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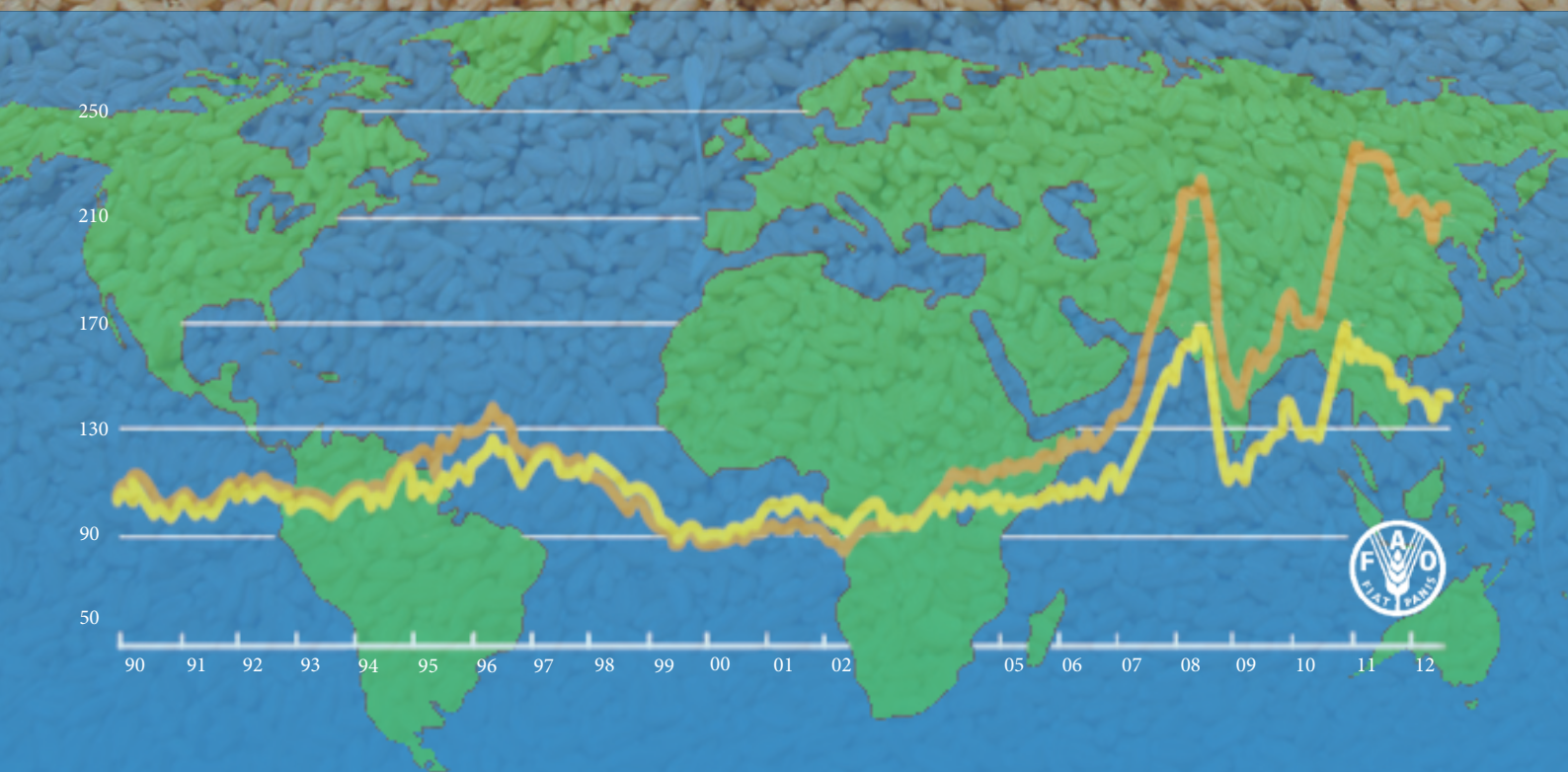
FAO Initiative on Soaring Food Prices

Guide for Policy and Programmatic Actions at Country Level to Address High and Volatile Food Prices

updated version



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List of acronyms

AMIS	Agricultural Market Information System
CA	Conservation agriculture
CCT	Conditional Cash Transfers
CFA	Central African franc
CGIAR	Consultative Group on International Agricultural Research
CIF	cost, insurance and freight price
CIS	Commonwealth of Independent States
CSO	Civil society organization
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
FAO	Food and Agriculture Organization of the United Nations
FAPDA	Food and Agriculture Policy Decision Analysis tool
G-20	Group of Twenty
GDP	Gross Domestic Product
GIEWS	Global Information and Early Warning System
HLTF	High Level Task Force on Food Security
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
IMF	International Monetary Fund
IPM	Integrated Pest Management
ISFP	Initiative on Soaring Food Prices
ITF	Input trade fair
MAFAP	Monitoring African Food and Agricultural Policies
MDGs	Millennium Development Goals
MFI	microfinance institutions
NDIP	National Development Strategy and Investment Plan
NEPAD	New Partnership for Africa's Development
NGO	Nongovernmental organization
NIPFP	National Institute of Public Finance and Policy
ODI	Overseas Development Institute
PES	Payment for environmental services
PICS	Pacific Island Countries
UEMOA	West African Economic and Monetary Union
US	United States
VAT	Value Added Tax
WB	World Bank
WFP	World Food Programme
WTO	World Trade Organization

1. Introduction

1.1 Increasing volatility and unpredictability of food prices

International food price movements have been characterized by increasing and unprecedented volatility since 2007 when food prices began to soar. The growing volatility of prices in international agricultural markets has created challenges for both farmers and consumers and for the achievement of the Millennium Development Goals (MDGs), particularly MDG1 of reducing poverty and hunger.

From the 1970s until the early 2000s, food prices on the international market remained relatively stable. In 2007, prices began to soar and by mid-2008 had reached their highest level in 30 years. This has been followed by a period of food price volatility and unpredictability.

A combination of structural factors pushed food prices up in this period. These included poor harvests in major producing countries linked to extreme weather events[1]. Global stocks were at their lowest level in decades and limited knowledge about declining stocks resulted in uncertainty among countries on how to react. Other factors included high oil and energy prices raising the cost of fertilizers, irrigation and transportation; substituting food production by biofuel production; speculative transactions, including large commercial traders hedging in futures markets and small traders hedging and building up storage; and export restrictions leading to hoarding and panic buying. Underlying all of this is 30 years of underinvestment in agriculture and neglect of the sector.

In the following period world agricultural commodity markets appeared to enter calmer times. During 2009-2010, prices of food and agricultural commodities remained above the pre-2007 levels, although they declined from the 2008 peaks.

Following their peak, food prices fell in December 2011 with the FAO Food Price Index dropping 2.4 percent, or five points from November. At its new level of 211 points, the Index was 11.3 percent (27 points) below its peak in February 2011. The decline was driven by sharp falls in international prices of cereals, sugar and oils due to bumper crops in 2011, coupled with slowing demand and a stronger US dollar. Most commodities were affected.

Although prices dropped steadily in the second half of 2011, the Index averaged 228 points in 2011, the highest average since FAO started measuring international food prices in 1990. The previous high was in 2008 at 200 points.

Food prices between April and July 2012 continued the volatile trend observed during the previous 12 months: increased in April, declined in May and June, and rose sharply in July. The prices of internationally traded maize and soybeans reached all-time peaks in July, following an unprecedented summer in both the United States and Eastern Europe in terms of high temperatures and lack of rain fall. Wheat prices have also soared to levels comparable to the 2011 peaks but below all-time records. However, prices of rice remained stable from abundant supplies. The abrupt food price increases turned favourable price prospects for 2012 upside down.

It is currently difficult to make any firm prediction on price trends for 2013 and beyond. It seems likely that given the uncertainties over the global economy, currency and energy markets, unpredictable prospects lie ahead.

Higher food prices affect countries differently depending on whether they are net exporters or net importers of food. Net food-exporting countries benefit and experience higher terms of trade and more income. Net food-importing countries face lower terms of trade and have to pay a larger food import bill, which impacts negatively on trade balance and affects the strength of their currency.

1 For example serious floods in Australia; droughts in Russia and Ukraine, floods in Pakistan, heavy frosts in the United States and Europe, and droughts in Brazil, Argentina and Uruguay.

This is especially worrying for developing countries, the majority (55 percent) of which are net food importers. Almost all countries in Africa are net importers of cereals. Low-income food-deficit countries have been hit especially hard by high food prices in recent years.

The primary beneficiaries of higher food prices are those who have been holding food stocks and are able to sell at a high price. Potential beneficiaries are commercial farmers and other operators within food value chains, provided high world prices are transmitted to them throughout the value chain. While commercial farmers are hurt by rising fertilizer prices, they stand to benefit on balance because the costs of fertilizer usually make up a relatively small (although growing) percentage of the gross revenue from production.

The people most affected by higher food prices are net food buyers, depending on the extent to which international price movements are transmitted to domestic markets. Net food buyers include urban residents and small farmers, fisherfolk, foresters, pastoralists and agricultural labourers who do not produce enough to cover their needs. Producers who are net buyers in value terms have also been affected because they sell at the time of harvest in order to finance essential needs and buy back at a higher price later in the year.

Poor households generally use a significant share (up to 80 percent) of their expenditure on food, making them more vulnerable to high food prices and leaving them with less for other household needs such as health and education. The 2007 - 2008 food price crisis pushed an additional 80 million people into hunger. By 2009, as the world grappled with a financial downturn, the number of hungry people swelled to over one billion – roughly one-sixth of the world's population.

This new era of international food price movements is thus characterized by two features: a high level of nominal and real (deflated) prices and unprecedented volatility in price movements.

The uncertainty as to the direction that food prices will take in the future has complicated decision making for almost all economic agents. Given this situation, there was an understandable growing global concern to implement immediate measures to address rising food prices, taking into account the experience and lessons from the previous crisis. The recent price surge can be better addressed through an understanding of the individual country situations, in-depth review of measures taken by various countries and the needs and priorities as well as the perspectives and capacities of different stakeholders, including governments, the private sector, development partners and civil society organizations (CSOs).

1.2 Regional consultations on high food prices

Given the volatility of food prices, FAO decided to organize 12 regional and subregional consultations during 2011 to provide decision-makers with the opportunity to discuss the issues, share experiences and begin a process of mapping out sound policy measures to address high food prices. The consultations brought at least three policy decision-makers from each participating country – one from a line ministry in charge of agriculture, one from the ministry responsible for trade and/or finance and one from a coordinating ministry such as the Ministry of Finance or Ministry of Economic Planning. Other participants included representatives from: producers' organizations; consumers' organizations, regional organizations; research institutions; multilateral development partners such as the UN High Level Task Force Food Security (HLTF); the United Nations Development Programme; the International Fund for Agricultural Development (IFAD); the World Food Programme (WFP) and the World Bank; and bilateral development partners, including the European Commission, France, the Netherlands, Switzerland and the United States of America.

During the regional and subregional consultations several countries recommended that national level consultations be held to deepen the discussion on policy issues of particular interest to the country in question. A national consultation was held in Mongolia in July 2011, the first national follow-up consultation in the Asia region, and in December 2011 the first national consultation planned in the Africa Region took place in Uganda. FAO has also received requests for follow-up consultations from Papua New Guinea, Cook Islands, Solomon Islands, Vanuatu and Niue. National

consultations are likewise under consideration in other countries in Asia, including Bangladesh, Cambodia and Lao People's Democratic Republic; in Latin America, including Honduras and Mexico; and some countries in southern and western Africa.

The common objective of these consultations is to share experiences on the two food price crises, to discuss resource materials such as FAO's Guide for policy and programmatic actions at country level to address high food prices, the Food and Agriculture Policy Decisions Analysis (FAPDA), the Global Information and Early Warning System on Food and Agriculture (GIEWS) and the Agricultural Market Information System (AMIS) tools; to review the implications of policy and programmatic response options; and to explore current and prospective opportunities for accessing support for the envisaged responses.

1.3 About this guide

The Guide for policy and programmatic actions at country level to address high food prices was initially produced by FAO for immediate country-level action to respond to high food prices in 2008. As food prices soared for the second time in 2010, FAO, through its Initiative on Soaring Food Prices (ISFP), published an updated guide to assist policy-makers in developing countries to address high food prices[2].

In follow-up to the 2011 regional and subregional policy consultations, FAO has again updated and expanded the policy guide to include: i) key lessons learned on policies and programmatic actions; and ii) practical examples from different countries in responding to high food prices since the 2006 - 2008 food crisis. New information is provided on issues related to rural employment, improving nutrition, value chain analysis, productive safety nets and other policy and programmatic measures taken in 2008 - 2009 to address high food prices. A chapter has been added on cross-cutting issues such as credit and finance and regional cooperation, mainly stemming from the policy consultations and other work undertaken under the ISFP.

This newly updated and expanded guide is designed for policy-makers and other stakeholders involved in developing action plans and measures to address the issue of high and volatile food prices.

In planning country-level actions, it is essential to tailor responses to the specific conditions of the country and the situation of all the different stakeholders as well as to the particular commodity or commodities in question at national and sub-national level. Since the situation can vary from country to country, one-size-fits-all strategies are not effective; in many cases, such steps have even been counterproductive. For this reason, it is crucial to consider carefully the implications, both domestically and internationally, of any decision taken by a country.

This guide addresses the conditions under which policies and programmes are best adapted.

It also cautions against measures that may appear useful in the short term but could have harmful longer-term effects or become difficult to remove, thus turning into a constraint once the situation becomes more normal.

This guide is divided into three parts:

- Part 1 provides background information on the context, purpose, audience and structure of the guide.
- Part 2 examines the importance of processes that lead to a broad national consensus on actions to be taken as well as on the analytical underpinning required to ensure that instruments are well adapted to the specific conditions within the country.
- Part 3 looks at instruments that could be used immediately to address high food prices. These are classified by the domain of intervention: macro-economy, trade, measures in favour of consumption and of production. A limitation of the guide is that it reviews the instruments in isolation and does not focus on possible synergies or contradictory effects that some instruments may have if used simultaneously in a country.

Although emphasis has been given to national-

2 FAO (January 2011). Guide for policy and programmatic actions at country level to address high food prices. The guide is available in Arabic, English, French, Spanish and Russian at http://www.fao.org/isfp/isfp-home/en/

level policies, some regional and cross-cutting issues have been included.

Many of the comments and words of caution regarding certain measures are related to their impact on markets and private sector activities. In countries where markets operate relatively well at collection, wholesale or final distribution level, care should be taken to avoid adopting measures that could undermine the existing market. Attempts should be made to get full cooperation of market operators to address the situation. When markets operate reasonably well, measures (including contracts and agreements) should use existing market infrastructure and operators to intervene in the most efficient way so as to improve the immediate situation while preserving conditions for the future. In cases where markets are malfunctioning or absent, extreme measures may be required that shortcut market mechanisms. In this situation, interventions could also be used to help private sector operators emerge (again through contracts to deliver services of a public good nature).

It is, therefore, important to clarify first the extent to which different markets, for inputs and outputs in particular, work or do not work in various parts of the country. This information is key to deciding on the most appropriate action to address high food prices.

2. Importance of achieving a broad national consensus

2.1 Consensus-building process

In order to get the backing of key stakeholders, it is essential to initiate a process to discuss and decide on measures to address high food prices in a consultative and transparent way.

Most of the 12 regional and subregional policy consultations strongly supported the recommendation made in the policy guide to organize a broad national consultation in order to: deepen the discussion on policy issues of particular interest to the country in question; raise awareness among decision-makers; facilitate stakeholder participation in identifying key issues; and arrive at a broad consensus on policy and programmatic actions, using existing consultative mechanisms where possible. Representatives of all key stakeholders should be invited, including:

- government ministries (finance, agriculture, trade and others) and representatives of public organizations dealing with food, nutrition and agriculture;
- local governments;
- development partners;
- private sector (traders, importers, processors, etc.) and their organizations;
- civil society organizations, including farmers' and consumers' organizations representing the poor and vulnerable groups, employers' and workers' organizations and nongovernmental organizations (NGOs);
- representatives from various political parties or movements;
- members of parliaments; and
- experts, including academics.

Typically, in a situation of high and volatile food prices, trust among stakeholders may falter. The 2008 - 2010 crisis led to unrest in several developing countries. The risk is high of mistrust growing between private sector traders and government, farmers and private sector traders, consumers and government, etc. In a situation where there is some degree of urgency, particularly when there is intense political pressure, experience shows that quick policy fixes do not necessarily result in the desired outcomes because they are taken without proper consultation of stakeholders and sufficient analysis of the consequences of the decisions on the economy.

Such consultations should be carefully prepared and facilitated by professional facilitators and provide an opportunity to review available options and assess possible implications. It is important to gather the points of views of key stakeholders and take decisions based on as broad a consensus as possible, while identifying any further analysis and design work that may be required. In some cases, this may entail reviewing ongoing programmes and projects and agreeing with partners to re-programme them into actions that will address the high food price issue.

These broad consultations should achieve five key results:

- agreement of key stakeholders on the overall objective of the agreed action plan;
- agreement of key stakeholders on their commitments to implement selected immediate actions;
- agreement to meet again, within a period of few months, to review actions taken against commitments, and to make further commitments on the basis of results achieved or problems met;
- designation of a smaller committee or task force that will pilot actions to address high food prices; and
- identification of pending issues (e.g. fertilizer policy, improving the functioning of key food chains, safety nets) that need further consultations in the framework of specialized working groups and additional analytical work.

Ideally, the population should be informed of decisions taken throughout this process via

the media. The media should also be used to communicate to the public key messages that will facilitate the implementation of decisions taken.

