



# Market Analysis in Emergency Food Security Assessments

Guidelines on Market Situation Analysis & Forecast and Response Protocol

An Integral Component of Emergency Food Security Assessment (EFSA)

Strengthening Emergency Needs Assessment Capacity (SENAC)

August 2007

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# 1. Context

This document provides a generic overview of market analysis as an integral part of an emergency food security assessment. The main objective is to provide a basic understanding of markets,<sup>1</sup> including how to gather market information, conduct a situation analysis, and interpret the analysis to inform response options. The market situation analysis is an integrated component of food security and vulnerability analysis as well as response analysis. At all stages, the analyses provide the basis to make appropriate recommendations, specifically, to spell out the extent to which markets function, how it affects food availability and people's access to food, and whether food or cash may be an appropriate response option. This document introduces basic market concepts so that they can be accessible to a wide community of food security analysts.

From the outset, we would like to remind users of this document that much of the guidance material is built upon existing knowledge in stable economies and in crisis situation such as drought, earthquake, cyclone and other natural calamities. However, the functions of markets (as well as their behaviour) in war-ravaged economies are unique, and less understood. Therefore, the proposed analytical material in the guideline should be adjusted to the specific context of war-affected economies.

## 2. Overview

Most people live in a cash economy where goods and services are exchanged in markets. Markets are organized and function in a variety of ways, all of which have an impact on the current and/or anticipated food security situation of market participants. Markets fulfil the following three principal tasks:

- Markets act as a distribution agent by providing a venue for exchange of goods and services. In doing so, markets help determine prices, thereby influencing the movement of food commodities, and mediating supply and demand functions;
- Markets can be disrupted by external factors both natural and manmade, such as earthquakes, landslides, or conflict, making a particular market inaccessible to suppliers (traders) and consumers (buyers) and having a profound impact on the food security and livelihoods of the population that relies on the market to access food or sell their goods;
- Markets signal changes in an economy through price fluctuations due to crisis (conflict, crop failure, or changes in policies). Typically, prices decrease or remain the same when (i) there is adequate supply of goods and services, or (ii) demand for the commodities falls or (iii) demand does not increase in proportion to the increase in supply. For example, the price of rice or wheat is likely to decrease or remain the same when the supplies (production in the hinterland is good or imports) remain the same. Conversely, prices tend to increase when expectation of supply or import or production in the hinterland is reduced. It is in this context that market price monitoring is put in place to help understand changes in an economy, and its severity over time. Price changes are important parameters to understanding food security impacts on population groups in a given livelihood context.

Market analysis as an integral part of a food security assessment is imperative because it provides crucial knowledge to link the analysis with decision-making regarding:

- Appropriate response option;
- Size and type of intervention;
- Potential negative effects of food aid;

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<sup>1</sup> Users are encouraged to make reference to standard economic textbooks and market and market-related literature for further information. Some examples include: Frank Ellis, Peter Timmer, Price Gittinger, and web resources for glossary of economic terms: <http://www-personal.umich.edu/~alandear/glossary/>.

- Targeting strategies; and
- Opportunities for local procurement.

In the context of an EFSA the overall purpose of market analysis is to understand:

- how (if at all) markets have been affected by the shock/crisis; how well they are functioning and their limitations;
- whether and if so how market disruption has affected food availability and access in different areas;
- the extent to which markets will be able – and are likely – to provide food at affordable prices for populations in the affected areas;
- opportunities that might exist to increase the contribution of markets to making adequate food available to food-insecure households in the affected areas;
- understand how labour markets function and their contributions to household food access; and
- the potential for local purchase and what effects such purchases might have on local markets.

## 3. The Basics of Markets

### 3.1 What is a market?

A market is defined as any established operating means or exchange for business dealings between buyers and sellers. As opposed to simple selling (or buying or barter), a market implies trade that is transacted with some regularity and regulation, and in which a certain amount of competition is involved. The earliest market in history used bartering. After the introduction of money, commercial codes were developed that ultimately led to modern national and international enterprises. As production expanded, communications and middlemen came to play an ever growing role in markets. The type of markets includes retail, wholesale or distributors, producers, raw material, and stock. The term market also denotes a place where goods are bought and sold.

**Specialization** is the process by which traders narrow down their trading activities by focusing or concentrating on specific commodities or transaction; hence gaining expertise and in-depth knowledge of the commodity being traded in terms of transforming, packaging, transporting and handling processes. Market niches being targeted by specialty retailers became narrower and narrower — shops selling just socks, for example, or just particular types of athletic shoes. Specialization is ultimately limited by the size of the market for a good or service. In other words, larger markets always permit greater levels of specialization. For example, in small towns with few customers to serve, there is often only one clothing store that carries a small selection of many different kinds of clothing. In large cities with a million or more potential customers, there are much larger clothing stores with many more choices of items and styles, and specialized stores that sell only hats, gloves, or some other particular kind of clothing.

