

Emergency Food Security Assessments (EFSAs) Technical guidance sheet n°. 12

Complementary methods and tools for emergency food security assessments (EFSAs)

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Complementary methods and tools for emergency food security assessments (EFSAs)¹

This Technical Guidance Sheet provides guidance on different approaches to assessing household food security in emergency situations, and explains how they can complement – but not substitute – the standard food security assessment methodology described in the WFP *EFSA Handbook*.² The aim of these complementary methods and tools is to enrich understanding of the nature and severity of food insecurity and risks to lives and livelihoods.

1. Common methods and tools for analysing food security

Because food security is multidimensional, there is no unique “gold standard” or indicator that measures it in its entirety. The standard EFSA guidance (*EFSA Handbook, Second Edition*) recommends a combination of different elements to capture both outcomes, such as mortality, nutrition status and food consumption, and processes, such as the context, food access and coping strategies. Other methods and tools can be used to complement this analysis (see Box 1). Each has its own strengths, weaknesses and ability to embrace the multiple dimensions of food security and risks to lives and livelihoods.

Box 1. Complementary methods and tools for EFSAs

1. **Food and economic gap analysis:** household economy approach (HEA).
2. **Food security scales:**
 - ✓ dietary requirement (kcal) shortfall;
 - ✓ Integrated Food Security Phase Classification (IPC);
 - ✓ famine scales.
3. **Self-assessment of food security:**
 - ✓ household food security self-rating;
 - ✓ household food insecurity access scale (HFIAS).

As in standard EFSA analyses, the data used to estimate the food gap, build food security scales or establish a self-rating of food security can be collected from random or purposive household surveys, key informant interviews and focus group discussions. The sampling approach and source(s) of the data influence the extent to which statistical extrapolations can be made, and the reliability of the results.

¹ This Technical Guidance Sheet draws on a desk review conducted by the Institute for Development Studies (IDS) for WFP in 2005–2006: *Identification of methods and tools for emergency assessments to distinguish between chronic and transitory food insecurity, and to evaluate the effects of various types and combinations of shocks on these different livelihood groups*, S. Devereux, WFP Emergency Needs Assessment Service (now Food Security Analysis Service), February 2006.

² See *EFSA Handbook, Second Edition*, Part IV Section 3, Conducting a situation analysis, WFP Food Security Analysis Service, 2009.

2. Household economy approach (HEA)

HEA³ takes a comprehensive view of household food security by examining livelihood assets and strategies that determine sources of food, food and non-food expenditures, sources of income and coping strategies.

• What does it consist of?

HEA quantifies the various sources of food and income and the essential food and non-food expenditures of different household wealth groups in the community, and estimates the gap between resources and requirements by converting them into a common unit, such as cash or cereal equivalent. Coping strategies are analysed to anticipate households' capacity to fill this gap.

• How is it applied?

Data for HEA are collected mainly from focus group discussions, but can also be obtained from a household survey. Typically, key informants are interviewed first, to determine three or four different household wealth groups in the community. In-depth focus group discussions are then held with each wealth group, to determine its various food and cash sources and expenditures over the period of interest – for example, the whole year. To provide a baseline, the same information is also collected for a reference period, which should be neither a good nor a bad year. The baseline is then compared with the current period to identify changes in food and cash sources and expenditures. HEA assesses the impact of the shock by factoring in the coping strategies available to households, and uses this to estimate assistance needs.

Simplified versions of HEA entail collecting information on only the major food and income sources and expenditures, through proportional piling rather than absolute values, and extrapolating these data to minor food and income sources and expenditures.

• How is it interpreted?

The larger the gap between resources – both in-kind and cash income – and requirements or expenditures, the more severe the food and economic insecurity, and the more food and non-food transfers are required to protect a defined level of consumption, and therefore food security.

• What are the main strengths and weaknesses of HEA?

