

# PART 2: TECHNICAL NOTES

The purpose of the module is to give a broad overview of the concepts and current approaches to food security assessments, with a focus on links with nutrition, and especially in emergency (or pre-emergency) contexts. It is intended to provide nutritionists with enough of an insight to the subject to enable them to interpret nutrition-related information in relation to food security data. This includes contributing to food security assessments to ensure that nutritional concerns are included and knowing which food security parameters to include in nutrition surveys.

#### Summary

Food *insecurity* is one of the underlying causes of malnutrition. In this module different emergency food security assessment approaches are summarised and their advantages and limitations in different contexts outlined. Major challenges are discussed and the section includes a generalised guide to implementing and interpreting food security assessments.

#### Key messages

1. Food security means access by all people, at all times, to sufficient, safe and nutritious food for a healthy and active life.
2. Food *insecurity* is just *one* of the underlying causes of malnutrition.
3. Access to food is often disrupted during emergencies. It is therefore vital to understand how households access food to plan appropriate interventions to protect food security and ultimately nutritional status.
4. Food security assessments might be conducted: (i) as part of early warning and surveillance systems, for emergency preparedness or monitoring; (ii) to identify the main constraints that prevent households from meeting their food and other needs; and (iii) as part of studies to understand the causes of malnutrition. These situations are not mutually exclusive and may therefore overlap.
5. Food security cannot be measured through a single indicator so multiple measures have to be used and analysed together.
6. There is no standard method for assessing food security in emergencies and different agencies have developed approaches that suit their individual needs.
7. The various approaches to food security assessment have some similarities and some differences.
8. While there is no single 'best' way to conduct food security assessments in emergencies, certain elements from the approaches used by different agencies can be taken to form a 'hybrid' suitable for a particular working context, as long as technical and analytical rigour is maintained.
9. Major challenges exist in assessing food security, including: the need for agreement on minimum standards in methods; incorporation of market analysis; and difficulties in application in urban and insecure contexts.
10. Including nutrition information in a food security assessment (and vice versa) improves the quality of the results and helps to ensure an appropriate response

## TECHNICAL NOTES

These technical notes are the second of four parts contained in this module. They are aimed at people involved in nutrition programme planning and implementation. They provide technical details, highlight challenging areas and provide clear guidance on accepted current practice. Words in italics are explained in the glossary.

There are many different approaches to food security assessment but it is possible to identify basic, globally accepted concepts starting with the definition of food security itself, which is now typically considered within the broader area of livelihoods. The module therefore starts with an introduction to these basic terms and concepts to ensure that nutritionists and food security personnel speak the same language. It also provides an overview of some of the most commonly used assessment and analysis approaches, without trying to be a 'toolbox'. It is not meant to enable readers to carry out complex food security assessments on their own, but rather to provide the necessary background to understand assessment results and contribute to joint food security and nutrition analysis.

Many agencies have their preferred assessment methodology, which is often linked to their individual mandates, the contexts within which they work and their own information needs. Assessment approaches are constantly being developed and revised to keep up with changes in information requirements and contexts. For example, protracted conflicts, urban poverty, food price increases and climate change are becoming ever more important hazards that affect how households make ends meet.

No single approach to food security assessment is advocated in this module; the focus here is on the underlying concepts of food security analysis and thus better interpretation of the findings from food security assessments in light of causes of malnutrition. It is anticipated that a nutritionist will be able to highlight areas of nutritional concern following a food security assessment and also to draw the attention of food security and livelihoods specialists to areas they should investigate further.

Food security and nutrition assessments are traditionally carried out independently of one another, while the relationship between food security and nutrition is not always straightforward. At the same time, nutrition assessments frequently include collection of food security information. Therefore, it is imperative for nutritionists to understand and be able to interpret food security assessment data in order to understand the broader food security context and the potential impact on nutritional status. A sound knowledge of food security assessment methods and indicators is required in order to identify appropriate food security parameters for a particular context, and to draw the correct conclusions.

These technical notes are based on the following references and Sphere standards in the box below:

- IFRC (2004). *How to conduct a food security assessment*. Geneva: IFRC
- Young, H. et al. (2001). *Food security assessments in emergencies: a livelihoods approach*. Humanitarian Practice Network Paper 36. London: ODI
- Report of an inter-agency workshop (1997). *Food security assessments in emergencies*. Amsterdam.
- Background technical papers (2003). *Key issues in emergency needs assessment*, Volume 2, Background Technical Papers 28-30 October 2003. Rome: WFP
- Save the Children Fund and FEG consulting (2008). *The Household Economy Approach. A guide for programme planners and policy-makers*. London
- WFP (2009). *Emergency Food Security Assessment Handbook*, 2nd edition. World Food Programme Food Security Analysis Service
- Gosling L & Edwards M. (2003). *Toolkits. A practical guide to planning, monitoring, evaluation and impact assessment*. Save the Children Fund.

**Sphere Assessment and analysis standard 1: food security**

Where people are at increased risk of food insecurity, assessments are conducted using accepted methods to understand the type, degree and extent of food insecurity; identify those most affected; and define the most appropriate response.

**Key actions**

- Use a methodology which adheres to widely-accepted principles and describe it comprehensively in the assessment report
- Collect and analyse information at the initial stage of the assessment
- Analyse the impact of food insecurity on the population's nutritional status
- Build the assessment upon local capacities, including formal and informal institutions, wherever possible

**Key indicators**

- Food security and livelihoods of individuals, families and communities are investigated to guide interventions
- Assessment findings are synthesized in an analytical report including clear recommendations of actions targeting the most vulnerable individuals and groups.
- The response is based on people's immediate food needs but will also consider the protection and promotion of livelihood strategies

Source: Minimum Standards in Food Security, Nutrition and Food Aid. Revised Sphere Handbook, 2010.

## 1. Introduction

### 1.1 Definition of key terms

*Food security* refers to access by all people at all times to sufficient, safe and nutritious food for a healthy and active life. Some agencies consider three components to food security:

- **Availability** – Sufficient quantities of appropriate food are physically available. The food may come from domestic production, commercial imports or food assistance.
- **Access** – Income or other resources are adequate to obtain sufficient and appropriate food through home production, buying, barter, gathering etc. The main focus here is on the economic access of households to food. Food may be available but not accessible to people who do not have adequate land to cultivate or enough money to buy it.
- **Utilization** – Food is properly used through appropriate food processing and storage practices, adequate knowledge and application of nutrition and child care principles, and adequate health and sanitation services. Some agencies also consider how food is shared within the household, compared with each person's nutrient requirements. Utilisation also includes biological use, which is linked to a person's health. Here there is a link with the public health environment (for example communicable diseases) which could affect the body's nutrient requirement and ability to absorb food.

These are sometimes referred to as the three pillars of food security. Infrastructure such as roads and bridges can also affect physical access to markets, fields, grazing land and work opportunities. This usually impacts on the whole community equally, rather than on only some households within the community.

Other key parts of the definition are:

- **'At all times'** – this refers to the seasonal aspect of sources of food and income and of problems that could affect households.
- **'All people'** – there are differences within communities; not all households have the same access to food and income earning opportunities, or to health care and sanitation.

In emergencies, the way people obtain food is often disrupted. Emergencies can destroy food stocks in the home and warehouses and can affect areas where crops are grown (land, water, forests and grazing ground). Food, livestock and labour markets can be disrupted, as can usual sources of household income. Overall availability can be reduced causing serious food shortages as described in case example 1.

#### Case example 1: Destruction of food crops by cyclone: Bangladesh 2007

A Super Cyclone hit the southwest coast of Bangladesh in November 2007 causing major infra-structure damage. An estimated 7 million people were affected, at least 1.6 million acres of cropland were damaged and a significant share of the rice harvest was affected. Large numbers of livestock were killed and damage to the fishing industry was considerable. Shelter, food and cash were identified as the priority needs for storm victims.

Source: Nutrition Information in Crisis Situations. SCN. Report Number XV. December 2007.

Note that the concepts of 'availability' and 'access' are linked but even when there is abundant food available on the market, some households may not be able to afford it. Some of the major food crises in the world have been caused by market shocks, which have resulted in an inability to buy food. Recently

global food shortages and other factors such as fuel price increases and global market forces have caused food price increases and serious food insecurity in many poor countries. See case example 2.

### Case example 2: Food price rises cause an emergency: Haiti 2008

Global food prices have been steadily rising, driven by increased demand, climate factors which have ruined crops and reduced production area, and an increase in the use of land to grow crops for transport fuels. In Haiti, one of the poorest countries in the Americas where around 80% of the population lives in poverty, the price of rice, beans and fruit increased by 50% between 2007 and 2008. At least four people were killed and 20 wounded when demonstrations against rising food prices turned into riots in southern Haiti. Reports say scores of people went on the rampage in the town of Les Cayes, blocking roads, looting shops and shooting at UN peacekeepers.

Source: BBC news report (2008) *World Bank tackles food emergency*. April

Food needs to be stored and prepared properly in order to maintain its nutritional value, while adequate knowledge of its preparation, firewood and time are also needed. Foods that

require special processing may be eaten unprocessed in times of emergency due to lack of time or because processing equipment is not available. See case example 3.

### Case example 3: Outbreak of Konzo: Mozambique 1981

'Konzo' is a paralytic disease that results from eating bitter cassava (a root crop also known as manioc), which contains salt cyanide (a toxin) unless properly prepared. It causes irreversible paralysis to the legs as well as hearing and sight problems. To reduce the toxins in bitter cassava, it should be peeled, grated and soaked in warm water for several days. Alternatively, it can be left to ferment and then sun dried. Processing cassava involves time and intensive labour. Mozambique has experienced a number of konzo outbreaks. In 1981, there was an epidemic in the province of Nampula due to long-term drought and war when other crops had died and protein sources were limited. More than 1,000 people were affected.

Source: Cliff, J. et al. (1998) *Cassava safety in times of war and drought in Mozambique*. *Trop. Med. Intern. Health*, 2 1068-1074

## 1.2 Key determinants affecting food security

A household's access to food depends on **where** and **who** household members are, as well as the **season**. Thus, when considering food security data, it is important to take into account the parameters of location, main livelihood activity, socioeconomic status and seasonality. The "where" and the "who" also determine how policies, institutions and processes (the context) influence the extent to which assets can be accessed and used, and livelihood outcomes achieved.

**'Where'** refers to the geographic location, which determines the livelihood options, how easy it is to get to the markets to purchase and sell food or livestock or find work and other income generating activities. Geographic location also determines the type of hazards households are exposed to such as drought, hurricanes, conflict or diseases, including malaria or those affecting crops and livestock.

**'Who'** refers to the type of household and individuals, which is determined by the assets (human, political, social, physical, natural and financial). These traits determine what resources the household can use.

**'Season'** determines the activities that people undertake to get food or to earn money, the prices they pay and the foods and income generating activities that are available to them.

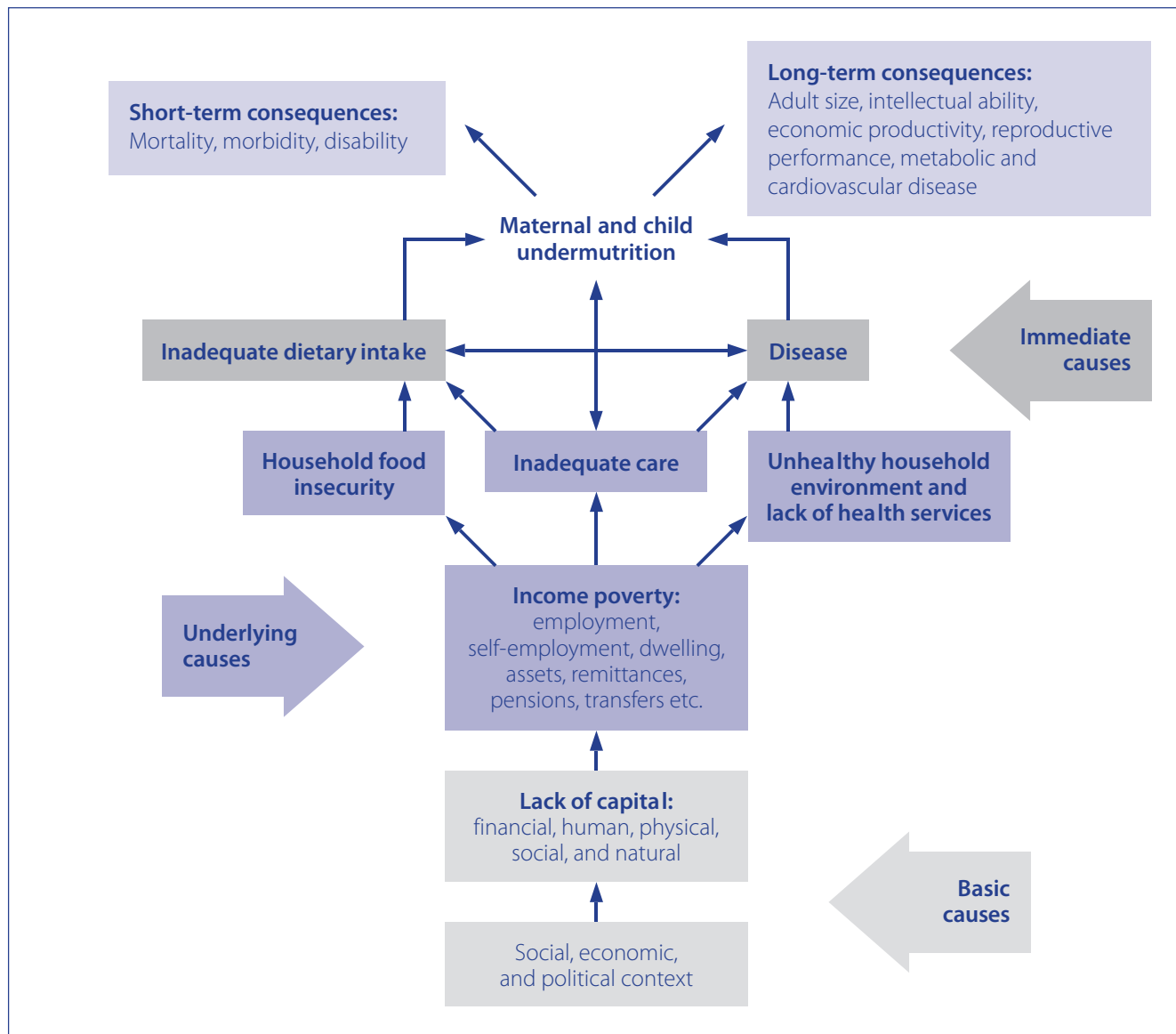
## 1.3 The link between malnutrition and food security

Household food **in**security is just one of the underlying causes of malnutrition, along with inadequate care practices, unclean water, poor hygiene and sanitation and poor access to health care. These are conceptualised in the model shown in figure 1.

