FAO's Initiative on Soaring Food Prices

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

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Acronyms

CIF	Cost, insurance and freight
CFA	Central African Franc
DECT	Dowa Emergency Cash Transfer
FACT	Food and Cash Transfer
FAO	Food and Agriculture Organization of the United Nations
HIV/AIDS	Human immunodeficiency virus/acquired immunodeficiency syndrome
IMF	International Monetary Fund
IPM	Integrated Pest Management
ISFP	Initiative on Soaring Food Prices
ITF	Input trade fair
MDG	Millennium Development Goals
NGO	Nongovernmental organization
NIPFP	National Institute of Public Finance and Policy
TCP	Technical Cooperation Programme
USD	United States Dollar
VAT	Value added tax
WFP	World Food Programme

1 Introduction

In May 2008, as the world faced an acute food crisis brought on by rising food prices, FAO developed a "Guide for immediate country level actions" through its Initiative on Soaring Food Prices (ISFP). In August 2008, food prices reached their highest level in years. Despite the severity of the crisis, it was hoped that prices would eventually drop to less extreme levels. Estimates suggested that:

> "...by 2017, when compared to the average of the observed prices during the period 2005-2007, the real price of wheat (deflated by the MUV) is expected to have increased by 2 percent; rice by 1 percent; maize by 15 percent; oilseeds by 33 percent; vegetable oils by 51 percent; and sugar by 11 percent."[1]

In its 2010 Food Outlook Report, FAO issued a warning to the international community to prepare for harder times unless production of major food crops increased significantly in 2011.[2] Food import bills for the world's poorest countries were predicted to rise by 11 percent in 2010 and by 20 percent for low-income food-deficit countries. By passing a trillion dollars, the global import food bill will likely rise to a level not seen since food prices peaked in 2008, while prices of most commodities are up sharply from 2009. Contrary to earlier predictions, world cereal production had been forecast to contract by 2 percent rather than to expand by 1.2 percent as was anticipated in June 2010.

Prices for most agricultural commodities have increased during the second half of 2010, due to a number of factors including unexpected shortfalls in supply caused by unfavourable weather events, policy responses by some exporting countries and fluctuations in currency markets. International prices may rise even more if production in 2011 does not increase significantly, especially for maize, soybean and wheat. The price of rice, the supply of which, according to FAO, had been more adequate than other cereals, could be affected if prices of other major food crops continue to climb.

While high food prices can negatively impact the food security of vulnerable households, they can also create opportunities for developing agricultural production and rural development. The current situation calls for continued responses from governments and the international community; policies need to be adjusted and programmes put in place to address negative impacts and tap into opportunities.

This situation creates challenges for the achievement of the Millennium Development Goals, particularly MDG1 of reducing poverty and hunger. However, higher food prices affect countries differently depending on whether they are net exporters or net importers of food. Net food-exporting countries will benefit and experience higher terms of trade and more income. Net food-importing countries will face lower terms of trade and have to pay a larger food import bill, which will impact negatively on trade balance and affect the strength of their currency. 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 hard by high food prices in recent years. 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 are 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.

1 FAO, Soaring food prices: facts, perspectives, impacts and actions required, High-level Conference on World Food Security: the challenges of climate change and bioenergy, Rome 2008 ftp://ftp.fao.org/docrep/fao/meeting/013/k2414e.pdf

2 FAO, Food Outlook - Global Market Analysis, Rome, 17 November 2010, http://www.fao.org/docrep/013/al969e/al969e00.pdf

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The **primary beneficiaries** of higher food prices are those who have been holding food stocks and are now 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 will be 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.

In planning country-level actions, it is essential to tailor the response to the specific conditions of the country and the situation of different stakeholders concerned. Since the situation can vary from country to country, "one size fits all" strategies are not effective; they have even been counterproductive in many cases. Countries have taken some steps towards addressing the issue, particularly measures aimed at reducing the impact on consumers. Some of these decisions (e.g. export bans) have had dramatic consequences on world prices and have exacerbated the problem for importing countries, which is why it is so important to consider carefully the implications, both domestically and internationally, of any decision taken by a country.

Given these circumstances, FAO felt it would be timely to publish an updated guide that would review the pros and cons of various policy and programmatic actions that countries could use to address high food prices, and their likely impact at country and household level.

This guide addresses the conditions under which policies and programmes are best adapted. It also cautions against measures that might appear useful in the short term but which 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 designed for those involved in developing action plans to address the current issue of high food prices.

It is divided into three parts. The first part provides background information on the context, purpose, audience and structure of the guide.

The second part provides some essential remarks on processes that lead to decisions on actions to be taken as well as the analytical underpinning required to ensure that instruments used are well adapted to the specific conditions within the country.

The third part looks at instruments that could be used to immediately address high food prices. They are classified by the domain of intervention (macro-economy, trade, measures in favour of consumption and production).

The instruments are reviewed in isolation. Therefore, it has the limitation of not focusing on possible synergies or contradictory effects that some instruments may have if used simultaneously in a country. It also does not examine the effects decisions made by countries may have at regional or global level.

Important remark: 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 (whether at collection, wholesale or final distribution level), care should be taken not to adopt measures that could undermine the existing market. Attempts should be made to get full cooperation of market operators to address the situation. Measures should use the existing market infrastructure and operators (including through contracts and agreements), when they operate reasonably well, 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, it may be necessary to take extreme measures 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).

As such, it is 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 for deciding on the most appropriate action for addressing high food prices.

2 Accompanying process and analytical underpinning

2.1 Process

With countries facing high food prices, and the resulting hardship and political trouble, it is essential to give considerable attention to the process, as any decision made will need to get the backing of key stakeholders. Their resistance to decisions taken could make the situation worse.

Typically, in a situation of high food prices, trust among stakeholders may falter. The risk of mistrust growing between private sector traders and government, farmers and private sector traders, consumers and government etc., is high. 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 or a sufficient analysis of the consequences that decisions taken will have on the economy.

It is essential that a process be initiated to discuss and decide on measures for addressing high food prices in a consultative and transparent way.

One way to proceed is first to organize a broad national consultation using existing consultative mechanisms, if possible. 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;
- representatives from the private sector (traders, importers, processors, etc.) and their organizations;
- civil society organizations, including farmer and consumer organizations representing the poor and vulnerable groups, and nongovernmental organizations (NGOs);
- representatives from various political parties or movements;
- experts including academics.