2.2 Analytical underpinning of decisions

To support the decision-making process, several rapid analyses may be needed to provide the evidence required to take appropriate decisions. Depending on the situation and information already available, it will likely be necessary to:

- analyse food availability and utilization (food balance sheet for key food commodities);
- collect information on key food commodity prices in main and secondary markets, import flows, cereal import bills and price transmission;
- update or establish a poverty, food and nutrition insecurity map that shows, e.g., who will be most affected by high food prices;
- assess coverage and reach of current safety nets, legal entitlements, food aid flows, etc.;
- identify farmers best placed to give a rapid response to price increases;
- assess current policies (fiscal, monetary, agricultural, trade, industrial, etc.) and their impact on food prices to identify possible changes;
- assess capacity to transport and distribute food and/or inputs (private sector, NGOs, government) in order to identify the best ways in which to implement social and productive safety nets;
- analyse determinants of food prices and distribution of value added and profit along food chains (conduct analysis of value chains for key food commodities in order to identify corrective action);
- check whether prices are transmitted to producers (value chain analyses or market information systems);
- review strengths and weaknesses of current information flows on markets; and
- carry out evidence-based analysis to assess whether it is necessary to subsidize agricultural inputs.

These analyses will provide the data and facts needed by a task force or specific working group to take appropriate actions and foresee the implications for key stakeholders.

A national policy process: lessons from Uganda

As a follow-up to the eastern African subregional policy consultation, held in Ethiopia in March 2011, the Government of Uganda (GoU) decided to organize a national policy consultation from 17 to 19 December 2011 to raise awareness among a broad range of stakeholders on policy options and programmatic actions and their implications for short and long-term agricultural development and food and nutrition security at country and subregional levels. Participants included representatives from government ministries including Agriculture, Animal Husbandry and Fisheries; Finance and Planning; Water and Environment; and Gender, Labour and Social Development, as well as representatives from CSOs, the private sector, FAO and other development partners. The consultation was organized by the GoU in close cooperation with FAO.

Some recommendations and lessons learned:

- Uganda is presently allocating about five percent of its national budget to the agricultural sector. It was recommended that consideration be given to allocating ten percent of the national budget to the agricultural sector in the National Development Strategy and Investment Plan (NDIP), as was recommended in the Maputo Declaration of the African Union. This would require high-level political will and commitment to inspire the country to prioritize agriculture in the national budget.
- The Ugandan Parliament and the Ministry of Agriculture should have regular interaction to enhance the consistency of the different strategies put in place. In these strategies the Government should ensure equitable distribution of resources and take affirmative action to include disadvantaged communities in the development agenda.
- The policy tools developed by FAO, e.g.. Food and Agriculture Policy Decision Analysis (FAPDA), GIEWS, Agribenchmark and Monitoring African Food and Agricultural Policies (MAFAP), could be used by the Government of Uganda to support the tracking of trends in food prices as well as to support policy decision analysis.

3. Policy and programmatic measures

The global food and financial crises of 2007 and 2008 pushed an additional 115 million into hunger. This highlights the severity of the hunger and poverty crisis that has challenged the world for decades and is now at risk of being subsumed by the world economic recession that began in 2009. The cost of basic food commodities remains persistently high and volatile, particularly in many developing countries, posing a continuing threat to global food security. The economic crisis is expected to aggravate further the food insecurity situation by affecting employment and incomes of both rural and urban populations, and especially of poor people who rely on the income from their labour because it is often the only asset they have.

This chapter presents a selection of policy and programmatic options and measures for addressing high and volatile food prices in the form of a menu. Depending on the conditions in a country, some options are more appropriate than others. This chapter provides some pros and cons of policy measures in the short and medium term and lessons learned from the food price crisis.

Clearly, all interventions carry risks and consequences. In many cases, countries have applied a mix of policy and programmatic measures during the last four years. This mix has to be specifically adapted to local conditions and, if it is to have a chance of success, it should be agreed upon by key stakeholders.

Some of the options reviewed here – many of which have been used in the past and which some governments are contemplating reinstating – are strongly discouraged, as they have proven unsuccessful in a variety of contexts.

The tables in Annex 1 provide a summary of the main effects, conditions for success and caution to be taken for each of the policy and programmatic measures reviewed in the guide.

3.1 Macroeconomic policies

In low-income countries (less than US$1000/person/year), food is a key expenditure for a large share of the population. For the poorest households in particular, food expenditure can represent more than 60 percent of their consumption expenditure. This means that any measures that impinge on food consumption are likely to have substantial consequences on government budget. For example, modifying taxes or tariffs on food items will affect government revenue. Food subsidies will raise budget expenditure. Similarly, if the government decides to take steps to support food production, it will incur costs and will have to increase the proportion of its budget allocated to agriculture.

All these budgetary implications would require governments to cut other spending for fear of increasing the budget deficit, with the negative consequences this would have on economic stability. In cutting budget expenditure, care is needed to avoid cutting essential programmes for development (such as education, health and infrastructure) that have important long-term consequences for food security and poverty. With regard to trade, depending on whether a country is an exporter or importer of food, high food prices will involve higher earning or spending in foreign exchange, which may affect the exchange rate. These are typical macroeconomic effects of high prices and of the measures that a government may take to address them.

For example, governments of North Africa and Near East countries, all net food importers, made serious efforts to cushion the blow from global price increases for food producers and consumers. These countries implemented a series of measures aimed at offsetting the sharp increase in world prices, including the waiving of tariffs, price controls, subsidies and wage increases that put a considerable strain on public finances. In all countries the food import bill increased dramatically. In North African countries

(Algeria, Egypt, Libya, Morocco, Mauritania and Tunisia), the wheat import bill increased by 62 to 178 percent between 2006/07 and 2007/08. In Egypt the bread subsidy system is estimated to cost the Government about two billion US dollars a year. Food subsidies varied between 0.7 percent of GDP in Morocco and 13.5 percent in Algeria in 2009.

The food price crisis of 2007 - 2008 prompted many governments in the region to take policy measures to protect producers from high input and fuel prices. Due to the continuing high prices of several food items and fuels, these policies have remained in force. Most of these policy measures constitute a response to short-term impacts of high food, input and fuel prices, and are economy-wide measures mostly to secure immediate availability of adequate and affordable food supplies. Measures have included: increased quantities of subsidized basic food items (mostly wheat flour and bread); strengthening consumer price controls and imposing price ceilings; expanding the coverage and quantity of food rations; reducing grain import tariffs and taxes; banning certain food exports (e.g. rice in Egypt) to curb domestic prices; and raising public sector wages. Four countries (Egypt, Morocco, Sudan and Syria) have also taken measures to increase levels of guaranteed farm prices for cereals (mostly for wheat) in order to boost local production.

Some countries have also taken measures to deal with the medium/long-term implications of rising food prices. Initiatives include taking a more serious look at measures to build up and use strategic (national or regional) reserves. Some rich countries with limited land and water resources have moved strongly into encouraging investments in food production abroad.

3.1.1 Mobilizing budgetary resources

Many of the policy instruments addressing high food prices, whether directed at trade (e.g. cuts in import taxes), consumption (e.g. lowered taxes and tariffs on food, food subsidies, safety net programmes) or production (e.g. subsidies, production programmes) will require more budgetary resources. Implications: these resources will have to be reallocated from other uses (with implications for other functions of the state) or the budget deficit will have to be allowed to increase.

Budget deficit

There is a limit to the level of budget deficit that is acceptable, as was amply demonstrated by the experience of many developing countries in the years preceding structural adjustment. Consequences of a large budget deficit are debt accumulation (as long as sources can be found for borrowing more funds), trade deficit, economic instability and loss of value of the currency. Leaving the budget in deficit over a long period may result in the need to undertake stabilization and structural adjustment measures, which have, in the past, proven very costly from the social point of view.

Caution:

Too large budget deficit is to be avoided. It is preferable to divert resources from other budget uses of a lesser priority, while avoiding cuts in development programmes with long-term implications. Several countries have already taken action in this direction; e.g. the Philippines has implemented austerity measures and Algeria and the Philippines have allocated increased resources to agricultural investment.

Increasing budget revenue

This option could be considered in relatively richer countries (e.g. with oil and other mineral resources or a strong industrial or service sector) and where financial inflows are significant. Some emerging countries (e.g. Brazil) have already taken measures to impose a very light tax on financial transactions.

Caution:

If the tax is too high, there is a risk that capital funds will move out of the country, and the financial system of the country may suffer a serious setback.

Many Pacific Island countries are vulnerable to global food price fluctuations due to their reliance on food imports, and trade and domestic market policy response can have significant impacts

Table 1: Ecchange rate regimes and their impact

	Floating exchange rate	Exchange rate tied to the US$	Exchange rate tied to the euro
Country with high food imports	Currency is likely to lose value, thus making the price of imports grow faster than world prices. Will reduce imports and availability, and amplify domestic price increase. Relatively more favourable for producers than for consumers.	Imports in local currency see their prices increase more than world prices because of US$ depreciation. Will deter imports, reduce availability and amplify domestic price increase more than a floating exchange rate. More favourable for producers than for consumers who are strongly penalized in this situation.	Imports in local currency do not fully reflect world price increase because of euro appreciation. Imports will be relatively less deterred, availability relatively higher and domestic prices less amplified. More favourable for producers than for consumers, but the situation is less acute than under the two other policy options
Country with high food exports	Currency is likely to gain value, thus making the price of exports grow more slowly than world prices. Will deter exports, increase local availability and lessen domestic price increase. Relatively more favourable for consumers than for producers.	Exports in local currency see their prices increase more than world prices because of US$ depreciation, thus encouraging exports, reducing local availability and emphasizing domestic prices increase. Domestic situation should be worse for consumers than if the currency were floating but relatively more favourable for producers.	Exports in local currency do not fully reflect world price increase because of euro appreciation. Exports will be relatively less encouraged, availability relatively higher and domestic prices less amplified. Domestic situation should be better for consumers than if the currency were pegged to the US$ but relatively less favourable for producers.

on their macroeconomic stability. In Kiribati, subsidies used to keep food prices relatively stable soon became a drain on the national reserve fund. However, increased taxes on selected items helped to offset this. By contrast, in the Solomon Islands, where the tariff on rice imports was reduced to zero in 2009, lost revenues were more than offset by foreign exchange generation of the logging industry.

3.1.2 Exchange rate

The exchange rate policy has considerable effects on the way international prices of food are translated into domestic prices, depending on whether the currency is floating or pegged to one or several foreign currencies.

For example during 2008-2010 in countries where the currency is tied to the US dollar (e.g. China, Malaysia and several countries in Latin America and the Near East), imports became more expensive, and exports more attractive. Domestic prices saw their increase compounded, roughly adding up the rate of increase in food prices and the rate of increase due to depreciation of the US dollar. The implications are that the incentives provided by the exchange rate will likely reduce the local availability of food and the food situation will become tense.

During the same period countries where the currency is tied to the euro (e.g. CFA Franc in western and central Africa) saw domestic price increases cushioned by the appreciation of the euro. Domestic prices increased roughly by the rate of increase in food prices minus the rate of increase due to appreciation of the euro. Implications are that the incentives provided by the exchange rate will likely improve the local availability of food and the food situation will become less tense.

Devaluation or re-evaluation of the domestic currency (or letting the currency float) could compensate for the change observed and thus act as a disincentive for exports, (in the case of exporting countries, exports would become relatively less attractive) or for imports (in the case of importing countries, imports would become relatively more expensive). However, implications on imports and exports of other

Lowering import taxes: an example

A common emergency measure undertaken in West African countries was the lowering or elimination of import taxes on staple foods, such as rice, wheat and certain processed foods. Such measures should be implemented with caution, however, because they put financial strain on the government, making it difficult to balance the budget. Such measures also require interregional coordination among countries, taking into consideration existing agreements, or negotiation within regional organizations, e.g. the Economic Community of West African States (ECOWAS) or the West African Economic and Monetary Union (UEMOA). Market and trade measures that stabilize markets and strengthen security stocks to reduce the risk of food shortages or sudden price surges are also important components of responses to the food crisis. Close regional or subregional collaboration on market and trade measures is vitally important to ensure their effectiveness. To reduce reliance on international markets, all the West African countries have proposed measures to boost local production (FAO, 2009).

A number of countries propose ambitious rice programmes, including measures for the development of irrigation infrastructure, dissemination of improved seed varieties, improved organization of the value chain, provision of inputs (at least for the first year of production), animal traction, and the development of processing units for rice paddy. Most countries also propose measures to boost production of traditional cereal crops (millet, sorghum) and, in some cases, legumes (cow peas) and tubers, through the use of improved seeds and chemical fertilizers. In the short term, inputs will be distributed freely or through subsidies, but the relevance, impact and long-term sustainability of such measures can be called into question. To ensure food security, it is not necessary for every country to be self-sufficient in all crop production. Coordination among countries to ensure the adequate production of staple crops within a region would be a better guarantee of food security for countries. The establishment of subregional food stocks would also be beneficial in responding to local shortages that hit different areas and countries in different years.

Source: FAO; http://www.fao.org/fileadmin/user_upload/ISFP/SR_Web.pdf

commodities should be clarified before any decision is taken on this ground.

3.2 Trade-related measures

The modification of trade policies and measures has been the most common reaction of countries to high food prices, with the main objective of trying to protect the domestic market from increasing prices on the world market. For exporting countries, export bans or limitations have been used in several cases. Increasing or establishing export taxes has also been used. For importing countries, the main trade-related measure has been to cut import taxes.

Reduction of import taxes on food items, agricultural inputs and equipment.

Import taxes contribute to raising domestic consumer prices above world prices, and reducing incentives to import. A large number of countries decided to reduce import taxes beginning with the 2008 crisis to facilitate imports and limit price increases.

Main effects:

- A direct effect of reducing or removing an import tax is lowered prices for the imported good. This contributes to reducing domestic consumer prices. In Nicaragua, for example, import taxes on 1150 tons of chicken from the United States were removed in 2011 to lower the price in the domestic market. Honduras did the same with 30 000 tons of rice, and Bolivia with sugar imports until August 2011.
- A reduced import tax could also have an indirect effect. This is, for example, the case for a product like imported fuel because this is used as an input to produce agricultural commodities.
- The reduction of import duty on intermediate inputs (agricultural inputs, machinery) used by domestic producers contributes to reducing prices paid by producers and thus can encourage producers to purchase inputs. This will tend to increase productivity in agriculture.
- Hence, reducing import taxes on both final and intermediate goods will have

more impact on stimulating domestic food production and, via lower prices, on domestic consumption.

Caution:
Lower taxes, if not compensated by higher amounts of imported goods, will have negative implications for state budget revenue. If the budget deficit increases too much, this will have negative macroeconomic implications.

Tax breaks for importers

Another means to stimulate imports in the short run and improve food availability for domestic consumers is to provide tax breaks for importers. Examples include exempting final good imports from the value added tax (VAT) and eliminating excise tax on imported goods such as petroleum, cigarettes or tobacco. Tax breaks for importers play the same role as reducing import taxes. In both cases, the net result is lowering the cost of importing final consumption or intermediate inputs.

Main effect:
The net effect is to stimulate imports, increase domestic supply and, through lower prices, higher food consumption.

Financial Support or loans to private sector for funding imports of food commodities

Other measures to stimulate imports include financial support instruments which may take the form of loan guarantees or subsidized loan interest.

Main effects:
These measures have the same effect on imports as subsidies and, therefore, contribute to lowering the cost of imports.

- The net effect is an increase in imports that would otherwise not take place.
- Another effect is an increase in the volume of imports as the result of the financial support (subsidy or loan guarantee).
- Loans for funding imports of food commodities can be effective in increasing food supply if importers are not able to buy from abroad without them. This has to be ascertained by consultation with the main private importers operating in the country.

Caution:
If several countries took the same steps, it could result in the unwanted effect of a further increase in world prices as demand would increase on the international market.

Reduce customs procedures and other formalities for food imports (one-stop shop) with or without relaxation of regulations

Customs procedures and other formalities are part of trade costs and may unnecessarily increase transaction costs, particularly in developing countries. Simplifying custom procedures would help reduce trade costs and stimulate imports of final consumption goods as well as intermediate inputs used in agricultural production. The magnitude of the impact of streamlining customs procedures on imports will depend on how widespread these procedures are and how much they constrain trade. In the case of essential or strategic food items, a one-stop shop approach could help speed up food imports.

Main effects:
The main effects of this measure are very similar to those of the two previous ones. The difference is that it should have very limited implications for the government budget.

Caution:
To the extent that customs procedures are tied to food safety regulations, simplifying these procedures must be carried out very carefully to avoid increasing health and safety risks from imported food items.

Engage in forward contracts for food imports to secure food availability in the medium term

While forward contracts for food items may secure greater food availability in the medium term, they will not solve the high food price

problem, as futures prices usually move much like cash prices.

Caution:
If, as reported, commodity speculators have heavily invested in commodity futures markets and hence contributed to price hikes, the engagement of private importers or state import agencies in forward contracts for food imports may further exacerbate price escalation. This will heighten the demand for the same supply of commodities. For this reason, **this measure is not recommended as a short-term policy action.**

Reduce, ban or tax exports of strategic food commodities

Under high food prices, many surplus food-producing countries are either tempted to place or have actually placed restrictions on exports; or they have banned exports outright. These interventions helped contain food prices in the exporting countries. However, this also complicated the functioning of the global food markets, including reducing the efficacy of the actions listed above. If surplus food-producing countries restrict exports, the global market becomes smaller and more volatile. In this case, actions such as reducing import taxes, providing tax breaks for importers or enacting other financial support initiatives may have only a very limited effect in securing greater imports or making more food available to local populations.

Main effects (in country):

- Export bans or restrictions help to keep a lid on domestic prices thus helping domestic consumers by ensuring that supplies of food remain in a country.
- Producer prices are also likely to be pushed downward, creating disincentives to expand production. Producers in border areas will likely be most affected.
- The measure also creates some incentives for smuggling food out of the country and bribing customs officials (e.g. to obtain export licenses).