HEA provides a useful way of describing the main strategies households use to obtain food and cash and to cover their essential requirements, including food. A large gap between resources and expenditures signals an urgent need to intervene, and the *immediate* causes of the gap point to the type of interventions that are most appropriate: cash, food and/or other assistance. Trends can be analysed and the evolution of the situation projected.

The method requires skilled interviewers able to conduct focus group discussions and check the consistency of the information obtained, and preferably knowledgeable about the local context. The time needed to obtain good-quality information constrains HEA's application in large-scale household surveys or large areas. HEA is appropriate when, for reasons of speed, access to households, budget or other practical constraints, qualitative methods are preferred to a formal quantitative household survey using closed questionnaires.

³ See *The Household Economy Approach: a resource manual for practitioners*, Save the Children UK, 2000 (revised 2007).

	Household economy approach
Strengths	<ul style="list-style-type: none"> • Enables a comprehensive analysis of the various dimensions of food security and livelihoods, and the causes of food insecurity • Provides information about communities and households that can be used for programming and targeting • Allows chronic to be distinguished from transitory food insecurity, through comparisons with pre-shock/baseline data • Quantifies the resources gap and estimates the corresponding needs for food and/or other transfers • Identifies potentially damaging coping behaviours and severe food insecurity, and trends compared with pre-crisis strategies
Weaknesses	<ul style="list-style-type: none"> • Requires time and solid skills to conduct key informant interviews and focus group discussions that identify the whole range of resources and expenditures and convert these into kilocalorie equivalents or other standard units • Requires judgement and experience to quantify the resources obtained from various household strategies, particularly coping strategies, and to check the consistency of the information provided • The criteria used for wealth ranking vary among communities; it may not be feasible/acceptable at the community level to target households based on wealth and the gap between income/expenditures • Indications of future trends require specific questions about future household strategies and/or repetition of the exercise over time • May not go into sufficient depth to identify the causes of food insecurity, so must be combined with complementary information that explains the patterns, such as information on access to resources, skills, health and nutrition status, security, and social networks

3. Food security phases and scales

Food security phases and scales combine hard and soft food security indicators: Hard indicators are physically measurable factors such as energy intake (kcal), nutrition status (weight and height), morbidity (disease prevalence), mortality (number of deaths), water availability (litres per person), etc. Soft indicators refer to human/social behaviours, such as strategies to obtain income and food, displacement, use of assets, etc.

International benchmarks defining degrees of severity are available for several hard food security indicators and enable comparisons across different settings. Context-specific benchmarks must be used for soft indicators, which limits the possibilities for comparing different groups, geographical areas and countries.

Integrated Food Security Phase Classification (IPC)⁴

• What does it consist of?

IPC describes the degrees of severity of the food security situation in a country by combining various indicators on nutrition status, health and the health environment, and food security, and comparing them with international or context-specific thresholds.⁵

• How is it built?

IPC defines five food security phases: 1 famine/humanitarian catastrophe; 2 humanitarian emergency; 3 acute food and livelihood crisis; 4 moderately/borderline food-insecure; 5 generally food-secure. Phases are assigned according to the imminent or current values of several food and nutrition security indicators compared with international standards or with what prevails in normal times or in food-secure situations, and to observations about these values.

The indicators used include:

- crude mortality rate: number of deaths per 10,000 people per day;
- degree of wasting: weight-for-height in children under 5;
- prevalence of disease;
- food access and availability: kcal/person/day available for consumption;
- food consumption frequency and diversity score;
- water access and availability: litres/person/day;
- destitution and displacement patterns;
- civil security context;
- coping strategies: coping strategy index, use of crisis strategies;
- use of livelihood assets.

The classification is based on the convergence of evidence, taking into account the extent to which the majority of the indicators show the same pattern. It also depends on subjective judgement about the reliability of the data used for the indicators.

• How is it interpreted?

The more indicators falling under predefined benchmarks or showing similar patterns, taking into consideration the reliability of the data, the higher the severity of the food security situation in the area. The indicators reflect either the current situation or how it is expected to evolve in the near future. They therefore, to some extent, capture the risk of deterioration or the capacity to recover, which is important in defining transitory food insecurity.