**Retail market** is business activity of selling goods and services directly to consumers. Instead of selling products for resale, a retailer sells goods or services to individuals making purchases for themselves or their families, often for direct consumption. Retailers play an important role in getting products from producers to consumers. Retailers help direct the physical flow of goods and services from places that produce goods to places where goods are used. Since the retailer has direct contact with the users of goods and services, the retailer can discover and attempt to meet the needs and preferences of consumers. Some retailing businesses sell a combination of goods and services. For example, an automobile dealership that sells automobiles (goods) may also provide automobile repairs (services).

**Wholesale (distributor) market** is the business of buying goods in large quantities and selling them especially to retailers for resale.

### **3.2 What is a price?**

A **price** is the amount (usually of money) that must be exchanged for a good or a service. The price signals the value that is attached to a particular commodity and exchanged between two or more participants in the market system.

Prices are influenced by many factors, including supply and demand for specific commodities, the structure of the market, government policy, and the macroeconomic environment. The classic relationship between supply and demand for food products is generally observed for most staple commodities. When there is an increase in supply of a commodity (and the amount of that good is demanded remains the same or decreases), the prices tend to decrease. When there is an increase in the amount of the demand of a commodity (and the amount supply remains the same or decreases), the prices tend to increase.

One of the conditions for efficient markets is the existence of large numbers of buyers and sellers, all with similar access to relevant market information, interact to agree on a basis of exchange, a price. This price sends signals to consumers about the costs of supplying the commodity to them. It simultaneously sends signals to producers about the willingness of consumers to pay the resource costs of production.

As part of price formation, the following terms associated with price are explained<sup>2</sup>.

**Terms of trade (ToT)** in general is expressed as the ratio of a nation's export prices to its import prices --- a measure of the country's trading position. At the household level, ToT is defined as the ratio of two prices, for example, the ratio of the price of livestock to the price of a food staple, the ratio of the cash crop price to the price of a food staple, or the ratio of daily wage for unskilled labour to the price of a food staple.

**Elasticities** measure how quantities demanded will adjust in response to a price or income change -- or, reversely, predict price changes as a result of changes in quantity. More formally, elasticity measures the percentage change of one variable when another variable changes by 1 percent.

**Consumer price index (CPI)** measures the change in prices for a mixed basket of goods and services. It is often used to determine the cost of living. The CPI is based on a sample of prices of all goods and services that people buy for day-to-day living. Categories of expenses are food, shelter, fuels and utilities, household furnishings and operations, clothing, transportation, medical care, entertainment, and personal care. It does not measure the cost of achieving, at a given month's prices, the standard of living actually attained in the base period. Thus, while the cost-of-living concept provides a framework for dealing with practical questions that arise in the construction of the CPI, no "true" cost-of-living index has been compiled. Income and expenditure studies are normally conducted to be sure that the index would reflect the relative importance of goods and services purchased by consumers. Index numbers based on a norm of 100 for a particular base period are used to express the CPI.

### **3.3 Market functions and performance**

Understanding "marketing functions" is crucial in interpreting prices. Timmer (1983) defines **marketing functions** as "the commodity transformations in time, space and are associated with storage, transportation, and processing"; including the following functions of markets:

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<sup>2</sup> See standard economics texts and PDPE developed tools on elasticity, terms of trade, and the CFSAM guideline's section on markets,.

1. The productive functions of marketing entailing information from the food marketing sector which transforms the raw agricultural commodities produced by farmers into the foods purchased and eaten by consumers.
2. The formation of food prices at which exchange takes place, providing information on the marketing transformations which includes the costs of storage, transportation, and processing. This is an integral component of food price formation; because the producer and consumer are typically different individuals, commodities must pass from one owner to another, frequently many times, before reaching the family table. This process of exchange takes place in markets and can be conducted only when a buyer and seller have agreed on a price.
3. The role of the market as an arena of exchange, because markets incorporate two important tasks: the physical marketing functions, and the communication of signals to producers and consumers about the costs of buying something or the benefits of selling it.

Market **performance** is a measure of the extent to which the market makes goods and services available at affordable prices to meet demand. When markets perform well, households that have cash are able to find and buy what they need, when they need it, at prices that reflect the traders' costs plus a reasonable trading margin (profit). When markets are not performing well, such households are either unable to find sufficient goods and services on local markets or can find it only at excessively high prices that often include unreasonably high trading margins.