Caution:
Export restrictions on top of supply shocks make the world food markets less reliable for importers, prompting importers to resort to policies that are not necessarily desirable, such as ad hoc interventions in domestic food markets and high self-sufficiency targets. For these reasons, **export bans and restrictions are not recommended.** What is desirable is the formulation of rules-based procedures for regulating exports, where absolutely necessary, by strengthening the current Article 12 of the World Trade Organization (WTO) Agreement on Agriculture on export restrictions.

3.3 Consumer-oriented measures

In addition to the trade-related measures reviewed in the previous section, there are a variety of consumer-oriented policies and programmatic measures that can be implemented at national level. These are grouped below under i) tax policies; ii) market management policies; iii) safety nets; and iv) other measures affecting disposable income.

3.3.1 Tax policies

Reduce or remove Value Added Tax (VAT) and/or other taxes on food products

Several countries have already undertaken to reduce or remove taxes on certain food products. In some countries where the VAT system is in place, countries are envisaging the implementation of a diversified VAT (a variant from a unified VAT rate on all commodities).

Main effects:

- The increase in the price of food products for consumers will be diminished by the amount of the tax. This will contribute to improving the purchasing capacity of consumers, particularly the poorer categories of the population for whom food expenditure makes up a relatively larger share of their resources/budget (60 percent or more). As a result, this measure

is expected to limit the reduction of food consumption by consumers due to high food prices.

- Reduced taxes mean reduced income for the state budget. The government will have to decide which budget expenditure to cut to account for this reduced income.

Caution:

Retail sellers may simply pocket all or part of the tax reduction, leaving food prices unaffected by the tax reduction. This is more likely to happen in situations where competition is low.

Conditions for success:

In order to reduce risks, some monitoring of prices and control of the repercussion of the tax reduction on prices will be needed. The possibility of imposing fines on those retailers who do not reflect the lower tax on consumer prices could also be envisaged. This measure is more likely to succeed where there is market competition. Selective reduction or removal of taxes on certain foods that are important in the diet of poor households (e.g. inferior coarse or broken grain cereals) will allow an element of self-targeting on the part of the poor, thereby reducing leakage. Food items could also be selected for the nutritional contribution they may have for special groups such as pregnant women, children of weaning age or the sick and the infirm.

Removal of road blocks and taxes

In many countries, road taxes are imposed on transporters by local governments/authorities. This contributes to increasing the price differential between producer zones (or import points) and main consumer markets. In times of rising prices, local governments are often tempted to place movement controls on food supplies crossing district boundaries, which, however, emphasizes food price variations and encourages corrupt practices by local officials. Removing food control movements and taxes would facilitate the flow of commodities to consumer markets, help alleviate price variations between localities and offer consumers lower prices and producers higher prices, more than if movement controls were in place. However, this measure was rarely implemented during the 2008 - 2010 crisis.

Main effects:

- The price differential between producer zones (or import points) and main consumer markets will be reduced. Depending on the structure of the market, the benefit of this reduction will be shared differently among producers (importers), consumers and intermediaries. Whatever benefits go to the producers will be through an increase in the price they are paid for their produce. This will encourage them to produce more in the next season. Benefits going to consumers will be in terms of retail price reduction. This will contribute to improving the purchasing capacity of consumers. As a result, it is expected that this measure will limit the reduction of food consumption by consumers caused by high food prices.
- Reduced road taxes mean reduced income for local governments/authorities. This will affect their budget and make them less capable of funding their development and other activities. The government will have to decide whether some compensation could be provided to them from the state budget, and on what conditions.

Caution:

Intermediaries may simply pocket all or part of the tax reduction, leaving food prices unaffected by the tax reduction. This is more likely to happen where competition is low.

It may be difficult to apply the exemption of road tax selectively to food products where the transportation of food between producing areas and town markets is mixed with the transportation of other commodities, as it is in many countries in Africa. In the case where the transport of food is mixed with the transport of other goods, this measure will not be effective unless it is applied to all goods transported. If this option is selected, implications on budgets of local authorities should be carefully assessed.

Accompanying measures may include the monitoring of market prices in surplus production

zones and in main consumer markets to control the repercussion of tax removal on prices. The government may consider some compensatory measures in favor of local authorities for loss of part of their income from taxes.

Conditions for success:

The possibility of imposing fines on those retailers who do not reflect the lower tax on consumer price could also be envisaged, but this may not be easy to implement where transportation of food is mixed with the transportation of other commodities. This measure is more likely to succeed in the case of a market where there is competition. To simplify application, it may be worthwhile prioritizing the measure on roads that link main producer areas with main consumer markets.

Tax reduction on fuel for transport

In most countries, fuel is a heavily taxed commodity and this tax constitutes an important source of revenue for the government budget. Fuel/petrol is also an important cost item for transport, including food transport, which is a relatively bulky commodity. In some countries, particularly in Africa, a sizeable proportion of food is transported in small vehicles that are operated with petrol. In others, the bulk of food is transported by fuel-operated trucks.

In 2008, high food prices occurred at the time when there was also a surge in oil prices, which led to an increase in fuel/petrol prices. As tax is generally fixed as a proportion of the base price of fuel, the tax increased as the price of oil increased. Two possibilities could be envisaged: i) reducing the percentage of tax on fuel so as to keep the actual amount paid per litre of fuel stable at a rate that would maintain government revenue from fuel – the amount could even be a fixed amount instead of a percentage; and ii) reducing the percentage of tax further so as to compensate in part the increase in the price of oil.

Main effects:

- The price differential between producer zones (or import points) and main consumer markets will be reduced. Depending on the structure of the market, the benefit of this reduction may be shared differently among producers (importers), consumers and intermediaries. Whatever benefit goes to producers will be through an increase in the price they are paid for their produce. This will encourage them to produce more in the next season. Benefits going to consumers will be in terms of retail price reduction. This will contribute to improving the purchasing capacity of consumers. As a result, it is expected that this measure will limit the reduction of food consumption by consumers due to high food prices.
- Reduced fuel or petrol taxes could mean relatively less income (stable or reduced) for the state budget, depending on the option selected. This may affect the state's ability to fund development and other activities and require a decision on which budget expenditure to cut in order to account for an eventual reduced income.

Caution:

It may be difficult to apply the reduction exclusively to the transport of food products or even to the transport of goods. This is particularly true in countries where the transportation of food between producing areas and town markets is mixed with the transportation of other commodities.

Conditions for success:

The more transport is specialized, the easier it is to target the tax reduction. Otherwise, there are likely to be huge leakages.

Other tax exemptions or benefits

Such as a targeted income tax exemption are unlikely to benefit the poorer categories of the population, but rather members of the middle class who are part of the formal economy and who pay income tax (e.g. civil servants). While this will not affect the more vulnerable, it may help to quiet some of the more vocal demonstrators in urban areas.

3.3.2 Market management policies

High food price volatility has a negative impact on food security and hence on people's livelihoods especially of the most vulnerable, smallholder farmers (net buyers) and low-income urban and rural populations. To address this, especially in the short run, social protection systems can be strengthened and extended to include those vulnerable to higher prices.

In several countries, high food prices have been accompanied by a very low supply of food in the markets. Depending on the country, the lack of available food in the markets could be due either to poor harvests or a tendency for farmers and traders to keep stocks with the view to putting them on the market when prices rise even further. Governments have several ways to address this situation: they can import or facilitate imports (some measures have already been discussed in the preceding section); put reserves available from public or private stocks on the market; or call for more food aid. Each of these options has its advantages and disadvantages. Choosing the right approach or combination of approaches will depend on the particular situation and opportunities in a given country.

Many of the market management policies (apart from those dealing with trade and taxes) that can be utilized to bring soaring prices down or under control carry with them the risk of re-engagement of public organizations in food and agricultural marketing. Universal experience demonstrates that this is detrimental to private business, be it in production, marketing or storage. In the tense political and market situation observed in many countries in times of crisis, building trust between the government and the private sector is often key to improving market conditions.

Boosted food imports financed by balance of payments, import financing and budget support

Low-income food-deficit countries will need budget and balance of payments support to face increasing food import bills as well as higher energy costs. In addition to important compensatory finance arrangements such as those provided by the International Monetary Fund (IMF) and the facilities offered by the World Bank, governments may want to explore opportunities for enhanced budget support with their other partners to alleviate import financing constraints. Failure to mobilize additional funding may jeopardize important development programmes and projects if scarce national resources are diverted to meet immediate food import requirements.

In countries where a large proportion of the population is poor and food insecure, it may be less costly to import more food using such financial support measures and make them available to the population through normal market channels than to resort to the typical, very costly, targeted food aid distribution mechanisms. When such boosted imports are further complemented by food vouchers (see below), the targeting of subsidized food can be combined with the improved availability of food in normal market channels. This may require engaging in some formal contractual arrangements with private sector importers or traders, and could undermine eventual speculation and provide the right signals that could trigger the release of private stocks.

Main effects:

- The availability of food increases in the normal market channels, which helps to avoid price hikes above parity prices because of real or artificially created food shortages.
- Announcing and taking steps to implement this approach may immediately increase availability on local markets in a situation where operators were keeping their stocks with a speculative purpose.
- Food will also available for implementing different safety net modalities (see section 3.3.3).
- If this approach is used by a large number of countries, it will contribute to further increasing world prices.

Caution:

In implementing this measure it is important to consult with private operators. It should not lead to a retrenched wide-scale re-engagement of the public sector in food marketing activities, which could weaken the private sector and create problems once the situation becomes

more normal. It may also be difficult to find the amounts of food needed quickly enough at reasonable prices on the world markets.

Food aid in kind

Food aid can play a critical short-term life-saving role in poor countries where highly vulnerable populations face food hardship and a serious lack of access. The international community, particularly the World Food Programme, has considerable experience in providing food aid in large quantities and very rapidly. However, the cost of this approach is very high (one US dollar value of food delivered costs two US dollars by the time it reaches the beneficiaries). It is best adapted when it is certain that there is no availability in the country and when purchasing food through normal import channels cannot be implemented quickly enough.

Main effects:

- This measure results in a rapid increase in food available to immediately implement various life-saving safety net modalities (see section 3.3.3).
- It may also have the effect of decreasing market prices of food, depending on the amount of food aid provided.

Caution:

This approach should be implemented only in conditions where insufficient in-country availability of food is confirmed, and when normal importing channels would take too much time to procure urgently required food.

Requisition of private stocks

In case of crisis, some countries may decide to seize private stocks and oblige their owners to put the stored food on the market. Depending on how this is done, this measure can have very different implications. Several approaches can be adopted: i) goods are put on the market and owners get the current market price; ii) goods are bought at market price by the state, which puts them on the market or uses them for safety net programmes; and iii) goods are bought at a low price by the government, which uses them for safety net programmes.

Main effects:

- The requisition of private stock brings immediate increase in food availability.
- Option (i) may result in resistance from stock owners who may seek to hide some of their stocks and reluctance of private operators to keep stocks in the future (for fear of similar requisition, which reduces expected profitability of storage).
- Option (ii) may have similar results, with the additional consequence that the government has to mobilize resources to buy the food, and then sell it again, thus getting involved directly in marketing.
- Option (iii) minimizes the costs to the state budget but amplifies the risk of owners hiding stocks, getting involved in the black market and being reluctant to store food in the future.

Caution:

This measure should be used only in very extreme situations and on an exceptional basis, as it may amplify eventual food crises in the future, including the next year.


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Progressive release of food kept in public food reserves

This measure aims at reducing price hikes and/or providing assistance to the more vulnerable. It was done in Burkina Faso in 2008, for example. Although food stocks worldwide are at their lowest levels in decades, there are some food reserves available at country level that are maintained by many countries with a view to providing food supplies in the event of an emergency such as drought, natural disasters or civil strife. These stocks can be progressively released either on the market to help keep market prices down, or in the form of food distribution to those unable to buy on the market for lack of financial resources. There are two main options i) releasing public food reserves on the market (through sales to wholesalers at market price); and ii) distributing food stocks to vulnerable groups.

With hindsight, the arguments against keeping large in-country food stocks (on the ground that they are costly to maintain and incur considerable losses over time) do not appear to be well-grounded in situations where food prices are rising and it is difficult to buy food on the international market. Those countries that kept financial reserves (particularly if the reserves were in US dollars) have seen the amounts of food that can be purchased decrease very rapidly, much more rapidly than if physical resources had been kept. This may provide renewed arguments in favour of keeping physical stocks in the future.

Main effects:

- Option (i): releasing public food reserves on the market through sales to wholesalers at market price may reduce the price of food or prevent it from rising further on those markets (probably mostly urban) depending on the amount released. The effect may be short term, depending on the size of reserves available, but could help fill in the gap pending the arrival of imports. This will benefit all consumers buying on those particular markets.
- Option (ii): distributing food stocks to vulnerable groups can provide temporary relief to a certain number of vulnerable families, depending on the amount released and the size of the rations. Some of this food could, for example, be used in school feeding programmes in schools located in the poorer parts of cities or in poor rural areas. Or it could be used as an incentive to attend health centres. Care must be taken to avoid providing grains at a low price to privileged people who could then sell at a high market price for a financial benefit.

Condition for success:

Existing stocks should be of a sufficient size to have an effect on markets or allow running a worthwhile food distribution programme.

Caution:

It is doubtful that in most countries existing reserves are large enough to have a significant effect on market prices. The rebuilding of reserves/buffer stocks should be planned at the same time as releases are programmed (as was done in Niger during the 2008 crisis) so as to avoid using up reserve stocks completely. Where reserves are substantial, the release of stocks needs to be closely coordinated with the private sector in order to avoid disrupting the market to such an extent that private sector trading and importing becomes unprofitable.

Consumer price control

The government fixes a price level for selected food products, monitors price levels to ensure that fixed prices are respected and punishes or taxes those who transgress the rule. This could be a popular measure for governments, as it only involves the cost of price monitoring. Countries that have adopted this approach include Benin, Cameroon, China, Ecuador, Haiti, Mexico, Russia, Senegal and Zimbabwe. The Government of Venezuela has fixed the maximum consumer prices of some products. In addition the *Ley de costos y precios justos* (law of costs and fair prices) went into effect in late 2011. This allows the government to fix the prices of products and services. In Ecuador, the price of "pan popular" (a kind of low-cost bread) is fixed through negotiations between the government and bakers.

Main effects:

- Consumers benefit from stable prices and, provided this measure does not reduce availability, do not have to reduce their

food consumption as they might have to if prices were allowed to rise. All consumers potentially benefit equally, whether poor or rich. Price controls are likely to work better in urban than in rural areas, thus urban populations will likely benefit relatively more from this measure.

- Retailers who are obliged to sell at a fixed price to consumers will pay less to wholesalers, who in turn will pay less to producers.
- As a consequence, fewer goods will be available on the market, and a black market with higher prices will develop. This will be detrimental to consumers who will have to buy food at a much higher price (market price without intervention with added risk-related surcharge).
- Producers who are paid less will plan to produce less in the next season, thus amplifying the food problem for the next year.

Caution:

Unless the private sector can make an acceptable profit, it will not carry out marketing activities. If, by controlling prices, the government makes an activity unprofitable, traders will not market the crops that are price controlled. This will lead to shortages of staple foods and lengthy queues of people trying to obtain limited supplies. When food prices are controlled, shortages are always the consequence. Zimbabwe is a recent example of a government's attempt to control prices, and images of resulting empty shelves in the country's supermarkets have been shown frequently in the international media.

Furthermore, price controls will feed back to the farming sector. Retail price controls will lead to crop buyers offering lower prices to farmers. In turn, this will act as a disincentive for farmers to produce more food in the following season. Thus a consequence of price controls is likely to be a reduction in supply, which will lead to even higher prices. For all these reasons, **this measure is not recommended.**

3.3.3 Safety nets

Safety net programmes include food or cash transfers and food subsidies. Safety nets aim to help vulnerable households maintain an adequate level of food consumption and avoid depleting their asset holdings when they are confronted with negative shocks. These transfers can be unconditional or conditional (e.g. linked to participation in food for work programmes or visits to health centres) . The programmes may be universal or targeted to specific population groups such as members of vulnerable food-insecure households as well as children, pregnant and lactating women and people living with HIV/AIDS or tuberculosis and their household members. Safety nets may also include insurance schemes.

These activities require adequate assessment and targeting systems to be effective and efficient, and avoid leakages. Governments usually implement these measures as a priority in urban areas, both because they are easily implemented (logistical problems are more easily solved) and because urban areas are generally the main source of political troubles in times of food shortages. Urban populations are also more highly dependent than rural populations on purchased food.

Strengthening safety nets is also important in rural areas where, in most countries, the majority of vulnerable households live. Poor rural people rely mainly on the use of their labour as their main productive asset for earning their livelihoods, and often have limited access to other productive assets. Currently, widespread decent work deficits affect rural labour markets and jeopardize the returns to labour of rural people. Most rural jobs, including subsistence farming, simply do not ensure adequate levels of income for workers to afford access to food for themselves and their families. This is because of low productivity, low levels of pay, underemployment or various forms of exploitation (FAO, 2012)[1] .

Measures adopted by governments should, to the extent possible, operate through existing private commercial channels or by contracting private operators to avoid competition with

1 FAO (2012,): *Decent rural employment for food security – a case for action*, Decent Rural Employment Team, ESW, FAO, Rome.

and destruction of private marketing and distribution channels that will be needed when the situation becomes more normal. Only in the case where private channels cannot be utilized should vouchers, cash transfers and nutritional programmes be combined with targeted food sales through public food stores.

Safety nets can be sourced from the following: food can come from existing public or private stocks, imports or food aid in kind; cash transfers and subsidies can come from the national budget or international aid. These different sources are analyzed in section 3.3.2 .

Important issues to consider at the outset when designing safety net interventions and particularly universal food subsidies are: the characteristics that determine if they should be implemented; beneficiaries, in the case of targeted safety nets; and exit strategies. These measures were widely adopted or scaled-up during the 2008 crisis in middle-income countries, such as Brazil, China, Egypt, Ethiopia, Indonesia, Mexico, South Africa, and Tunisia, and low-income countries, such as Mozambique and Sri Lanka.

