets	Producer
Cambodia	Rice Export Policy: five-year plan aimed at expanding rice production and export.	• Trade facilitation by reducing informal fees, eliminating illegal checkpoints. • Improving export processing, including the certification and grading of products to meet the standards of importing countries.	• Promotion of higher yield seeds, expanding irrigation systems, and modernizing farming techniques. • Improved land titling to enable farmers to use land as collateral for loans to finance necessary investments and working capital.
Viet Nam	From food security objective to 'implementing international trade commitments and ensuring efficient export supplies'.	• Export quotas policy removed (2000-2005); MEP policy adopted • Exports managed by Viet Nam Food Association • Facilitation of foreign investments participating in rice trading and distribution (2006-2010). • Export contract registration. • Government-to-government rice export contracts.	• Transformation of land and production materials from collective to household system and keep minimum 3.8 million ha of arable land for paddy cultivation. • Investments to build concentrated food production areas and rice production areas meeting GAP (Good Agriculture Practices). • Investments in irrigation systems. • Huge agricultural R&D investments which accounts for one-third of the S&T government budget (annual increase by 10-15 percent). • Credit provision (Bank for Agriculture and Rural Development) and favourable loan buyers of paddy at the peak of harvest season to ensure the farmer minimum profit of 30 percent.

	Policy direction	Trade and markets	Producer
Peru	Export promotion and trade openness	• No import or export restriction imposed • General slowdown of import tariffs • Free or preferential trade agreements signed in the reference period (with EFTA, South Korea, China, Panama and Costa Rica) • Efforts to accomplish sanitary standards of commercial partners.	• Expansion of credit lines at preferential rates to small, medium and large farmers (with technical assistance), plus special credit lines targeted to traditional crop (cotton, alpaca and coffee). • Creation of a Business Guarantee Fund (FOGEM, 2009) guaranteeing loans of financial institutions to productive micro and small institutions. • Development of market information systems: *Sistema Nacional de Información Agraria* (2006); *Sistema de Abastecimiento y Precios* (SISAP, 2008) • Development of post-production infrastructure (logistics centres, rural markets etc.). • Public insurance and risk management schemes: *Fondo de Garantía para el Campo y del Seguro Agropecuario* (2007) and *Seguro Agrario Catastrófico* (2009).
Uganda	Dynamic and competitive export-driven economy for national prosperity and development.	• Uganda Export Promotion Board (UEPB) set up a coordination institution. • Trade support services (market information, promotion and quality management). • Infrastructure developments (roads and hydropower plants) • Set up trade information and export development centres. • Integration in EAC.	• Training programmes for farmers. • Finance and credit facilities.

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