While malnutrition rarely results from food insecurity alone and is nearly always linked to a high *prevalence* rate of disease, food insecurity is nevertheless a major contributing factor in many emergencies where malnutrition rates soar. Food insecurity indicates that households are under economic stress, which can affect care practices, health, hygiene and sanitation.

It is essential to understand the food security context before planning interventions to protect food security and prevent potential, related malnutrition. Interventions should address the main problems that households face in getting enough food and may include distribution of food aid or cash, agricultural and economic support or larger-scale projects such as building roads. Module 16 deals with types of interventions in more detail.

Figure 1: The conceptual framework for analysing the causes of malnutrition



Source: Black R E et al (2008). *Maternal and child undernutrition: global and regional exposures and health consequences*. The Lancet. Volume 371, Issue 9608, Pages 243-260

Figure 1 above, highlights the complexity of the causes of malnutrition. It is an analytical tool that shows the interaction between the various contributing factors to malnutrition. There is currently some debate about whether food security is a 'subset' of nutrition (as per the conceptual framework in figure

1 above) or whether nutrition is a 'subset' of food security (because food security is defined as utilisation of food as well as availability of and access to food.). Try not to get confused by this debate; it is best to stick to the standard definition of food security as given above.

## 2. Food security assessments

Since the major droughts and famines in the mid 1980s in Africa, there has been an increased interest in assessing and forecasting food insecurity. Assessments may be carried out in different contexts – following a crisis, during a prolonged emergency or within a stable development context. This module focuses on assessing food security in emergency and pre-emergency contexts.

Food security assessments are generally concerned with processes. They aim to provide an in-depth analysis of a situation and to relate this to current and future needs. The information can provide an early indication of deterioration and forecast what is likely to happen given different scenarios. Unlike outcomes such as mortality or malnutrition, which can be encompassed in a single indicator each, there is no single measure of food security status. Rather, there is a need to use multiple measures to understand the ability of households to access available foods that meet the nutritional requirements of their members, capturing simultaneously the notions of availability, nutritional adequacy, social acceptability etc.

### 2.1 Contexts within which emergency nutrition surveys and food security assessments are done

In an emergency, widespread human, material, economic or environmental damage threatens human lives and livelihoods and under such situations the affected households are usually unable to cope. Here, food security assessments are conducted to assess how the problem has affected the ability of households and communities to make ends meet, with a particular focus on food.

Food security assessments are also used to understand the 'pre-emergency' context as part of emergency preparedness. For example, they provide a baseline on how communities usually obtain their food, against which to compare any changes caused by the emergency.

Nutritional status data can also be collected depending on time and resources. Joint food security and nutrition assessments are considered further in section 4.5 of this module.

Emergencies may be slow-onset (such as drought) or sudden-onset such as in an earthquake. The contexts could be rural or urban and they are not mutually exclusive. In each context there are approaches that might be more appropriate, and some approaches can be used in different contexts. Three reasons for conducting food security assessments in emergencies are:

- To monitor pre-emergency or slow onset/chronic emergencies. For example in drought prone areas or among very poor communities. Early warning and surveillance approaches are appropriate here and can help to monitor the situation. They may also be used to help track the impact of an intervention. The nutrition situation may be monitored also. Phase classification approaches are also suited to track changes in the food security situation but the Integrated Phase Classification (IPC) per se is NOT a monitoring system because it relies on assessments carried out through other mechanisms. It is a meta-analysis. The repetition of this meta-analysis and comparisons of results over time enable 'second-level' monitoring.
- Following a disaster, which could be economic (e.g. food and fuel prices rises), environmental (drought, hurricane, tsunami, earthquake etc) or manmade (conflict), etc. Emergency food security assessments are usually conducted in such situations.
- Joint food security and nutrition assessments are usually conducted to understand the causes of already identified malnutrition, and may also seek to provide the context to anthropometric data. Note that it is necessary to consider the care and health environment as well as the food security situation to fully understand the context of malnutrition in emergencies.

Unfortunately the choice of assessment approach is not straightforward, and cannot be easily classified according to context. Some agencies use a clear assessment methodology including primary data gathering, while others have information systems whereby they pull together and analyse the results of other agencies' assessments. Table 1 lists some of the main approaches to food security assessment and analysis currently in use. **Annex 1** summarises their objectives, methods, advantages and constraints. The list is not comprehensive, but it does provide an outline of how food security assessment is approached by different agencies. Note that there are areas of overlap. For example the Famine Early Warning System (FEWS NET) uses the Household Economy Approach (HEA) to produce early warning profiles. To complement their sustainable livelihoods approach, OXFAM's Emergency Food Security Team has adopted HEA as the framework to identify who needs how much of what kind of assistance and for how long. Save the Children also uses the HEA.

Table 1: Agency approaches to food security assessments and analysis in emergencies

Name of assessment approach	Agency
1. Global information and early warning system (GIEWS)	FAO
2. Famine early warning system (FEWS)	USAID
3. Emergency Food Security Assessment (EFSA)	WFP
4. Integrated phase classification (IPC)	Multi-agency <sup>1</sup>
5. Household economy approach (HEA)	FEG, SCUK
6. Economic security assessment	ICRC
7. Household livelihood security (HLS)	CARE
8. Sustainable Livelihoods Framework (SLF)	OXFAM
9. Nutrition causal analysis approach	AAH
10. Food and nutritional assessment	MSF
11. Livelihood Assessment Toolkit (LAT)	FAO / ILO

**Acronyms:**

FAO	Food and Agriculture Organisation
USAID	United States Agency for International Development
WFP	World Food Programme
FEG	Food Economy Group
SC UK	Save the Children UK
ICRC	International Committee of the Red Cross
AAH	Action against Hunger
MSF	Médecins sans Frontières
ILO	International Labour Organisation

**2.2 Basic steps in implementing a food security assessment**

There are many food security assessment tools and information systems and there is no single standard method. Different agencies have developed their own approaches to suit their individual needs and there is much variation in the indicators collected, the methods used to collect and analyse informa-

tion, and the degree to which nutrition data are incorporated. Even the language used to describe the assessment approaches varies. *Livelihoods* assessment frequently includes an element of food security, while terms such as *vulnerability* and *coping strategies* are used to describe different assessment approaches. These terms are defined in Table 2 below.

<sup>1</sup> FAO, WFP, FEWSNet, Oxfam, Save the Children, CARE, EC-Joint Research Centre



Table 2: Definitions

Definitions	Concepts
<p><b>Food security:</b>  <i>"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food for a healthy and active life"</i><sup>1</sup></p>	<p>The concept of 'food security' has been around for a long time, but until the 1980s, the focus was on food 'production' and food 'availability'. Amartya Sen's work on entitlements contributed to changing the focus to 'access' rather than 'availability'. Currently used definitions emphasise the importance of access to food, which should be of sufficient quantity and quality to support health, growth and activity. Use has also become an important element defining food security.</p>
<p><b>Livelihood:</b>  <i>"A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living. A sustainable livelihood can cope with and recover from stress and shocks, as well as maintain or enhance capabilities and assets, and provide sustainable livelihood opportunities for the next generation. In addition, sustainable livelihoods contribute net benefits to other livelihoods at the local and global levels in the long and short term."</i><sup>2</sup></p>	<p>The concept of 'livelihoods' has evolved out of our understanding of poverty. The objective of the approach is to protect and support livelihoods. Households are assumed to have different types of assets (financial, human, natural, physical, social and political) and adopt livelihood strategies (such as agriculture, labour, trade, migration, smuggling, predation and asset stripping, and external aid) to achieve livelihood outcomes (income, food security, health and education, etc.). Thus, food security is one outcome among many and is incorporated within a wider livelihoods framework.</p>
<p><b>Vulnerability:</b>  <i>"The characteristics of a person or group in terms of their susceptibility to harm from the impact of a natural [or man-made] hazard"</i><sup>3</sup></p>	<p>Vulnerability is distinct from poverty in that vulnerable people are not necessarily poor but are expected to lack the means to cope when they are exposed to risks, shocks, and stress. Here, the concept of vulnerability is not independent; it is linked to and dependent upon the hazard. So, in the food security context, households or communities are '<i>vulnerable to</i>' a shock, rather than inherently '<i>vulnerable</i>', although sometimes people use the word to mean 'poor' or 'physically frail'.</p>
<p><b>Coping strategies</b>  <i>"Coping is defined as a short-term response to an immediate and abnormal decline in access to food."</i><sup>4</sup></p>	<p>These are how households cope with a specific hazard by using their assets to get food and cash and other goods and services. Coping strategies vary and fall into distinct stages. Early coping strategies are not necessarily abnormal, are usually reversible and cause no lasting damage. They can include collection of wild foods, selling non-essential assets (including some livestock), reducing expenditure on 'non-essential' items or sending a family member to temporarily work elsewhere. Later strategies, sometimes called crisis strategies, may permanently undermine future food security. Some examples are sale of land, distress migration of whole families, or sale of the last animals or the productive female animals in a herd. It can be argued that taking children out of school or sending children to work also undermine the future food security of the household. Increased migration may increase risk of HIV transmission. Coping strategies may also affect the environment through over-exploitation of commonly owned natural resources or be otherwise socially 'undesirable' such as theft or begging.</p>

Sources: <sup>1</sup> World Food Summit (1996) Held in Rome, Italy

<sup>2</sup> Department for International Development (1999). *Sustainable livelihoods guidance sheet*. London: DFID

<sup>3</sup> Boudreau T (2009). *Solving the risk equation, People-centred disaster risk assessment in Ethiopia*. HPN Network paper 66. London: ODI

<sup>4</sup> Davies (1993) *Are coping strategies a cop out?* IDS Bulletin 24(4): 60-72. London: IDS

## TECHNICAL NOTES

Though the various approaches to food security assessment use different methods, there are generic steps, which are outlined below and can be applied to most situations. Some are also applicable to non-food security assessments. These steps give a broad idea of the process of a food security assessment but do not provide specific guidelines on methods. References for materials containing guidance on how to conduct the various food security assessments are given in part 4 of this module.

**Step 1: Preparation**

- Develop hypotheses on the effects of the crisis on food security and nutrition to guide information requirements and the selection of the most appropriate assessment approach.
- Formulate clear objectives. Box 1 below illustrates the most common objectives of emergency food security assessments, but these should be tailored to the individual needs of each context.
- Find out if other organisations are doing or have done food security/livelihoods and/or other assessments in the area, and where and why. Make sure your assessment design is complementary and does not duplicate what has already been done.
- Organise logistics and finances. This includes a travel plan, field equipment, transport, translators, etc.
- Define the assessment area. This is a very important part of planning the assessment. A clear geographical, livelihood-related and/or emergency-affected definition of the assessment area is needed. This will ensure that appropriate secondary information can be collated and help to decide which locations should be visited to collect primary information. If the population being studied is heterogeneous (for example they may be a mix of fishermen and farm labourers who all have lost livelihoods due to a tsunami), it will be impossible to interpret the results or plan appropriate interventions if no disaggregation is done; each group should be studied apart.
- Check against the seasonal calendar and knowledge of typical households' daily activities to ensure people will be available to answer your questions.
- Inform appropriate authorities and obtain authorisation to visit assessment areas.
- Train the team on the assessment methodology and discuss possible cultural sensitivities and how to overcome them.

**Box 1: Objectives of food security assessment in emergencies**

Most emergency food security assessments are carried out to address one of four broad objectives, within a defined population:

1. Estimation of the severity of food insecurity
2. Projection of future food insecurity
3. Identification of groups that are more affected by or vulnerable to food insecurity
4. Identification of appropriate interventions to improve households' access to food

In crisis situations, while the most immediate aim is to save lives and identify the need for emergency relief in terms of food and feeding programmes, many assessments also have the longer-term aim to protect livelihoods.

**Step 2: Secondary information collection**

- Identify sources of secondary information from the national capital, provincial and district levels. The most common sources are government officials, local authorities and traditional leaders, non-governmental organisations (NGOs) and United Nations (UN) agencies.
- Collate and analyse secondary information (data collected from a secondary source rather than directly from the affected area). See **annex 2** for checklist.
- Identify any information within secondary sources that may be important and of relevance to your field work.