Not all safety nets are provided by the public sector. In the Pacific Island countries, community-based social systems are the most important safety nets for ensuring that welfare and food security are maintained. This needs to be factored into the design of policy and programmatic responses so that social systems are not undermined.

Cash transfers or food vouchers

These programmes entail distribution of either cash or vouchers that beneficiaries can use to purchase food on the market or in dedicated shops. They generally target selected vulnerable households or specific regions. Targeting can also result from the participation of beneficiaries in specific activities (cash for work: for maintenance or establishment of roads, transport, storage, market or production infrastructure; cash for attendance at a health clinic, etc.).

Main effects:

- Beneficiaries of cash transfers may use this extra cash to purchase food or any other item or service, thereby contributing to increased welfare.
- Compared to a commodity-specific subsidy or in-kind distribution (see below), vouchers or cash can help maintain diet quality.

Caution:

In some cases, food vouchers may become a parallel currency that can be used for other purposes than for purchasing food. Cash distribution makes leakages to uses other than food even easier and may encourage corrupt practices. Transparency in eligibility, budget allocation and responsibility, as well as recourse mechanisms at all levels, can help minimize these risks.

If food is not available on the market, such transfers can have an inflationary effect resulting in further increases of food prices locally.

If vouchers are only accepted by dedicated public shops, it is likely to undermine the private food marketing and distribution system.

Depending on the size of the programme and the source of funding, these measures may have negative effects on public finance, causing a budget deficit with possible serious macroeconomic implications.

Conditions for success:

Where markets are present and functioning and goods available on the market in sufficient quantities to avoid inflationary effects, cash transfers are more appropriate since these can also have positive multiplier effects on the local economy.

Conditional Cash Transfers (CCTs) are widely used in Latin American countries. During the past 15 years, 18 countries in the region adopted this kind of programme. The estimated number of beneficiaries is 25 million families. CCT programmes seek to support low-income families in the short term with cash transfers. They also provide support in the medium-long term to developing human capital in children through conditions such as requiring that children attend school and undergo periodic medical checks.

Food distribution in kind

This type of programme entails distribution of food in kind to beneficiaries. Food can be provided on the basis of free distribution to

everyone or to selected target groups, or be distributed in connection with specific activities (self-targeting through work as in the case of cash and vouchers, school feeding, hospitals, etc.). The food distributed can be locally purchased, if available; or brought in from other parts of the country or imported, through government purchase or through food aid. This measure was adopted in 2008 by Afghanistan, Bangladesh, Burkina Faso, Cambodia, China, Honduras, India, Kenya, Madagascar, Mozambique and Peru. In Vanuatu and Papua New Guinea schools accepted staple food products as in-kind payments for school fees, reducing the pressure on household budgets. *The Vaso de Leche* (Glass of Milk) programme implemented in Honduras and El Salvador distributes milk rations, purchased from domestic producers, to school children. In Brazil, food used for school feeding is purchased from local small producers.

In the Palestinian Territories, as reported in the 2010 poverty report, humanitarian aid was able to reduce relative poverty by 16.8 percent and deep poverty by 26.6 percent, playing a major role in enhancing household resilience. The hike in food prices that hit in August 2010 interrupted the recovery process, as prices were yet to return to the pre-June 2008 levels. Although the ratio of aid received to income was as high as 130 percent and an indicator of a high dependency on aid, this support was considered vital to contribute to household resilience to food insecurity in the absence of real economic growth and employment opportunities.

Main effects:

- Beneficiaries have direct and free access to a certain quantity (ration) of food. This contributes to increasing their welfare.
- If the food is purchased locally, it can help to increase demand and stimulate agricultural production. However, when food is in short supply this measure could have an inflationary effect and contribute to further price increases. If the food is brought in from another region or from abroad, it could reduce local prices. Depending on the content of the ration, it could create new food habits.
- In some cases, some of the food distributed can be sold by beneficiaries (this may or may not be a bad thing as food is not the only necessity for life, and food distributed may not provide the full range of nutrients).

Conditions for success:

Where markets are poorly developed or food is in short supply on the markets, food distribution in kind is generally more advisable in the short term through programmes such as food for work, school feeding or general food distribution. Because food distribution can disrupt local production, labour markets and consumption patterns, food should be procured locally, if available. Local procurement stimulates agricultural production, markets and growth. If, however, local procurement were to create further price increases, it is preferable to bring food in from elsewhere.

Caution:

This system can be subject to leakages and encourage corrupt practices and/or security risks. Transparency in eligibility, budget allocation and responsibility, as well as recourse mechanisms at all levels can help minimize these risks.

The measure will have negative effects on public finance (budget deficit) with possible serious macroeconomic implications, depending on the size of the programme, unless it is funded through aid.

Universal food subsidy

This type of intervention entails the provision of a subsidy on food items (usually limited to selected staple food items). From an implementation point of view, it is not easy to determine at which stage of the marketing chain the subsidy can best be applied. One possibility is to apply the subsidy to imports (importers pay CIF price minus a subsidy paid by the state) and then let the food flow through normal marketing channels. Another is to sell subsidized food through dedicated shops accessible to everyone (although usually in limited amounts to avoid re-sale on the market). Other possibilities include subsidizing the agro-processors (millers, bakers, sugar factories, etc. to ensure that the retail price remains below a certain value. This

type of subsidy, applied to selected staple food items, has been adopted in Bangladesh, Ecuador, Egypt, Lebanon, Morocco, Senegal and Yemen. Alternatively, some countries (e.g. Djibouti) removed taxes on basic foodstuffs during the 2008 crisis, which is also a way to maintain low prices.

Main effects:

- Everyone can access subsidized food. This contributes to increasing their welfare. Some targeting in favour of the poor can be implemented by limiting the subsidy to staples and other foods (inferior foods) that only the hungry and the poorer sections of the population would consume.
- Universal subsidies can be regressive if the goods are consumed by all sections of the population and not only the food insecure. The measure is then likely to be extremely costly to the government and have negative effects on public finance (budget deficit) with possible serious macroeconomic implications. In the past, food subsidies have led to major financial difficulties for governments, with inflationary consequences. This was one of the factors that led to the enforcement of the very unpopular Structural Adjustment Programmes in the 1980s and early 1990s.
- Costs can be significantly reduced by limiting the subsidy to staples and other foods that only the hungry and the poorer sections of the population would consume.
- In case of rationing, a black market could develop where prices would be much higher than in absence of a subsidy.

Caution:

If food is sold through normal marketing channels, agreements have to be reached with main market operators to ensure that they will not capture a share of the subsidy but reflect it in the consumer price. Price monitoring will be needed, with some kind of disincentive to not respect agreements. The threat to go through public channels can be used to convince the private sector to cooperate, as that option would be devastating for them.

Food transiting through public channels will undermine any private sector channels that may be in place.

This option is not recommended.

Universal subsidies, once established, are difficult to remove. They become entrenched. Any removal of the policy will face significant consumer resistance, even when world prices come down. At establishment, it is important to decide on the price level that triggers subsidies. Some indexing of this level on the general cost of living or smoothing process to absorb the price shock could allow a progressive reduction of the food subsidy and ultimately its complete removal when market conditions become more normal. The trigger price and this process should be negotiated with stakeholders at the time when the subsidy is being established.

Food subsidies also carry the risk of encouraging the smuggling of food from border areas to neighboring countries where there is no subsidy. There is, therefore, a need for harmonization of policies among a group of countries in the same subregion.

Employment-based safety nets

Public works and employment guarantee schemes are the most common employment-based safety nets. They entail a regular payment, in cash or in kind, in exchange for work. Public works programmes can offer short-term employment, particularly to address negative impacts of seasonality, economic shocks and cyclical downturn. They have the potential to employ poor and vulnerable workers, usually unskilled or semi-skilled workers, thus mitigating the impact of the crisis on employment, and also creating productive assets that can benefit poor people. Many of the elements of these programmes can be incorporated into long-term employment programmes.

Employment guarantee schemes refer to longer-term rights-based programmes, which ensure some level of entitlement to work. These schemes can be both universal and targeted; the critical distinction is that they incorporate a guarantee that creates access to employment as a right. Wages in traditional public works are often set under market rates to ensure self-targeting, while the promotion of employment guarantee

Safety nets: some lessons learned from the 2008 food security crisis

Social protection programmes play a triple role in the response to rising food prices: they prevent an increase in poverty and inequality; they help households maintain access to food and essential services for health and education; and they help to maintain social equilibrium and avoid less efficient policies being implemented (World Bank 2008).

Households receiving social transfers spend more on food and tend to experience less hunger, leading to an increase in food security. Safety nets also have broader economic impacts through increased productive activities by households. Furthermore, vulnerable categories, such as children, receiving social transfers tend to be generally better nourished (FAO 2011). Thus, benefits spread to the local economy.

In response to the high food prices in 2008, 23 countries introduced or expanded cash transfer programmes; 19 countries introduced food assistance programmes; and 16 countries increased disposable income measures, demonstrating the importance of social protection measures (FAO 2009).

Responses are country specific. Each country has different social needs, development objectives and fiscal capacities to achieve them. Therefore, a different mix of policies should be chosen.

An assessment of the safety net programmes and social protection policies is highly recommended to examine the design, scope and quality of existing programmes. Based on this, it will be possible to identify the programmes best placed to channel additional resources to those most in need in the context of a crisis. It will also help in determining the need for improvements or new programmes over the medium to long run (WB 2008).

For short-term crisis response, the appropriateness of existing safety net country programmes should be assessed, thus building on previous experiences and scaling up existing social protection interventions. It is beneficial to make short-term social protection measures accessible to meet immediate needs of vulnerable households and to improve their access to food and nutrition support. However, in order to build long-term resilience to address fully the causes driving a food crisis, it is necessary to develop, in parallel, sound safety net systems, strengthening national design and implementation capacity for social protection (WB 2008; UN HTLF 2008).

When food prices are rising, cash transfers or employment wages need to be adjusted so that food purchasing power is maintained (FAO 2011). A combination of cash and food transfers can also be useful. Food vouchers may have the advantage of guaranteeing access to the specified commodities at whatever cost, while not undermining the market.

Targeting the most vulnerable groups is essential for ensuring well designed safety net programmes. However, costs and benefits of accurate targeting need to be carefully considered, particularly during a crisis (Ravallion 2008).

It is important to define monitoring and evaluation systems to assess the performance of safety net programmes, as well as good accountability and control mechanisms.

Safety net programmes need to be flexible in the use of tools and resources, thus enabling them to adapt rapidly to changing circumstances and improve coverage to allow more people to benefit from them during a crisis.

Safety nets have budgetary implications. The fiscal costs of safety nets over the short and long term need to be assessed and financed within the framework of prudent macroeconomic policies. In the short run, donors may support the development and implementation of nationally owned social protection strategies providing high levels of coverage among the poorest. In the medium term, it may be necessary to assess alternative sources of income to finance safety net programmes, along with a prioritization of social protection interventions within country public expenditure frameworks. (ODI 2009; UN HTLF 2008).

It is important to consider the interactions between safety nets and agricultural and rural development interventions to build on potential synergies and to avoid having either type of intervention undermine the other. Specific nutrition and health interventions, as a complement to social protection programmes, might be needed, as well as safety net measures envisaged in favour of producers (FAO 2011; WB 2008).

Source:: FAO; http://www.fao.org/fileadmin/user_upload/ISFP/Social_safety_nets.pdf

schemes that pay a minimum wage rate are likely to enhance decent work conditions and give rural workers bargaining power.

These types of programmes have been widely adopted (e.g. India, Bangladesh, Nepal, Ethiopia, Algeria, Morocco, Egypt, Tunisia, Indonesia, Argentina, Peru, Bolivia). During the food crisis, public works programmes were adapted to the context of the food crisis. For example, in Ethiopia, the daily wage was doubled. Other countries, such as Liberia and Sierra Leone, opted for expanding the public works programmes already in place.

Employment programmes can contribute to longer-term developmental outcomes, provided that they integrate skills and training

components, and institutional linkages are maximized with complementary initiatives aimed at empowerment, gender and age equality promotion, skills development and access to inputs and credit. This has proven helpful in several contexts, for instance youth inclusion (e.g. South Africa, Kenya).

Main effects:

- Employment-based safety nets stabilize local development and help lay foundations for a more pro-jobs path of growth.
- They allow self-targeting by design to poor individuals who are able to work.
- They contribute to valuable labour-intensive infrastructure and other public investments. There are also increasing examples of work in the social sector, environmental services and community-driven programmes.
- Incomes of vulnerable populations can be maintained in the event of shocks (especially labour demand shocks).
- By employing those who would otherwise be unemployed and by offering training and education, human capital can be maintained and even improved.
- Wage payments can be adjusted in response to food price shocks.

Caution:

Risks include: possible exclusion of vulnerable people who are unable to undertake the labour involved (e.g. HIV/AIDS-affected, the elderly and disabled); potential negative impacts on other uses of labour, including agriculture; and possible poor quality public investments.

Such programmes also carry a high demand for administrative capacity to design, implement and ensure quality.

Lack of complementary non-labour inputs (e.g. materials and energy) may undermine effectiveness.

There is also a potential risk of aid dependency, if no adequate/sustainable sources of funds are identified.

Special attention is needed to prevent gender biases; to avoid demanding heavy manual work from women; and to take into account women's time constraints due to domestic and care responsibilities. A broader conceptualization of the types of works necessary for rural productivity together with the adoption of cost-effective measures favouring women's participation (e.g. flexible working hours or childcare facilities) have proven beneficial in supporting a more positive impact on gender equality and public works programme effectiveness (e.g. Ethiopia's Productive Safety Net Programme and India's National Rural Employment Guarantee Scheme).

Very few countries attempt to evaluate rigorously the targeting performance and poverty and gender inequality impact of public works programmes. Correct design of monitoring and evaluation systems of employment-based safety nets is crucial and should be a high priority.

3.3.4 Other measures affecting disposable income

Several countries have also taken decisions that directly affect disposable incomes of certain households (in addition to safety nets already reviewed in the preceding section 3.3.3). Cameroon, for example, has increased salaries and housing allowances of government workers. This and other measures are briefly discussed below.

Increasing salary in civil service and other benefits

In some countries, following unrest in urban areas, a decision was taken to increase salaries and other benefits in the public sector. While this measure is likely to help reduce tensions in urban areas, particularly in administrative cities where civil servants constitute an important proportion of the population, it does not directly help the poorer categories of the population who live off informal activities. In some cases, it could even be detrimental to them. This type of measure has been implemented by a number of countries including Argentina, Brazil, Egypt, Mozambique, Nepal, Syria and Yemen.

Main effects:

- Income of civil servants will increase and improve their capacity to purchase food.
- Salaries in the private sector may follow,

contributing to reduced competitiveness of the economy and, possibly, inflationary effects.

- Increased salaries and benefits will contribute to degrading the state budget situation, with implications for the macroeconomic situation in the case of a budget deficit, as discussed in section 3.1.
- All this combined creates a risk of fuelling inflation, particularly of food items, which would be detrimental to the poorer categories of the population working in the informal sector.

Caution:

While this measure may be good politically (the government shows that it is doing something about the problem and seeks to calm certain political tensions in urban areas), it may have negative macroeconomic implications while not assisting those poorer categories who suffer more from high food prices, unless combined with other measures targeted at the poorer categories.

Credit facilities for consumers

This measure could entail granting a rescheduling of credit repayments for certain loans or encouraging banks to provide consumption credit (e.g. subsidized interest rate for short-term consumption loans). As is the case with the preceding measure, this is likely to benefit better-off groups of the population, contribute to budget deficits and fuel inflation. **This option is not recommended.**

Reinforce capacity (training and equipment) in income-generating activities through entrepreneurship promotion and value addition on agricultural and food products

Reinforce capacity (training and equipment) in income-generating activities through entrepreneurship promotion and value addition on agricultural and food products. Support for income-generating activities, including through entrepreneurship promotion and value addition, should be particularly directed to women and youth. Rural women increasingly run their own enterprises. However, they remain highly concentrated in informal, micro-size, low-productivity and low-return activities. They are, therefore, more exposed to situations of economic strain in the event of a crisis. Enabling gender-responsive measures is crucial to stimulate the start up and upgrading of women's businesses and thereby help generate decent and productive work, achieve gender equality, reduce poverty and ensure stronger economies and societies (FAO 2010)(1).

A large and increasing youth cohort poses

1 FAO, IFAD, ILO (2010), Gender and rural employment policy brief. Issue 3 *Rural women's entrepreneurship is "good business"!.* http://www.fao.org/docrep/013/i2008e/i2008e00.htm

significant pressure on the labour market. Underemployed rural young people, particularly those who are frustrated because they have failed to find decent jobs after migrating to urban centres, potentially contribute to social unrest, crime and even armed conflicts. Initiatives that improve the income-generating opportunities for young people can provide large benefits for social harmony, as well as for poverty reduction and food security[1]. Youth need capacity development measures (e.g. education and vocational training) to enhance their entrepreneurial and business skills. These measures need to be gender-sensitive, relevant to the needs of rural labour markets, market-oriented and in synergy with extension services. Insufficient access to support networks is another common obstacle for rural youth to establish or expand a business and access markets. Support from producers' organizations and cooperatives can also help improve their bargaining position in more vertically integrated production and distribution processes.

Main effects:

- Entrepreneurship and value addition on agri-food products will increase rural people's income and improve their capacity to purchase food. Overall, this will have positive effects of stimulating economic growth and providing jobs and income-generating opportunities up and down the value chain as well as laterally through by-products utilization.
- Addressing the specific needs of women and youth can foster more equitable development outcomes.
- Micro and small enterprises offer a number of advantages for rural women: flexible hours, location in or near women's homes, ease of entry, and links with local markets. Mechanisms should be supported to build social capital, such as cooperatives, self-help groups and business associations, among women and youth entrepreneurs. In addition to income generation, entrepreneurship can legitimize rural women's control over resources, enabling them to invest more in food and healthcare for their families and their children's education. Similarly for youth, with the right support and incentives, the influx of young job seekers can become a key asset in coping with higher food prices, by contributing to the increase in agriculture production as well of household consumption thereby pushing recovery[2].
- Processed foods have a longer shelf life and can meet urban food needs.