This consultation should be carefully prepared and facilitated by professional facilitators. It should be an opportunity to review available options and to assess their 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.

At the end of this broad consultation, the following key results will need to have been achieved:

- agreement of key stakeholders on the overall objective of the agreed action plan;
- agreement of key stakeholders on their commitments to implement selected immediate action;
- agreement to meet again, within a period of three 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;
- identification of pending issues (e.g. fertilizer policy, improving the functioning of key food chains, safety nets, etc.) that need further consultations in the framework of specialised 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. Efforts should be made to ensure that information about actions taken and the process adopted is accessible and understandable to everyone.

2.2 Analytical underpinning

To support the decision-making process outlined above, it is necessary to conduct several rapid analyses to provide the evidence required to take appropriate decisions. The following are some examples of the types of analysis that would likely be required (depending on the situation and information already available):

- conduct analysis of food availability and utilisation (food balance sheet for key food commodities);
- analyse 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 (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;
- carry out evidence-based analysis to assess whether agricultural inputs subsidisation is necessary.

These analyses, requested by the task force or specific working groups (see 2.1), will provide the data and facts needed to take appropriate actions and foresee what kind of implications they could have for key stakeholders.

3 Immediate policy and programmatic actions

In this section, a selection of available policy and programmatic actions for addressing high food prices is reviewed and presented in the form of a "menu". Depending on the conditions within the country, some of the menu options may seem more appropriate than others. There is no "one size fits all" solution that can be applied with the same chance of success in every country. The mix of policy and programmatic actions has to be specifically adapted to local conditions and agreed upon by the key stakeholders. Otherwise, they have little chance of succeeding.

Some of the options reviewed here – many of which had been used in the past and which some governments are contemplating reinstating – are strongly discouraged, as they have proven to be 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 USD1,000/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 will 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 will require governments to cut other spending for fear of increasing the budget deficit, and the negative consequences this would have on economic stability. While cutting budget expenditure, care will be 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. Regarding trade, depending on whether a country is an exporter or importer of food, high food prices will imply 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 this issue.

3.1.1 Mobilizing budgetary resources

Many of the policy instruments addressing high food prices, whether directed at trade (e.g. cut 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 will be that these resources will have to be reallocated from other uses (with implications on other functions of the state) or that the budget deficit will 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. The risk in leaving the budget in deficit over a long period will be the necessity to undertake stabilization and structural adjustment measures, measures that have proven in the past to be very costly from the social point of view.

  Caution: Too large a budget deficit is to be avoided. It is preferable to divert resources from other budget uses of a lesser priority, while avoiding cuts in other development programmes with long-term implications. Several countries have already taken action in this direction like implementing austerity measures (the Philippines) and increased

resources allocated to agricultural investment (Algeria and the Philippines).

- **Increasing budget revenue.** This option could be considered in relatively richer countries (e.g. with oil and other mineral resources or strong industrial or services sector) and where financial flows are important. A measure already in practice in some emerging countries (e.g. Brazil) has been to impose a very light tax on financial transactions.

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

3.1.2 Exchange rate

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.

In a country which has its **currency tied to the US dollar** (e.g. China, Malaysia and several countries in Latin America and the Near East), as the dollar has depreciated, imports become more expensive, and exports more attractive. Domestic prices will see 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 becomes tense**.

A country which has its **currency tied to the euro** (e.g. Central African Franc [CFA] in Western and Central Africa) will see its domestic price increases cushioned by the appreciation of the euro. Domestic prices will increase 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 becomes less tense**.

In a country with a **fixed exchange rate** (whether tied to the US dollar or to the euro, or to a basket of currencies) the currency will tend to become relatively:

- undervalued if the country is a major food exporter: this will constitute an encouragement to exports; or
- overvalued if the country is a major food importer: this will constitute an encouragement to further import.

Therefore, in both cases, a fixed exchange rate is likely to be **detrimental to local availability,** compared to a floating exchange rate.

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 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.

- **Reduce 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. This is the reason why a large number of countries have decided to reduce them during the 2008 crisis, so as to facilitate imports and limit price increases.

Main effects:

- The direct effect of a reduction or removal of an import duty on a given product is to lower the price of the imported good and thus contribute to reducing domestic consumer prices.
- The reduced duty can also have an indirect effect when the good concerned enters as an input in the production of another good. For example import duty on petroleum

Table 1 **Exchange rate regimes and their impact**

	Floating exchange rate	Exchange rate tied to the USD	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 USD 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 penalised 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 slower 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 USD 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 the producers	Exports in local currency do not fully reflect world price increases 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 USD but relatively less favourable for the producers

products affect all food products since petroleum is used as input into food production. So the full incidence of the import tax is the sum of the direct and indirect effects of the tax, i.e. the tax increases the price in the product itself (i.e. petroleum) and in all other products (including food items) that use it in their production.

- Reducing import taxes stimulates imports by lowering import costs. It makes imports more attractive and thus reduces the protection that local producers may have enjoyed because of the existence of the duty.
- 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 them to purchase them. If this is the case, it will tend to increase productivity in agriculture. Hence reducing import tax on both final and intermediate goods will provide more impact on stimulating domestic food production, as well as domestic consumption, via lower prices.
- Lower taxes, if not compensated by higher amounts of imported goods, will have negative implications on state budget revenue, which if the budget deficit increases too much 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) on final consumption goods, and also eliminating excise tax on imported goods like 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. The net effect is to stimulate imports, increase domestic supply as well as food consumption, via lower prices.
- **Financial support or loans to private sector for funding imports of food commodities.** Other measures to stimulate imports are financial support instruments which may take the form of a loan guarantee or subsidized loan interest. These measures have the same effect as subsidies on imports and therefore contribute to lowering the cost of imports. The net effect is increased imports that would otherwise not take place. Another effect is increasing the volume of imports as the result

of the financial support (subsidy or loan guarantee). Loans for funding imports of food commodities will be effective in increasing food supply if importers would not be able to buy from abroad without them. This has to be ascertained by consultation with main private importers operating in the country. One unwanted effect likely to occur if several countries took the same steps would be a further increase in world prices as demand would increase on the international market.

- **Reduce customs procedures and other formalities for food import (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 these 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. The main effects expected from this measure are very similar to those of the two previous ones. The difference is that it should have very limited implications on 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, having private importers or state import agencies engage in forward contracts for food imports may further exacerbate price escalation as demand for the same supply of commodities is heightened. For this reason, this would not be a recommended short-term policy action.
- **Reduced, banned or taxed 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. However, these interventions have exacerbated the global food market situation and may complicate 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 restriction 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, creating problems in the medium term. 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: Because of the serious negative effects this is likely to have both in-country and abroad, **this measure is not recommended**.