**Step 3: Primary information collection**

- Identify what food security information is needed. Food security, unlike malnutrition, cannot be measured through a single indicator. Instead multiple measures have to be used. Examples of indicators classified by the three pillars of food security are shown in table 3. Some agencies have devised scores or indices to measure different aspects of food security, such as dietary intake and coping strategies indices, which are used as proxy measures of food security. These indices are listed in table 4 and described in more detail in **annex 3**.

- Identify which tools or techniques and methods of data collection are appropriate and feasible with the time and resources available. These are described in more detail in many of the technical guides in the reference list in part 4 of this module and may include: questionnaires, observation, semi-structured interviews and focus group interviews among others.
- Collect and analyse primary information (data collected directly from the affected area).
- Collect market data: what commodities are available at which markets and at what prices throughout the year? How do people physically get to the market? Have these parameters changed?
- Consider collecting nutritional data if necessary and if resources and time allow. These could include anthropometric data, child health status and child food consumption patterns (including breastfeeding practice).

Table 3: Indicators used in food security assessment and analysis

Categories of indicators	Examples of indicators
<b>Food availability/ general context</b>	Rainfall and expected effects on harvest Crop production (types of crops, yields, methods of production) Livestock holdings and status Land area cultivated and systems of land access
<b>Food access</b>	Livelihood strategies Income and food sources Essential expenditures Household food consumption patterns Household food stocks Productive household assets Market prices of key staples and productive assets (e.g. livestock) – Terms of trade Coping strategies
<b>Food utilisation</b>	Nutritional status Health status Water sources and sanitation facilities Feeding and caring practices Food consumption patterns

Further indicators, are found in the Sphere handbook. Note that, alone, the above indicators do not explain the food security situation; they must be analysed together, often with other information. For example just knowing how much a sack

of rice costs is meaningless without also knowing how much money households earn, how much rice they need to purchase, what other means they have of obtaining rice (for example their own harvest) and other expenses they incur.

Table 4: Dietary intake and coping strategies indices

Type of index	Name	Agency
<b>Dietary intake</b>	Individual dietary diversity score	FANTA/FAO
	Household dietary diversity score	FANTA/FAO
	Food consumption score	WFP
	Cornell-Radimer hunger scale	Cornell University
	Household food insecurity access scale	FANTA
<b>Coping strategies</b>	Coping strategies index	CARE, WFP

Market analysis is an integral part of any food security assessment. A few tools are available including OXFAM, IRC and Prac-

tical Action's Emergency Market Mapping and Analysis (EMMA) tools and a new guide will soon be finalised by WFP.

**Step 4: Analysis**

- In an emergency it is important to analyse the findings quickly so timely decisions can be made. All analyses should identify:
  - Which group or groups of people are affected and why
  - Which months they are most affected and why
  - Causes of the problem (including an analysis of the political, economic, social, institutional, security (conflict where appropriate) and environmental conditions
  - What information is missing or is not clear, and what data should be collected next
- If possible (and depending on the approach used), develop scenarios to forecast future food security conditions.
  - What is likely to happen given a range of different anticipated events/factors?
- Identify possible response options. Ideas for interventions should:
  - specify which groups of people are to be targeted and how the intervention will help them access food
  - be guided by an assessment of their feasibility and appropriateness
  - list clear process and impact indicators with a plan for these to be monitored regularly

**Step 5: Report writing and dissemination of results**

- It is best to disseminate at least a summary report with key findings within a few days of completing the assessment while the information is still fresh in the team's mind.
- Any report is more useful and more likely to be read if it is clearly written and highlights the information readers need the most. It should be clear and concise, avoiding language that could be ambiguous or misunderstood such as jargon and the excessive use of acronyms.
- Ideally, the findings should also be shared with all those involved in the fieldwork including the assessed community and local authorities (time permitting).

### 3. Elements of emergency food security assessment and analysis

The purpose of this section is to aid decision-making in selecting an appropriate approach that suits the context and resources available. It considers the various approaches currently used to assess and/or analyse food security in emergency situations. Many of these can be used in different contexts so it is not possible here to provide a toolbox of assessment methods with clear criteria for when each should or should not be used. Relevant points to be aware of in different emergency contexts are highlighted, as well as implications for necessary staff capacity and experience. While food security and livelihoods staff have more experience in these assessments and data analysis, the approaches are outlined here so that non-specialists are aware of the basic concepts and can better understand and interpret the results.

Many agencies have developed or adapted assessment approaches to suit their needs. As a result, the guidelines available tend either to be produced by a particular agency for its own purposes or for a particular country. Very limited guidance material is available that provides a comprehensive overview of the many different food security assessment approaches used by agencies, their relative strengths and weaknesses and therefore which approaches are most appropriate for a given context. There is no reason, however, why programme planners and managers should not take certain elements from the different approaches available and form a hybrid suitable for a particular working context. See **challenge 1**. It is important to realise that there is no single 'best' way. The reason why you want to conduct or use the results of a food security assessment is usually because you need to know what food people eat, what activities they do and what happens if there is a problem. Keep this in mind while selecting the assessment approach most appropriate to your needs.

#### Challenge 1: Standardisation and minimum standards in food security assessment methodologies

Most food security assessment approaches allow a degree of flexibility in application. This allows people to adapt methods to a particular context. The problem with the use of multiple methods is that it is difficult to make comparisons – either geographic or over time. Though it is generally agreed that a single universal methodology would be unnecessarily confining, greater standardisation would allow better comparison of findings and lead to greater donor accountability in resource allocation decisions. As a basic requirement, the assessment methodology should tell the story of how people meet their food and other needs, in a manner that allows decision makers to understand the main constraints faced and by which groups of people. For a nutritionist, the information should indicate whether there is a possible link between the food security situation and current malnutrition or whether there is a risk of malnutrition unless some food security and livelihoods intervention is implemented.

**Decisions about which emergency food security assessment approach to adopt should be based on context and particular needs. Modified approaches should be adopted where appropriate. At all times technical rigour must be maintained.**

The lack of standardisation in food security assessment should not discourage readers and practitioners. A lot of effort and progress has been made to develop indicators and methodologies. While their number and difficulties in defining clear guidance on how to select the most appropriate ones are indeed a challenge, this is arguably better than a void of indicators and methods. At the time of writing, the Global Food Security Cluster is being established. One of their tasks will be to provide guidance on selecting approaches to emergency food security assessment according to the context. This should be ready some time in 2011.

There is usually more time to carry out an assessment in a chronic emergency or slow onset crisis than in an acute emergency as there is less pressure to mount an intervention immediately. This however depends on the type of problem, the context, and the timing of the assessment. For example in a drought-prone area there is a specific time of the year when it is important to intervene to protect people's livelihoods, and when the risks of malnutrition are higher. Thus approaches like CARE's household livelihood security (HLS) and the HEA, which require the collection of comprehensive baseline information that can be compared with information collected later, are well suited.

#### 3.1 Types of emergency context

##### Slow onset and chronic emergencies (non-conflict)

These include areas that are prone to recurrent drought, or communities living for many years in camps with restricted access to normal economic activities.

Furthermore, in chronic emergency contexts there is often greater potential to implement combined livelihoods-protection interventions. As such, livelihoods-based approaches are useful because they take a broader view of how households access their food and hence can point to a wider range of possible interventions.

## TECHNICAL NOTES

In slow onset and chronic crises, livelihood difficulties are frequently the result of long-established underlying political and institutional problems that are then made worse by acute climactic or conflict-related shocks. Therefore, food security and livelihoods analyses must be able to identify the relevant political and institutional factors that may need to be addressed in order to improve access to food. Again, the livelihoods approaches seem best suited to this scenario. As

most field assessment approaches have the household as the unit of analysis, in order to clarify the links between macro political and institutional factors and the impact of these at the household level, it will be necessary to discuss with key informants and to read secondary sources. Establishing such linkages is critical if political and institutional factors are to be addressed.

**Case example 4: Political factors in chronic emergencies: West Bank and Gaza Strip 2007**

In the highly politicised West Bank and Gaza Strip, Israeli closure policies that have prevented free movement of goods and people since 2000 have had a major impact on the economy and people's livelihoods. A Food Security Assessment was carried out by WFP and FAO in 2006. Reports on income, expenditure and prices were reviewed and some primary qualitative data were gathered. The results showed that over one third (34%) of the population was food insecure. Domestic food production was insufficient to meet needs and food price increases coupled with declines in income and increasing unemployment were causing food insecurity. A major cause of food insecurity was the political situation.

*"Food security here is a special case... We can be starving one day because there is no supply of food, and we can have more food than we ever need on another because we can freely fish and cultivate our lands and go to work... Food security to us is mostly related to the political situation... We are food secure if the Israelis leave us alone and stop trying to make our lives into a nightmare. If they do that then we can be food secure because we can earn a living, cultivate our lands, raise our animals, eat fish and import fish as we desire."*

A participant in a focus group discussion – Gaza Strip

Source: WFP and FAO (2007) *West Bank and Gaza Strip: Comprehensive food security and vulnerability analysis*. DFID.

**Acute, sudden onset emergencies**

In acute emergencies, assessments need to be conducted rapidly in order to mobilise resources, especially where the need is for life-saving interventions as well as for urgent livelihood protection such as preventing the sale of key assets or damaging coping strategies. The ICRC Economic Security Assessment, Oxfam Livelihood Approach, and HFIAS approach (developed by FANTA) have all been designed for rapid implementation. Experienced practitioners can also adapt the HEA approach for use in acute emergencies. The WFP approach to emergency food security assessments is also flexible in the scope of the data collected and analysed and can thus be adjusted to the time and resources available in different types of crises.

**Conflict and Political Instability**

There are special challenges in conducting any assessments in Situations of Chronic Conflict and Political Instability (SCCPI) due to problems of access and insecurity, and an increased potential for bias. Normal livelihood strategies and market flows are likely to be affected by conflict and some approaches and methods have been adapted to address these particular problems. These include the categorisation of the population according to political, security, or displacement factors rather than livelihood groups in order to define groups with similar

means of accessing food. Whether or not this is appropriate can only be judged on a case-by-case basis, depending on whether it assists with understanding constraints faced by households in their ability to access food. Assessment under such conditions may also include a greater emphasis on secondary information, triangulation and combining qualitative and quantitative information, which depends on the quality, relevance and reliability of the secondary sources. Nevertheless, the limitations of approaches in SCCPI are coming into sharper focus and it has been suggested that, with careful consideration of the logic behind the analysis, current livelihoods and food security approaches can be modified to reflect the specific circumstances associated with war and insecurity. See **Challenge 2**.

In conflict situations, some indicators may be sensitive for political or ethnic reasons and there may be issues around the perceived (or real) political or ethnic affiliation of the enumerator and the potential need for ensuring that enumerators are perceived as politically or ethnically neutral. There can, therefore, be tension between the need for local experience on the survey team and real or perceived bias. At the very least there needs to be awareness of political divisions and tensions at the community level.

## Challenge 2: Emergency food security assessment in conflict situations

Current emergency food security assessment approaches are limited in their ability to take account of the special conditions in conflict situations. Nevertheless, the limitations of approaches in SCCPI are coming into sharper focus and it has been suggested that:

- In conflict situations households may need to be classified in terms of political or ethnic affiliation and in terms of security as well as socio-economic possibilities
- This type of analysis may be highly sensitive and jeopardise the role of agencies implementing emergency food security assessments
- Lessons have been learned concerning the best ways to conduct assessments in conflict situations, although specific guidance material is not currently available

**Standard emergency food security assessment approaches need to be modified on a case by case basis to take account of the specific circumstances in war and insecurity. This must be done carefully, to ensure the reliability of the results.**

In situations of chronic conflict and political insecurity, there may also be very limited time that can be spent on the ground. Thus, assessments may not only need to be very rapid but it may only be possible to interview a small number of house-

holds or key informants. In extreme situations it will only be possible to interview those who have managed to escape a location where there is life-threatening insecurity. See **case example 5**.

### Case example 5: Retrospective assessment of food security: North Korea 1999-2000

Unable to conduct a food security assessment within the country, due to the reluctance of the government to allow access, the John Hopkins University conducted interviews with 2,692 North Koreans living in China. This was a sample of the 50,000 – 150,000 people who had migrated into China. The migrants were asked about their household food situation in North Korea prior to fleeing to China, and about recent deaths in their family. The assessment concluded that household food security in North Korea had declined in the period from 1995 to 1998. Evidence for this was the reported decline in the government ration from an average 120 to 60 grams per person per day, and an increase in the percentage of households relying on foraging or bartering of assets as their principle source of food. Retrospective reports of deaths also suggested rising mortality. While there are obvious limitations to the assessment such as bias and lack of verification through direct observation and focus group discussions, the assessment provides an innovative example of how to obtain food security information through a 'one step away' approach.

Source: Courtland Robinson, W. et al. (2001) *Demographic methods to assess food insecurity: A North Korean case example*. *Prehosp. Disast. Med.* 15(4): 286-293.

### Urban settings

Most food security assessments are carried out in rural settings in developing countries where livelihood options are limited and it is relatively easy to classify people into livelihood groups or socio-economic sub groups. Assessing food security in urban settings is becoming more common, however, as agencies become aware of the increase in the number of poor

people living in urban areas. In urban settings, the range of livelihood options is generally much greater and it is often harder to identify homogenous communities. Furthermore urban economies can be extremely complex. This presents a challenge to current assessment approaches as **challenge 3** notes.