⁴ See *Integrated Food Security Phase Classification: Technical Manual Version 1.1*, IPC Global Partners, July 2008, Rome.

⁵ Inter-agency discussions on IPC are ongoing, and its structure – indicators, benchmarks, etc. – may be modified in the future.

• What are the main strengths and weaknesses of IPC?

	Integrated Food Security Phase Classification
Strengths	<ul style="list-style-type: none"> • Easy to understand • Does not rely on a specific data collection method or tool • Takes into account the multiple dimensions of livelihoods, food security and nutrition • Allows comparisons among several contexts, at least for hard indicators: mortality, malnutrition, water availability • Convergence of evidence enables various indicators to be combined, with some degree of flexibility • Judgement about reliability contributes to the transparency and quality of the information used and the strength of conclusions drawn • The food security phases can be associated to broad ranges of typical response strategies, thus facilitating planning and programming
Weaknesses	<ul style="list-style-type: none"> • Relies on information from various sources, so quality is only as good as these data are • Depends on a large number of sources of information (household surveys, nutrition surveys, focus group discussions, satellite data, etc.) that require time, staff, strong partnerships, and financial and material resources • Does not provide sufficient information for programming purposes (characteristics of food-insecure and/or malnourished people, numbers) because it classifies regions/areas and not households or individuals • Requires a lot of time to fill in the analytical templates used to identify the factors associated with food insecurity and/or malnutrition • Soft indicators that describe processes are essential, but cannot be compared with standard benchmarks and are context-specific, thus limiting comparisons across settings • Requires time-series to identify chronic food insecurity

• What is the relevance for an EFSA?

The indicators included in IPC are all relevant to characterizing the food and nutrition security situation in a geographical area, and the benchmarks help describe the severity of the situation in a standardized manner. However, it is unlikely that all the primary data required for the classification can be collected during an EFSA, so these data need to be obtained from other sources, requiring judgements about their reliability and quality. Additional information is also required to inform the analysis of response options.

Famine scales⁶

• What do they consist of?

Famine scales are similar to the IPC approach in that they determine the degree of severity of the food security situation in an area of a country by combining various food security-related indicators and comparing them with international or context-specific thresholds.

⁶ See Famine intensity and magnitude scales: a proposal for an instrumental definition of famine, P. Howe, S. Devereux, *Disasters*, 28(4), 2004.

• How are they built?

Famine scales define six food security phases: 0 food security conditions; 1 food insecurity conditions; 2 food crisis conditions; 3 famine conditions; 4 severe famine conditions; 5 extreme famine conditions. Phases are assigned according to the current values of malnutrition and mortality indicators compared with international standards, and to observations on food security descriptors:

- crude mortality rate: number of deaths per 10,000 people per day;
- degree of wasting – weight-for-height in children under 5 – and oedema;
- degree of cohesion of the social system;
- price trends;
- market availability of key items, and market accessibility;
- nature of the coping strategies applied: none, reversible, survival, etc.

• How are they interpreted?

Phases are assigned according to the values of *either* malnutrition *or* mortality indicators compared with given thresholds, except for scale 0 food security conditions, where both indicators should be above the thresholds. The thresholds indicate various degrees of severity of mortality and deterioration of nutrition status. Food security descriptors complement the analysis; they are examples of the types of livelihood experience that may be associated with each condition, but not all of them have to be present in every case.

Discussions are ongoing to incorporate an indicator of chronic malnutrition (stunting) into the phase classification. The coexistence of low wasting rates with high stunting would indicate situations of chronic food insecurity, while high wasting rates with low stunting would indicate transitory food insecurity. However, as malnutrition is also influenced by health and care, complementary data need to be collected on these aspects to enable proper interpretation.

• What are the main strengths and weaknesses of famine scales?