3.3 Measure in favour of consumers

In addition to the trade-related measures reviewed in the previous section, there are a variety of policies and programmatic activities that can be implemented in favour of consumers. For the sake of presentation, they have been grouped into: (i) tax policies; (ii) market management policies; (iii) safety nets; and (iv) other measures affecting disposable income.

Typical measures that can be used include credit facilities, temporary tax breaks and cuts in tariffs and other trade barriers to help private

market actors boost imports and supply food throughout the country at competitive prices. Existing food reserves can also be used to maintain a satisfactory level of food availability on the market, particularly when there is evidence of market operators keeping their goods off the market for speculative purposes.

High food prices pose a threat to people's livelihoods. To address this, especially in the short run, social protection systems can be strengthened and extended to include those vulnerable to higher prices. Safety nets may include assistance in the form of food, vouchers or cash transfers (conditional – linked to a particular work or to visiting health centres – or unconditional), employment programmes (food or cash for work), school feeding and specific nutritional activities focused on 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. They may also include insurance schemes. These activities require adequate assessment and targeting systems to be effective and efficient and to avoid leakages.

Governments usually implement these measures as a priority in urban areas, because they are easily implemented (logistical problems are more easily solved) and because they are generally the main source of political troubles. Also, urban populations are highly dependent (more than rural population) on purchased food. However, strengthening safety nets is also important in the rural areas where, in most countries, the majority of vulnerable households live. Measures adopted by governments should, to the extent possible, operate through existing private commercial channels or by contracting private operators to avoid competition with 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.

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 to implement a diversified VAT (a variant from a unified VAT rate on all commodities).

Main effects:

- The increase in the consumer price of food products 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, it is expected that this measure will limit the reduction of food consumption by consumers that is occurring because of 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.

There are risks that retail sellers may simply pocket all or part of the tax reduction, leaving food prices unaffected by the tax reduction. This may happen in case of low competition.

Condition for success: As an accompanying measure 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 to those retailers who do not reflect the lower tax on consumer prices could also be envisaged. This measure is more likely to succeed in the case of a market where there is competition. Selective reduction or removal of taxes on certain foods chosen for the important role they may play in the diet of poor households (e.g. inferior coarse or broken grain cereals, for example) will allow an element of self-targeting on the part of the poor, thereby reducing leakages. 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 emphasizes food price variations and encourages corrupt practices by local officials. Removing food control movements and taxes would facilitate the flow of commodities to consumption markets, help alleviate price variations between localities and offer consumers lower prices and producers higher prices more so than if movement controls were in place.

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 the producers (importers), the consumers and the intermediaries. Whatever benefit will 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 that is occurring because of high food prices.
- Reduced road taxes mean reduced income for local governments/authorities. This will affect their budget and make them less capable to fund 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.

There are risks that intermediaries may simply pocket all or part of the tax reduction, leaving food prices unaffected by the tax reduction. This may happen when competition is low.

A difficulty with implementing this measure is that it will be awkward to apply the exemption of the road tax selectively to food products, particularly when the transportation of food between producing areas and town markets is mixed with the transportation of other commodities, as is the case in many countries in Africa.

Accompanying measures:

- Monitoring of prices on markets in surplus production zones and on main consumer markets to control the repercussion of the tax removal on prices; the possibility of imposing fines to transporters who do not reflect the lower tax on consumer prices could also be envisaged, but this may not be easy to implement because of the difficulty already mentioned.
- The government may consider some compensatory measure in favour of local authorities for loss of part of their income.

Condition for success: The possibility of imposing fines to those retailers who do not reflect the lower tax on consumer price could also be envisaged. This measure is more likely to succeed in the case of a market where there is competition. To simplify application, it may be worthwhile prioritising the measure on roads that link main producer areas with main consumer markets.

Caution: In the case where the transport of food is mostly 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.

- Tax reduction on fuel for transport. In most countries, fuel/petrol 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 for food transport, which is a relatively bulky commodity.[3] In 2008, high food prices occurred at a time when there was also a surge in oil prices. This 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

3 In some countries, particularly in Africa, a sizeable proportion of food is being transported in small vehicles that may be operated with petrol. In others, the bulk of food may be transported by fuel operated trucks.

the price of oil increased. Two possibilities could be envisaged: (i) the percentage of tax on fuel and/or petrol is adjusted downwards so as to keep the actual amount paid by unit 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; (ii) the percentage of tax could be reduced further so as to compensate in part for 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 will be shared differently among the producers (importers), the consumers and the intermediaries. Whatever benefit will 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 that is occurring because of 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 to account for an eventual reduction in income.

A difficulty with implementing this measure is that it will be awkward 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.

Condition for success: The more transport is specialised, the easier it is to target the tax reduction. Otherwise, there are likely to be huge leakages.

- **Other tax exemptions or benefits** such as (targeted) income tax exemption that could be envisaged will not really 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 quieten down some of the more vocal demonstrators in urban areas.

3.3.2 Market management policies

In several countries, it has been observed that 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 in public or private stocks on the market; or call for more food aid. Each of these options has its advantages and drawbacks. 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, an evolution which, universal experience demonstrates, 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 developing countries will need budget and balance of payments support to face increasing food import bills as well as higher energy costs. Besides the important role of compensatory finance arrangements such as those that can be provided by the International Monetary Fund (IMF) and

facilities offered by 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. Failure to mobilize additional funding runs the risk of jeopardizing important developmental programmes and projects as 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 (e.g. more than 30 percent before the increase of food prices), 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 is also available for implementing different safety net modalities discussed in section 3.3.3.
- If this approach is being used by a large number of countries, it would contribute to further increasing world prices.

Caution: It is important that this approach be implemented in consultation with private operators. It should not lead to a re-engagement of the public sector in food marketing activities, which could weaken the private sector and create problems once the situation is once again more "normal". A difficulty could also be 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 lifesaving role in poor countries where highly vulnerable populations may face food hardship and a serious lack of access. There is considerable experience in the international community, particularly with the World Food Programme (WFP), in providing food aid in large quantities and very rapidly. However, the cost of this approach is known to be very high (USD 1 value of food delivered costs USD 2 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 (see preceding approach) cannot be implemented quickly enough.