### Challenge 3: Emergency food security assessment of urban populations

Food insecurity in urban settings is growing. This presents challenges to current assessment approaches as the range of livelihood options for urban populations is generally broad and urban economies can be extremely complex. The complexity of the urban environment may not be adequately understood using current assessment approaches. An assessment may have to be done 'backwards,' for example, by identifying the different income earning activities that people do and then classifying households into socio-economic groups according to the typical income earned rather than by activity. Livelihood zoning may be difficult as people with different livelihood activities may live in various areas of the city or even within the same households. However, various livelihood zones can also be encountered in a city, for example, households living at the periphery may also engage in agriculture or animal husbandry, or some districts have significantly different services and infrastructure, which have an impact on people's livelihoods.

It could be argued that finding solutions to urban food insecurity is becoming a more important need as urbanization is rapidly increasing and urban poverty and food insecurity has the potential to lead to greater political instability and violence than rural food insecurity.

**Further work is needed to develop emergency food security assessment and analysis approaches that are appropriate for urban settings. At the time of writing, WFP and OXFAM are finalising a review of knowledge gaps in urban food security assessment, towards ultimately producing relevant guidance.**

## 3.2 Types of assessment approach

At the moment, there is no standard methodology for carrying out food security assessments in emergencies so a range of different approaches is highlighted here, with more detail given in **Annex 1**.

### Early warning and surveillance

Early warning has been described as "*a process of information gathering and policy analysis to allow the prediction of developing crises and action to prevent them or contain their effects*"<sup>2</sup>. Note that this is not really a form of assessment but in fact an information system that depends on regular collection and interpretation of data, sometimes combined with one-off assessments. Early warning is related to preparedness and contingency planning on the one hand, and preventive intervention on the other. It is most commonly used to forecast crises rather than to assess needs. Most current food security monitoring systems collate the following types of data:

1. **Agricultural production** via yields and total production of food and cash crops
2. **Market prices** of locally available staple foods, cash crops and livestock
3. **Nutrition** status of populations usually by measuring MUAC or weight-for-height
4. **Factors that may affect the above** such as rainfall, outbreaks of disease (human and animal) or crop pests

Some systems also include information on livestock herds. Many early warning systems have been set up at the country, regional and international levels. These include the FAO Global Information and Early Warning System (GIEWS), the USAID-sponsored famine early warning system (FEWS NET) in sub-Saharan Africa, and the WFP vulnerability and analysis mapping (VAM) Unit, which identifies 'hot-spots' as well as conducting routine monitoring.

Early warning systems often rely heavily on secondary data (information already collected by another agency), which may come primarily from national government statistics on rainfall, crop production, prices and imports/exports and satellite imagery. Such systems have generally been successful in forecasting impending food crises. However, they do not do well at pinpointing exactly when a crisis is likely to occur and who will be affected. Failures to accurately forecast crises have sometimes been blamed on poor design of these early warning systems (such as collecting incomplete data or not getting the data to the decision makers in time). This may also be attributable to failures by governments and donors to interpret and/or to respond to the available evidence in a timely and appropriate way. There are also simply too many unknowns even for the best designed early warning system to always accurately forecast a crisis, e.g. market behaviour, coping capacity, levels of remittances, etc.

<sup>2</sup> Darcy J. and Hofmann C-A (2003). *According to need? Needs assessment and decision-making in the humanitarian sector*. HPG Report 15, September. London: ODI.



### Economic approaches

The starting point of a number of food security assessment approaches is that food security must be understood within a broad economic context. This is the basis of approaches such as the household economy approach and economic security assessments (ESA).

HEA was originally developed by Save the Children UK and now is used by them and the Food Economy Group. It has many elements in common with other agencies' approaches such as the one used by Action against Hunger.

HEA is a framework for analysing food security and livelihoods based on the principle that it is necessary to understand how people usually make ends meet in order to assess how their livelihoods will be affected by acute or medium term economic or ecological change. Although HEA assessments are carried out at one point in time, the data collected refer, usually, to an entire year. It recognizes that the economy of a population depends on household income (both cash and food production), household expenditure (both food and non-food), and other factors including savings, livestock and other assets, availability of wild foods, and access to, and use of markets. The assessment is used as a baseline against which scenarios or monitoring indicators can forecast likely future food insecurity. It can also be used to plan interventions that support rather than undermine existing survival strategies. One advantage of HEA is that it can provide quantitative estimates of household food deficit and a projection of future deficits. For this reason it has been used widely to calculate food aid needs although with the development of its own food security assessment methodology WFP is relying less on HEA than in the past.

The ESA approach, developed by the ICRC, is founded on the need to assess food security as one element of economic security. It can be applied in highly insecure situations (a common feature of ICRC work) where access to the affected population is limited and decisions need to be taken speedily. The approach is dependent on participatory, qualitative forms of data collection and can therefore only be conducted by skilled assessors.

### Livelihoods approaches

Livelihoods approaches have evolved out of a need to understand and address poverty. Food security is viewed as one sub-set of desired livelihood outcomes of poor households and food is considered as only one of a whole range of factors that determine why the poor take decisions and spread risk, and how they balance competing interests in order to subsist in the short and longer term. For example, people may choose to go hungry in the short-term in order to preserve their assets and future livelihoods. Thus, food security is dependent on wider livelihood considerations.

The CARE household livelihood security model relies on secondary data combined with in-depth participatory, qualitative data collection. It seeks maximal involvement of different stakeholders in designing and carrying out the assessment. This takes time, and the approach has not been used much in emergencies, possibly because it is not easy to adapt. CARE has incorporated a rights-based approach which recognizes that poor, displaced and war-affected people have inherent rights essential to livelihoods security. This takes into account the fact that social relations and power are critical to understanding food and livelihood security. One potential limitation is that some donors prefer a strictly needs-based approach instead of a rights-based approach.

Oxfam developed its livelihoods approach to food security during the 1990s. The approach involves collecting primary and secondary (quantitative and qualitative) data according to the context. Based upon the UK Department for International Development's (DFID) sustainable livelihoods framework (SLF), Oxfam's food security assessments aim to support livelihoods, as well as saving lives. This involves assessing the longer-term risks to livelihoods, as well as short-term nutritional or life threatening risks. The SLF provides a logical approach to understanding vulnerability, capacity to respond to shocks, coping mechanisms, and potential outcomes. At its heart is an understanding of livelihood security as being a matter of having access to essential food and non-food resources. However, in times of crisis, it is important to assess needs quickly in order to mount an appropriate and timely response, hence Oxfam's Food Security Assessment Tool for emergency assessments, which is designed to guide food and nutrition technical staff in making decisions during food security related emergencies. The guidelines cover different contexts including drought, conflict, poor governance, sudden impact natural disasters, refugees/IDPs and market failure and food price increases. Details of these are given in **annex 1** and the reference for the website in part 4 of this module.

The second version of the Emergency Food Security Assessment Handbook produced by WFP (2009) takes a similar approach and also has similarities with the HEA approach, as does the FAO/ILO Livelihoods Assessment Tool-kit. This is also a livelihood-based approach, aimed at sudden onset natural disasters. The process consists of three interrelated elements: a Livelihood Baseline, an Initial Livelihood Impact Appraisal and a Detailed Livelihood Assessment.

### Nutritional status approaches

Two examples of nutrition approaches described in **annex 1** have been adopted by agencies with a strong medical approach to interventions. The approaches used by both Action Against Hunger<sup>3</sup> (AAH) and Médecins Sans Frontières (MSF) are characterised by the fact that their central concern is to prevent or address malnutrition, and food security is seen as just one element that can have an impact on nutritional status. AAH has adopted the nutrition causal analysis approach based on the UNICEF conceptual framework (see figure 1, which is based on this framework). AAH's areas of intervention are nutrition, food security, medical assistance, and water and sanitation. These fit neatly within the causal framework as they all relate to the underlying causes of malnutrition. Their assessment approach thus links data collection to AAH interventions. MSF on the other hand prioritises the health status of the affected population. Here, food is considered one of the essential elements that determine a person's health, along with measles vaccination, water, hygiene, sanitation, shelter and essential non-food items. Their guidelines for

refugee and displaced populations emphasises the need to ensure people have food of sufficient quantity (kilocalories) and quality (micronutrients) and techniques are explained for surveying food distributions<sup>4</sup>.

A third approach that can systematically link nutrition and food security assessments is the Standardised Monitoring and Assessment of Relief and Transitions (SMART) methodology. Here, anthropometric measurements are, depending on the context, used with mortality and/or food security information. For further details please see the website as listed in the third part of this module.

These nutritional status approaches may seem ideal because they combine nutrition data with 'contextual data', which is the non-anthropometric or mortality data usually collected during nutrition surveys. However it is important to make sure the 'extra information' is useful and is used, see **case example 6**, in order to justify the extra time and costs involved.

### Case example 6: Contextual data in nutritional assessments, Ethiopia

In 2009 there was a review of the 'contextual' data that are routinely collected during nutrition surveys in Ethiopia. The purpose was to examine the types of data that are collected and how they are used. The review identified differences in survey objectives, types of contextual indicators and methods of data collection, which made it difficult to compare survey results. The review also highlighted that a significant proportion of the contextual information was not clearly linked to recommendations and therefore had questionable use in decision-making. The author suggested that a smaller number of core 'contextual' indicators could be identified which would reduce the time and cost of surveys.

Source: Watson F (2009). *Contextual data collection in nutrition surveys in Ethiopia. Summary of analysis*. ENN Field Exchange November 2009 Issue 37.

### 3.3 Methods in food security assessment.

As is clear above, there is much diversity in the approaches and methods employed to carry out food security assessments, including differences in:

- Sampling methods (random or purposive)
- Units of measurement (households or individuals)
- Data collection methods (rigid questionnaires, participatory methods or a combination of the two)
- Type of data collected (qualitative, quantitative or a combination of the two)
- Degree of reliance on primary or secondary data
- Investigator skills needed (highly skilled v. minimal training)
- Geographical coverage (limited to a defined livelihood area or including several types of livelihoods)

<sup>3</sup> AAH is used as a generic term here to include the French and Spanish branches of AAH namely Action Contre la Faim and Action Contra el Hambre.

<sup>4</sup> Please see MSF (2006). *Rapid health assessment of refugee or displaced populations*.

Some key elements are highlighted below.

### Sampling

In an emergency, some randomised sampling procedures may not be appropriate because they take too long and are too expensive. FANTA has been working on quicker and cheaper statistically reliable ways of sampling, such as Lot Quality Assurance Sampling (LQAS). This has been validated in the field and guidance tools have been developed. This sampling was designed with anthropometric surveys in mind and it is not yet clear how useful it is in food security assessments.

### Focus and units of analysis

There are distinct differences in the focus of each approach and the unit of analysis. Early warning and surveillance systems often focus on trends in food **availability** among **populations**. Economic and livelihoods approaches focus on **access** to food by **households**, while the nutritional status approaches focus on food **utilisation** in **individuals** (often children under 5 years old) and how other broader factors determine nutritional status.

### Response defined objectives

The objectives of many assessments are, to some extent, pre-determined by the potential response of an agency and the context. Some approaches are used mainly to determine food aid or other pre-determined needs while others may collect information to help decide appropriate responses to food insecurity, which may or may not include food and may be beyond the mandate of the agency.

### Food security indicators

The challenge in food security analysis is how to understand the complexities of the ways people make ends meet. This cannot be represented by just a few numbers. On the other hand, a correctly done baseline analysis will identify the appropriate and relevant indicators for that particular context. Changes in the food security situation of the studied community can then be monitored using these indicators, which are related to the baseline. At present some approaches to food security assessment and analysis focus on indicators that emphasise different aspects of food security, e.g. availability, household access, or individual utilization, which are useful but difficult to interpret without a baseline. It is important to correctly interpret indicators. For example, with coping strategies, what is 'normal' and what is a sign of 'distress'?

While food security indicators will inevitably continue to use a variety of both quantitative and qualitative data, standardisation could be improved by:

1. Agreement on a minimum set of information that needs to be collected as a baseline against which to assess changes in food security
2. Greater transparency in reports so that interpretation, computations and limitations are explicitly described

### Analysis, interpretation and types of response

As there are so many approaches to food security assessment with different sets of indicators within sometimes different analytical frameworks, there is currently no standardisation or international consensus on what constitutes a 'food security emergency' and therefore when an emergency response is appropriate. Food security and livelihood responses can be implemented to save lives or to protect livelihoods. Further details are given in module 16 of the HTP, but in brief the main characteristics of each type are:

- Life saving, where access to food and food consumption are affected to such extent that people are at risk of malnutrition, starvation and eventually death.
- Protecting and strengthening livelihoods. These may be implemented either with or without life saving interventions, depending on the context and they may have to occur equally urgently as their timing may be critical in order to prevent livelihood losses.

There are now a number of classification systems being developed which categorise emergencies in terms of severity. These are discussed in greater detail in module 1.

### Phase classification

With the proliferation of tools for conducting food security assessments and the different systems for analysing and interpreting food security information, FAO in partnership with other agencies<sup>5</sup> has led the development of the IPC system. This is based on the approach originally developed by the Food Security Assessment Unit of FAO for Somalia and classifies different phases of food security according to their outcomes on lives and livelihoods. Three early warning levels (alert, moderate risk and high risk) are formulated and linked to broad types of response. Severity thresholds and phases of the IPC can be found in module 1 of the HTP, on introduction to emergencies.

Phase classification systems link different information systems and aim to provide consensus in the analysis of findings with criteria for the severity of the situation. Existing food security classification systems are ill-suited to chronic food insecurity situations, because it is difficult to identify suitable indicators and severity thresholds. Some work is planned under the Integrated Phase Classification (IPC) initiative to develop/review indicators and thresholds so that the IPC can be useful also in chronic food insecurity situations.