The following aspects are critical to determining market performance, prices and commodity flows:

- **The market structure** includes the number of buyers and sellers, the ease (or difficulty) with which buyers and sellers can enter the market (become part of it), the size of markets, the volume of product traded, the degree of specialization required for specific sub-sectors, and the degree of coordination and communication between the different levels in the marketing system. It refers to the different actors in the supply chain and what functions they perform or control, and how markets are linked by transport, storage and communication infrastructure.
- The level of **competition** – the number of traders and the extent to which markets are competitive and permit entry by new actors, or are controlled by a few actors who exercise oligopoly or monopsony power; *and*
- The availability of **market services** – especially banking, finance and credit – that influence traders' ability to operate.

### **3.4 When are markets integrated?**

Integrated markets can be defined as markets in which prices for comparable goods do not behave independently in two or more different locations separated by distance. Market integration is a measure of the extent to which markets in different areas are linked:

- When markets are *integrated*, commodities flow between them if the price differential is greater than the transaction costs that would be involved and there is, in addition, a reasonable profit margin. In integrated markets, price differentials are closely related to the transaction costs and price movements follow similar patterns – there is “co-movement”.
- Markets are *not* integrated if they are effectively isolated from each other, there is no flow of commodities between them and prices move independently of the differences in transaction costs.

Understanding whether markets are well integrated within the country, or with markets across a border in neighbouring countries, is critical to understanding and forecasting food prices

and the flows of commodities within the country and across its borders, and therefore to projecting both food availability and access. If markets are integrated, food will flow from surplus to deficit areas - and imports will flow from port and border areas into the hinterland. High prices in deficit areas provide the incentive to traders to bring food from surplus to deficit areas, making food available. The consideration of market integration is crucial in an EFSA analysis as it provides a platform for understanding the extent of commodity flows between places (regions) and price differences between them (see the 2007 FAO/WFP Crop and Food Supply Assessment Mission (CFSAM) guidelines and PDPE tools for further details).

### **3.5 When is a market competitive?**

A market is competitive when there is a high degree of coordination between different levels of the marketing system, and the degree of product specialization is low. This means an individual buyer or seller cannot influence the price. The number of suppliers in relation to the number of buyers is a good indicator of the degree of competition. If suppliers outnumber buyers, then buyers are likely to be in a very powerful position and the market can be competitive. Alternative criteria would be to ascertain if there are at least 5 – 10 major traders at wholesale level in each large town and 3-5 traders in each village. The more traders in a market, the less likely non-competitive behaviour (collusion) is to occur. Under a non-competitive market, prices could be raised (price-fixing in favour of the trader) at the detriment to consumers.

## **4. Markets: Data Collection and Key Indicators**

Market information can be quantitative and qualitative; both forms of information are valuable and equally important. Qualitative information refers to buyers' and traders' opinions and perceptions, while quantitative data includes prices in a particular place, and volumes traded. Qualitative (narrative) data is derived from semi-structured interviews with key informants, discussions with focus groups, and observation. Sampling of traders is usually purposive. Sampling of households (for general data collection including some specific data on markets) can be purposive or random.

Technical Guidance Sheets No. 10 and No.11 (see EFSA, August/September 2007) provide guidance on qualitative data in general, and on qualitative data collection and Analysis.

It is desirable that market enquiry should be participatory in which key market players sketch the various factors influencing the marketing chain. Discussions with traders and households on the existing problems and solutions combined with very simple price analysis can be a good basis to identify appropriate responses to address lack of effective demand and potentially low market supplies. A 'common sense' approach entails working with people who know the markets, both domestic and regional, and are familiar with the history of the area.

The analyst should always keep in mind: (a) what have been the effects of the crisis on market supply/offer, on market demand by consumer households, infrastructure and institutions that are essential for a proper functioning of markets, (b) what are the main causes of these changes (both the immediate causes linked to the crisis, and contributory structural causes), and (c) what are the prospects for market recovery.

Finally, it is advantageous to develop a list of key informants as well as databases of information on market prices, volumes of traded goods, and market participants. This should help to build an information base for future assessments and to establish trends, and to enable follow-up of market conditions.



## 4.1 Situation analysis

Situation analysis here refers to the processes of investigating and documenting changes due to a shock in an economy, with the specific purpose of eliciting market behaviour with their attendant concerns for household food security. A market situation analysis, as an integral part of an emergency needs assessment, will have to assess how markets function in the wake of a crisis (see Table 1). The situation analysis will also enable identification of the key actions that would help restore markets at levels compatible with a “normal” demand, as well as re-establish the demand at “pre-crisis” levels. In practice, this is done at the Forecast and Response Analysis stage, using the descriptive results of the Situation Analysis combined with some forecasting of how the situation may unfold in the future. It should also contribute to determining the structural factors of weakness in the marketing functions and the broad types of interventions that would be required to address them.