Caution:

Lack of gender and age-based analysis can lead to discriminatory practices, that perpetuate systemic barriers, fail to respond to women and youth entrepreneurs' needs and impede the overall empowerment of women and youth.

Success of entrepreneurship and value addition measures (as detailed in this section) hinges upon the existence of more holistic approaches for rural and territorial development that aim at enhancing agricultural productivity and improving non-farm rural employment opportunities. Support is needed to upgrade businesses in the informal economy, including the encouragement of rural micro-entrepreneurs to organize collectively in cooperatives, producers' organizations and business groups. Adopting a more systemic and territorial approach is necessary, optimizing rural-urban linkages in the production-consumption continuum where cities and small towns constitute the marketplace for rural products.

3.4 Producer-oriented measures

Because of missing, underdeveloped or malfunctioning agricultural markets in many developing countries, high food prices have not been transmitted to producers who, therefore, do not benefit fully from incentives to invest and produce more. The risk is high that programmes seeking to develop agricultural supply in the

1 NEPAD-FAO-ILO (2011), Youth, decent employment and the comprehensive Africa Agriculture Development Programme (CAADP), NEPAD-FAO-ILO Partnership on Decent Employment for Rural Transformation.

2 NEPAD-FAO-ILO (2011), ibid.

short term (immediately or in the coming one or two agricultural seasons) could lead to the paradoxical situation of a collapse of prices of agricultural commodities in rural areas, while prices remain high in urban areas or in areas that are well connected to world markets. This would only generate frustration among producers who would then be reluctant to engage in any activity to increase production in the medium or long term. It is, therefore, strongly suggested that any production programme be linked to marketing arrangements that secure a fair price that reflects the general increase of consumer prices.

It is important to analyse price transmission and track market inefficiencies in order to identify policies and institutional arrangements that could be enforced rapidly in order to remove impediments and provide incentives to producers.

Programmes can be initiated that will help increase supply response in the short term, including production schemes that promote home gardens and off-season utilization of irrigated land that could be set for producing short-duration vegetables or other crops. This could result in food production within weeks in areas where weather and water resources permit (see below).

In preparation for the next agricultural season, steps can also be taken to facilitate the procurement and distribution of farm inputs at national, or even regional, level by the provision of funds and/or credit facilities to private operators. Some of these inputs could be distributed through productive safety nets (i.e. small packs of seeds and fertilizer) or cash transfer programmes to alleviate credit constraints and promote some smallholder investment. Alternatively some "smart subsidies" for agricultural inputs (subsidized seeds and fertilizers, voucher systems for inputs) can increase food production for own consumption or for sale in local markets, thus reducing local prices and alleviating locally some of the pressures from food prices. Modalities for these activities have to be carefully designed to ensure that they do not undermine existing market processes or, better, that they help develop them in areas where they are weak or nonexistent.

Programmes for maintaining or rehabilitating rural infrastructure (roads, bridges, small irrigation schemes and storage and market facilities) can also be initiated, although their impact may be felt only after some time. However, provided they are supported through food, cash or input for work schemes, they could constitute effective safety nets (see discussion in section 3.3.3).

3.4.1 Market management measures

In order to remove impediments to price transmission to producers, both macro and micro measures can be contemplated. At the macro level, the problem can be addressed by putting in place rapidly, as a matter of priority, a national market information system (prices observatory) and rapid value chain analysis or development workshops to identify constraints to price transmission. At the micro level, marketing arrangements such as the creation of producer groups in the framework of support programmes and contract farming can be used.

National market information system (prices observatory)

A national market information system (observatory) involves recording, disseminating and analyzing price data for main agricultural commodities on key markets in the country. Benefits from this measure include: i) economic operators, including producers, are informed of prices throughout the country; and ii) price transmission and market segmentation can be analyzed. This type of system is already in place in several countries (e.g. Madagascar), but often requires strengthening.

Main effects:

- Economic operators are better informed about opportunities existing in the market. This can contribute to limiting market segmentation, and thus transmit prices throughout the country. In a high price situation, prices in various regions are likely to be transmitted better, which will benefit producers and alert them to production possibilities, but impact negatively the

Information sharing

During the 2011 Regional and Subregional FAO policy seminars, many national policy-makers recognized that there is a serious lack of reliable information on national and regional market conditions and on the real impact that government policies have on mitigating high food prices. Early warning systems (weather and crop forecasts) and emergency preparedness at country and regional levels should be strengthened.

Information on prices at farm level is generally not available in many developing countries. This makes any attempt at a quantitative analysis of the effects of policies on producers difficult or impossible to carry out.

The Maghreb countries suggested setting up a regional entity responsible for monitoring the international market for basic foods. Likewise, FAO was called on to support the Economic Community of Central African States (ECCAS) in creating a regional information system on food security (SIRS), following the experience of the West African Economic and Monetary Union. (UEMOA) with its regional agricultural information system (SIAR), and to continue its technical and financial support to ECCAS member states and farmers' groups in the design and implementation of their programmes.

Additionally, the Southern Cone subregion stressed the importance of creating a monitoring centre to anticipate food price swings and to make the functioning of domestic markets more transparent. To do so would require: i) collecting price data at various levels of the value chain but primarily at farm gate; ii) creating regional price indices for baskets of relevant agricultural products to complement FAO's global food price index; iii) conducting pricing studies throughout the food chain to generate new statistics and introduce monitoring instruments; iv) developing technical standards and marketing regulations; v) promoting new types of production linkages, including programmes for suppliers and inclusive business between agribusinesses and producers; vi) having public procurement systems for small-scale farming; and vii) providing incentives for the development of urban and peri-urban agriculture, which link directly to producers and consumers.

These initiatives should link up with the Agricultural Market Information System (AMIS). AMIS, whose creation was agreed on by the G20 agriculture ministers in their June 2011 meeting, seeks to coordinate the efforts of the world's main food producers to ensure greater transparency and information dissemination on agricultural markets, especially prices. AMIS provides an open global agricultural market information system whose primary function is to forecast the short-term market outlook for wheat, maize (corn), rice and soybeans.

It is designed to:

- improve agricultural market information, analyses and forecasts at both national and international levels;
- report on abnormal international market conditions, including structural weaknesses, and strengthen global early warning capacity on these movements;
- collect and analyse policy information, promote dialogue and responses and international policy coordination; and
- build data collection capacity in participating states.

AMIS participants are required to provide monthly data and relevant supporting information on production, consumption, import, export, stocks and prices for the selected commodities.

Source: http://www.fao.org/fileadmin/user_upload/ISFP/High_food_prices_synthesis_CFS_FINAL.pdf

situation of consumers in surplus parts of the country.

- Farmers and small traders will be in a stronger position to negotiate prices with their partners.
- The analysis of the data will help to identify problem areas (commodities or regions) where price transmission is not taking place. On that basis, it will be possible to fix priorities for conducting more detailed studies to identify constraints that explain lack of price transmission.

Conditions for success:

Sufficient resources should be mobilized to allow good coverage of the country. Collation and dissemination of data should be immediate (within one or two days) and widely available for free or at a modest cost (through radio or telephone). Governments can promote this by broadcasting extension programmes on radio and television to alert farmers to current and forecasted price trends and indicate that additional production in the coming season may be profitable. It is essential to include crop early warning systems, which monitor crop production plantings, progress and harvests and prices in different localities. However, for farmers to grow

staple food crops at a profit, governments must continue to allow the free market to function so that farmers can respond to price signals.

Caution:
This has proven to be a long-term effort as it takes time to establish and have an effect on markets. It should be started immediately, but results can only be expected in the medium to long term.

Increase food supply chain efficiency and reduce food losses[1]

For priority problems identified through the analysis of price information, it is possible to either conduct a specific analytical study and/or to organize a value chain development workshop. The value chain development workshop is a process through which stakeholders of a particular value chain can negotiate and take concerted decisions, actions and commitments to improve the functioning of a particular value chain. Such a workshop can be implemented, in a situation of urgency, without more prior detailed analysis of the value chain. However, if time allows, a prior analysis can provide an invaluable input into the deliberations of the workshop.

Concerted decisions, actions and commitments are made by various economic operators of a chain and the government in order to improve the functioning and governance of the value chain and to develop mutual trust.

Commitments are made publicly and transparently, and can be monitored publicly in subsequent workshops. This avoids workshops where declarations are made but no follow-up action takes place. It increases accountability of various stakeholders.

Main effects:

- This approach can help to create confidence in the way markets operate, reduce risk and, therefore, contribute to increasing investment in production, storage and processing.
- An outcome of this process could, for example, lead to decisions for some stakeholders to reduce their margins, provided other measures by the government can provide them with some indirect compensation.
- Increased efficiency in the food supply chains should lead to reduced food losses and subsequently could lead to reduced cost of food production, provided that the cost of increasing efficiency is not too high.

Make/facilitate contract farming arrangements

At the local level, in areas where support programmes are being implemented to boost the supply of food, development workers can facilitate contractual arrangements between producers or groups of producers with buyers or processors, for their mutual benefit. Through contract farming, farmers undertake to supply agreed varieties, qualities and quantities to one specific buyer in exchange for technical support and, on occasion, input supply on credit terms. This provides a greater assurance of a market for farmers and thus removes some of the risk from farming. Contracts generally stipulate quantities, dates of delivery, quality and price.

Main effects:

- Risks in the food chain are reduced; producers know that they will have an outlet for their production at an agreed price and buyers/processors have some certainty about sources and amounts of raw material for their business.
- This can contribute to enhanced investment in production, marketing, storage and processing.

Caution:
To date, contract farming has not been widely used for staple crops but is more commonly found for export crops, particularly those that require processing soon after harvest. As a long-term measure to address market uncertainties it may be possible to promote this form of farming for staples. However, with a multiplicity of buyers for such crops it is very tempting for farmers to sell outside the contract. Unless this problem of extra-contractual marketing can be overcome it is not clear how contract farming could address

1 This measure is more of a process-related measure than an actual action to address high food prices. However, it has the potential to constitute an essential element in achieving success on the supply side.

present concerns. Proper regulatory frameworks should be in place and enforced so that the various parties have their interests protected and know that they have some protection in case the contract is not respected. In situations where contracts are awarded to farmers who can meet certain quality conditions, other farmers less capable of meeting such specific conditions may be further marginalized.

Government re-engagement in marketing

An analysis of the soaring prices in 2008, shows that the causes include the weather, economic factors, alternative uses of arable land and increasing demand for staples as animal feed or feed stocks for biofuels. From this there would appear to be no obvious reason why governments should seek to respond by themselves, taking on crop marketing responsibilities. Public marketing is sometimes proposed on the grounds that traders and intermediaries take advantage of high prices. While this could be true in some cases, addressing this consequence of high prices would not address the fundamental causes of the situation and would have considerable negative consequences as already mentioned in this section and in section 3.3.3. **This measure is not recommended.** It could possibly be used as an option during negotiations to get better collaboration from the private sector.

Disengagement of governments and their public marketing boards from marketing was one of the components of the structural adjustment measures particularly, but not exclusively, in Africa. Reducing government marketing activities through marketing boards and other bodies was considered necessary because such bodies proved to be financially unsustainable, were unable to market food grains in a cost-effective way and were subjected to unsustainable short-term political dictates that were financially unsupportable. Storage losses were often considerable, marketing costs were excessive and farmers sometimes remained unpaid for their crops. There is no reason to believe that government boards would perform any better under present circumstances.

An exception to this general rule may be the provision of crop-buying services to remote areas where there is an insufficient supply for traders to trade profitably (so-called "market failure"). However, if traders are unable to make a profit then it is clear that any government buying operations will require an element of subsidy.

In Brazil, the Government implemented measures, under the *Politica de garantia de preços mínimos,* that involves the public sector in the marketing process. The objective is to guarantee minimum prices to producers and ensure the food supply in vulnerable areas. The Government can proceed in two ways: i) buying directly the production of certain crops to guarantee the minimum price; or ii) subsidizing private buyers when prices are under the minimum, on the condition that they sell the stock in zones that have supply deficit of the product.

Forced procurement

Over the years forced procurement has been tried in many countries. This is a superficially attractive idea that will cause many more problems than it could possibly solve. It will be resented by farmers, who will obtain lower prices than they could obtain on the open market. In turn, they are likely to respond by producing less of the crop subject to such procurement, thus reducing future production levels and maintaining higher prices. Forced procurement is likely to see the emergence of a parallel (or "black") market. Traders on the parallel market, because they are carrying out illegal activities, have to deal in smaller quantities and bribe officials. Thus their marketing costs go up, as does the price to the consumer. This measure was used in Myanmar in 2008.

Some countries, e.g. Myanmar until recently, implemented forced procurement of a portion of a farmer's harvest, permitting the farmer to sell the rest on the open market. Such an approach is bureaucratically complex and invariably leads to farmers reserving the poorest quality for the government. Forced procurement in China in the 1970s saw farmers limiting their production. When sales on the open market were later permitted, production increased significantly. For all these reasons, f**orced procurement cannot be recommended.**

Minimum producer price for key staple food commodities

A minimum producer price for key staple commodities would reduce market risks for producers and encourage them to invest in and grow the concerned crop. This measure has been used in China for rice and wheat.

Main effects:

- Stability and increased supply of the food commodity.
- Reduced risk for farmers, which encourages them to grow the commodity and invest.

Conditions for success:

The minimum price should be the result of a negotiation among stakeholders at value chain workshops discussed earlier in this section.

Caution:

Past experience shows that a government-imposed minimum price will be very difficult to implement. It would require having a public body to buy on the market (see government re-engagement in marketing) and considerable amounts of money. This has been shown not to work in the past. Today, the idea is that similar arrangements could be obtained through negotiations of stakeholders of a particular value chain where the minimum price could become part of a "win-win" agreement, if it can be reached.

3.4.2 Production support measures

Production support measures include: i) productive safety nets that have an immediate impact; and ii) sustainable intensification in production systems that will bear fruit in the coming two to three years.

Productive safety nets

A number of measures can be envisaged that result in the provision of inputs to boost production in the short term. Initial assessments to identify the vulnerable farmers and determine the right crops and appropriate varieties of seed are critical. Inputs can be provided in a range of ways that include direct distribution to farmers, input trade fairs, vouchers and credit schemes. Inputs can also be provided along with food rations to help ensure that the inputs are used for agricultural production. High quality seed of appropriate crops and varieties should be provided from local sources to ensure that they are adapted to local conditions and are preferred by farmers and consumers. Procurement and distribution of inputs should be monitored so that farmers obtain inputs meeting established quality standards. The use of existing mechanisms for the effective supply of productive inputs to farmers and the marketing of surplus production are integral elements of any productive safety net to support sustainability. Care must be taken to avoid disruption of commercial markets. Where warranted, attention should be given to alternative supply systems that are more private sector oriented.

Immediate support to production in family gardens and irrigated areas

This programmatic action consists of providing seeds and fertilizer in small quantities at a

subsidized cost or for free, as well as advisory services, to small farmers who are net food buyers and who, for reasons of market failure or poverty, use inputs such as seed and fertilizer in suboptimal amounts, and to farmers in peri-urban areas. The focus is on family gardens and irrigated areas where rapid results can be achieved in terms of food production and availability.

Main effects:

- Production of short-cycle crops including vegetables can be boosted and contribute to availability of food within targeted households, and to some extent in local markets in peri-urban areas and close to irrigated land.
- Selection of specific foods crops for their nutritional properties, particularly when combined with education on nutrition, may lead to increased consumption and improved diets.
- Supply of certain food items will be improved in some areas and their markets.
- Prices of certain food items are likely to be reduced in areas that are not well connected to main national markets (i.e. those linked to world markets). This applies particularly to irrigated land that is far from cities. Some marketing out of these areas may be needed to avoid a price collapse when the harvest starts.
- If targeting is effective, this measure can contribute to improving the welfare of poor small farmers.
- However, targeting creates the opportunity for rent seeking by those who are involved in deciding on beneficiaries or in charge of distribution. Transparency and accountability measures as described in 3.3.3 should, therefore, be put in place for this programme.
- Depending on the size of the programme, it may affect the state budget and could cause a deficit with overall macroeconomic consequences (details already discussed earlier).

Conditions for success:

In areas where input markets are working reasonably well and inputs are available, a voucher system is the appropriate way to proceed, as it will have the dual advantage of targeting the poor while respecting market mechanisms in place. In those conditions, free distributions of fertilizer and seed packs would undermine the input markets: some free fertilizer would find its way onto the market and compete with the goods provided on a cost basis, bringing down prices and profitability of traders and threatening their existence.

In areas where input markets are not working, options considered for implementing the programme could be: i) contracts with existing private dealers for distributing input packs; or ii) arrangements with NGOs, projects and government services to distribute the input packs if there are no private dealers in place. Adopting a voucher system in this case would probably create a hike in input prices, which would reflect negatively on those producers who do not have access to them. This would in turn reduce the capacity of these farmers to buy inputs as usual and be reflected in the next season's production.

In both cases, the availability of inputs is of paramount importance; if not available, the scheme is bound to fail.

The risk with this approach is that a subsidized programme may become a regular activity that is difficult to terminate at a future time when the situation becomes more normal. It is, therefore, important to agree from the start with key stakeholders on an exit strategy including the conditions that justify the continuation or the interruption of the programme for the next season (e.g. level of food prices, level of estimated stocks, level of last season's production or ratio between fertilizer and main food outputs, based on an objective analysis, criteria to be determined depending on local conditions and stakeholder views).

Marketing arrangements should be planned in advance of providing support to production, to ensure that any surplus production will find its way to the market at remunerative prices. Otherwise, producers will be discouraged from increasing production for some time in the future.