Main effects:

- Rapid increase of food available to immediately implement various lifesaving safety net modalities discussed in section 3.3.3;
- Possibly some decreasing effect on market prices of food, depending on the amount of food aid provided.

Caution: It is important that this approach be implemented 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 (forced procurement).** In case of crisis, some countries may decide to seize private stocks and oblige their owners to put the food they store on the market. Depending on how this is done, this measure can have very different implications. Several approaches can be adopted, of which three are discussed briefly: (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; (iii) good are bought at a low price by the government, which uses them for safety net programmes.

Main effects:

- Increased immediate availability of food.
- Option (i): 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 requisition, which reduces expected profitability of storage).
- Option (ii): similar to option (i), with additional consequences in that the government has to mobilize resources to buy the food, and then sell it again, thus getting involved directly in marketing (see below).
- Option (iii): this minimizes the costs to the state budget but amplifies the risk to owners of hiding stocks, getting involved in the black market and being reluctant to store food in the future.

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

- **Progressive release of food kept in public food reserves to reduce price hikes and/or provide assistance to the more vulnerable.** This has been 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 the 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. Retrospectively, the approach advocated by many against countries keeping large food stocks (on the grounds that they are costly to maintain and incur considerable losses over time) does not appear well adapted in a situation where food prices are rising, making it more 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 with the money kept reduce very rapidly, much more rapidly than if physical resources had been kept. This may give renewed arguments in favour of keeping physical stocks in the future.

Main effects:

- Option (i): releasing on the market (through sales to wholesalers at market price); depending on the amounts that are released, the price of food can be reduced or prevented from rising further on those markets (probably mostly urban) on which the food is being released. However, the effect may be short-term, depending on the size of reserves available, but it could help to fill the gap pending the arrival of imports. This will benefit all consumers buying on those particular markets.
- Option (ii): using food stocks for distributing to vulnerable groups. Depending on the amount that can be released and the size of the rations, a certain number of vulnerable families can benefit from temporary relief. 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 they 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 are of a sufficient size to have an effect on markets or allow running a worthwhile food distribution programme.

Caution: In most countries it is doubtful whether the existing reserves are of an adequate size to have a significant effect on market prices. The rebuilding of reserves/buffer stocks (as was done in Niger during the 2008 crisis) should be planned at the same time as releases are programmed so as to avoid complete 'stock outs'. 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.

- **Price control on key staple food products through regulation.** The government fixes a price level for selected food products, monitors if the 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 for price monitoring. Zimbabwe is a recent example of a government's attempt to control prices, and images of the resulting empty shelves in the country's supermarkets have been shown frequently in the international media. Other countries that have adopted this approach include Benin, Cameroon, China, Ecuador, Haiti, Mexico, Russia and Senegal.

Main effects:

- Consumers benefit from stable prices and do not have to reduce their food consumption as if prices had been allowed to rise, provided this measure does not reduce availability (see below). All consumers potentially benefit the same, whether poor or rich. Most likely, the control will work better in urban areas rather 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 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 being 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 a marketing activity. 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.

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 of course will lead to even higher prices. For all these reasons, this measure is not recommended.

3.3.3 Safety nets

The safety net programmes discussed here include food or cash transfers and food subsidies. These aim to help vulnerable households maintain an adequate level of food consumption when they are confronted with negative shocks and to avoid depleting their asset holdings. These transfers can be conditional or unconditional, universal or targeted to specific population groups. Safety nets can be sourced from the following: for food - existing public or private stocks, imports or food aid in kind; for cash transfers and subsidies – national budget or international aid. These different sources are analysed in section 3.3.2. In this section, the discussion focuses on various types of safety net interventions. 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 (and 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 in low-income countries such as Mozambique and Sri Lanka.

- **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. These programmes generally target selected vulnerable households or specific regions. Targeting can also result from the participation of beneficiaries in specific activities (self-targeting through cash for work: for maintenance or establishment of transport, storage, market or production infrastructure; cash for attendance at a health clinic, etc.).

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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.
- Exchange of food vouchers may be restricted to certain types of foods determined by nutritional cost/benefit (e.g. coarse grains) or population target (e.g. weaning foods).
- Both can help to maintain caloric intake and dietary quality, thus helping to avoid hunger and long-term developmental damage to children.
- Compared to a commodity-specific subsidy or in kind distribution (see below), a voucher or cash can help maintain diet quality.
- If food is not available on the market, such transfers can have an inflationary effect resulting in further increases of food prices locally.
- In some cases, food vouchers may become a parallel currency that can be used for purposes other than purchasing food. Cash distribution evidently makes leakages to other uses than food even easier.
- This system can be subject to leakages and embezzlement and encourage corrupt practices. Transparency in eligibility, budget allocation and responsibility, as well as recourse mechanisms at all levels can help minimize these risks.
- It also creates some security risks (robbery).
- If vouchers are only accepted by dedicated shops (public), 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 (budget deficit) with possible serious macroeconomic implications.

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

- **Food distribution in kind.** This type of programme entails distribution of food in kind to beneficiaries by a dedicated distribution system. Food (individual or family rations) 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 thus distributed can be locally purchased (if available), 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.

Main effects:

- Beneficiaries have direct and free access to a certain quantity (ration) of food. This contributes to increasing their welfare.
- If food is purchased locally, it can help to increase demand and stimulate production. In case of limited supply availability, however, local purchases will have an inflationary effect and contribute to further price increases.
- If food is brought in from another region or from abroad, it could reduce local prices. Amounts should be carefully determined to avoid lowering prices to the extent that they are no longer attractive to producers. The effect would be felt during the next cropping season.
- 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).
- This system can be subject to leakages and encourage corrupt practices. Transparency in eligibility, budget allocation and responsibility, as well as recourse mechanisms at all levels can help minimize these risks.
- It also creates some security risks (robbery).
- The measure will have negative effects on public finance (budget deficit) with possible serious macroeconomic implications, depending on the size of the programme and unless it is funded through aid.

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 various programmes such as food for work, school feeding or general food distribution when situations are extreme. Since food distribution can disrupt local production, labour markets and consumption patterns, it is important that the food distributed be locally procured, if available. Local procurement has the advantage that it stimulates agricultural production, markets and growth. If local procurement were to create further price increases, it would be preferable to bring food in from elsewhere.