In other words, for each market, the impact of the crisis is compared to the ‘normal’ situation, which is done at the ‘Forecast and Response Analysis’ stage. Key market issues to be understood in an EFSA situation analysis and what they indicate are shown in the table below:

**Table 1: Key issues for market situation analysis**

Key issues to analyze	Issues
How is the market functioning in “normal” times?	Identify the price levels for main food commodities and quantities traded. Locate the main trade flows and main marketing actors.
Is the market part of the threat to food security in the crisis-affected area?	Identifies which aspects of the market structure and process have been affected by the crisis or are not functioning properly.

## 4.2 Areas of market enquiry

The following tables provide thematic outlines of market issues that should be considered as part of the situation analysis in an emergency food security assessment. Please, note that not all of the issues indicated below are applicable to every EFSA, and they are provided here as a menu of options from which an analyst makes a choice based on resources and time available to conduct the survey (see also Annex 1 and 2 for a complete list of market related indicators ).

**Table 2 - Prices**

Issue	Measurement	Areas of enquiry	Sources of information
	Staple food commodities	<ul style="list-style-type: none"> <li>analyse price changes and their impacts on food availability and access (by comparing current price with the previous year(s);</li> <li>Examine possible changes in import volume and/or tariffs due to price differentials by comparing domestic prices with import parity price;</li> <li>Examine price differences between regions (to assess market integration, for example)</li> <li>Identify possible prices hikes and seasonal variation ----use simple price comparison over time or use regression analysis (time series) when possible; Please note that increasing prices do not necessarily imply declining food access;</li> <li>calculate or obtain changes in consumer price indices</li> </ul>	National systems for market data collection such as Central Statistical Agency, Ministry of Agriculture;  NGOs, UN agencies, Traders, spot observations;  surveys (traders, households);
	Cash crops		
	Livestock		

	<p><b>Interpretation:</b> Prices are determined by the relationship between effective demand and available supply in the market. Changes in prices should be analysed with reference to at least three elements: (i) which commodity price is being monitored, for example, staple food crops (ii) how much prices have changed compared with the “norm” or pre-crisis, and (iii) the spatial distribution of prices in the country, for example, and price difference in different regions. The analyst will identify key food commodities and collect respective prices from wholesalers and retailers and/or use information collected from the government or other institutions on food security and markets.</p>
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**Table 3 – Marketplaces**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Marketplaces</b>  <i>(see also Market guidance on Margins)</i>	Type of market	Understand where markets (central and local) are located,	Baseline studies and related publications;
	Number of markets	volume and flows of trade, supply and demand on local markets, and distances between them,	Traders’ surveys;
	Distances and locations	ease/difficulties of transportation network and seasonality of roads,	Grain marketing board
	Main trade routes	number and type of traders participating in the various market places	
<p><b>Interpretation:</b> As there are a number of market types (producers, wholesale, retailers, consumer, etc), it is necessary to have a very good understanding of what type of markets exist in the survey area and/or its hinterlands, where they are located and how they are linked to each other. This will be the first step where an analyst investigates prices, volumes and gets a preliminary impression about markets in the area and flows among them.</p>			

**Table 4 – Quantities of staple food**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Quantities of staple food, cash &amp; root crops, and tubers</b>  <i>(see also Market guidance on Margins)</i>	Surplus and deficit producing areas	- changes in the direction and volume of commodity flows between regions, comparing the present with previous years;	Baseline studies and related publications;
	Trade volumes of main staple food commodities	- potential and/or actual movement of food from surplus to deficit areas; - quantity of stocks held by parastatal organizations, wholesalers and producers; - identify if hoarding is an issue for the area	Traders’ surveys;  Grain marketing board
<p><b>Interpretation:</b> The quantities of food that move between surplus and deficit areas are important, because they are the main determinant for food availability as well as food access (implicit). This helps understand trade flows and the market’s integration between/ among different locations.</p>			

**Table 5 - Traders**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Traders</b>	Type of traders (local, regional, national and international)	Understand competitiveness, risks of price fixing, commodity flows between regions;	Baseline studies and related publications;
	Number of traders, (small, medium, large traders);	Price formation;	Traders’ surveys;
	Storage capacity;	Level of market integration and information flow	Grain marketing board
	trader’s access to credit	- Indicate potential difficulties / capacities for stockpiling; - traders’ access to working capital (credit);	

	<b>Interpretation:</b> Traders' information is one of the main aspects in the marketing chain, because they are the main link between producers and consumers. Very often traders can give very valuable insights about the markets, which cannot be found in secondary data.
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**Table 6 – Households**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Households</b> <i>(note: information needed for this section is expected to be collected through EFSA HH surveys and may not be necessary to repeat as market section).</i>	<ul style="list-style-type: none"> <li>Households' dependence on markets for food consumption (types of food, amounts, seasonal variations)</li> <li>Quantity (%) sold of total produced;</li> <li>Price obtained;</li> <li>type of sale (cereals, cash crops, livestock);</li> <li>Reasons for selling;</li> <li>Access to credit;</li> </ul>	Identification of households' reliance on markets for their food purchases, and income (sales, labour), including seasonal trends  Where, how much and when food is traded in the market by households  Ability to borrow (e.g. from kin or neighbours);	Baseline studies;  Household surveys;  Income and expenditure studies
	<b>Interpretation:</b> it is essential to understand household food sources and income options and how households are linked to the market. What do they buy or sell, at what price, where and when? This information should be directly collected through the Household survey and/or focus group discussions.		