<sup>5</sup> WFP, FEWS NET, EC-JRC, Oxfam, CARE and Save the Children

### 3.4 The role of markets

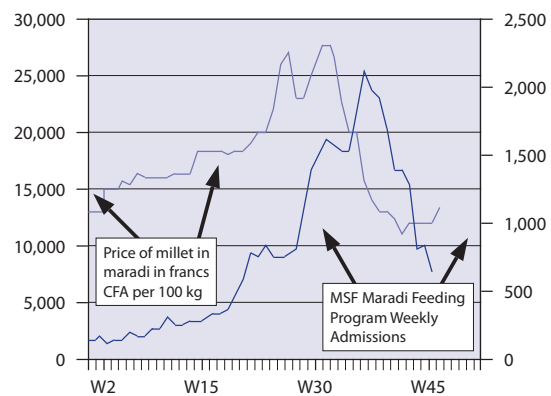
In normal times, food and labour markets have a major impact on household food security in both rural and urban areas and especially for the poorest households who usually depend on them to a greater degree than the better off. The role of prices and markets in influencing food and non-food demands, imports and producer incentives is frequently ignored in food security assessments. Yet market structure, prices and behaviour are critical in determining access to food, and most major food security crises have involved major market disruption.

During emergencies, market disruption occurs as a result of losses in production, income and reduced access to markets. Localised food deficits can occur due to hoarding or looting, while aid interventions themselves can affect transport and food prices. Livelihoods can be affected by a collapse in the terms of trade; for example, they can be fuelled by staple food price increases and livestock price decreases. These various effects can lead to shortages, distress sales by households and speculation by traders. At worst, markets can collapse completely so that rural and urban populations are unable to access food. **Case example 7** describes how markets can affect food prices and nutritional status. This also highlights the importance of using the correct indicators and taking the context into account.

#### Case example 7: Market effects on food prices and nutritional status: Niger 2005

Niger faced an epidemic of acute malnutrition in 2005 primarily affecting young children less than 24 months of age in the southern areas of Maradi and Zinder provinces during the hunger gap period between June and October. In Niger, most rural families are highly dependent on market food purchases for a large part of their consumption. In July 2005, millet prices in Maradi reached up to 28,000 African Financial Community (CFA) francs for a 100 kg bag compared to 8,000 CFA francs at the time of the previous harvest in 2004. There is a striking correlation between the market price of millet in Maradi in 2005 and the number of admissions of acutely malnourished children into MSF programmes five weeks later. Nutrition surveys at the time also showed high rates of acute malnutrition, oedema and mortality among young children.

**Weekly millet market prices vs weekly admissions maradi 2005**



(Note that admissions rates are program indicators therefore they may reflect either an increase in community outreach programs and active case finding or a real increase in acute malnutrition among children. This initially created some confusion among donors and agencies in Niger as to how best to interpret the results and highlighted the importance of contextual data.)

Source: ENN Field Exchange 26 (2006)

Market analysis is an essential part of food security analysis but can be complicated and requires specific skills. This is all the more important because market disruptions due to an emergency can be made worse by inappropriate humanitarian responses.

against the impact of importing these items. With market information, those agencies can compare the advantages of distributing food and/or other items compared to giving cash to target households. Market analysis should always determine potential negative impacts of a food or cash response on traders, consumers and producers. **Case example 8** provides an example of incorporating the results of a market analysis with a food security analysis, using the EMMA approach which is described below.

Market analysis is particularly important for agencies involved in the procurement of food or other items for distribution as they need to assess the impact of local purchase on local prices

### Case example 8: Market analysis in nutrition/food security assessment: Bangladesh 2008

Monsoon rains in Nepal and India during August-September 2007 led to the largest floods in Bangladesh in nearly a decade. Then, in November 2007, Cyclone Sidr struck coastal Bangladesh leading to many deaths plus damage to property and loss of assets. As a result of the rains and the cyclone, around 1.4 million metric tonnes of local rice crop was lost.

In the context of the global rise in the price of food and fuel, compounded by regional trade barriers for food exports from South and South East Asia and internal efforts to ensure macro-economic stability, there were predictions of future food crisis.

UNICEF, WFP and the Institute of Public Health Nutrition jointly undertook a national Household Food Security and Nutrition Assessment in 2008 at harvest time. This included anthropometric measurements of mothers, pregnant women and children plus a food security survey looking at changes in livelihoods, income sources, wages, salaries and purchasing power. A household coping strategies index and a food consumption score were calculated. In addition a market trader component was added, including 180 markets and 900 traders.

The prevalence of GAM was 13.5% with 3.4% SAM and a chronic malnutrition rate of 48.6%. The more food insecure households were smaller, had fewer assets and fewer able-bodied members. Nearly half of agricultural labourers were considered food insecure on the basis of their food consumption score. Households used many strategies to cope with the food crisis in particular borrowing from friends, relatives and/or financial institutions. The traders reported that there was a problem with people hoarding food, traders holding back stock and high fuel prices. They reported that they were selling less and with lower profit margins and they had to increasingly give credit to customers in order to maintain their business.

The authors concluded that the survey of market traders complimented the food security assessment by confirming that even though food and credit were available, the consumers did not have the purchasing power to buy enough food at the market. The recommendations therefore included support to the Bangladesh Safety Net Programme.

Source: Institute of Public Health Nutrition, UNICEF, WFP (2009). Bangladesh Household Food Security and Nutrition Assessment Report 2009

Despite the importance of market analysis within emergencies, it is often not carried out because it is considered too complicated. This is represented in **challenge 4**. To overcome this, and as preparation for interventions, Practical Action and

OXFAM-GB developed their Emergency Market Mapping Analysis (EMMA) Tool, the reference for which is given in part 4 of this module.

### Challenge 4: Market analysis in emergency food security and livelihoods analysis

Market analysis is crucial to understating food security and livelihoods but is frequently ignored or considered in parallel to food security assessments. Market analysis should examine, inter alia:

1. Availability of food and other essential commodities taking seasonal price and availability changes into account, including:
  - prices for main staples and other important food stuffs (animal products, vegetables)
  - sale prices for cash crops
  - prices of livestock, number, quality and types of livestock sold
  - labour rates, also looking out for any changes in available work opportunities
  - prices of other essential commodities such as firewood and fuel
  - in disasters causing destruction of infrastructure and housing, prices of critical commodities such as roofing sheets.
2. Major trade flows for cereals, livestock and labour and factors that could affect these.

**A minimum set of market information should always be collected and analysed in food security assessments. Information from household food security assessments should be integrated with market analysis. This will enable linking analysis of household access to food with market prices, or consideration of how the market functions when interpreting livelihood strategies including crop and livestock production.**

## TECHNICAL NOTES

The EMMA toolkit is aimed at helping non technical staff to collect economic, livelihood and seasonal information to identify opportunities and inform people with very little economic experience to make early decisions about appropriate response options. It consists of three basic strands:

- gap analysis, which looks at people's needs;
- market analysis, which looks at the market system capabilities such as concentration and competition (how many traders involved in the trade of which commodities), storage capacity, access to credit;
- response analysis, which considers options for humanitarian action. An important advantage is that this type of analysis increases awareness of the possibility that inappropriate humanitarian responses may harm businesses and households by damaging the market function and trade networks.

At the time of writing, WFP is also developing a guide on the key areas to consider when conducting market analysis (for example availability, access, responses, key questions and indicators plus linking analysis with response recommendations); more up-to-date details can be found on their website.

### 3.5 Linking food security with nutrition information

Household food security is intrinsically linked to individuals' nutritional status. While there are benefits to analysing nutritional and food security data together to get a better understanding of the causes of malnutrition, it is extremely difficult to demonstrate a direct link between food insecurity and malnutrition because there are other possible causal factors such as illness and the care and sanitary environment. The type of malnutrition (acute or chronic) is important. For example changes in the food security situation can occur without corresponding changes in the rate of acute malnutrition (parents may go hungry to 'protect' their child's diet), while acute malnutrition rates can rise in food secure environments (due to epidemics for example). In most situations where there is household food insecurity there will be chronic malnutrition. Nevertheless, linking food security and nutrition information can help interpret the findings of an anthropometric assessment, as **case example 9** illustrates. On the basis of food security indicators alone the situation could have been called a severe food crisis; but it was the addition of nutritional indicators that led to declaration of a famine.

#### Case example 9: Linking nutrition and food security information: Afghanistan 2001

In August 2001, Concern commissioned a nutrition, food security and health assessment in Badakshan province in northeast Afghanistan following three years of drought. The survey found 11% global acute malnutrition, although other information indicated a severe crisis with the population on the verge of famine. Yields from the rain-fed winter and spring wheat crops were very low for the second consecutive year and harvests of other food and cash crops, including opium, were also poor. Most farmers had already sold their livestock to compensate for production shortfalls. Livestock prices were low and wheat prices high. Borrowing was increasing with interest rates up by 350% and default resulted in loss of land or taking up the status of a sharecropper. Prices for household assets were extremely low and supply of casual labour exceeded demand, so wage levels were also low. While the figure of 11% wasting did not convince donors to fund immediate emergency nutritional interventions, the contextual food security and livelihood data clearly showed a food crisis situation. The analysis of these indicators together suggested a famine and this convinced international agencies to advocate for an immediate response.

Source: Myatt, M, Field Exchange issue 26, 2002

Analysing malnutrition, household food security, health and care together will help to identify the most important cause (or causes) of malnutrition and enable staff to prioritise programme actions. However, nutrition surveys and food security assessments are usually carried out independently of one another. This is partly because different sampling procedures are employed so it may be difficult to conduct the assessments in combination, and partly because individuals tend to have expertise and experience in one area and within agencies they are situated in different units. Furthermore, food security or livelihoods assessments need more time spent with

households, as in depth information is required. Interviewees can get 'survey fatigue' if required to participate in too many activities at one time, including measurement of children and questions about their health, diet and care. While anthropometric surveys use only quantitative information (measurements of weight/height or MUAC), food security assessments may use either qualitative or quantitative information or a combination of the two. As the two types of assessment are usually separated and conducted on different samples, statistical correlation is rarely possible. This separation has major disadvantages. See **challenge 5**.

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### Challenge 5: Linking food security with nutrition information

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Food security and nutrition assessments are rarely carried out together due to differences in sampling procedures and differing objectives. This can be a problem especially in interpreting results and for integrating programming.

Nutritional surveys alone are of limited use as they describe an outcome (nutritional status) but provide no information about the causes of malnutrition or they may not inform on the imminence of a nutritional crisis. Food security assessments, on the other hand, can include information on the preceding months as well as currently and can be used to forecast a food security crisis.

However, it is becoming more common to conduct joint assessments especially by agencies that use them as part of integrated programming (ACF, CONCERN Worldwide and WFP, for example). This combination of food security and nutrition programming has advantages in terms of improving programme impact and using resources more efficiently. However, there are often challenges in getting the different sector teams to work together, getting donors to fund different types of activities and on how to interpret the results together. Even if the assessments are not conducted jointly, it is helpful if they cover the same target communities and if the food security assessment time period of analysis includes the few months prior to the anthropometric measurement.

Conducting nutrition and food security assessments together can combine the strengths of each. First, it improves interpretation, although food security is only part of the story about the causes of malnutrition. Secondly, it increases the likelihood of an appropriate response, as nutrition data may provoke donors to act due to a perceived urgency to act, while the more in depth food security assessment may indicate appropriate interventions.

**Every opportunity should be taken to analyse nutrition and food security information together.**

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Another development in combining food security and nutrition information has been the recent work by Save the Children (UK), which calculates the affordability of a nutritionally adequate diet. The Cost of the Diet (CoD) method uses a mathematical approach (linear programming) to work out the cheapest combination of locally available foods that will enable a household to meet the energy, protein, fat and micronutrient requirements of its members. CoD takes into account seasonal variations in food price and availability and, when compared with HEA data for the livelihood zone, it can be used to model the impact of potential interventions or problems on the ability of households to meet their nutritional requirements.

As illustrated in **case example 10**, food security and nutrition data are often analysed by population sub-groups, (such as by livelihood zone, and sometimes by age and sex as well).

WFP is currently developing guidance on proxy indicators of malnutrition that can be included within emergency food security assessments. They are also working on an approach that estimates the nutrient intakes of mothers and children, and examines the relationship of the diets of mothers and children with child nutritional status. Here, household food security status is determined from combining results from Dietary Diversity Questionnaires, 24 hour recalls, information on vegetable gardening and enrolment into food assistance programmes. When these are finalised, details will be available on the WFP website.

### 3.6 Food Security Information Systems

Globally, there have been initiatives to bring together different actors to improve food security analysis either at country or at regional level. It is useful to be aware of these groupings as they are sources of food security information during slow onset emergencies or as part of background to a rapid-onset emergency. These include The Southern Africa Development Committee (SADC) and the Permanent Interstate Committee for Drought Control in the Sahel (CILSS). Both of these are linking with agencies involved in the IPC. Further information on these, especially in relation to IPC, is given in **annex 4**.

**Case example 10: Linking cost of the diet with food security information: Kenya 2007**

In October 2007, Save the Children (UK) undertook a Nutrition Causal Analysis in five administrative divisions within North Eastern Province, Kenya in order to understand the causes of acute and chronic child and maternal malnutrition in the area. The analysis included a desk study of secondary data plus qualitative data from focus group and key informant interviews and case histories of acutely malnourished and well nourished children. In addition, a study of the minimum cost of a locally available and healthy diet was made, looking at availability of food and costs in the market and amongst consumers and how this changes with the seasons. The cost of the diet data were analysed with the results of a Household Economy Assessment, to determine affordability of a healthy balanced diet for typical households within each wealth group.