- 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 on imports (importers pay the cost, freight and insurance [CIF] price minus a subsidy paid by the state) and then let the food flow through normal marketing channels. Another is to have subsidized food sold through dedicated shops accessible to anyone (although usually in limited amounts to avoid resale 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 keep prices low.

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 will have

negative effects on public finance (budget deficit) with possible serious macroeconomic implications. In the past, food subsidies have led to governments facing major financial difficulties, 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 the absence of a subsidy.

Caution:

- In case the food is sold through normal marketing channels, agreements have to be reached with main market operators 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 not to 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.
- In case the food is transiting through public channels, this 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 in the case 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 neighbouring countries where there is no subsidy (need for harmonization of policies among a group of countries from the same subregion).

Additional remarks on safety nets:

- Targeting. There is considerable debate on whether safety net programmes should or should not be targeted and the criteria to use in targeting. Irrespective of the targeting strategy used, it is fundamental to ensure that the targeting strategy and/or the design of the transfer programme ensures the participation of the most vulnerable groups, or is complemented by other measures to reach those in need that would otherwise be excluded. For instance, a transfer programme that is conditional on providing labour is accessible only to the able bodied and may thereby exclude the elderly and the disabled; a school feeding programme will only reach children of schooling age, but miss pre-schoolers. All eligibility criteria must be transparent and may not discriminate against people on the grounds of sex, race, religion or social status.
- Process. Information about safety nets, eligibility and targeting criteria, responsible local authorities, budget allocations and recourse mechanisms should be actively disseminated and explained to maintain public support, ease potential tensions, enhance efficiency and protect people's rights. This will also stem leakages and discourage corruption.
- It is also possible to subsidize non-food consumption items to have an effect on income available for purchasing food (similar effect to that of cash or vouchers).
- Adjustments. In situations where food prices are increasing, cash transfers need to be adjusted so that their food purchasing power is maintained. For instance, in Malawi, the Food and Cash Transfer (FACT) and the Dowa Emergency Cash Transfer (DECT) are adjusted according to variations in food prices. Unless this adjustment takes place, the value of the cash transfer – and thereby its effectiveness in protecting households' food consumption and livelihoods - will fall as food prices increase. This

has happened recently in Ethiopia and Kenya. However, a careful implementation can avoid creating unsustainable demands on national budgets and perverse incentives at the household level.

- Interactions between safety net and development interventions. It is extremely important to consider the interactions between safety nets and "development" interventions to build on potential synergies and to avoid having either type of intervention undermine the other. For instance, cash transfers can be designed to support agricultural production if the transfer programme is designed to encourage investments in agricultural inputs. On the other hand, a food transfer in a context of functioning markets may disrupt efforts intended at food market development or agricultural production. When identifying potential synergies and conflicts, the crucial point is to select a set of interventions that complement each other in achieving short- and long-term objectives and to adjust them over time as circumstances change.

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). For example, some countries (e.g. Cameroon) have 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), this measure does not directly help the poorer categories of the population who live off informal activities. In fact, in some cases, it could even be detrimental to them. These types of measures have been adopted by a few countries: higher salaries (Cameroon); higher housing allowances (Cameroon); reduced cost of electricity (Burkina Faso).

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 to inflationary effects.
- Increased salary and benefits will contribute to degrading the state budget situation, with implications on the macroeconomic situation in the case of a budget deficit already discussed in section 3.1.
- All this combined creates a risk of fuelling inflation, particularly on 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), this measure may have negative macroeconomic implications while not assisting those poorer categories who suffer more from high food prices.

- 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 was the case with the preceding measure, these measures are likely to benefit better off groups of the population and contribute to budget deficits and fuel inflation. Not recommended.

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

Effects: Value addition on agri-food products 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. Processed foods have a longer shelf-life and can meet urban food needs.
Requirements: Some minimum human capacity and infrastructure are required.

- **Other measures.** Other measures available to contribute to increasing disposable income are linked to either safety nets, support for the development of income-generating activities in urban areas (through funding of public works or opening of credit lines for small businesses) or support for the production of cash crops and other economic activities in rural areas.

3.4 Measures in favour of producers

In many developing countries, because of the malfunctioning of agricultural markets, it is likely that high prices are not well 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 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 here that any production programme implemented should absolutely be linked to marketing arrangements that secure a fair price to producers that would reflect the general increase of consumer prices.

This also points to the importance of analysing price transmission and tracking market inefficiencies so as to identify policies and institutional arrangements that could be enforced rapidly in order to lift impediments to price transmission and provide incentives to producers.

Programmes can be initiated that will help increase supply response in the short term. They will comprise production schemes that will promote home gardens and off-season utilization of irrigated land and 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 some of the pressures from food prices. As already mentioned in the introduction, 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 inexistent.

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 only be felt 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 lift impediments to price transmission to producers, measures can be contemplated from two perspectives: macro and micro. At the macro level, the problem can be addressed by by rapidly putting in place, as a matter of priority, a national market information system (prices observatory) and conducting 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).** This involves recording, disseminating and analysing 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 analysed. 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 on 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 be beneficial to producers and alert them to production possibilities, but impact negatively the 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 explaining the lack of price transmission.

Condition for success: Sufficient resources are being mobilized to allow good coverage of the country. Collation and dissemination of data is immediate (within one or two days) and widely available for free or at a modest cost (through radio or telephone). A favourable activity is for governments to broadcast extension programmes on radio and television to alert farmers to current and forecasted price trends and to indicate that additional production in the coming season may be profitable. The involvement of crop early warning systems, which monitor crop production, plantings, progress, harvests and prices in different localities, is essential. However, for farmers to grow staple food crops at a profit it is necessary that governments continue to allow the free market to function so that farmers can respond to price signals.

Caution: May 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 on markets. Should be started immediately but results are medium- to long-term.

- **Value chain analysis and/or development workshops**.[4] 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 an analysis to be conducted, it can provide an invaluable input into the deliberations of the workshop.

Main effects:

- 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 the accountability of various stakeholders.
- 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.

4 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.

- An outcome of this process could, for example, lead to decisions for some stakeholders to reduce their margins, as long as other measures by the government can provide them with some indirect compensation.

- **Negotiation of commercial margins with private sector.** This is typically the kind of item that is part of an overall negotiation process among various stakeholders of a value chain, including government. This should take place within the framework of value chain analysis and/or development workshops discussed above. A good understanding of the costs faced by the private sector is essential prior to such workshops.

Main effect:

- A fair distribution of value added along the chain.

- **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 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 occasions, input supply on credit terms. It 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 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 marginalised.