Caution:

It is doubtful that net food buyers can be targeted

operationally because it is difficult to identify them at short notice. As a practical matter, the focus of implementation needs to be on small farmers, some of whom are net food buyers but some of whom may also be net sellers. Targeting of small farmers could be difficult because of community resistance and elite capture. One option might be to design an input (or input voucher) for a work pilot programme, which has a higher probability of being self-targeted. However, the more investment is made in designing programmes, the longer the response time is likely to be and, in many countries, it is urgent to take action. The most pragmatic solution may be to work with some limited targeting, but to try to improve programme modalities as time passes, so as to become more selective and targeted, and less disruptive of commercial input delivery systems. It may also be difficult to find adequate seeds to reflect the diversity of cropping that would contribute to a good diet, particularly in home gardens. A seed development programme may be needed to ensure adequate seed availability for the following season (see below).

In many Pacific Island Countries (PICS), the subsistence sector is strong and hunger is rare. Hardship resulting from increased food prices tends to play out through a reduction in access to basic services, nutritious food and the ability to meet customary obligations. However, data on the production and marketing of locally grown food staples is very limited in most PICs. This makes it difficult to identify appropriate policy interventions that support the development of production for local markets. FAO has initiated a programme to sensitize policy-makers on the need to support processes of data collection and use through a series of case studies in selected PICs.

Fertilizer and input distribution focused on small producers is a common policy measure in Central American countries. El Salvador, for example, distributes fertilizer under the *Plan de agricultura familiar*. Nicaragua delivers inputs to vulnerable farmers with the *Programa productivo alimentario*, and Guatemala does the same with small and medium producers.

Input vouchers for vulnerable farmers

Vouchers are provided to vulnerable farmers for use in purchasing inputs (primarily seeds, fertilizers and tools) from selected input dealers who agree to take part in the programme. This approach has been used, for example, in Malawi and Ethiopia by government, donors and NGOs. The main reason for adopting it has been its cost effectiveness compared to blanket fertilizer subsidies and subsidized commercial food imports. Compared to food aid, this approach rewards initiative and good husbandry, encouraging development rather than dependence.

Main effects:

- Vulnerable farmers have access to inputs for production.
- With vouchers, they can decide which inputs they want (not imposed as in the case where input kits are distributed to farmers).
- Vouchers can become a parallel currency that vulnerable farmers use for purposes other than inputs.
- Provided the weather is favorable, it is cheaper to distribute input vouchers than to distribute food to the vulnerable.
- In case inputs are not available, the voucher system can make inputs more expensive (inflationary effect).
- In addition to the potential for increasing productivity, such interventions, if effectively targeted, can also improve the welfare of the poor.

Conditions for success:

The voucher system requires a reliable and well functioning network of input dealers with which the government (or NGOs or projects) can make contractual arrangements. Inputs must be available in sufficient quantities and of the right quality. For seeds, an appropriate system is needed to verify seed quality (i.e. to avoid grain being sold as seed) and diversity to make sure that the seed available suits local conditions and preferences. It is essential to consult the private sector in the design and implementation of any pilot exercise, both for short-term effectiveness

and medium-term catalysis. The private sector offers the only realistic hope of scaling up successful approaches quickly.

Marketing arrangements should be planned in advance of providing support to production, to ensure that any surplus production finds its way to the market at remunerative prices (local market prices could collapse if production increases and no provision is made to transfer surplus production to urban markets). Otherwise producers will be discouraged from increasing production for some time in the future.

Caution:

Because farmers buy from a network of dealers, it is difficult to monitor and supervise the quality of the inputs sold (unlike, for example, in the case of a seed or input fair). This approach may not be recommended in areas where drought or floods are likely, as risks are too high, which reduces the advantage of this approach compared to food distribution.

Pilot fertilizer and seed input credit schemes for small-scale farmers for the next cropping season

A pilot fertilizer and seed input scheme provides a means for a group of farmers, on a voluntary basis though with a common motivation, to obtain recommended fertilizers and other tested inputs on credit for selected crops in a limited area. The scheme not only provides the inputs to the farmers but also encourages them to use improved cultivation techniques through advisory services. The whole scheme is based on the use of a revolving fund and can have a continued impact after one season. In this type of scheme, inputs are not subsidized.

This kind of system has been in operation in numerous countries since 2008, including: Algeria, Botswana, Brazil, Burundi, Cameroon, Democratic Republic of Congo, Ecuador, Ethiopia, Indonesia, Kenya, Lesotho, Malawi, Morocco, Nigeria, Philippines, Peru, Syria, Tunisia, Turkey and Zimbabwe.

Main effects:

- The benefits to small farmers are potentially large. One bag of fertilizer used with improved seeds, provided rainfall is adequate, will typically produce at least 15 bags of grain (see the FAO Nutrition Response Database at http://www.fao.org/ag/agl/agll/nrdb/index.jsp?lang=en).
- Availability of certain food items will be improved in households in the pilot areas and in nearby markets.
- Prices of certain food items are likely to be reduced in areas that are not well connected to main national markets (i.e. those linked to world markets). This applies particularly to irrigated land that is far from cities. Some marketing out of these areas may be needed to avoid a price collapse at the start of the harvest.
- If the targeting is effective, this measure can contribute to improving the welfare of small farmers.

Conditions for success:

A system of input distribution on credit will be successful and viable only if the farmers, the dealers and the credit suppliers are satisfied. This assumes a proper ratio between the cost of inputs (particularly fertilizer) and the price of outputs. The ideal situation is when supervised credit, technical services and agricultural marketing are well integrated and the revolving fund maintains 100 percent of its initial purchasing power. This means maintaining a close supervision to ensure repayments, and fixing a positive real interest rate that takes into account inflation and covers supervision costs. To reduce these costs, it is recommended to adopt a group approach to create appropriate social pressure for repayment of credit. Availability of inputs is of paramount importance, as are advisory services and secured marketing.

A proper regulatory framework should be in place and enforced so that subscribers of contracts have their interests protected and know that they have some protection in case the contract is not respected. If not, it will be impossible to adopt an integrated approach.

Marketing arrangements should be planned in advance of providing support to production, to ensure that any surplus production will find its way to the market at remunerative prices. Otherwise producers will be discouraged from

Lessons learned from emergency agriculture input distribution projects

Seed and fertilizer distribution programmes should only be used to complement other policies and existing programmes and never as an isolated strategy. Short-term measures should be undertaken in the context of medium to long-term approaches.

The **strengthening of local seed systems** is more important than the free distribution of inputs because of the risk of undermining local seed producers by bringing seeds from outside.

Distribution of inputs without training or other associated technical assistance is of limited use. Any agriculture input distribution programme should be accompanied by training and complemented by policy advice on how to strengthen the resilience of the agricultural sector.

Systems used to distribute inputs need to consider the countries' realities:

Distribution through government institutions can be effective because of their extensive coverage, reach and possibilities of integration with existing government programmes. Attention should be paid, however, to: i) political influence in the choice of beneficiaries; ii) the capacity of line agencies to effectively distribute inputs and provide training on its use; and iii) the capacity of institutions to ensure that good quality inputs are delivered and that suppliers are held accountable for the quality of the products they supply. There is a need for beneficiaries to be fully informed and sensitized through publishing and advertising information about the process and conditions of distribution. This will help to avoid distortion of targeting for local personal or political aims.

Distribution of inputs through input trade fairs (ITFs) has many benefits: farmers are able to choose the types of inputs they want; project implementers are able to reduce time and costs; and the ITFs provide a boost to the local economy and local agricultural input markets. However, such input trade fairs can only work in countries where markets are functioning. There are risks with regards to corruption, forgery of vouchers, price fixing and lack of quality or quantity of inputs. Measures need to be considered to mitigate such problems.

Distribution through NGOs or farmers' groups has proven to be an effective way of targeting and distributing inputs to beneficiaries. If the NGOs or groups have technical knowledge about the crops being produced, this can help to ensure that farmers are properly trained on the use of inputs.

Distribution by input suppliers might assure that beneficiaries are better informed on the use of the inputs.

The use of **revolving schemes or equity contribution systems** should be considered. Such systems can help to ensure continuity in project investments after it has been completed. In revolving schemes, beneficiaries pay back seeds after the harvest or pay a subsidized amount for inputs in cash that can subsequently be used to buy more inputs or be invested in micro projects. This can also help to improve ownership in the project, targeting and use of inputs received by the beneficiaries.

Consider the geographic context of the country. Countries that face accessibility problems, such as island nations and mountainous countries, require more time and money for implementation. The needed inputs often cannot be procured locally and must be purchased from international sources that take time to deliver. Once the inputs arrive in the country, the transportation costs and time to deliver to isolated areas must be properly considered in the project planning stages.

Avoid distribution of live animals unless proper transportation to the beneficiary's farm can be assured. The provision and transport of live animals needs careful consideration and planning in order to avoid the risk of high mortality rates. Proper transport arrangements need to be assured all the way to the farm of the beneficiary.

Encourage stronger donor commitment with government engagement in following up short-term emergency projects with medium-term investments to address structural problems within the agriculture sector (FAO 2011).

Source: FAO; http://www.fao.org/fileadmin/user_upload/ISFP/Productive_safety_nets.pdf

increasing production for some time in the future.

Input trade fairs (ITFs)

This is a market-based approach to the provision of seed, fertilizer and tools to vulnerable farmers through specially organized fairs with participation of the commercial input dealers and farmer seed sellers. Vouchers are provided to the beneficiaries, which they can exchange for inputs at the fairs. ITFs have been conducted with FAO support in Lesotho, Mozambique and Swaziland, and in many other countries with the support of NGOs. In Zambia, small equipment for production and post harvest were offered in the package.

Main effects:
In situations where there is an access problem for inputs, vulnerable farmers are able to choose the inputs that they need for agriculture production in the upcoming season. This can strengthen the local seed system.

Conditions for success:
This approach requires organizing farmers, fair facilitators, the input dealer, and farmer seed producers to conduct seed fairs for a maximum of 1000 farmers per input fair per day. Seed quality must be verified before and during the fairs. There must be a sufficient diversity of seeds available to suit local conditions and preferences. ITFs should be organized just prior to planting season: farmers need to be able to get to the fairs, and good cooperation and organization among the host government, dealers and local implementers such as NGOs are needed to put on the fairs.

Caution:
It may be difficult to reach a large number of farmers. If there is a drought or flood, food production may not be increased.

This measure is recommended.

Direct Seed Distribution

Pre-packaged kits of seeds and other inputs are provided to vulnerable farmers when there is a problem of access (no means to purchase) and availability (spatial availability) of inputs. Such programmes have been implemented in Burundi, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia and Tanzania.

Main effects:
Beneficiary farmers have access to inputs that allow them to produce food.

Conditions for success:
Procurement should be done well in advance of the production season; there should be a good source of quality seed and the ability to deliver it to vulnerable farmers, as well as quality verification systems for the seed.

Caution:
Timely delivery of the seeds to the farmers is essential. Farmers all need the same seeds at the same time in a particular region. This approach often does not build the local seed system. If there is a drought or flood, food production may not be increased.

Marketing arrangements should be planned in advance at the time of providing support to production, to ensure that any surplus production will find its way to the market at remunerative prices.

Measures to ensure availability of fertilizer

Low-income food-deficit developing countries will need budget and balance of payments support to be able to import sufficient fertilizer, as they also face increasing food import bills and higher energy costs. In addition to facilities that could be provided by the IMF and the World Bank, governments may want to explore with their other partners opportunities for enhanced budget support to alleviate the import financing constraints they face. Resources obtained in this way, in addition to the allocation of own resources from the government budget, will help to put in place a credit line for the private sector and organize national or subregional bulk procurement.

"It is politically easier to mobilize funds for quick fixes, such as free fertilizer, than for other necessary but longer-term solutions, such as building roads and training agricultural scientists [….], but unlimited fertilizer subsidies without substantial resources for the basics of infrastructure, technology and training will leave Africa just one season away from the next food crisis"[1].

Fertilizer distribution, if not supported by training and extension, may even be counterproductive, leading to inappropriate use, wastage and negative externalities.

Measures to boost fertilizer availability should be accompanied by contracts with the private sector or NGOs for distribution or for establishing a voucher system (as noted above, an input voucher system must have sufficient inputs

1 McPherson, P. and R. Rabbinge (2006), Statement at African Union Special Summit of Heads of State and Government, African Fertilizer Summit, Abuja, Nigeria, June 13, 2006.

available to operate well). Some of the funding mobilized could also be used for the creation of a risk-sharing fund to facilitate the issuance of letters of credit. This would assist small, authentic importers (particularly those directly linked with the farming sector) to enter and balance the market currently dominated by a few large importers, and thus increase competition in the sector. Timely procurement would be enabled by announcing the magnitude and nature of fertilizer subsidies several months in advance of the planting season. Credit lines to local input dealers and cooperatives or farmer groups to ensure that stocks are ordered in time for planting will facilitate improved input availability. The holding of local input fairs in rural areas where supplies are brought to the farmers should be encouraged.

Main effects:
Fertilizer will be available in the country on time and in appropriate quantities and quality.

Conditions for success:
For such a scheme to be successful, it is important to establish a functional platform acceptable to public and private sector fertilizer stakeholders to conduct constructive dialogue on the way forward. This could be done by reviving an existing platform or creating a voluntary task force for a time-bound period of about three to five years.

If it is decided to subsidize inputs using vouchers, it is critical to make sure that the inputs are available in large quantities, or else vouchers will simply create inflation in local input prices. In addition, it is essential to consult with the private sector on the design and implementation of any pilot exercise, both for short-term effectiveness and medium-term catalysis: the private sector offers the only realistic hope of being able to scale up successful approaches quickly. Finally, it should be realized that fertilizer subsidies may not have a lasting effect (or even a short-term effect) if they are not accompanied by long-term investments to relax structural constraints such as lack of roads and markets, lack of water control and lack of market-oriented risk management instruments.

Universal (untargeted) subsidized fertilizers

This is a measure that has been implemented by several countries on the grounds that fertilizer prices, in particular, have been increasing very rapidly both because of increased demand and because of higher production costs (nitrogen fertilizer prices are strongly correlated with price of energy). In some cases, this policy has also been justified on the grounds that, because input markets are imperfect, the use of fertilizer in many countries is suboptimal. It has also been justified on the grounds that it is less costly to fund a fertilizer subsidy (and fertilizer imports) than a food subsidy (and related food imports).

A sharp rise in fertilizer prices, which is not entirely offset by the rise in crop prices, makes fertilizer less attractive and fertilizer consumption will decline. Policy options to reverse this trend include re-establishing a fertilizer subsidy. A universal subsidy on fertilizer is being implemented in Nigeria; Mexico also intends to adopt it.

Main effects:

- When input markets are functioning, input subsidies will distort production decisions and encourage over-utilization of inputs.
- When input markets are imperfect, which is the case in many developing countries, input subsidies can increase economic efficiency. The amount of subsidy provided should not be so large that fertilizer use is increased beyond the point where it is socially profitable. Additional marginal use of fertilizer due to excess subsidy does not create a corresponding increase of production while additional use of fertilizer because of excess subsidy creates negative environmental effects such as water contamination.
- For many small farmers who have difficulty in raising enough cash to buy fertilizer, a subsidy may make purchasing fertilizer a feasible and more attractive endeavour.
- By contributing to increased crop yields, additional use of fertilizer created by fertilizer subsidies helps to break the vicious cycle of poverty and food insecurity. Many commentators and studies, however,

continue to conclude that subsidies have only limited impact.

- A universal subsidy benefits those who consume more fertilizer. Therefore, larger farmers benefit more than smaller and poorer farmers.
- Experience shows that a large share of the fertilizer subsidy goes to the industry, if there is one in the country. For example, in India a study by the National Institute of Public Finance and Policy (NIPFP) showed that over the past 20 years nearly 38 percent of fertilizer subsidies have gone to industry and only 62 percent have trickled down to farmers.
- Input subsidies also carry the risk of encouraging smuggling of fertilizer from border areas to neighboring countries where there is no subsidy. Therefore, there is a need to harmonize policies among a group of countries within the same subregion.

Conditions for success:

Success is more likely in areas where rain is sufficient or reliable, or in irrigated areas, and where reliable delivery systems, such as improved rural markets, exist. Supporting both large and small-scale private traders will ensure that fertilizers will be available to farmers when needed.

Caution:

Experience shows that subsidized fertilizer often ends up in the hands of a few, politically powerful individuals and does not benefit the majority of farmers. Moreover, even when subsidized fertilizer is well distributed, the subsidy tends to create dependence on the part of farmers. The aim of subsidies is normally to encourage farmers to start using fertilizer or to use more. Subsidies may achieve short-term success and thus could be a response to food price hikes, but in the long run there is little or no evidence that they succeed in increasing fertilizer use by small farmers.

In drought-prone rain-fed agricultural systems, utilization of fertilizer is a risky activity. Fertilizer subsidies, therefore, have a high risk of not being successful. Unreliable weather can make crop response to fertilizer highly variable. Reducing costs through a subsidy increases the chances of farmers taking that risk, and carries a considerable risk of wasting resources.

Fertilizer subsidies may not have a lasting effect (or even a short-term effect) if they are not accompanied by long-term investments to relax structural constraints such as the lack of roads and markets, the lack of water control and the lack of market-oriented risk management instruments.

Improvement in the efficiency of fertilizer use should be monitored, particularly measures that aim to improve the productivity of the working capital that farmers invest in fertilizer. Data should be collected on an ongoing basis from farmers about fertilizer use per crop. This information needs to be related to fertilizer cost and producer prices at the farm gate as well as farm household income to establish fertilizer profitability and the farmers' ability to pay for fertilizers. The evolution in the commercialization of agriculture requires forecasting better future fertilizer requirements. This includes assessment of the feasibility of meeting future demand through imports or domestic manufacturing capacity. Good institutional capacity is a prerequisite for contributing substantially to developing a national fertilizer development programme.