The study area included rural and semi-urban locations and the analysis was conducted by livelihood zone. The results showed that the range of food available is limited throughout the year, but food diversity is particularly low during the rainy seasons when fruits and vegetables are barely available, only one of the locally grown pulses is available and few manufactured foods reach the area. Food diversity is more limited in rural than semi-urban locations and in fact it was not possible to obtain a balanced diet in the rural areas during the rainy seasons meaning that it was unlikely that households would be able to meet micronutrient requirements especially iron and folic acid.

The cheapest balanced diet was over three times the annual cash income of the very poor households and around twice the annual income of middle households in Central Mandera District. This suggests that the majority of households are unable to afford a balanced diet. The authors concluded that very poor households were only able to cope because they received around 2/3 of their food needs in the form of food aid.

Despite the lower diversity of foods during the rainy season, the cost of the diet was lower in the rainy season in some locations where milk was cheaper. The study also showed that in the dry season, the diet cost more in rural areas than semi-urban area, probably due to transport difficulties (poor roads, long distances) and limited availability which pushed prices up.

The analysis of cost of a healthy diet relative to cash income highlighted the major economic constraints faced by households in meeting their nutritional requirements in locations and during seasons where appropriate diverse foods are available. It also showed that many households were likely to remain dependent on food aid for basic household food security. This then informed the recommendations which included, among others, identifying the critical times of the year for cash transfers, with quantification of the amount of money needed; identifying which commodities to focus on (milk, poultry, vegetables) when supporting local producers and markets to improve availability and consumption of specific foods; and the need to strengthen access to basic infrastructure including roads.

Source: Save the Children UK (2007). *A Causal Analysis of Malnutrition, Including the Minimum Cost of a Healthy Diet. El Wak, North Eastern Province, Kenya.*



#### 4. Challenges in comparing food security and nutrition information

There are three key areas where greater standardisation and development of minimum standards are needed:

1. **Baseline and assessment information.** Agreement on what constitutes a baseline and the minimum set of baseline and assessment information that needs to be collected on food security and nutrition.
2. **Sampling.** Agreement on acceptable sampling procedures for both types of surveys.
3. **Interpretation and analysis.** Agreement on how to interpret data and decide on response options. This could mean developing thresholds for certain types of food security and/or nutrition response. It also includes how to analyse food security and livelihoods information with nutrition, health and care environment data.

Although the Sphere minimum standards address many aspects of food security assessment and analysis in emergencies, there are still areas where minimum standards need to be defined and developed. The fact that there are various food security assessment approaches and information systems makes it difficult to compare different assessment findings within and between countries. This challenge becomes greater because of the need to take seasonality into account. It is difficult to compare results describing the situation in the hunger gap just before a harvest with those just after the harvest when food is more plentiful and prices are usually lower. Decision makers and those who allocate resources therefore face difficulties in comparing assessment findings and ranking situations.

First, it is important to know how far data from the two survey types can be interpreted together. Table 5 below highlights some key differences in the units of analysis and how the data are categorised. These help to understand what the survey or assessment results mean.

Table 5: Comparing data from food security assessments and anthropometric surveys<sup>6</sup>

	Food Security Assessment (generic, typical)	Nutrition (anthropometric) survey
Unit of analysis	Household	Individual (child 6-59 months)
Data categorisation	Usually gives a breakdown by socioeconomic category and/or livelihood group	Prevalence relates to children aged 6-59 months or may be broken down by age group (but usually no breakdown by wealth or livelihood group)
Time period covered by the results	Tells of the situation over previous months May be able to make projections over coming months May describe seasonal variation	Reflects the situation at one point in time (snapshot)
What does it describe?	Process (how households access food)	Outcome (nutrition status)

Case example 11 illustrates some of the challenges faced by agencies when they combine their respective food security and nutrition assessments.

<sup>5</sup> Adapted from C. Chastre and S. LeJeune (2001). *Strengthening analysis of the nutrition situation through linking food security and nutrition information: Pitfalls and potentials*. ENN Issue 13 page 8

### Case example 11: UNICEF and WFP joint analysis of food security and nutrition in Darfur, 2010

UNICEF is supporting the Darfur Nutrition Surveillance System, which grew out of an immediate need for information following the onset of the Darfur crisis in 2003. This includes data from feeding centres, localised nutrition surveys and sentinel sites. Recently, links with WFP have allowed food security analysis through the collection of data to calculate the household food consumption score, water use, and child food consumption.

To enable the analysis, the two agencies have had to harmonize the timing of their assessments and the selection of sentinel sites. A formal timeframe for analysis has also helped, as has engagement with the government to speed up clearance and prevent delays.

There have been a number of challenges, including:

- The selection of the sentinel sites; to ensure that the agencies use the same or compatible population categories (resident/IDP/mixed etc).
- The timing of surveys; to ensure that the food security data and the nutrition surveys reflect the same seasons.
- The selection of indicators; ensuring that the data collected can explain the nutrition results. For example, Darfur provide a context where there is high GAM with limited associated mortality, and the dynamics of coping/livelihoods are not clearly defined.
- Interpreting the results; initial analysis of the anthropometric indicators does not indicate an obvious pattern either within individual sentinel sites or overall, other than the fact that malnutrition gets worse during the hunger gap.

In the light of this, it is planned to increase involvement by FAO and the Ministry of Health to enrich the analysis of factors related to food availability and health.

The exercise has highlighted that routine analysis of information in such situations requires flexibility with the types of indicators measured (and may be the agencies involved also) so that the results are meaningful.

## 4.1 Baseline information

To assess the effects of a shock or crisis, assessment results must be compared with a baseline of the 'normal' situation. There are a number of factors to take into account. First of all, what is 'normal'? This may be more obvious when establishing a baseline to analyze the impact of a rapid onset disaster on food security, when it is usually possible to look at the previous year for a baseline. On the other hand, if conditions have been gradually deteriorating as in a slow-onset emergency, it is not always easy to determine what constitutes a 'normal' year.

A second point is not to equate 'normal' with 'acceptable'. Countries such as Somalia, for instance, have chronically high rates of malnutrition and food insecurity. This may be 'normal' for Somalia but it is not 'acceptable'. Nevertheless, the baseline year provides an insight into how households make ends meet and is also a valuable starting point upon which to measure changes. An 'unacceptable' food or nutrition situation must always be considered in context; for example is it the 'typical' situation or is it merely an unusual result of the emergency? This will have implications for the type of solution and which donor to approach.

There is, as yet, no agreed minimum set of baseline information required but the types of indicator will likely depend on the livelihoods context.

## 4.2 Sampling

While sampling procedures have been agreed upon at international level to assess outcomes such as mortality, morbidity and malnutrition in emergencies, standard sampling procedures are not routinely applied to food security assessments. The vast majority of assessments do not rely on probability (random) sampling, but adopt non-probability (purposive) sampling techniques. The type of sampling to use depends on the type of assessment, the type of questions asked, constraints on physical access to locations of groups of people, and resource limitations (time, staff and equipment).

To derive statistically representative figures on individual households, a random sample is required. On the other hand, a purposive sample approach that probes to understand, for example, how typical households make ends meet is often appropriate when respondents are carefully selected to be representative of the group of households being analysed.

In highly insecure environments or where results are required very quickly, it may not be feasible to adopt probability sampling methods. However, **case example 12** illustrates a situation where standard probability sampling procedures could be applied.

### Case example 12: Emergency Food Security Assessment using standard probability sampling procedures: Kosovo 1998-1999

AAH carried out a food security assessment in Kosovo during a period of considerable insecurity. Food security was one element of a broader assessment examining nutrition and health. Therefore, probability sampling was used. Thirty clusters (28 villages and 2 urban districts) were selected at random from the 29 municipalities in Kosovo.

Food security was assessed using four different methods:

1. Household questionnaires
2. Key informant discussions
3. Market price monitoring and retailer interviews
4. Macro data and secondary information collection

Monitors travelled to the selected clusters and conducted the household questionnaire with 2 randomly selected households per cluster, and a third purposively selected household believed to be particularly vulnerable (member of a minority group). Key informant discussions were held with selected village representatives while market price monitoring was carried out in the village and local retailers were interviewed. In particularly insecure areas, the monitors worked in pairs; otherwise they worked alone. Because of the probability sampling procedure applied, the findings could be generalized to the entire nation with a known margin of error. Furthermore, they could be directly linked to nutrition and health data gathered from the clusters at the same time.

Source: AAH (1999) *Food security assessment in Kosovo*, London: AAH

### 4.3 Staff capacity and experience

Food security assessments require different skills and training from nutrition surveys. It is useful here to highlight some key competencies needed from staff, so that necessary support and training can be sought from food security colleagues if needed.

Most food security assessment approaches require some capacity for facilitating participatory appraisal such as key informant interviews and focus group discussions. For this, field staff require good observational, communications and analytical skills. They must be able to synthesise findings, be able to critically analyse information, remain unbiased and probe to ensure findings are logical and plausible rather than accepting the first answer given. **Case example 8** above shows how the sampling process can introduce a risk of bias or perceived bias.

In emergencies affecting large numbers of dispersed communities, it may be difficult to train sufficient numbers of staff rapidly in assessment methodologies with a large sample size. In such situations it may be more appropriate to use an approach where only a few representative households are sampled such as with Economic Security Assessments or HEA or to rely on secondary data sources.

In more stable situations where there is greater time for training and conducting the assessments, one objective may be to build up sustainable assessment and analytical capacity in-country.

### 4.4 Objectivity and transparency

In situations where assessment findings may be sensitive, it is important to have an approach that is as objective and transparent as possible. Assessments that are perceived as more subjective and potentially biased are more easily criticised so that the findings and recommendations may be ignored. Therefore, as with any type of assessment, it is important to make sure the selected approach has a clear and logical analytical framework, the sampling procedure is not biased, and limitations are clearly exposed.

In this regard, the IPC approach based on a meta-analysis of various sources of food security and nutrition information is underpinned by consensus building around the results of these assessments over a period of time. It also makes public the evidence used to derive conclusions on the severity of the food security situation.

Whatever the type of assessment, it is important to share the methodology with those who will use and respond to the information, and to document the limitations.

#### 4.5 Modifying approaches

As already mentioned, the different types of food security assessment have common concepts and frequently, one agency's approach may be modified to suit another. For example in some countries WFP has used a modified form of HEA, as has the FSAU in Somalia. The type of modification depends on the information needs, the staffing capacity and the context. In all cases the modifications should be clearly explained so that information users can check if the resulting assessment method still provides reliable results.

One of the challenges in emergencies is when agencies conduct joint assessments such as, for example, when WFP

and UNHCR conduct their Joint Assessment Missions in refugee contexts. In these situations, each agency may come with its own assessment approach and the analysis, understanding and interpretation of the results in the end depend on a degree of 'negotiation' between agencies. These negotiations are influenced by the available resources and on logistics, etc.; the types of intervention each agency is mandated for; the systems for identifying and targeting beneficiaries and reporting. In such situations it is important that the assessment methods be credible so that each agency has confidence in the others' results. These comments are not specific to food security and nutrition in emergencies! **Case example 13** provides an example of a situation where government, UN agencies and NGOs conduct joint assessment and analysis.

#### Case example 13: Multi-agency food security assessments: Southern Africa 2002-2003

The Vulnerability Assessment Committee (VAC) was established in early 1999 by the Southern Africa Development Community (SADC) and comprised a consortium of agencies including governments, NGOs and UN agencies. At the onset of the southern Africa crisis in 2001, VAC members planned a series of emergency food security assessments from August 2002 to May 2003 to be carried out in each of the six affected countries of the region. WFP took a lead role in designing the assessments, which aimed to combine three sets of data:

- Household livelihood analysis. Primary data were collected through district-level and household interviews.
- Macro processes/indicators. These were reliant on secondary data sources.
- Nutrition data.

The emphasis was on the household livelihood analysis. Each country developed its own individual method of collecting data, but most countries combined the HEA with a questionnaire approach. The data produced were largely used for determining food aid needs and target groups.

Source: VAC (2003), VAC assessment reports

As this is clearly an important aspect of emergency needs assessments and response, agencies such as WFP and UNICEF in Darfur, Sudan are continuously working to improve joint interpretation of food security and nutrition monitoring systems. Therefore, it is worth keeping up to date with their websites for further developments.

## Annex 1: Examples of different approaches to emergency food security assessment and of food security information systems

### 1. Early warning and surveillance

#### **FAO Global Information and Early Warning System on Food and Agriculture (GIEWS)**

GIEWS was established by FAO in 1975 to provide policy-makers and policy-analysts with the most up to date and accurate information available on all aspects of food supply and demand. It is an early warning monitoring system that warns of imminent food crises. Regular bulletins on food crop production and markets at global level are produced, as well as regional and country level situation reports. The system continually receives economic, political and agricultural information from a wide variety of official and unofficial sources. It has established links with a number of UN agencies, 115 governments, 4 regional organisations and 61 NGOs. A small unit in FAO's Rome HQ is responsible for coordination with participating organisations.

GIEWS developed an integrated information system known as the 'GIEWS Workstation' which consists of customised tools, including country cereal balance sheets, software for the display and analysis of maps and satellite images and an electronic news service. The workstation is linked to a unique reference database with information on food security and demographics at global, regional, national and sub-national levels. Satellite image analysis and map overlay functions allow rainfall and vegetation conditions in areas important for staple food crops and pastoral lands to be assessed.