- **Government re-engagement in marketing.** When one analyses the causes of soaring prices in 2008, the reasons that explain this situation include the weather, economic factors, alternative uses of arable land and increased 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. Such a move cannot be 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.

- **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 be obtaining 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), have 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 PR China in the 1970s saw farmers limiting their production but when sales to the open market were later sanctioned, production increased significantly. For all these reasons, this measure 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 was 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 shown not to be effective 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

Immediate measures that can be taken are divided into those with an immediate impact (productive safety nets), and those which will bear fruit in the coming two to three years resulting from a sustainable intensification in production systems.

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 vulnerable farmers and determine the right crops and appropriate varieties of seed are critical. Inputs can be provided in a range of ways

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that include direct distribution to farmers, input trade fairs, voucher, credit schemes etc. The 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 will 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 will 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 will 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. This action is concentrating 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 on 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 deficits with overall macroeconomic consequences (details 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 on the market and compete with the goods provided on a cost basis, bringing down prices and the profitability of traders, threatening their existence.
- In areas where input markets are not working, options considered for implementing the programme could be: (i) either make contracts with existing private dealers for distributing input packs; (ii) or make 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 production of the next season.
- In both cases, the availability of inputs is of paramount importance; if not, the scheme is bound to fail.
- The risk with this approach is that this subsidized programme becomes a regular activity that will be difficult to terminate in the future when the situation becomes more "normal". It is therefore important to agree from the start with key stakeholders on an exit strategy including the criteria describing the conditions that justify the continuation or 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, or else producers will be discouraged to go for increased production for some time in the future.

Caution: It is doubtful, however, that net food buyers can operationally be targeted as they will be difficult to identify on short notice. As a practical matter, the focus of implementation would need to be on small farmers, some of whom are net food buyers but some of whom may also be net sellers. Even 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 work pilot programme, which has a higher probability of being self-targeted. However, the more investment is made into designing programmes in the most proper way, 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 accept to work with some limited targeting, but as time passes, try to improve programme modalities so as to become more selective and targeted, and less disruptive for 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. There may be a need to put in place a seed development programme to ensure adequate seed availability for the following season (see below).

- **Input vouchers for vulnerable farmers:** Vouchers are provided to vulnerable farmers that

they can use to purchase 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 Ethiopia and Malawi 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 to get (not imposed like in the case where input kits are distributed to farmers).
- Like with other vouchers, they can become a parallel currency that vulnerable farmers use for purposes other than for getting inputs.
- Provided the weather is favourable, 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 that a reliable and well functioning network of input dealers is in place with which the government (or NGOs or projects) can make contractual arrangements, and that inputs are available in sufficient quantities and of the right quality. For seeds, there is a need for an appropriate system to verify seed quality, i.e. to avoid that grain be sold as seed, and diversity to make sure that the seed available suits local conditions and preferences. It is essential to consult with 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 being able to scale up successful approaches quickly.

Also, 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 (local market prices could collapse if production increases and no provision is made to transfer surplus production to urban markets), or else producers will be discouraged to go for increased 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, 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 high. This 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 on credit recommended fertilizers and other tested inputs 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 being 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, Morocco, Nigeria, Philippines, Peru, Syria, Tunisia and Turkey.

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 of 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, dealers and credit suppliers are satisfied. This subsumes 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 that 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 last 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, or else producers will be discouraged to go for increased 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 (no means to purchase), vulnerable farmer are able to choose the inputs that they need for the upcoming season in order to undertake agriculture production. They can strengthen the local seed system.

Conditions for success: This approach requires organizing farmers, fair facilitators, the input dealer, and farmer seed producers for conducting the seed fairs for a maximum of 1000 farmer per input fair per day. There is a need to verify seed quality before and during the fairs, and make sure that sufficient diversity of seeds is 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 numbers of farmers. If there is a drought or flood, food production may not be increased.

Also, 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.

- 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 deliver 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.

Also, 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 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."[5]

Furthermore, 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 then be accompanied by contracts with private sector or NGOs for distribution or for establishing a voucher system (it was seen earlier that for an input voucher system to operate well, sufficient inputs have to be available). 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 effect:

- Fertilizer will be available in the country on time and in appropriate quantities and quality.

Condition 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 will be critical to make sure that the inputs are available in large quantities, or else vouchers will simply create inflation in local input

5 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.

prices. In addition, it will be essential to consult with 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 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 rapidly both because of increased demand and higher production costs (nitrogen fertilizer prices are strongly correlated with energy prices). In some cases, this policy has also been justified on the grounds that with input markets being imperfect the use of fertilizer in many countries is suboptimal. In others it has been used 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 is also intending to adopt it.

Main effects:

- When input markets are functioning, input subsidies will distort production decisions and encourage over-utilisation of inputs.
- When input markets are imperfect (which is the case in many developing countries), input subsidies can increase economic efficiency. However, the amount of subsidy provided needs to be determined in such a way that it is not so large that fertilizer use is increased beyond the point where it is socially profitable (e.g. additional "marginal" use of fertilizer due to excess of subsidy does not create a corresponding increase of production, or, 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 increasing crop yields, the additional use of fertilizer created by fertilizer subsidies helps to break the vicious cycle of poverty and food insecurity. However, many commentators and studies continue to conclude that subsidies have only limited impact.
- Besides, a universal subsidy benefits those who consume more fertilizer. Therefore larger farmers will benefit more than the smaller and poorer farmers.
- Moreover, experience shows also 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 neighbouring countries where there is no subsidy (need for harmonization of policies among a group of countries from the same subregion).

Conditions for success:

- Success is more likely in areas where rain is sufficient or reliable, or in irrigated areas.
- Existence of reliable delivery systems, such as improved rural markets. Supporting both large- and small-scale private traders will ensure the availability of fertilizers to farmers when they are needed.

Caution: Experience with fertilizer subsidies is that the 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, utilisation 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.

It should also 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 the lack of roads and markets, the lack of water control and the lack of market-oriented risk management instruments.

There is an important need to monitor the improvement of the efficiency in fertilizer use, particularly on measures that aim to improve the productivity of the working capital invested in fertilizer by farmers. A continued effort should be made to collect data from farmers on fertilizer use per crop and relate this information 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, which include assessment of the feasibility to meet 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.

Similarly, marketing arrangements are indispensable to ensure that any surplus production will find its way to the market at remunerative prices. Otherwise, producers will be discouraged to go for increased production for some time in the future.