There is also an urgent need to demonstrate the efficacy of balanced applications of N, P2O5 and K2O on food crops, particularly by increasing the doses of P2O5 and using at least a maintenance dose of K2O to check further depletion of soil potassium. The optimum N:P ratio is 2:3.

Likewise, marketing arrangements are indispensable to ensure that any surplus production finds its way to the market at remunerative prices. Otherwise, producers will be discouraged from increasing production for some time in the future.

A lift of collateral and the establishment of a government guarantee fund

This measure could increase access of farmers to funding for purchase of inputs, small equipment and rehabilitation of productive assets. With some guarantee provided by the government, banks will be more open to provide credit to small farmers who have no collateral to secure

their loan. The government may want to explore with development partners whether they would be ready to contribute to the guarantee fund. Participation of the private banking system in such a fund could also be of great importance, since this may ensure sustainability of the fund.

Main effects:

- Farmers, particularly small farmers, will have some access to credit for purchasing inputs and small equipment, and for engaging in the rehabilitation of productive assets.
- Increased production both in the immediate (next cropping season) and in the medium term.

Conditions for success:

It should be clear to the farmers that they are getting money on credit, which they have to repay if they want this facility to continue in the following year. Loans provided need to be well monitored. Some cost sharing between government and banks for monitoring the loans could be envisaged, as this will help to get the banks on board. This needs to be negotiated with them.

Caution:

The risk is that loan repayments are low and that the guarantee fund is exhausted after one or two years.

Provision of mechanical and financial support for increasing cropped area particularly for food crops

This can be done by cost sharing or credit facilities for land preparation operations, combined with credit (as above) for inputs.

Main effects:

- Area cropped in the next season will increase, with the likely consequence of higher production and food availability.
- Possibility of intensifying existing cropping systems beyond sustainability by encroaching on fallow land.
- Increased cropped area could be at the cost of forests, pastures or other land categories, with associated risks and consequences.

Conditions for success:

For increasing cropped area, currently underutilized mechanical means need to be available. Farmers need to have the capacity to properly manage the additional area cropped to ensure successful crops and avoid wastage of resources.

Caution:

Additional land cropped should not undermine the existing cropping system, particularly its land fertility management aspects. Measures should be taken to maintain land fertility for the whole system (and not only for the additional cropped land). Additional land should also not threaten local ecological balance or encourage encroaching of crops on marginal land.

Marketing arrangements should be planned in advance at the time of providing support to production, to ensure that any surplus production will find its way to the market at remunerative prices.

In Kiribati, a number of initiatives have been taken to boost domestic production. State-owned land on outer islands has been brought into production and public servants have been directly involved in food production for selected community groups. The system of freight subsidies that reduce the cost of transporting imported food products to outer islands and of staple food products from outer islands to the main urban centres is under review.

Pilot scale farm power vouchers

The introduction and pilot testing with local partners of a farm power voucher system would allow small farmers to access farm power and equipment for agricultural production and for transport/market-access.

Main effects:

- Vulnerable farmers have access to farm power and equipment for preparing land, cultivation and transport of produce.
- As with other vouchers, these could become a parallel currency that vulnerable farmers use for purposes other than power services.

- In case of limited availability of power services and equipment, the voucher system can contribute to making them more expensive (inflationary effect) in the pilot areas where this approach is tested.
- In addition to the potential for increasing productivity, such interventions, if effectively targeted, can improve the welfare of the poor.

Conditions for success:

The voucher system requires that a reliable and well functioning network of farm power and equipment providers is in place with which the government (or NGOs or projects) can make contractual arrangements. Providers must be able to meet the demand created by the voucher distribution.

Marketing arrangements should be planned in advance, at the time of providing support to production, to ensure that any surplus production will find its way to the market at remunerative prices.

Stop subsidy or encouragement of animal production

This measure aims at interrupting support to economically unsustainable activities that may compete with human consumption of grain. In fact some encouragements and subsidies often consist of animal feeding with food products, particularly cereals.

Main effects:

- Reduction in economically unsustainable animal production with the consequence of reduced supply of animal products and higher prices for these food products which in general are consumed by the relatively richer population groups.
- Increased availability of certain grains for human consumption.
- Increased availability of land for production of grain directed at human consumption.

Caution:

The impact of this measure will likely take some time to be felt on food availability: the time for animal feed producers to switch back to grain production for humans. It could also disempower the poor who depend on livestock for food and income.

Sustainable Intensification of Production Systems

To achieve a longer-term and sustainable outcome, a more systems-based approach is needed that starts with improved access to inputs for increased production of surpluses for the market within prevailing agriculture systems. Given the imperative to deliver improvements in a short time frame, relevant ongoing programmes should be built on and extended. The focus should be on increasing inputs availability, boosting field productivity per unit input (without adverse effects on the agro-ecosystem) and improving distribution of outputs through better market linkages.

A key input in boosting production is high quality seed of the appropriate crop and variety. Farmers' long-term access to quality seed is improved through the strengthening of the national seed distribution system. This may include: increasing early generation seed production; capacity building with the national seed service; seed policy reform; establishing farmer seed enterprises; and creating awareness of better production practices and new improved varieties through community demonstration plots.

Plant nutrients need to be replenished in depleted soils used by smallholder farmers to prevent serious productivity decline and to boost production. Depletion occurs mainly in Africa where disposable household income is too low to enable farmers to advance from low-input/low-output farming without fallows (resulting in nutrient mining), to more intensive and specialized production responding to consumers' needs that involves greater investment in agriculture. Technical solutions to such problems exist in different agro-ecological zones.

Improving soil health requires time, knowledge and secure land tenure. Ways to overcome impediments to increased fertilizer use include organizing fertilizer supply, and especially access to food and commodity output markets. Both public and private sector stakeholders need to be involved in order to increase farmer access to

appropriate fertilizer and credit, both a short and long-term measure.

Boosting production not only requires access to inputs but better methods of crop production. Extension methodologies, including Farmer Field Schools, can provide appropriate advice through on-farm demonstrations on sustainable production intensification, good agriculture practices, conservation agriculture, soil fertility management, integrated pest management and crop diversification.

Community seed production

This measure seeks to improve access to quality seed (both traditional and modern varieties) at the community level. Seed is produced by individual farmers, Farmer Field Schools, farmers' groups or cooperatives under the supervision of technical staff. The seed can then be provided or marketed to the community in a way appropriate to the situation. This can follow on a variety introduction initiative. This measure is widely used in rehabilitation and development in Burkina Faso, Cameroon, Ethiopia, Lesotho, Sudan, Swaziland, and other countries.

Main effects:

Seed supply of appropriate crop varieties will be improved.

Conditions for success:

There must be a source of quality seed; technical supervision; and progressive farmers or farmers' groups to multiply the seed.

Caution:

There must be adequate rainfall or irrigation to produce a crop, sufficient technical supervision, organized farmers or groups, and well planned marketing of the seed produced.

Conservation agriculture (CA)

Sometimes called agro-ecology, conservation agriculture combines agricultural practice and effective use of ecological knowledge and direct seeding into crop residues.

Main effects:

- Because it is based on reduced soil tillage and crop rotation, it helps to increase water retention and plant nutrient exchange capacity, both of which are imperative for soil health and sustainable production.
- It is energy efficient, since there is less tillage that requires tractors or animal traction, and not fertilizer intensive, since nutrients are more efficiently recycled.
- CA involves more weeds due to minimal tillage, higher incidence of pest and insect infestations as chemical use is minimal and limited land use intensification.

CA is being used in Lesotho, South Africa, Swaziland, Zambia, Zimbabwe and other countries.

It was the basis of the Zambia emergency rehabilitation programme and is also used in similar programmes in Lesotho and Swaziland.

Caution:

The measure is not limited to simple input supply: it requires the training of extension workers and farmers.

Integrated Pest Management (IPM)

IPM is based on a thorough understanding of agro-ecosystems, allowing farmers to make informed decisions on pest management. Growing a healthy crop, regular observations and conserving biological control are the cornerstones of IPM. IPM allows farmers to reduce pesticide use. Overuse and misuse of pesticides can lead to disturbances in agro-ecosystems, exacerbating pest problems. A well-documented case is rice, where overuse of insecticides caused significant outbreaks of Brown Planthopper. Governments in Asia took a range of measures to promote IPM, including removal of subsidies on pesticides, and farmer education programmes. IPM is used in numerous countries in the different regions. Pesticide subsidies are not recommended as a measure to promote production.

Main effects:

- More efficient production (reduced use of relatively expensive pesticides).
- Reduced risks of pesticide-induced pest outbreaks.
- Reduced hazard for environment and

public health due to reduced/minimized pesticide use.

Conditions for success:
IPM requires adequate training of farmers and extension workers in IPM approaches; a conducive policy framework to promote IPM, including removal of perverse subsidies on pesticides; and improved regulation of the distribution of pesticides by input dealers. IPM research needs to be promoted. Standards for pesticide residue levels can provide incentives to implement IPM.

Promote local value-addition and longer shelf-life products

This can be done through the promotion of processing and value-addition in rural communities of primary agricultural products, especially starch and protein-based products. These are processed into final (cooked or roasted) dried products that are ready-to-eat and are marketable instant foods of a long shelf-life and high quality and nutritional value. Gari from cassava is a good example, if it is fortified with some protein ingredients. Cereals, roots and tubers, breadfruit, banana/plantain, cow peas, beans, ground nuts, dried fish, copra (dried coconut) are all excellent ingredients for such food products, which in principle can be manufactured by rural processors by relatively simple means of fermenting, roasting, cooking, drying, grinding and mixing. The food products can be produced for subsistence, the local market and/or external markets.

Main effects:
- Reduced post-harvest losses.
- Reduced cost of transportation.
- Nutritious food immediately available in rural areas.
- Profit through added-value goes to the rural poor.
- Employment and income for non-farming rural dwellers.

Conditions for success:
Good quality ingredients, equipment and energy must be available to the rural processors. Processing technology must be checked and improved. Rural processors must be trained in improved technology, quality management and basic business management and marketing. Packaging materials and labelling must be available according to the market to be targeted.

Some general lessons learned on how to improve the performance in the agricultural sector

- There is a wealth of policy options available to improve the performance of the agricultural sector and to reduce the incidence of food insecurity. On a macro-economic level, such policy options include:
- re-distribution of government budgets towards food insecure populations including poor agricultural producers;
- re-visiting the role of government in allocating scarce resources to ensure efficient usage;
- analysis and reformulation of general economic policy goals such as "fair" income redistribution, growth, full employment, stability, sustainable public debts and any other main policy goals as stated in national policies.
- Agricultural policy options to support sustainable intensification of crop production could include
- seed sector development;
- farmer education and extension;
- incentive schemes for adoption of sustainable practices;
- schemes to value ecosystem services and penalize unsustainable practices;
- integrated approaches to soil fertility management;
- investment in irrigation and rural infrastructure for processing, storage and transport;
- promotion of private sector input delivery and removal of policy constraints that act as a disincentive for this; and
- formulation of policies that promote sustainable rural financial intermediation.

Source: FAO, http://www.fao.org/fileadmin/user_upload/ISFP/Improving_the_performance_of_the_agricultural_sector.pdf

Encourage the production of lesser processed cereals by processors

In many countries there has been an increase in demand for higher processed cereals, especially for maize. Encouraging the production of lesser processed sifted maize or wholemeal wheat flour rather than super sifted or de-germed maize or

wheat flour would permit a higher extraction rate and, thereby, the production of higher quantities of processed products. In addition, the less processed/refined products provide better nutrition to the population.

Main effects:

- Better extraction rates and therefore greater availability (less loss of by-products).
- Higher nutrition quality of the product.

Conditions for success:

This needs to be discussed and agreed upon with processors. A campaign is needed to inform the population of the higher nutrition quality of the product obtained.

Increase extension and advisory services on food production

Extension and advisory services, whether delivered by the public sector, the private sector (associated with sale of inputs) or NGOs or other stakeholders are critical in the intensification of crop production. The required changes involve the adoption of knowledge-intensive approaches. Some of these changes may clash with traditional methods or may be counter-intuitive to farmers. In other cases, technologies need to be adapted locally before they are adopted by farmers.

Boosting programmes of Farmers Field Schools is a valuable short to medium-term investment in seeking to intensify crop production systems, and complement input distribution and other short-term measures described above. Documentation of FAO's Farmer Field School methodology is available at http://www.farmerfieldschool.info/

Funding Consultative Group on International Agricultural Research (CGIAR) centres and national research systems should be enhanced and linkages between public and private sector research should be strengthened.

Main effects:

Applied agricultural research can be effective in facilitating major transformations in land use and cropping systems.

Conditions for success:

To generate solutions that are relevant, acceptable and attractive to local populations, research must start at the local and national levels and should use a powerful link between farmers' traditional knowledge and the science-based innovations.

Payment for environmental services (PES)

The lack of market prices for ecosystem services and biodiversity means that the benefits derived from those goods are neglected or undervalued in decision-making. In the agriculture sector, food prices do not incorporate all the associated costs to the environment of food production, and no agencies exist to collect charges for reduced water quality or soil erosion. If farm gate prices reflected the full cost of production – with farmers effectively paying for any environmental damage they caused – food prices would probably rise. In addition to charging for agricultural disservices,

policies could reward those farmers who farm sustainably through, for example, payments for environmental services (PES) schemes.

Sustainable water management

Policies that have proven effective in managing and sustaining water resources under scarcity conditions include: supply enhancement; assessment, accounting and monitoring; concerted planning and allocation; decentralized management; users' involvement and participation; arbitration and conflict resolution; service cost recovery (users pay); protection and pollution control (polluters pay) and private sector involvement.

4. Additional Policy Considerations

4.1 Safeguarding nutrition through appropriate policies and programmes

Protecting and promoting nutrition does not always entail implementing direct nutrition interventions. This can also be done by ensuring that policies and interventions are not detrimental but, rather, supportive to nutritional well-being. A "nutrition lens" should be used to safeguard nutrition in the various measures taken by governments to alleviate the negative impacts of rising/volatile food prices. This can also add value to agriculture's response to soaring food prices.

Nonetheless, in times of rising/volatile food prices, the immediate needs of vulnerable groups must be met, while at the same time building longer-term resilience by addressing the underlying causes of inadequate nutrition.

Short-term interventions include: improved targeting, giving a clearer focus to identifying those population groups at greater risk, where they are and who they are; and refined problem identification, better identifying the major constraints and difficulties faced by such groups in terms of access to and consumption of adequate quantity and variety of foods that provide an appropriate diet.

Longer-term actions include improved programme design. On the basis of the above, it should be possible to identify more effective nutrition and agricultural intervention programmes with greater focus on people: programmes that provide advice on the selection of crops and seed varieties on the basis of consumption patterns and the nutrient composition of foods and diets; and advice on the choice of agricultural practices appropriate for the weak, nutritionally disadvantaged and marginalized groups.

Improved monitoring and evaluation would include data collection activities that look at the impact of price changes on consumption patterns, household food insecurity and dietary diversification using assessment tools; and household expenditure on essential livelihood aspects such as health and education.

Main Effects:

- One of the impacts of the 2007/8 food crisis was that it wiped out three to four years of progress towards achieving the Millennium Development Goal 1 (reducing hunger and poverty by 50% between 1990 and 2015). With the above measures in place, such a huge backslide could be avoided.
- The above interventions would provide guidance to other government support measures to alleviate negative impacts of rising food prices such as subsidies and cash transfers.
- Increase in child and adult morbidity and mortality due to increase in food prices would be avoided, saving lives and reducing expenditure on ensuing health problems.
- Good nutritional status is a precondition for successful economic and social development. Maintaining and/or improving nutritional status, therefore, provides impetus to the development process. This adds value to agriculture and development policies.

4.2 Support to reducing post-harvest losses and downstream activities

To cope with increasing food demand, governments have traditionally emphasized increasing food production. Reducing the food losses during and after harvest and improving

downstream activities have often not been adequately addressed, and require more attention. It could cost less to generate the same increase in food availability from improved post-harvest and downstream facilities than from boosted farm production. Such improvements could also allow production increases to be achieved more rapidly with no additional natural resources such as land and water. Policy-makers need to understand the extent of the losses and the huge gains to be made. Significant proportions of fresh produce such as vegetables and fruits, livestock products and fisheries, and of cereals such as maize and rice are lost to spoilage and infestation on their journey to the consumer. Total fish losses to discards, post-harvest loss and spoilage may reach 40 percent of landings in some cases. FAO studies have shown that, in Kenya, each year about 9 million liters of milk, worth about US$22.4 million, are lost.

Main effects:

- In poor countries, downstream activities have vast potential to increase rural income and employment, reduce food prices in urban areas and improve food safety.
- Processing of agricultural and fish products can contribute to food security, by making foods available outside their usual seasons, and help stabilize prices and supplies.
- Population growth in developing countries is becoming a predominantly urban phenomenon, increasing the role of processing in mediating between food production and final consumption.

Caution:

Government policies and strategies need to focus on the value chain, which involves a complex network of assemblers, brokers, wholesalers, processors, retailers, and exporters, all working within an environment of limited access to infrastructure and capital and imperfect information in many poor countries.

4.3 Credit and finance

The current agricultural credit system in many poor countries is characterized by a variety of rural finance providers, including microfinance institutions (MFIs), credit unions, savings and credit groups, farmers' cooperatives and small rural banks. In spite of several innovative approaches, the investment credit demands of small farmers remain insufficiently met (FAO 2010).

The provision of rural financial services is important in enabling farmers to increase their agricultural productivity and invest in value-adding activities that can improve their overall income and food security. The liquidity constraints of small farmers and vulnerable groups often prevent them from intensifying their production systems.

One innovative model for rural financial institutions is the inventory credit system (Coulter and Shepard 1995), better known as the warehouse receipt system, whereby farmers (or producers' organizations) deposit a portion of their harvests in warehouses as collateral for a cash loan. Farmers can use the loans to meet immediate family needs, participate in collective purchases of fertilizers and other inputs and/or carry out other income-generating activities. The stored products are sold several months after the harvest, when prices are higher, enabling farmers to pay back the loan with interest.