GIEWS estimates global food supply and demand as well as food security at national and regional level. The system monitors national food production, stocks, trade and demand in all countries of the world, on a continuous basis and alerts the international community to countries which face a sharp rise or fall in food supply or demand, which need unusually large scale food assistance or which have an exceptional surplus of food available for donor purchases.

GIEWS also mounts rapid assessment missions to obtain accurate information to fill in information gaps and provide an early forecast in countries facing exceptional food emergencies or where donor assisted local purchases are envisaged. Reports are usually written within 10 days.

The main users of GIEWS are food assistance donors. There is close collaboration between GIEWS and WFP's VAM Unit. GIEWS includes a worldwide network of NGOs as both providers and users of information. GIEWS have also collaborated with agencies like SC UK on jointly developing risk-mapping methodologies.

There is an online database on food and agriculture for Africa and GeoWeb allows users to access GIEWS databases and tools over the internet in three languages.

GIEWS and IPC are not connected but GIEWS have participated in IPC technical discussions.

For more information contact: [www.fao.org/giews](http://www.fao.org/giews)

## Examples of different approaches to emergency food security assessment and of food security information systems (continued)

### 1. Early warning and surveillance (continued)

#### **FAO Integrated Food Security Phase Classification (IPC)**

The Food Security Assessment Unit (FSAU) in Somalia was formed in 1994 to provide evidence-based analysis of the food nutrition and livelihood security situation to enable both short term emergency responses and long terms strategic planning. The tool they developed is the Integrated Food Security Phase Classification (IPC) and it is now being expanded to other countries and continents.

The aim of IPC is to provide a common terminology to classify food security to make it easier to identify priorities for intervention and to enable stronger linkages between information and response. It is not an assessment method per se, but a system for classifying the situation in different areas that integrates multiple data sources, methods and analyses. Use of the IPC encourages a mixed-method approach and the use of triangulation – both of which are highly desirable in complex situations. The IPC does not see itself as replacing existing food security information systems or methodologies but as a complimentary 'add-on' that draws from and provides focus to existing analytical system, enabling comparability between them and explicitly linking analysis to action.

The IPC consists of four components – the core Reference Table and the supporting components of Analysis Templates, Cartographic Protocols and Population Tables. There is a standardized scale system based on a set of consistent indicators and thresholds to convert the many aspects of food and livelihood security information into a map that indicates the level of severity, a causal analysis summary and projected trends of food insecurity.

Outcomes are a function of both immediate hazard events along with underlying causes, and the specific vulnerabilities of livelihood systems (including both livelihood assets and livelihood strategies). There are five possible phases which are general enough to accommodate a wide range of causes, livelihood systems, and political/economic contexts:

- *Generally Food Secure*
- *Moderately/borderline Food Insecure*
- *Acute Food and Livelihood Crisis*
- *Humanitarian Emergency*
- *Famine/Humanitarian Catastrophe.*

The IPC then relates the phase to risk by combining the concepts of hazard and vulnerability to formulate one of three possible Early Warning Levels: Alert, Moderate Risk, and High Risk. Each of these is then further specified according to *Probability, Severity, Reference Hazards and Vulnerabilities, Implications for Action and Timeframe.*

For more information contact: [www.ipcinfo.org](http://www.ipcinfo.org)

## Examples of different approaches to emergency food security assessment and of food security information systems (continued)

### 1. Early warning and surveillance (continued)

#### **USAID Famine Early Warning System Network (FEWS NET)**

The Famine Early Warning Systems Network (FEWS NET) is a USAID-funded activity that collaborates with international, regional and national partners to provide timely and rigorous early warning and vulnerability information on emerging and evolving food security issues.

FEWS NET staff in Africa, Central America, Haiti, Afghanistan and the US monitor and analyse relevant data and information in terms of its impacts on livelihoods and markets to identify potential threats to food security.

Once these issues are identified, FEWS NET produces monthly food security updates for 25 countries, regular food security outlooks and alerts as well as briefings and support to the contingency and response planning efforts. These help decision makers to act to mitigate food insecurity. More in-depth studies in areas such as livelihoods and markets provide additional information to support analysis as well as programme and policy development. Recently, FEWS NET has begun using HEA principles and techniques to develop livelihood baselines that are used as the reference point against which to judge the effects of current shocks. FEWS NET also focuses its efforts on strengthening early warning and food security networks. Activities in this area including capacity development, building and strengthening networks, developing policy-useful information and building consensus around food security problems and solutions.

FEWS NET endeavours to provide timely and accurate information to assess emerging or evolving food security problems, using the livelihoods approach combined with in-depth market analysis. Increasing emphasis is placed on understanding the underlying causes of food insecurity and identifying long term development needs.

FEWS NET are planning to increase coverage to up to 50 countries over the next few years by working through partners.

For more information contact: [www.fews.net](http://www.fews.net)

## Examples of different approaches to emergency food security assessment and of food security information systems (continued)

### 1. Early warning and surveillance (continued)

#### **WFP Vulnerability Analyses, Emergency Food Security Assessments and Monitoring Systems**

WFP have invested heavily in strengthening food security assessment tools and capacity within the organisation over a number of years. The Vulnerability Assessment and Monitoring (VAM) unit was established in 1999. The Strengthening Emergency Needs Assessment Capacity (SENAC) project was a three year project from the beginning of 2005 to the end of 2007 which has enabled WFP to invest in strengthening its food security analysis methodology and to identify more appropriate and effective responses to food insecurity.

The Food Security Analysis Service (ODXF), which incorporates VAM, has produced technical guidance on food security and vulnerability analysis, including:

- Emergency Food Security Assessment (EFSA) Handbook, geared towards rapid assessments using a combination of food consumption and access indicators.
- Comprehensive Food Security and Vulnerability Analysis (CSFVA) Guidelines for baseline surveys.
- Technical guidance sheets for Food Security Monitoring Systems (FSMS)
- Thematic Technical Guidance sheets on several issues including market analysis, linkages between food security, nutrition and other sectors.

Country-level VAM units provide regular and comprehensive analysis of the food security situation to guide WFP and its partners' operational responses. VAM information products include analytical reports, maps, and databases.

CFSVAs are conducted every 3-5 years to provide a baseline analysis of the food security and vulnerability situation of population groups and communities.

FSMS supported by WFP allow WFP and other stakeholders to better anticipate, prepare for and respond to crises, through continuous monitoring of short-, medium- and longer-term trends of the food security situation in different contexts.

VAM uses various information sources and analytical methods including satellite images of agro-climatic conditions, secondary data on education, health, and nutritional status, monitoring changes in market prices and household coping behaviour and discussions with men, women and children from food insecure and vulnerable communities.

Baseline CFSVA studies follow strict sampling procedures and rely on household-level questionnaires to gather both nutritional and socioeconomic information.

EFSA's rely on a combination of quantitative and qualitative techniques.

Tools and methodologies focus on three distinct, but inter-related dimensions of food security: aggregate food availability, household food access, and individual food utilization. These are determined by exposure to risk and ability to cope. Food insecurity is plotted according to levels of risk in different areas. This is used as a basis for determining the food or non-food intervention, and targeting of aid.

For more information contact: [www.wfp.org](http://www.wfp.org)



## Examples of different approaches to emergency food security assessment and of food security information systems (continued)

### 2. Economic and livelihoods assessment and analysis approaches

#### Household Economy Approach (HEA)

The Household Economy Approach was developed by Save the Children (UK) and is a livelihoods-based framework for analysing the way people obtain food, non-food goods and services, and how they might respond to changes in their external environment, shock or hazard. It aims to capture the situation of different wealth groups in different livelihoods zones. This analytical framework can be used in a wide variety of different settings and in recent years, the approach has also been used in emergency situations.

In a classic HEA assessment, the procedure is to build the baseline first, then conduct the outcome analysis to plan the response as a separate exercise. In rapid assessments, it is usually necessary to combine all the steps into one single assessment process. However, no single "Rapid HEA" approach currently exists and, for the time being, only tips and issues for consideration based on a variety of lessons have been produced.

The Practitioners' Guide to HEA recommends four major considerations for rapid HEA assessments:

- 1) The most important requirement is to use highly competent staff: "the more rapid the HEA-based assessment, the more experienced the assessment leader needs to be";
- 2) To make good use of existing secondary data in order to focus primary data collection on understanding the impact of the disaster; a check list is provided of possible sources of secondary information in emergencies and issues to consider when reviewing secondary data to understand the baseline/pre-disaster situation;
- 3) To use rapid rural appraisal methods rather than structured questionnaires, as time and access constraints typically limit one's ability to prepare an adequate questionnaire, to sample properly and to interview the large number of households usually needed for a representative sample; and
- 4) Considering the fluidity of the context, it is recommended that analysts provide scenario-based projections and recommendations, being very clear about what variables are being taken into account in the analysis and what their different values are under the different conditions.

For more information contact: [www.feg-consulting.com](http://www.feg-consulting.com) or <http://www.savethechildren.org.uk>

#### ICRC Economic Security Assessment (ESA)

The ESA is the ICRC assessment approach. For ICRC, 'economic security is reached when a person, a family or a community has the means to cover its essential economic needs defined by its cultural environment.' The objective is to understand the survival/adaptation strategies developed by a household through determining potential deficits in four key areas: options for access to food; options for access to money; major/obligatory expenses; and assets.

An ESA assessment uses elements of a Rapid Rural Appraisal approach. Data are collected through secondary sources, direct observation and semi-structured interviews with key informants and guided group discussions. Results are classified into 3 stages of household economic security and this determines the need for economic intervention:

- 1) Self-sufficient: where renewable resources are greater than obligatory expenses.  
Intervention: preventive measures including political negotiation to prevent abuses.
- 2) De-capitalisation: where renewable resources are insufficient to meet obligatory expenses and capital is used up.  
Intervention: economic support to prevent de-capitalisation, including food aid and means to diversify and intensify production.
- 3) Destitution: both renewable resources and capital are insufficient to meet obligatory expenses so productive assets are used up. Intervention: survival relief.

The approach is used mainly in situations of conflict and insecurity.

For more information contact: [www.icrc.org](http://www.icrc.org)

## Examples of different approaches to emergency food security assessment and of food security information systems (continued)

### 2. Economic and livelihoods assessment and analysis approaches (continued)

#### **CARE Household Livelihood Security (HLS)**

The HLS framework was introduced by CARE in 1994 and has become their basic framework for programme analysis, design, monitoring and evaluation primarily in relation to development programming. Household livelihood security is defined as “adequate and sustainable access to income and resources to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing, time for community participation and social integration, etc.)”

The objective is to analyse livelihoods while taking into account the politics of poverty, malnutrition and the survival strategies that poor people use, based on CARE’s livelihood security model. An HLS assessment relies on analysis of secondary data plus collecting primary data using RRA PRA techniques and livelihood security profiles are produced. Assessment steps are:

1. Pre-assessment activities (secondary data review, institutional profiling, stakeholder identification and participation in assessment design).
2. Target area selection (usually using purposive sampling).

Risk factors for vulnerability are identified and vulnerability analysed at the individual, household and community levels. Opportunity analysis is also undertaken, which examines positive responses of households and initiatives of agencies. The model emphasises household actions, perceptions and choices, where food is only one of the many priorities.

For more information contact: [www.care.org](http://www.care.org)

#### **Oxfam Livelihood Approach to Food Security and Food Security Assessment Tool (FSAT) for Emergency Assessments**

Oxfam’s livelihood approach to assessing food security is based on a sustainable livelihoods approach. The objective is to determine the severity of food insecurity in terms of risks to lives and to livelihoods, and to identify appropriate interventions.

Two measures are used to estimate risks to lives during a food security-related emergency:

- Significant shifts in different food and income sources that cannot be compensated for through other sources.
- The impact on the nutritional status of the affected population.

In addition, the approach encompasses an analysis of ‘vulnerability’ and the impact on longer term livelihoods of the strategies used by different livelihood groups as a response to the food security-related emergency. Assessments incorporate an analysis of the food security of different livelihood groups, and the risks they face. This leads to the identification of different interventions for each group.

There are two stages. Firstly, identifying different livelihood groups within the population and then assessment of food security for each group in terms of availability of and access to food, and severity of food insecurity.

Secondary information is collated from existing sources together with primary data (quantitative or qualitative) through fieldwork. Anthropometric surveys are undertaken to assess risk to lives and may use random cluster or purposive sampling techniques.

Oxfam has developed this tool to be used in various situations: drought, governance crisis, sudden-impact natural disaster, conflict, among refugees/IDPs and market failure and food price increases.

For more information contact: [www.oxfam.org](http://www.oxfam.org)

## Examples of different approaches to emergency food security assessment and of food security information systems (continued)

### 3. Approaches linking Food Security and Nutritional Status

#### **AAH Nutrition Causal Analysis (NCA)**

The NCA developed by Action Against Hunger draws upon existing methodologies for food security and livelihoods analyses and aims to adapt these to different contexts and for the specific AAH objectives.

The analysis is based on the UNICEF conceptual framework, which describes how the outcome of malnutrition and death is influenced by underlying and basic causes. The major emphasis is on the three clusters of underlying causes: food security, care and health and hygiene.

Both primary and secondary data are collected. Secondary information is analysed including spatial and temporal dimensions. Primary quantitative data collected are quantitative (via household questionnaires) and qualitative (via key informant interviews). Ideally the assessment is done in conjunction with an anthropometric survey.