- **A lift of collateral and the establishment of a government guarantee fund could help 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 discuss with development partners to explore whether they would be ready to contribute to the guarantee fund. On the other hand, participation of the private banking system in such a fund could be of great importance too, 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 for the farmers that they are getting some money on credit and that they will have to repay it if they want this facility to continue in the following year. Loans provided will 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. 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.

- **Provide 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:

- 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.

Caution: Additional land cropped should not undermine the existing cropping system, particularly its land fertility management aspects. If not, 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.

Also, 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.

- **Pilot scale farm power vouchers.** Introduce and pilot test with local partners a farm power voucher system that would allow small farmers access to 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.
- Like with other vouchers, they could become a parallel currency that vulnerable farmers use for purposes other than for getting power services.
- In case of limited availability of power services and equipment, the voucher system could contribute to making them more expensive (inflationary effect) in the pilot areas where this approach is being tested.
- In addition to the potential for increasing productivity, such interventions, if effectively targeted, could also 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, and can face the demand that will be created by the voucher distribution.

Also, 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 any subsidy or encouragement for animal production that contributes to their feeding by food products, particularly cereals. This measure aims to interrupt support to economically unsustainable activities that may compete with human consumption of grain.

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: It is likely that this measure 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.

Sustainable Intensification of Production System

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, which may include: increasing early generation seed production; capacity building with the national seed service; seed policy reform; establishing farmer seed enterprises; creating awareness of better production practices and new improved varieties through community demonstration plots. There is also a need to replenish plant nutrients in depleted soils used by smallholder farmers to prevent serious productivity decline and to boost production. This 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 specialised production responding to consumers' needs that involves greater investment in agriculture. Technical solutions to such problems exist in different agro-ecological zones. Soil health improvement requires time, knowledge and secure land tenure. Another challenge is to find ways to overcome impediments to increased fertilizer use by 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. Through extension methodologies that include Farmer Field Schools, appropriate advice can be provided through on-farm demonstrations on sustainable production intensification, good agriculture practices, conservation agriculture, soil fertility management, integrated pest management and crop diversification.

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 clash with traditional methods or are counter-intuitive to farmers. In other cases, technologies need to be adapted locally before they are adopted.

Boosting programmes of Farmers Field Schools are 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/ and at http://www.fao.org/bestpractices/content/12/12_01_en.htm .

Some of the main examples of short- to medium-term options:

- Community seed production: This approach 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, farmer groups or cooperatives under the supervision of technical staff. The seed can then be provided or marketed to the community in a way that is appropriate to the situation. This can follow on a variety introduction initiative. This approach is widely used in rehabilitation and development in Burkina Faso, Cameroon, Ethiopia, Lesotho, Sudan, Swaziland etc.

Main effects: Seed supply of appropriate crop varieties will be improved.

Conditions for success: Source of quality seed, technical supervision, progressive farmers or farmer groups to multiply the seed.

Caution: Adequate rainfall or irrigation to produce a crop, sufficient technical supervision, organized farmers or groups, well planned marketing of the seed produced.

- Low cost mechanical conservation agriculture: A combination of no-tillage agriculture with fertilizer use, using permanent planting stations and no herbicides. The planting can be done with a small hoe for opening the planting station, or with a hand jab-planter, which has the additional advantage of metering uniform fertilizer dose to each planting station. The method is used in Lesotho, South Africa, Swaziland, Zambia, Zimbabwe and others. It was the basis of the Zambia emergency rehabilitation programme and is also used in similar programmes in Lesotho and Swaziland.

Main effects: The measure will over time improve soil structure and reduce the hard work of digging and ploughing the fields; planting stations can be prepared before the onset of rains and in subsequent crops the work for planting is significantly reduced; crop roots follow the root channels of previous crops, improving water access from the second crop on; fertilizer efficiency is improved, yields normally increased (with fertilizer use) from the beginning.

Conditions for success: The measure works best where competition for residues with livestock is not a serious problem (or can be solved with community arrangements for controlled grazing) and where sufficient moisture is available to grow crops and covers throughout the year. Benefits increase if conservation agriculture is continued over time.

Caution: The measure is not limited to simple input supply. It requires some technical training and initial attention to weed management. Specific equipment is required. Crop rotations or diversified crop associations have to be used.

Also, 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

- 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 important 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:

- Adequate training for farmers and extension workers in IPM approaches;
- Conducive policy framework to promote IPM including:
  - Removal of perverse subsidies on pesticides;
  - Promoting IPM research;
  - Standards for pesticide residue levels can provide incentives to implement IPM;
  - Improved regulation of the distribution of pesticides by input dealers.

- Reduce post-harvest losses and promote longer shelf-life products

This is through the promotion of processing and value-addition in rural communities of primary agricultural products - especially starch and protein-based products – into final (cooked or roasted) dried products which are ready-to-eat and thus marketable as instant foods with a long shelf-life and of high quality and nutritional value. Gari

from cassava is a good example, if fortified with some protein ingredients. Cereals, roots and tubers, breadfruit, banana/ plantain, cowpeas, beans, groundnuts, dried fish and copra (dried coconut) are all excellent ingredients for such food products, which in principle can be manufactured by rural processors through relatively simple means of fermenting, roasting, cooking, drying, grinding and mixing. The food products can be produced for subsistence or for local 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 are available to the rural processors.
- Processing technology has been checked and improved.
- Rural processors have been trained in improved technology, quality management and basic business management and marketing.
- Packaging materials and labelling are available according to the market to be targeted.

- **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, 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: Needs to be discussed and agreed with processors. Campaign to inform the population of higher nutrition quality of the product obtained.

- **Inform private sector on impact of increased prices on profitability of investments in agriculture and food chains**. Evidence needs to be collected to demonstrate that increased food prices contribute to raising profitability of investment in agriculture and food chains. This evidence should then be discussed with stakeholders and potential investors in an investment forum. Discussions should also lead to the identification of other constraints that hamper investment in agriculture and food chains.

Main effects: In the immediate, identify accompanying measures that can increase investment in agriculture and food chains. In the medium term, increased investment flows into the sector, which will boost production, stabilize markets, increase the diversity of food products available on the market and create jobs.

- **Moratorium on construction licence in cultivable lands.** Expanded construction, particularly in peri-urban areas, has been identified as an important cause in reducing land available for agriculture. This measure aims to protect cultivable land, and has been recently adopted in the Philippines.