**Table 7 – Labour markets**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Labour Markets</b>  <i>(See also Market guidance on Terms of Trade)</i>	Seasonal labour availability; Who participates in labour activity; Daily wage rates for the area; Mode of payment	Provides information on income earning opportunities and/or ability to exchange labour for in-kind commodities; Understand seasonality/ regularity of labour income & changes due to the crisis	Baseline studies and related publications;  Traders' surveys;  Grain marketing board
	<b>Interpretation:</b> Information on the labour market is important to help understand the buying capacity (purchasing power) of rural and urban households who depend on markets for their food supplies.		

**Table 8 - Transport**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Transport</b>  <i>(See also Market guidance on Margins)</i>	Type of transport and handling costs Storage capacity <i>(see also Table 5)</i>	Availability and capacity of transportation networks (road types); and long & short-haul trucks  Availability of storage infrastructure and capacity	Logistic Capacity Assessment (LCA)
	<b>Interpretation:</b> Information on transportation is crucial as it indicates how people are connected to markets, how producers or traders transport food to markets or directly to consumers. Also, distance and duration has direct implications on price formation for any food commodity, which is core of markets analysis		

**Table 9 – Terms of Trade**

Function	Measurement	Areas of enquiry	Sources of information
<b>Terms of trade for key income (wage) and goods</b>  <i>(See also Market</i>	Ratio of wage rates to staple food price,	Helps determine the extent of changes in purchasing power of wage labourers and of households selling goods (e.g. livestock, cash crops, other own production) to buy key staple food and other	Primary data;
	ratio of cash crop to staple food prices;		Secondary data;
	ratio of livestock to staple food prices, comparing same time last year, and previous months		baseline studies;

<i>guidance on Terms of Trade)</i>	(for example 3, 6, and 9 months) prior to the survey;	essential items	
	<b>Interpretation:</b> TOT is a powerful indicator of potential household food access if based on the main livelihood groups identified by the EFSA (e.g. farmers growing staple food crops, or cash crops, agro-pastoralists and pastoralists relying mainly on livestock for their food and income, landless labourers relying on unskilled labour etc.). The ratios are likely to co-vary closely because they are calculated in relation to the same food commodity. Declining terms of trade in most cases indicate declining access to food. Collapsing terms of trade for livestock and other assets indicate distress sales, a widely documented behaviour during food crisis.		

**Table 10 – Other market information**

Issue	Measurement	Areas of enquiry	Sources of information
<b>Other market information</b>	Consumer price index, Exchange Rates,  Inflation Rates  Governmental Policies on imports and exports	Help understand the macro economic and aggregate price formation and how they change over time.	Ministry of Economic planning; Ministry of Finance, Statistics;
	<b>Interpretation:</b> To draw a clear and thorough picture of the marketing structure; the analyst needs to know the development of the consumer price index; exchange rates, inflation rates and an overall understanding of governmental policies.		

## 5. Markets: Forecast and Response Analysis

Historically, the role played by market in humanitarian responses has been marginal at best. As Barrett and Maxwell (2007) pointed out, “for nearly half a century, food aid has been the most readily available resource for responding to everything ranging from chronic food insecurity to acute food insecurity associated with all kinds of emergencies. .... It is also clear that program managers and analysts lack good decision-making tools to help them determine the best response to a food security crisis or to improving lives and livelihoods of chronically food insecure households”. Owing to changes in global food surpluses, the roles of markets in international relief programmes are becoming prominent, and it is no longer sufficient to carry out an emergency assessment without fully considering the functions of markets in informing food security conditions for crisis affected population and their post crisis recovery.

Response analysis here refers to the processes by which changes in the market situation are anticipated and the types of actions /range of options that would be appropriate to address the specific food security problems are identified. Response analysis is based on the situation analysis that includes a) the nature/magnitude of the problem (crisis), and b) the effects of the crisis in terms of food availability deficit, market failure, or policy/political failure. In order to arrive at appropriate response options, the analyst is expected to answer key questions presented in Fig. 1 below from the situation analysis (derived from EFSA and market situation analysis) discussed in the previous sections.