While the results relate directly to AAH programmes and assessment results are designed for in house decision making, they can also be used by other organisations.

For more information contact: [www.actionagainsthunger.org](http://www.actionagainsthunger.org)

#### **MSF Food and Nutritional Assessment**

MSF collects food and nutritional information as part of their rapid health assessments to evaluate the magnitude of ongoing emergencies.

The principles underpinning the MSF approach focus on the UNICEF conceptual model of the causes of malnutrition. The objective is to calculate indicators related to health and the context within which affected populations live, which can then be compared with internationally accepted standards. In particular, the food related information is used to determine if the affected population has access to food in sufficient quantity (calories) and quality (nutrient and micronutrient content).

Different sampling procedures can be used to select households, and data collection is by questionnaires. Some data are collected from the whole household (mortality or household composition) while other data are from specific individuals within the household (e.g. children, for nutritional and vaccination status). Main indicators collected include demography, mortality, morbidity, measles vaccination coverage, nutritional status, vital needs, shelter and non-food items, security. Food is considered one of the vital needs. An excel tool "componut" has been developed to facilitate calculation of the quality and quantity of the food ration.

The latest available MSF guidelines for emergency health assessment relate mainly to people living in camps (either refugee or displaced people).

For more information contact: [www.msf.org](http://www.msf.org)

## Annex 2: Sample checklist of secondary data relevant to food security analysis

Source: IFRC Food Security Assessment Guidelines

Type of Secondary information	Why it is useful
Demographic profile including the number of people in the area, the presence of refugees or internally displaced people and their number	To get an impression of how many people are affected by food insecurity
Maps with political / administrative boundaries, roads, railways, rivers, villages and water points	Information on where people are, how to access them, potential obstacles, under whose authority they fall
Overview of the various social groups by ethnicity, wealth and/or religion and their physical location	Information on how people are related socially and how best to approach them (e.g. through religious leaders)
Social and political structures/policies affecting food security, including government policies affecting production, rationing and subsidies, transport bans, fuel prices and groups prone to social discrimination by government/local authorities	Impression of the possible constraints and opportunities of the social structure
Maps of infrastructure facilities including health facilities, schools, mosques and churches	Information on social gathering points to be able to find key informants and who are the most influential people
Livelihood profile economy zones, including information on how people make their living and what the main categories (for example labour, agricultural production, livestock, trading)	Information on living patterns and levels of vulnerability to various crises
Market analysis includes market locations, access and days. Market prices (baseline trends) of major food and cash crops by region, season and availability.	Information about normal and current market situation, food access and availability
Nutritional status and seasonality; anthropometry and micronutrient deficiencies	Impression of nutritional vulnerability of population
Disease patterns and seasonality, including prevalence of HIV/ Aids, malaria, tuberculosis, measles, diarrhoea and meningitis	Information of the timing and severity of important diseases and increased risks and needs
Previous emergencies and humanitarian aid patterns of assistance	Information on how the past has influenced current vulnerability to food insecurity status, trends in aid provision and lessons learnt
Existing disaster preparedness or response contingency plans	Impression on the capacity for response
Overview of where and what other organisations are working	Information on location of possible key informants and organisations and identify what assistance is being provided to whom
Security information including natural hazards, landmines, possible areas of fighting and check points	Security overview to predict population movement and access to them
Existing food taboos	To understand people's food choices and consider them when planning food aid
Seasonal calendars to understand food production cycles, migration patterns, water access, disease	Information to identify times of increased need and self sufficiency
Rainfall patterns for normal years	To help predict effects of current situation on food security
Access to water in normal situations for livestock, agriculture and human consumption	Identification of possible increased risk of disease, loss of livestock and potential conflict
Livestock and land ownership	Impression on asset ownership and distribution

### Annex 3: Indices and scores used within food security assessments

There is no single index or score that can comprehensively describe households' food security situation. However various indicators can be collected and analysed with other pieces of information to understand the food security situation.

#### Dietary diversity and food consumption scores

There are at least five different tools being used to measure dietary diversity and food consumption. These are the individual dietary diversity scores (FANTA/FAO); the household dietary diversity score (FANTA/FAO); the food consumption score (WFP) which incorporates dietary diversity and food frequency at the household level; the Cornell-Radimer hunger scale; and the household food insecurity access scale (HFIAS) developed by Food and Nutrition Technical Assistance (FANTA).

These tools are rapid assessment approaches which involve respondents assessing the quantity and quality of their diets. Some enquire whether their diets are getting worse. Responses are classified on a scale or using a scoring system. The advantages are the technical simplicity and low cost. The tools can be used as part of any food security and nutrition information system to predict crisis and help in targeting of interventions.

##### FAO Dietary Diversity Score (DDS)

The DDS has been used by a number of agencies including WFP and FAO. It has now been included in the Integrated Humanitarian and Food Security Phase Classification to represent dietary diversity.

The approach allows a simple count of food groups that a household or an individual consumes over a set number of previous days. The percentage of households or individuals consuming specific type of foods is calculated. This information can identify food security problems at an early stage so that there is time to plan appropriate interventions because dietary changes may occur before nutritional decline.

Diversity of diet is scored with the assumption that the higher the score the less nutritionally vulnerable the household. This assumption is usually based on prior analysis of the correlation between anthropometry and DDS across a population and baseline information is needed to be able to measure trends. DDS is not used alone, but compliments information on availability of and access to food

For more information contact: [www.fao.org](http://www.fao.org)

##### Cornell-Radimer Hunger Scale

The Cornell-Radimer Hunger scale was developed and used first as a measure of hunger and food insecurity in the US. It is seen as way to provide early warning that dietary quality and diversity are worsening (and hence that there is 'hunger'). The scale has been used by governments along with academic institutions and piloted in the US, Russia and Asia

Respondents are asked a series of questions to determine their perception of dietary adequacy and the extent to which they and their household endure hunger. Each question has a weighted score which is aggregated at the end of the questionnaire. Each survey calibrates and defines score levels which correlate with different degrees of food insecurity, and thus it is important to know what weight to give to the different questions.

The survey can be carried out quickly and is especially useful in urban contexts where nutrition and food security surveys would be very time consuming and difficult to interpret due to population density and heterogeneity of population and livelihoods systems. It may provide good early warning before nutritional decline.

## Indices and scores used within food security assessments (continued)

**FANTA Household Food Insecurity Access Scale (HFIAS)**

This is an adaptation of an approach used to generate the annual number of food-insecure and hungry people in the United States. The scale measure people's perception of their hunger, dietary quantity and quality and any adverse consequences of their diet. It cannot determine the cause of a problem of access to food or malnutrition, nor can it guide the response.

The HFIAS is composed of a set of nine questions that aim to distinguish food insecure from food secure households across different cultural contexts. These questions represent universal domains of the experience of insecure access to food that can be used to assign households and populations along a continuum of severity. The different indicators are weighted and scored and the approach is perceived as not technically demanding or data intensive and relatively cheap.

For more information contact: [www.fantaproject.org](http://www.fantaproject.org)

**WFP Food Consumption Score (FCS)**

The FCS is a proxy indicator that represents the dietary diversity, energy, macro and micro-value of the food that people eat. It is based on dietary diversity and food frequency with the nutritional importance of the different food groups and was designed to reflect the quantity and/or quality of people's diets in emergency food security assessments.

Dietary diversity is represented by recording the number of food groups that a household consumes over a reference period. Food frequency is determined by recording the number of days on which a particular food group is consumed over a reference period, usually 7 days.

The FCS is calculated from the types of foods and the frequencies with which they are consumed during a seven-day period. There is no information on the quantity of each food consumed nor on intra-household food consumption. As the information is based on 7 day recall only, it is not possible to analyse over a longer period, which is likely to vary by season.

The score produced is a continuous variable and statistics are usually presented including the mean over time and across categories, as well as frequencies and cross tabulations for food consumption groups. Note that the FCS can only show how food consumption has changed as a result of the crisis if a previous FCS has been done for the same type of household.

For more information, see the latest WFP Emergency Food Security Assessment Handbook.

**Coping Strategies Index**

The coping strategies index (CSI) grew out of the need to have a quick, simple and cheap method of assessment in emergency situations where more complex methods of assessing household food consumption are simply not practical. The CSI developed by CARE and WFP measures behaviour i.e. the things that people do when they cannot access enough food. The underlying theory is that as the crisis worsens those affected implement more drastic and potentially harmful coping strategies which in turn signify proximity to a complete collapse of coping options. This approach does not offer a comprehensive view of food security but can be used in combination with other methods.

## Indices and scores used within food security assessments (continued)

**CARE/WFP Coping Strategies Index**

The Coping Strategies Index (CSI) was first developed by CARE and WFP in Uganda, Ghana and Kenya. The original objective was to develop a monitoring and evaluation tool that was simple and practical to use in emergency situations. It is based on the many possible answers to the question: "What do you do when you don't have adequate food, and don't have the money to buy food?". A reduced CSI has been developed to compare food security across different contexts. While it can be used to target areas at greatest risk of food insecurity, it contains less information than the 'full' CSI so it is less helpful for targeting households within a location.

The CSI can be used to measure the impact of food aid programmes, as an early warning indicator of impending food crisis, and as a tool for assessing both food aid needs and whether food aid has been targeted to the most food insecure households.

Three main points underpin the CSI. These are: coping behaviours, how often these have been used in the recent past and how severe the strategies are considered to be. Information is collected from community-level focus groups and quantitative household surveys. Four general categories of coping are measured, which are defined according to location and culture:

1. Dietary change (e.g. eating less preferred but cheaper food etc.);
2. Short term measures to increase household food availability (borrowing, gifts, wild foods, consuming seed stock etc.);
3. Short term measures to reduce the number of people to feed (short term migration etc.);
4. Rationing strategies (mothers prioritising children/men, limiting portion size, skipping meals, skipping eating for whole days etc.).

The combination of the frequency with which the strategies are used and the perceived degree of severity associated with each strategy results in a simple quantitative score which is derived by weighting the perceived severity of each behaviour/strategy. The higher the composite score, the more coping strategies reported, and the more food insecure the household. The indicators are context-specific and need to be compared against a baseline as there is no cut-off point on a CSI scale to help determine if a household is considered food secure or not.

Since 2003, the CSI has been used by WFP, CARE International and other non-governmental organizations and humanitarian agencies, governments, and researchers for early warning and food security monitoring and assessment in at least twelve African countries and several in the Middle East and Asia. Information is collected relatively quickly and cheaply and the index is often used with other methods to assess food insecurity and to estimate requirements for food aid and provides triangulation or verification of other indicators to determine the eligibility of individual households, e.g. to cross check wealth ranking.

The index can indicate response to food aid and to track household food security status when used with regular early warning monitoring indicators, and food aid end-use monitoring tools.

For more information contact: [www.wfp.org](http://www.wfp.org)

## Annex 4: Food Security Information Systems and IPC

In order to roll out the IPC into 'new' countries the IPC partnership has begun engaging with SADC in southern Africa and CILSS in West Africa. SADC was initiated in 1999 to address institutional, technical capacity and policy issues related to vulnerability analysis in the southern Africa region. The SADC regional food security emergency assessment process and methodology of NVACS are backstopped by the SADC Food Agriculture and Natural Resources Vulnerability Assessment Committee. National Vulnerability Assessment Committees lead the assessments in each country with broad participation from key stakeholders. The objectives of the assessments are to generate timely and necessary information and analysis to guide critical decision-making. Four NVAC countries have been invited to be members of the regional Technical Working Group of the IPC and have listed IPC in their work plan for 2009. The four NVAC countries all announced initiatives to help with adoption and implementation of IPC over the coming months,

The Permanent Interstate Committee for Drought Control in the Sahel (CILSS) is an international organization of countries in the Sahel. It was created in 1973 during the first great drought in the region with the aim of mobilizing the population in the Sahel and the international community to respond to drought related issues. During the 1970s CILSS supported the development of information systems in the region based on agro-meteorological data including NDVI. In the 1980s the methodology developed to incorporate crop production and market data. In 1999 a CILSS technical committee including FAO, WFP, CILSS and FEWSNET, developed the 'Harmonised Framework' to establish need in the region. CILSS supports data collection in member countries and organizes regional meetings four times a year to review data. The process is led by government in each country.

In 2006/7 FAO approached CILSS to develop the IPC in member countries. In 2008 FAO/CILSS set up a regional technical committee to see how best to link IPC with the Harmonised Framework (HF). Given the investment of time in the HF and its considerable evolution over time it was decided to maintain the HF and to explore how best to improve it by adopting or adding elements of the IPC. The new system is to be called the 'Improved Harmonized Framework' and will be piloted in Niger, Mali, Senegal, Burkina Faso and Chad.

The IPC is not currently being promoted or advocated by an inter-state or regional government initiative like CILSS or SADC in the Central and Eastern Africa region. Its main advocate is the Food Security and Nutrition Working Group (FSNWG), which is a spontaneous and field-driven coordination 'working group' established in Nairobi in 2005 in response to requests from several international NGOs in Central-East Africa. The main goal of the FSNWG is to collect, analyse, and disseminate food security information in the region with a view to keeping all humanitarian actors – donors and governments especially – updated on food security crises developments. The group's analysis covers 11 countries. The FSNWG is actively supporting the roll out of the IPC in the region through the IPC technical steering group. The FSNWG formal output is a "Central and Eastern Africa FSNWG Situation Analysis Report". These are produced seasonally, in the form of maps based on the Integrated Food Security and Phase Classification.