Main effects:

- Limits expansion of constructions on agricultural land.
- Will create tension in urban areas as supply of housing will be reduced and may become more expensive.
- Could create opportunities for rent seeking and corrupt practices.

ANNEX 1:

Summary Table on Immediate Policy and Programmatic Actions – (FAO's Initiative on Soaring Food Prices)

Policy or programmatic measure	Expected effects	Conditions for recommendation	Caution
Trade measures			
- Reduce import taxes on food items, agricultural inputs and equipment (3.2)	- lower the price of the imported good - stimulate 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 (3.2)	- same as above	- same as above	
- Financial support or loans to private sector for funding imports of food commodities (3.2)	- 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 (3.2)	- 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 (3.2)	- not effective in solving high price problem		- not recommended as a short-term policy option
- Reduced, banned or taxed exports of strategic food commodities (3.2)	- reduce prices - medium- to long-term implications on producers - risk of smuggling and corrupt practices		
Measures in favour of consumers			
Tax policies			
- Reduce or remove Value Added Tax (VAT) and/or other taxes on food products (3.3.1)	- lower 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	
- Removal of road blocks and taxes (3.3.1)	- facilitate flow of commodities - reduce 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 (3.3.1)	- reduce 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

Policy or programmatic measure	Expected effects	Conditions for recommendation	Caution
- Targeted income tax reduction (3.3.1)	- increase of disposable income for target groups		- **not recommended** as it will not benefit the poorer categories
Market management policies			
- Boosted food imports financed by balance of payments, import financing and budget support (3.3.2)	- increase availability of food 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 raising international prices by boosting demand
- Food aid in kind (3.3.2)	- rapidly increase food availability for immediately implementing various lifesaving safety net modalities	- only when insufficient in-country availability of food is confirmed - 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 (forced procurement) (3.3.2)	- increase immediate availability of food to some extent - 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 (3.3.2)	- can temporarily improve availability on markets - can help to put in place safety nets	- stocks should have sufficient size to have real impact	- rebuilding of reserves/buffer stocks should be planned at the same time as releases are programmed - close coordination needed with private sector
- Price control on key staple food products through regulation (3.3.2)	- 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 and in the future (next year)
Safety nets			
- Cash transfers or food vouchers (3.3.3)	- 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 - targeting effective through cash/vouchers for work or other geographical and household-level identification - plain 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 (3.3.3)	- beneficiaries have direct and free access to a certain quantity (ration) of food - if food is purchased locally, it can stimulate production. - in case of short supply, local purchases will have inflationary effect - if 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	

Policy or programmatic measure	Expected effects	Conditions for recommendation	Caution
- Universal food subsidy (3.3.3)	- 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
Other measures affecting disposable income			
- Increasing salary in civil service and other benefits (3.3.4)	- 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 (3.3.4)	- benefits better off groups		- **not recommended,** may contribute to fuel inflation
- Reinforce capacity (training and equipment) in income generating activities through value addition on agricultural and food products (3.3.4)	- stimulate economic growth - provide jobs and income-generating opportunities - meet demand of urban consumers	- some minimum human capacity and infrastructure is required	
Measures in favour of producers			
Market management measures			
- National market information system (prices observatory). (3.4.1)	- 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 (3.4.1)	- 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 (3.4.1)	- contribute to fair distribution of value added along the chain		- requires consultations among stakeholders using value chain workshops approach above
- Make/facilitate contract farming arrangements (3.4.1)	- provide a greater assurance of a market for farmers and thus remove some of the risk from farming - open possibilities for obtaining technical support and, on occasions, input supply on credit terms - contribute to enhanced investment	- most experience is for cash crops, particularly for exports - need 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 (3.4.1)	- 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 (3.4.1)	- black market - disincentive for production		- not recommended
- Minimum producer price for key staple food commodities. (3.4.1)	- 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 recommendation	Caution
Production support measures			
- Immediate support to production in family gardens and irrigated areas (3.4.2)	- 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 could 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 (3.4.2)	- 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 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, thereby reducing the advantage of this approach
- Pilot fertilizer and seed input credit schemes for small-scale farmers for the next cropping season (3.4.2)	- 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 (3.4.2)	- vulnerable farmer are able to chose the inputs (i.e. seeds, fertilizer and tools) that they need - can strengthen the local seed system	- requires good organization capacity - offers the opportunity for seed quality control - ITFs should be organized just prior to planting season	- it may be difficult to reach large numbers of farmers
- Direct Seed Distribution (3.4.2)	- 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
- Measures to ensure availability of fertilizer (3.4.2)	- 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	

Policy or programmatic measure	Expected effects	Conditions for recommendation	Caution
- Universal (untargeted) subsidized fertilizers (3.4.2)	- if input markets function, subsidies will distort production decisions and encourage over-utilisation - 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 (3.4.2)	- 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 mechanical and financial support for increasing cropped area (3.4.2)	- increase area cropped, production and food availability in the next season	- 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 (3.4.2)	- 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, 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, they could become a parallel currency - **marketing arrangements** should be planned in advance
- Stop any subsidy or encouragement for animal production (3.4.2)	- reduction 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

Policy or programmatic measure	Expected effects	Conditions for recommendation	Caution
- Sustainable intensification of crop production systems	- systems based approach to agricultural development and sustainable farming systems - local engagement with farmers in adaptive research - improved farmer livelihoods, and minimal environmental disruption associated with intensification	- access to inputs and adoption of sustainable farming practices such as conservation agriculture, IPM, good agricultural practices, etc - effective extension methodologies, including the use of farmer field schools, - availability of professional extension service able to deliver	
- Increase extension and advisory services on food production (3.4.2)	- more efficient use of fertilizer, taking into account it higher price	- research needed	
- Low cost mechanical conservation agriculture (3.4.2)	- improve soil structure and reduce the hard work of digging/ploughing the fields - increase fertilizer efficiency	- 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	
- Reduce post-harvest losses and promote 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	
- Inform private sector on impact of increased prices on profitability of investments in agriculture and food chains (3.4.2)	- in the immediate, identify accompanying measures that can increase investment in agriculture and food chains - in the medium term, increased investment flows into the sector that will boost production, stabilize markets, increase the diversity of food products available on the market and create jobs		
- Moratorium on construction licence in cultivable lands (3.4.2)	- limits expansion of construction on agricultural land - will create tension in urban areas as supply of housing will be reduced and may become more expensive - could create opportunities for rent seeking and corrupt practices		

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