Response analysis requires an understanding of how people’s access to food has been affected by changes in market function or conditions, either directly through prices and/or lack of availability or indirectly through effects on livelihood activities and hence purchasing power.

### 5.1 Anticipating price changes (forecasting)

Response analysis also depends on price forecasting by taking market disruption and price changes into account [need to rephrase – you cannot depend on something by doing it] (see the 2007 CFSAM guidelines). This requires identifying the areas where markets have been disrupted and no longer assure previous trade patterns in food and non-food supplies that are

essential for food security; where people no longer have physical access to their normal markets; and markets never supported any significant level of trade.

Notwithstanding the complexities involved, the analyst should foresee (forecast) how prices may change and the impact of such changes on household food access for different population groups. Price forecasting can help understand future price trends with attendant food access concerns at household level (see PDPE's Shock-response analysis tool).

- Examine pre-crisis distribution of income, consumption and vulnerability;
- Anticipate seasonal variations in prices during the coming year;
- Assume that households will respond to, and try to cope with, price fluctuations in the same manner as in normal years although the quantities purchased will be lower due to their reduced purchasing power;
- Identify population groups that will and will not be able to cope with the high prices and estimate their numbers; estimate the proportion of the population that will not have access to sufficient food at different price levels; and
- Consider carefully – and state explicitly – your assumptions regarding incomes, expenditures, effective demand, and commodity substitutions for different population groups.

## 5.2 Areas of response enquiry

A key consideration is that food aid has the potential to disrupt the normal functioning of markets, and to increasingly provide disincentives for local production when it is provided for an extended period of time, or is not well targeted or timed appropriately. Hence, a systematic and integrated market analysis in the EFSA process is key to avoiding such problems.

Key lines of enquiry (synthesis from the situation analysis) forming critical decision protocols are the following (see also Table 11 and Figure 1):

1. Are there and/or will there be a problem of food security in the area (this is combined outcomes of EFSA taking marketing into considerations).
2. Do local, nearby markets function (physical access, business transactions taking place), and are commodities flowing in and out as would normally be expected?
3. If there is a price increase, how high is the price?
4. What are the households' income options to participate in the market? Are there groups who will not be able to meet their consumption needs through the markets?
5. Are some communities or household groups physically cut off from the market?
6. What is the estimated number of people without income option or cut off from markets?
7. Is market restoration an option, for example, repairing broken bridges, repairing impassable roads, providing security where disruption is due to insecurity; providing storage facilities where such facilities are destroyed, etc.
8. Are markets expected to respond (by supplying food and/or normalizing prices) now and in the coming months without external interventions?
9. Will markets respond with greater supplies if the effective demand (purchasing power) of households is increased, with cash for example?
10. If cash would be the preferred option but cannot be provided because of a lack of resources or implementation capacity, what will be the consequences of food deliveries on markets?
11. Where and when is provision of cash appropriate if the market is sufficiently functional?
12. Is food assistance an appropriate option?

**Table 11: Response consideration matrix**

Key issues	Response consideration
Are there and/or will there be a food security problem in the area	<ul style="list-style-type: none"> <li>• Ensure food security problem exists</li> </ul>
Will markets respond (with the supply of food and/or normalization of prices) now and in the coming months without external interventions?	<ul style="list-style-type: none"> <li>• Evaluate whether the supply of food and other essential goods will be re-established quickly, and/or whether prices will return to normal level</li> </ul>

	without external interventions.
Will markets respond with greater supplies if effective demand (purchasing power) of households is increased?	<ul style="list-style-type: none"> <li>Assesses the feasibility and appropriateness of cash or voucher interventions</li> </ul>
If cash would be the preferred option but it is not possible to implement for lack of resources, or lack of implementation capacity, what will be the consequences on markets if food aid is provided instead?	<ul style="list-style-type: none"> <li>Anticipates the possible negative effects on markets and producers if food aid is provided when other response options would have been preferable;</li> <li>identify mitigation action that could minimize negative effects of food deliveries;</li> </ul>
Traders' views of change in supply/ market information such as how would traders react if free food aid is distributed to households?	<ul style="list-style-type: none"> <li>Identify private sector's capacities and intentions with regard to the present crisis (compared to what they would be able to do "normally");</li> <li>Traders' perceptions of the major problems with local production, foreign supplies, government policies etc.</li> </ul>
Response capacity of traders if households' demand increases including availability of storage and credit facilities	<ul style="list-style-type: none"> <li>Responsiveness of traders to supply and demand interaction</li> <li>identify private sector's main difficulties to respond to the current crisis</li> <li>Identify operating costs including transportation, handling and profit margins</li> <li>Indicate potential difficulties / capacities for stockpiling;</li> <li>traders' access to working capital (credit);</li> </ul>
Is market restoration an option in case of market disruption?	<ul style="list-style-type: none"> <li>Identify options for repairing broken bridges, repairing impassable roads, providing security where disruption is due to insecurity; provision of storage facilities where such facilities are destroyed, etc.</li> </ul>