Main effects:

The timely provision of credit and other financial services can play a significant role in enabling small farmers and vulnerable groups to break out of the vicious cycle of low income – low savings – low investment – low productivity – low income.

4.4 Capacity development

Many developing countries suffer from institutional weaknesses. They are unable to develop and deliver the public goods and/or commercial services needed for sustainable agricultural growth, rural development and food security. Policy-makers generally recognize the need for increased capacity development on policy formulation, implementation, monitoring and impact analysis, the generation of reliable price data and institutional development.

Institutions urgently require strengthening and new institutional arrangements in order to facilitate the supply response to rising food

needs. For this, it will be essential to learn from past mistakes, to minimize the corruption and inefficiencies that have sometimes characterized national public and private institutions and to ensure that they are responsive to the needs of producers, both men and women, and particularly poor ones (FAO 2009). Effective capacity building of national institutions requires action at the individual, institutional, and policy levels, including:

- clear mandates in the context of a national policy vision;
- clear distinctions among the functions of public, shared and private institutions, and among their roles/comparative advantages in providing related goods/services; and
- an institutional policy, effective organizational structures/processes, human resource development, appropriate infrastructure/equipment and sustainable financial provisions for each institution (Crowley 2009 in FAO 2009).

4.5 Regional cooperation

The regional and sub-regional consultations synthesis report (FAO 2011) shows that countries propose a wide variety of interrelated measures for addressing the food crisis and that these must be carefully coordinated to ensure an effective response. The measures require substantial investment of government revenue. Strong arguments have been made for promoting regional cooperation.

Main effects:

- Countries that share similar problems and propose similar types of response could especially benefit because of economies of scale.
- This allows more effective measures than those conducted at only the national level.

Recommended actions at regional level

During the regional and subregional consultations the following actions for working together were recommended:

- Regional food reserves
- Market integration systems (e.g. Common Wealth Of Independent States (CIS) market)
- Regional early warning system
- Regional market information system
- Regional price monitoring system
- Regional policy monitoring system (e.g. AMIS)
- Regional Investment Forum (for exchanging best practices and developing effective policies)
- Regional Stabilization funds

The regional or subregional organizations such as NEPAD, UEMOA and ECOWAS would play an essential role in facilitating such collaboration.

1. Summary Table on Immediate Policy and Programmatic Actions

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
3.1 Macroeconomic policies			
Mobilizing budgetary resources (budget deficit/increasing budget revenue)	Reallocation of resources from one area to another.	This operation will need a well-evaluated choice of priorities.	When taxes are high, capital funds would move out from the country. Too large a budget deficit leads to a debt accumulation
Exchange rate	Increase/decrease of the domestic prices.		
3.2 Trade- related measures			
Reduction of import taxes on food items, agricultural inputs and equipment	Lowers the price of the imported goods. Stimulates imports. Negative effect on state budget revenue.	Recommended, provided budget is rearranged to avoid excessive deficit. Effect on prices must be monitored.	
Tax breaks for importers	Same as above.	Same as above.	
Financial support or loans to private sector for funding imports of food commodities	Same as above.	Same as above.	If many countries adopt this measure it could increase international prices.
Reduce customs procedures and other formalities for food import (one-stop shop) with or without relaxation of regulations	Same as above. Speeds up imports.	Care needed to avoid increasing health and safety risks from imported food items.	
Engage in forward contracts for food imports to secure food availability in medium term	Not effective in solving high price problem.		Not recommended as a short-term policy option.
Reduced, banned or taxed exports of strategic food commodities	Reduces prices. Medium- to long-term implications on producers. Risk of smuggling and corrupt practices.	Not recommended.	
3.3 Consumer oriented measures			
3.3.1Tax Policies			
Reduce or remove Value Added Tax (VAT) and/or other taxes on food products	Lowers the price of food. Negative effect on state budget revenue.	More effective if there is competition on the domestic market. Effect on prices must be monitored. Recommended, provided budget is rearranged to avoid excessive deficit.	

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
Removal of road blocks and taxes	Facilitates flow of commodities. Reduces price differential between producers and consumers. Reduced income for local governments/authorities.	More effective if there is competition on the domestic market. Effect on prices must be monitored.	Difficult to apply selectively for food items.
Tax reduction on fuel for transport	Reduces price differential between producers and consumers. Negative effect on state budget revenue.	Difficult to target food or agricultural commodities: high risk of leakages. Implies that budget is rearranged to avoid excessive deficit.	Difficult to apply selectively for food items.
Targeted income tax reduction	Increase of disposable income for target groups.		**Not recommended** as it will not benefit the poorer categories.
3.3.2 Market management policies			
Boosted food imports financed by balance of payments, import financing, and budget support	Availability of food icreases in the normal market channels. Can undermine speculation.	Must be implemented in consultation with private operators.	Potential difficulty to find quickly enough the amounts of food needed at reasonable prices on the world market. Will contribute to raise international prices by boosting demand.
Food aid in kind	Availability of food increases very rapidly for implementing immediately various life-saving safety net modalities.	Only when insufficient in-country availability of food is confirmed and only when "normal" channels take too much time for procuring urgently needed food.	Will contribute to raising international prices by boosting demand.
Requisition of private stocks	Some increased immediate availability of food. Stock owners may hide stocks. Private sector will be reluctant to keep stock in future years.	Government needs financial resources.	Only advised in extreme situations, otherwise not recommended.
Progressive release of food kept in public food reserve	Can temporarily improve availability on markets. Can help to put in place safety nets.	Stocks should be of sufficient size to have real impact.	Rebuilding reserves/buffer stocks should be planned at the same time as releases are programmed. Close coordination needed with private sector.
Consumer price control	All consumers benefit from stable and moderate prices. Likely to impact negatively on producer prices; may produce less in the future. Risk of black market.		**This measure is not recommended** as it is bound to amplify the crisis immediately ad in the future (next year).

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
3.3.3 Safety nets			
Cash transfers or food vouchers	Beneficiaries have additional resources to purchase food. Can contribute to maintaining diet quality. Could have inflationary effects. Vouchers could become a parallel currency. Subject to leakages, embezzlement, corrupt practices and security risks. Cost to budget.	Where markets function. Where food is available. Effective targeting through cash/vouchers for work or other geographical and household-level identification. Unconditional distribution when situations are extreme.	If vouchers are only accepted by dedicated public shops there is a risk of undermining the private food marketing and distribution system.
Food distribution in kind	Beneficiaries have direct and free access to a certain quantity (ration) of food. If the food is purchased locally, it can stimulate production. In case of short supply, local purchases will have inflationary effect. If the food is brought in it could reduce local prices. Could create new food habits. Subject to leakages, corrupt practices and security risks. Cost to budget.	Where markets do not function. Where food is not available. Targeting effective through food for work, school feeding or plain food distribution when situations are extreme.	
Universal food subsidy	Everyone has access to subsidized food. Targeting possible by focusing on selected staple commodities. Extremely costly with potentially serious macroeconomic consequences. Risk of black market in case of rationing.	If food is sold through normal marketing channels, agreements have to be reached with main market operators.	Food transit through public channels is not recommended Once-established, are difficult to remove. Risk of cross-border smuggling.
Employment-based safety nets	Employment of poor and vulnerable unskilled or semi-skilled workers. Creating productive assets that poor people can benefit from. Stabilise local development. Human capital maintenance and development.	Special attention is needed to prevent gender and age biases.	Possible exclusion of vulnerable people facing labour constraints. High demand for administrative capacity to design, implement and assure quality. Potential negative impacts on other uses of labour, including agriculture.
3.3.4 Other measures affecting disposable income			
Increasing salary in civil service and other benefits	Improved welfare of civil servants. Risk of inflation.		Politically beneficial (to stop urban riots), but risky from the macroeconomic point of view.
Credit facilities for consumers	Benefits better off groups.		Not recommended. May contribute to fuel inflation.

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
Reinforce capacity (training and equipment) in income generating activities through value addition on agricultural and food products	Stimulating economic growth. Providing jobs and income generating opportunities. Meeting demand of urban consumers.	Some minimum human capacity and infrastructure is required. Pecial attention is needed to prevent gender and age biases.	
3.4 Producer oriented measures			
3.4.1 Market management measures			
National market information system (prices observatory)	Economic operators are better informed on opportunities existing in the market. Limits market segmentation. Farmers and small traders will be in a stronger position to negotiate prices. Market problem areas can be identified.	Resources. Good dissemination of information. Market must be left free for operators to respond to signals.	Could be contracted out by government to private companies (if private capacity exists) to keep costs under control. Takes time to be established and to have an effect.
Value chain analysis and/or development workshops	Concerted decisions, actions and commitments by various economic operators and the government to improve the functioning and governance of the value chain, and develop mutual trust.		
Negotiation of commercial margins with private sector	Contributes to fair distribution of value added along the chain.		Requires consultations among stakeholders using value chain workshops approach above.
Make/facilitate contract farming arrangements	Provides a greater assurance of a market for farmers and thus removes some of the risk from farming. Opens possibilities for obtaining technical support and, on occasions, input supply on credit terms. Can contribute to enhanced investment.	Most experience is for cash crops, particularly for exports. Needs good and well enforced regulatory framework.	For food crops, with the multiplicity of buyers, farmers are tempted not to respect contract.
Government re-engagement in marketing.	Seek to undermine speculation by private traders.	Only in remote areas where the private sector is not active, provided it is accepted to subsidize this activity.	Experience shows that this **cannot be generally recommended.**
Forced procurement	Black market. Disincentive for production.		**Not recommended.**
Minimum producer price for key staple food commodities	Stability and increased supply of the food commodity. Reduced risk for farmers, which encourages them to grow the commodity and invest.	The minimum price should be the result of a negotiation among stakeholders.	Past experience shows that a government-imposed minimum price will be very difficult to implement.

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
3.4.2 Production support measures			
Immediate support to production in family gardens and irrigated areas	Rapid production of short cycle crops including vegetables in peri-urban areas and on irrigated land. Supply of certain food items will be improved on some markets. Prices of certain food items could be reduced on some markets. If targeting is effective, this can contribute to improving welfare of poor small farmers.	Where input markets are working reasonably well and inputs are available, the voucher system is recommended. Where input markets are not working, seek to make contracts with existing private dealers for distributing input packs or make arrangements with NGOs, projects and government services. Inputs must be available.	Some risk of rent seeking. Risk that this subsidized programme becomes a regular activity difficult to interrupt in the future. Need to agree at start with key stakeholders on an exit strategy. Marketing arrangements should be planned in advance. Too much attention to targeting can increase the time needed to put programme in place.
Input vouchers (seeds, fertilizer and tools) for vulnerable farmers	Vulnerable farmers can decide which inputs of seeds, fertilizer and tools they want to get. It is cheaper to distribute input vouchers than to distribute food to the vulnerable. Can improve the welfare of the poor.	Requires that a reliable and well functioning network of input dealers. Need for an appropriate system to verify input quality, particularly seeds.	Risk that vouchers become like a parallel currency. Marketing arrangements should be planned in advance. Not recommended in areas where there is high likeliness of drought or flood, as risks are too high which reduces the advantage of this approach.
Pilot fertilizer and seed input credit schemes for small-scale farmers for the next cropping season	Benefits to small farmers are potentially large. Availability of certain food items will be improved in households of the pilot areas and in nearby markets. With good targeting, this can contribute to improve welfare of small farmers.	Benefits well shared among stakeholders. Initial revolving fund must maintain 100 percent of its initial purchasing power for the scheme to be sustainable. This integrated approach requires a safe and well enforced regulatory framework for contracts.	Prices of certain food items are likely to be reduced particularly in less accessible areas. Marketing arrangements should be planned in advance.
Input trade fairs (ITFs)	Vulnerable farmer are able to choose the inputs (i.e. seeds, fertilizer and tools) that they need. Can strengthen the local seed system.	Requires good organizational capacity. Offers the opportunity for seed quality control. ITFs should be organized just prior to planting season.	Iit may be difficult to reach large numbers of farmers.
Direct Seed Distribution	Beneficiary farmers have access to inputs that allow them to produce food.	Procurement should be done well in advance of the production season. Good source of quality seed. Ability to deliver it to the vulnerable farmers. Quality verification system for the seed.	This approach often does not build the local seed system. Marketing arrangements should be planned in advance.

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
Measures to ensure availability of fertilizer	Allocation of government budget resources for a credit line for private sector. Organization of national or subregional bulk procurement. Creation of a risk-sharing fund to facilitate the issuance of letters of credit. Fertilizer available on time in appropriate quantities and quality.	Platform for constructive dialogue among public and private sector fertilizer stakeholders.	
Universal (untargeted) subsidized fertilizers.	If input markets function, subsidies will distort production decisions and encourage over-utilization. If input markets are imperfect subsidies can increase economic efficiency. Small farmers have easier access to fertilizer and can increase yields.	Success is more likely in areas where rain is sufficient or reliable, or in irrigated areas. Existence of reliable delivery systems.	Amount of subsidy has to be carefully determined to avoid over-utilization of fertilizer. Universal fertilizer subsidy benefits large farmers more who use large quantities of fertilizer and a few politically powerful individuals. A large share of the fertilizer subsidy goes to the industry (if there is one in the country). Smuggling of fertilizer from border areas to neighbouring countries. Not recommended if markets function well or in drought/flood prone areas. Marketing arrangements are indispensable to ensure that any surplus production will find its way to the market at remunerative prices.
A lift of collateral and the establishment of a government guarantee fund	Farmers, particularly small farmers, will have some access to credit for purchasing inputs and small equipment, and for engaging in rehabilitation of productive assets. Increased production.	It should be clear for the farmers that they are getting some money on credit and that they will have to repay it. Loans provided will need to be well monitored. Some cost sharing between government and banks for monitoring the loans could be envisaged.	Risk of low loan repayments that the guarantee fund is rapidly exhausted.
Provide support (mechanical) and financial support for increasing cropped area	Area cropped, production and food availability in the next season will increase.	Mechanical means for increasing cropped area are available and currently underutilized. Farmers will have the capacity to properly manage the additional area cropped to ensure successful crops and avoid wastage of resources.	Possibility of intensifying existing cropping systems beyond sustainability, by encroaching on fallow. Increased cropped area could be at the cost of forests, pastures or other land categories, with associated risks and consequences. Marketing arrangements should be planned in advance.
Pilot scale farm power vouchers	Vulnerable farmers have access to farm power and equipment for preparing land, cultivation and transport of produce. In case of limited availability of power services and equipment, a vouchers system can contribute to make them more expensive. Improve the welfare of the poor.	Requires a reliable and well-functioning network of farm power and equipment providers with which the government (or NGOs or projects) can make contractual arrangements.	Vouchers could become a parallel currency. Marketing arrangements should be planned in advance.

Policy or programmatic measure	Expected effects	Conditions for success & recommendation	Caution
Stop any subsidy or encouragement for animal production	Eduction in economically unsustainable animal production with the consequence of reduced supply of animal products and higher prices for these food products. Increased availability of certain grains for human consumption.		Will take some time to have a felt impact on food availability: the time for animal feed producers to switch back to grain production for humans.
Increase extension and advisory services on food production	More efficient use of fertilizer, taking into account higher prices.	Research needed.	
Conservation agriculture (CA)	Improve soil structure and reduce the hard work of digging/ploughing the fields. Fertilizer efficiency increased.	Works best where competition for residues with livestock is not a serious problem. Needs to be used for some time for full benefit to be felt.	Requires some technical training and initial attention to weed management. Specific equipment required. Marketing arrangements should be planned in advance.
Integrated Pest Management (IPM)	More efficient production. Reduced risks of pesticide induced pest outbreaks. Less hazards for environment and public health due to reduced/ minimized pesticide use.	Adequate training for farmers and extension workers. Conducive policy framework (no subsidies on pesticides, promoting IPM research, farmer education, etc.). Standards for pesticide residue levels can provide incentives to implement IPM.	
Promote local value-addition and longer shelf-life products	Reduced post-harvest losses. Reduced cost of transportation. Nutritious food immediately available in rural areas. Profit through added-value goes to the rural poor. Employment and income for non-farming rural dwellers.	Good quality ingredients, equipment and energy are available. Processing technology has been checked and improved. Rural processors have been trained. Packaging materials and labelling is available.	
Encourage the production of lesser processed cereals by processors (3.4.2)	Better extraction rates and therefore greater availability (less loss of by products). Higher nutrition quality of the product.	Needs to be discussed and agreed with processors. Campaign to inform the population of higher nutrition quality of the product obtained.	
Payment for environmental services (PES)	Promote sustainability in the use of natural resources.		

Policy or programmatic measure	Expected effects	Expected effects	Caution
Increase extension and advisory services on food production.	Adoption of knowledge-intensive decisions.		
Research and development	Effectiveness in facilitating improvement in land use and cropping systems.	To generate relevant, acceptable and attractive solutions, research must start at the local and national levels and should use the powerful link between farmers' traditional knowledge and the science- based innovations.	

4. Additional Policy Considerations			
Safeguarding nutrition through appropriate policies and programmes	Successful economic and social development.		
Support to reducing post-harvest losses and downstream activities	Increase in food availability. Rapid production increases with no additional natural resources such as land and water. Potential to increase rural income and employment. Reduction food prices in urban areas and improvement of food safety.		Government policies and strategies need to focus on the value chain, which involves a complex network of assemblers, brokers, wholesalers, processors, retailers, and exporters, all working within an environment of limited access to infrastructure and capital and imperfect information in many poor countries.
Credit and finance	Increase investment in value-adding activities. Empowerment of small farmers with low income. Increase of production.		
Regional cooperation	Gathered resources from more countries to address better national or regional matters.	Countries that share similar problems and propose similar types of response could benefit because of economies of scale and allow more effective measures than those conducted at only the national level.	

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