	Famine scales
Strengths	<ul style="list-style-type: none"> • Easy to understand • Take into account the multiple dimensions of food security and livelihoods • Allow comparisons among several contexts for hard food security-related indicators (mortality and malnutrition)
Weaknesses	<ul style="list-style-type: none"> • Depend on a large number of sources of information (household surveys, nutrition surveys, focus group discussions) that require time, staff, strong partnerships, and financial and material resources • Describe the food security and livelihood outcomes at the time of the analysis, but do not capture the dynamics and causal relationships that explain why the current situation was reached and the capacities to recover, unless the situation recurs, to illustrate trends • Soft indicators that describe processes are essential, but cannot be compared with standard benchmarks and are context-specific, thus limiting comparisons across settings • Do not indicate past or future trends unless they are compared with pre-crisis data or repeated over time

• What is the likely relevance for an EFSA?

The indicators included in the famine scales are relevant to characterizing the outcomes of the food and nutrition security situation in a geographical area, and the benchmarks help define the severity of the situation in a standardized manner. However, as for the IPC approach, it is unlikely that the primary data required for the classification can be collected during an EFSA, so these data need to be obtained from other sources, requiring judgements about their reliability and quality. Additional information is also required to explain the intermediate and basic causal factors of food and nutrition insecurity.

4. Household food security self-assessment***Household food security self-rating***

Household food security self-rating relies on the informant's analysis of his/her household's food security situation and general well-being through enquiries on food acquisition and food consumption patterns, capacity to accumulate assets and savings, strategies to cover food and other essential needs, and anxiety regarding food consumption and ability to meet needs.

• What does it consist of?

The self-assessment evaluates the food security and general situation of households by asking them to judge their ability to meet household needs themselves, and whether they are accumulating assets or depleting them.

• How is it applied?

The interviewer asks the respondent to describe the household's situation by assigning it one of four categories: 1 doing well, meeting needs by own efforts and accumulating stores, savings and assets; 2 doing all right, meeting needs but with nothing to save or invest; 3 struggling, managing to meet needs by depleting productive assets and/or sometimes receiving support from the community or government; and 4 unable to meet needs, dependent on support from the community or government.

The question is asked with reference to different points in time – now, last year at the same time, two years ago at the same time, five years ago, etc. – to enquire about the duration of the situation.

• How is it interpreted?

Households' own judgements about their capacity to cover food and other essential needs and about whether they are building or undermining their material and financial asset bases indicate the extent of their food insecurity and vulnerability. Retrospective information enables comparisons between the current situation and previous times, and indicates whether food insecurity is chronic or transitory. However, additional data are essential for identifying the causes of food insecurity and determine the most appropriate types of response.

• What are the main strengths and weaknesses of household food security self-assessment?

	Household food security self-assessment
Strengths	<ul style="list-style-type: none"> • Enables a rapid evaluation of households' food security situation and well-being that can be used for targeting • Allows identification of chronic or transitory food insecurity when retrospective information is collected (the time period may have to be less than a year to capture some groups of chronically food-insecure households) • When repeated, identifies trends in the food security situation and coping behaviours • Provides qualitative information useful for validating quantitative survey results
Weaknesses	<ul style="list-style-type: none"> • Does not provide information on the causes of food and livelihood insecurity and the reasons for changes (or lack of them) • Must take into account other time perspectives when used in a sudden-onset crisis because retrospective information referring to the same period in previous years may not capture chronic food insecurity • Requires judgement and experience of the context, or similar ones, to assess the reliability of the information provided and interpret the coping strategies • No degree of confidence can be calculated for extrapolating food and non-food needs, and some subjectivity in judgements cannot be avoided

• What is the likely relevance for an EFSA?

The method is adapted to contexts where rapid but not necessarily precise and quantified information about the severity of the situation is required. It uses mainly purposive sampling and informal interviews. It relies heavily on staff who are highly knowledgeable about the local or similar contexts and about food security and livelihoods.

Through systematic triangulation and cross-checking of the information, the method allows reasonably solid conclusions to be drawn about food security and livelihoods, and the estimation of needs for immediate assistance. Comparison with the past and anticipation of the future evolution of the situation also enable chronic to be distinguished from transitory food insecurity. However, other data are essential for identifying the causes of food insecurity and determining the most appropriate types of response.