Figure 1 presents a series of issues to be assessed in order to propose an appropriate response to the crisis. For example, if households do not have income sources as well as food from their own production, and market prices have increased significantly over the previous season, ultimately, direct food assistance will be a viable option, targeting households without income sources and near-total loss of own production. Conversely, if market prices remain the same and/or prices increase marginally, and market supplies are sufficient, a cash voucher (cash response) is a feasible option, again targeting households that face specific economic hardships. Such decisions will be made along with the larger issues raised and analysed in the EFSA.



## Annex 1: Generalised list of market indicators (menu of options)

Overall list of Market indicators	
1.	Prices of selected commodities
	o Staple food commodities; cash crops; livestock; energy
2.	Proportion of own crop production sold
	o Quantity sold; % sold out of total produced (in months of consumption and/or in kg); price obtained from sale and reasons for selling
3.	Number of livestock sold during normal /distress season
	o Type of animals sold; number of animals sold; prices obtained; reason for selling
4.	Amount (proportion) of food procured from market indicating season (period) of purchase and prices
	o Quantity purchased; % purchased out of total needs for own consumption; specify type of purchase (cereals, pulses, roots & tubers); access to credit from traders (authorisation/arrangements to buy food on credit)
5.	Labour markets
	o Size of labour market; seasonal labour availability (types of); who participates in labour activity; daily wage rates for the area; mode of payment (cash, in-kind)
6.	Distance between /among markets (for comments: is this relevant?)
	o Distances traders travel (buyers and sellers); price variations between markets; main trade routes
7.	Transfer costs (transportation)
8.	Terms of trade
	o Between cereal and animals; between cash crop and cereal; between wage rate for casual labour and cereal
Selected interviews with traders	
1.	Change in the volume/ sources/ flow of supply (weekly, daily)
2.	General characteristics of markets/traders (structures)
	o Change in the number of traders/ types; traders' view of change in supply/ market information; type of market (primary, secondary, tertiary, wholesale and consumer); type of traders (local, regional, national and international); number of traders (by size or capital --- small, medium, large); response capacity of traders if households' demand increases; storage capacity and trader's access to credit
3.	Opportunities and constraints to markets (restrictions, finance, storage, tariffs, taxes)
Data to be obtained prior to the mission	
1.	Location of main markets
2.	Flow of main commodities (internal and cross-border)
3.	CPI --- Consumer price index
4.	Composition and price of minimum food basket (or of official food basket if there is one)
5.	Exchange rate
6.	Governmental policies/ Government's actions and current declarations on food aid, food trade, etc.



**Annex 2: Indicative Market Data Analysis Plan for an EFSA**

<b>Issue</b>	<b>Analysis</b>	<b>Focus</b>	<b>Interpretation</b>	<b>Where in the EFSA?</b>	<b>Source of Information</b>
<b>1. Market Structure</b>	Market Characteristics and Networks	<ul style="list-style-type: none"> <li>- Market infrastructure</li> <li>- Type of dominant traders (including their main livelihood)</li> <li>- Frequency of the markets</li> <li>- Market chain (type of markets)</li> <li>- Market size (average number of traders : wholesalers, retailers )</li> <li>- Main sources of supplies and main type of consumers/buyers</li> </ul>	Understand market operating facilities: location of markets, market infrastructure conditions, marketing channels, main participants in the chain and their potential market power on price setting and the supplies	Section on Food Availability and Markets	Ministry of Commerce, Ministry of Agriculture, Trader survey and key informants (traders)
	Commodity Flows	<ul style="list-style-type: none"> <li>- Main commodities available in the market</li> <li>- Main type of food sold in the markets</li> <li>- Average volume of main food sold by each type of trader</li> <li>- Changes in volumes of sales</li> <li>- Identification of deficit/surplus areas and potential constraints in movements of food between the areas</li> <li>- Identification of important cross-border trade issues</li> </ul>	Identify main food commodities available and in demand on markets	Section on Food Availability and Markets	Trader survey, key informants (including traders associations) and Secondary sources Ministry of Agriculture, Department of Statistics, Ministry of Commerce
<b>2. Market Conduct</b>	Socio-economic background	<ul style="list-style-type: none"> <li>- Recent economic developments (General inflation, poverty, GNI or GDP per capita trends, unemployment rates, general food surplus/deficit situation, security...)</li> </ul>	Understand the current economic performance, the poverty and the aggregate food availability situation	Sections on Economic Background	Ministry of Economy, Central Bank, Department of Statistics, Partner agencies (IMF, World Bank, FAO...)
	Market	<ul style="list-style-type: none"> <li>- Changes in the trade policies and</li> </ul>	Understand the policy	Section on Food	Ministry of Economy,

	Regulations and Policies	<ul style="list-style-type: none"> <li>tariff (including major reforms)</li> <li>- Changes in the domestic tax systems</li> </ul>	environment which may affect market capacity to supply food, and influence cross-border movements of food	Availability and Markets	Central Bank, Partner agencies (IMF, World Bank ...)
	Credit Availability and Access	<ul style="list-style-type: none"> <li>- Overall situation of the financial system (changes of interest rates, trends of loans...), especially the micro-finance sub-sector</li> <li>- Changes in the proportion of sales and purchases in credit (by type of trader)</li> <li>- Credit behavior of traders towards consumers</li> </ul>	Understand the financial environment which may affect traders' ability to extend food supplies	Section on Food Availability and Markets And Section on Food Access (household access to food on credit)	Central Bank, Micro-finance institutions, Partner Agencies (IMF, World Bank,...), Trader survey
	Food Aid Perception	<ul style="list-style-type: none"> <li>- Actual sales (volumes) of food aid on markets, if any</li> <li>- Perceived impact of food aid on market prices and traders' willingness/capacity to supply markets</li> </ul>	<p>If food aid is sold, analyze the potential disruption effects on markets.</p> <p>If not, explore possible circuits outside markets (bartering, gifts to relatives...)</p>	Section on Food Aid	Surveys (traders, households) and key informants (including communities, traders associations...)
<b>3. Market Prices and Purchasing Power</b>	Transaction costs	<ul style="list-style-type: none"> <li>- Changes in transport, taxes, loading/unloading costs (by type of trader, if possible)</li> </ul>	Identify potential factors that impede market integration by distorting prices and margins	Chapter on Food Access, Separate section on Market Performance and Purchasing Power.	National Statistics Department, Ministry of Commerce, Traders, Transport associations and trader survey
	Prices, Margins and Prospects	<ul style="list-style-type: none"> <li>- Price and margin changes (by type of trader or/and main commodities)</li> <li>- Price differentials between</li> </ul>	Analyze the patterns of real price and prospects (including	Chapter on Food Access, Separate	National Statistics Department, Ministry of

		<p>markets and comparison with transaction costs (market integration)</p> <ul style="list-style-type: none"> <li>- Perception of future price evolution (by type of trader, if possible)</li> </ul>	<p>seasonality and future evolution) and the impact of price and volume changes on trading and market integration</p>	<p>section on Market Performance and Purchasing Power.</p>	<p>Agriculture, Partner Agencies, NGOs, Traders, Spot observations, Surveys (traders, households) and Secondary data</p>
	<p>Terms of Trade and HH Purchasing Power</p>	<ul style="list-style-type: none"> <li>- Terms of trade (Incomes/Price of staples, Sales/Purchases, Price of cash crop or livestock/Price of staple...)</li> <li>- Minimum cost for a healthy diet, estimated at market prices</li> </ul>	<p>Understand the:</p> <ul style="list-style-type: none"> <li>- Ability of food insecure HH to access food through markets</li> <li>- Ability of food insecure HH to access a healthy diet at affordable price</li> </ul>	<p>Chapter on Food Access:</p> <ul style="list-style-type: none"> <li>- Section on Expenditures and Food Purchases</li> <li>- Section on Food Access Gap</li> </ul>	<p>National Statistics Department and Surveys (traders, households)</p>
<p><b>4. Market Response Capacity</b></p>	<p>Main constraints</p>	<ul style="list-style-type: none"> <li>- Major constraints (multiple response ranking, by type of trader and type of constraints)</li> </ul>	<p>Understand factors impeding trade and market recovery</p>	<p>Section on Response Options and Capacities</p>	<p>Trader survey and secondary sources</p>
	<p>Capability to supply food timely</p>	<ul style="list-style-type: none"> <li>- Storage capacity</li> <li>- Stocks rotation</li> <li>- Average time required to supply markets (by type of trader if possible)</li> </ul>	<p>Analyze traders' response capacity, assuming a future shock may happen</p>	<p>Section on Response Options and Capacities</p>	<p>Trader survey and secondary sources</p>
	<p>Coping strategies</p>	<ul style="list-style-type: none"> <li>- Main means to compensate a negative shock affecting markets specifically (multiple response ranking by type of trader if possible)</li> <li>- Frequency of using these means</li> </ul>	<p>Understand traders' responses when a negative shock affecting markets occurs</p>	<p>Section on Response Options and Capacities</p>	<p>Trader survey and secondary sources</p>