Household food insecurity access scale (HFIS)⁷

HFIS assesses the severity of household food insecurity based on questions about households' experiences when faced with limited access to food, in terms of:

- ✓ anxiety and uncertainty about the household food supply;
- ✓ reducing the variety and quantity of food consumed.

⁷ For more details, see *Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide, version 2*, J. Coates, A. Swindale and P. Bilinski, Food and Nutrition Technical Assistance (FANTA) Project, Academy for Educational Development, Washington DC, July 2006.

• What does it consist of?

HFIAS measures reported behaviours, experiences and conditions through responses to nine questions that reflect varying severities of food insecurity. A score for each household is calculated from the number of positive answers to the questions and the frequency with which the experience occurred during the previous month. The severity of household food insecurity is then reported at the population level.

• How is it applied?

The interviewer asks the respondent to consider whether each of the following nine situations has occurred in the past 30 days and, if yes, how often: 0 no, did not happen; 1 rarely, once or twice; 2 sometimes, three to ten times; and 4 often, more than ten times:

- ✓ In the past 30 days, did you worry that your household would not have enough food?
- ✓ In the past 30 days, were you or any other household member unable to eat the kinds of food you would have preferred because of lack of resources?
- ✓ In the past 30 days, did you or any other household member have to eat a limited variety of foods because of lack of resources?
- ✓ In the past 30 days, did you or any other household member have to eat foods that you did not want to eat because of lack of resources?
- ✓ In the past 30 days, did you or any other household member have to eat a smaller meal than you felt you needed because there was not enough food?
- ✓ In the past 30 days, did you or any other household member have to eat fewer meals in a day because there was not enough food?
- ✓ In the past 30 days, was there ever no food of any kind to eat in your house because of lack of resources to get food?
- ✓ In the past 30 days, did you or any other household member go to sleep at night hungry because there was not enough food?
- ✓ In the past 30 days, did you or any other household member go a whole day and night without eating anything because there was not enough food?

• How is it interpreted?

The nine behaviours are deemed to reflect the overall pattern of a household's experience of and response to food access difficulties, and are valid across different cultural contexts. HFIS focuses on food reduction responses to decreased food access, instead of the multiple coping responses that the coping strategy index examines.

Comparison with previous HFIAS results enables comparisons of the current situation with previous ones, and indicates the chronic versus transitory nature of food insecurity. However, additional data are essential for identifying the causes of food insecurity and determining the most appropriate types of response.

• **What are the main strengths and weaknesses of HFIAS?**

	Household food insecurity access scale
Strengths	<ul style="list-style-type: none"> • Simple to administer and analyse • Can be compared across settings (standard set of questions) • Enables a rapid evaluation of households' food security situation that can be used for targeting • When repeated, identifies trends in the food security situation and coping behaviours • Provides qualitative information useful for validating quantitative survey results
Weaknesses	<ul style="list-style-type: none"> • Does not provide information on the causes of food and livelihood insecurity and the reasons for changes (or lack of them) • Is of limited value in settings where dietary diversity is low in non-crisis times • Seasonal factors affecting the diet must be taken into account • Necessitates solid training of enumerators to obtain valid information • No degree of confidence can be calculated for extrapolating food and non-food needs, and some subjectivity in judgements cannot be avoided

• **What is the likely relevance for an EFSA?**

HFIAS is adapted to contexts where rapid information is required on the severity of the situation. It is easy to use, calculate and interpret, and can be repeated over time and compared across locations. Comparison with past results enables chronic to be distinguished from transitory food insecurity.

However, the results are not predictive of future food insecurity, and seasonal changes may confuse them. HFIAS also includes an element of subjectivity, which requires triangulation and cross-checking against other household variables.

These Technical Guidance Sheets, the EFSA Handbook
and other related resources are available at:

www.wfp.org/food-security