Comprehensive Food Security & Vulnerability Analysis Guidelines

January 2009 • first edition

World Food Programme
Comprehensive Food Security & Vulnerability Analysis Guidelines

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first edition

Citigroup Foundation and ECHO provided financial support for the development and production of these guidelines.
Foreword

Fighting hunger in a changing world demands that we stay vigilant in our efforts to collect, analyze and disseminate information that is so very critical for designing and implementing hunger solutions which can save lives in emergencies, as well as putting the hungry poor on the path to food security.

Understanding food security and vulnerability has always been challenging. Yet the emergence of relatively new phenomena such as the recent high food and fuel prices, the global financial crisis, and climate change, all highlight the need to better understand the lives and livelihoods of vulnerable populations so that effective policies and actions can be implemented to save lives and address the root causes of hunger.

To tackle hunger, we first need to understand three key factors: how food is made available to people; how they economically and physically access food; and how they utilize the food. Understanding the constraints underlying each of these factors is a necessary condition for designing and implementing appropriate and effective hunger reduction strategies.

The Comprehensive Food Security and Vulnerability Analysis (CFSVA) is a unique tool designed to understand these factors. It describes the profile of the food-insecure and vulnerable households, identifies the root causes of hunger, and analyzes risks and emerging vulnerabilities among populations. It provides crucial information on the type of interventions that would be the most effective in reducing hunger, targeting the neediest, informing preparedness and developing contingencies. The range and depth of information provided by CFSVAs are invaluable, not only for WFP, but for the entire humanitarian and development community.

Over the last four years WFP, along with partners, has completed 27 CFSVAs worldwide. This was in large part made possible due to generous support from the European Commission’s Humanitarian Aid department (ECHO), the Citigroup Foundation and the Gates Foundation.

This document, built on this experience, will guide WFP food security analysts, programme officers and partner’s staff as they undertake Comprehensive Food Security and Vulnerability Analyses.

Ramiro Lopes da Silva
Deputy Chief Operating Officer and Director of Operations
Acknowledgements

The Comprehensive Food Security and Vulnerability Analysis Guidelines were made possible thanks to the generous support of the European Commission's Humanitarian Aid department (ECHO), which provided funding also for consultation meetings. The Citigroup Foundation supported one preparatory technical meeting.

The guidelines were written mainly by WFP staff and by Tango International, under the umbrella of the Strengthening Emergency Needs Assessment Capacity Plan. The purpose of the plan (2004–2007) was to reinforce WFP's capacity to assess humanitarian needs in the food sector during emergencies and their aftermath through accurate and impartial needs assessments. The effort was funded from internal and external sources, among them, ECHO, the Canadian International Development Agency (CIDA), the Citigroup Foundation, the UK Department for International Development (DFID), and the French, Danish, German, and Belgian Governments.

These guidelines benefited from several peer-review and consultation mechanisms. An initial workshop was held in April 2007, in Rome; a second one, in March 2008, in Cairo. The participants were mainly CFSVA practitioners from within WFP.

A draft of these guidelines was thoroughly reviewed by John Hoddinott (International Food Policy Research Institute), Nancy Mock (Tulane University), and Dan Maxwell (Tufts University), and most of their important comments and suggestions were taken into account in the final version.

WFP expresses special thanks to the many VAM staff, in headquarters and in the field, who in writing these guidelines provided their invaluable knowledge of food security analysis, based on many years of experience in a large variety of countries where food security is an issue.

All the contributions are gratefully acknowledged, although responsibility for the present text, including errors, remains with WFP.
# Contents

## Acronyms

12

## Glossary

16

## Chapter 1: Introduction

1.1 Purpose and structure of this document 24
1.2 A livelihoods approach for CFSVA 24
1.3 The Food and Nutrition Security Conceptual Framework 26
1.4 Basic gender concepts, frameworks, and indicators 30
1.5 Understanding the impact of HIV/AIDS on livelihoods 34
1.6 Key references 35

## Chapter 2: Managing the implementation of a CFSVA

2.1 Introduction 38
2.2 Initial steps for smooth implementation 38
2.3 Scope of a CFSVA 38
2.4 Mobilizing partners and funding 39
2.5 Initial planning with partners 40
2.6 Administrative duties for the CFSVA 42

## Chapter 3: Desk study: literature review and secondary data

3.1 Purpose of a desk study 48
3.2 Issues in collecting and analysing secondary data 49
3.3 Main topics in a desk study 50
3.4 Spatial information management 56
3.5 Geospatial data analysis 58
3.6 Conducting the literature review 60
3.7 Sources of secondary data 61
3.8 Key references: secondary data analysis 62

## Chapter 4: Household-level data in a CFSVA

4.1 Sampling in a CFSVA 64
4.2 Household data collection 95
4.3 Household data entry 138
4.4 Household data analysis and processing 148
Chapter 5: Qualitative and community-level data in CFSVAs
5.1 Types of community-level data in CFSVAs
5.2 Role of community-level data in CFSVAs: an overview
5.3 Main challenges
5.4 Selecting and training the moderating teams
5.5 Focus group discussions during a CFSVA
5.6 Collecting data through key informants
5.7 Design of questionnaire and selection of participants for community discussions
5.8 Crosscutting themes
5.9 Key references: using qualitative data techniques in a CFSVA

Chapter 6: Food security analysis in a CFSVA
6.1 Analytical steps
6.2 Key food security analysis in a CFSVA
6.3 Common key indicators in food security analysis

Chapter 7: Preparing conclusions and recommendations
7.1 Response options
7.2 Targeting
7.3 Gender analysis and programme/intervention design
7.4 Recommendations related to HIV/AIDS
7.5 Key references: conclusions and recommendations

Chapter 8: Report preparation and dissemination
8.1 Presentation of results
8.2 Preparing and presenting a report
8.3 How to communicate the results of a CFSVA
8.4 Key references: report preparation and dissemination

Chapter 9: Archiving
9.1 VAM-SIE

Index

Resources on the Food Security Analysis Guidance DVD

The CFSVA Annexes referred to throughout this document are available on the accompanying DVD and at www.wfp.org/food-security.
List of Tables

Table 1.1: Gender-sensitive indicators 33
Table 3.1: Common areas covered by a desk study 50
Table 3.2: Identification of information gaps, with examples 60
Table 3.3: Common sources of secondary data 61
Table 4.1: Example of normalized weights 83
Table 4.2: Intersections of departments and livelihood zones for sampled rural populations 91
Table 4.3: Example of CFSVA sampling procedure 92
Table 4.4: Example of Food Consumption Patterns module 100
Table 4.5: Example of Expenditure module 103
Table 4.6: Example of Household Assets module 105
Table 4.7: Example of household questionnaire for primary school attendance 109
Table 4.8: Example of household composition roster 111
Table 4.9: Creation of Housing Materials module 112
Table 4.10: Creation of Access to Credit module 113
Table 4.11a: Recommended layout of economic livelihoods table 115
Table 4.11b: Alternative layout of economic livelihoods table 115
Table 4.12: Modified Livelihoods/Economic Activities module 117
Table 4.13: Example of External Assistance module 120
Table 4.14: Example of Shocks and Coping Strategies module 123
Table 4.15: Example of questions for constructing a CSI 124
Table 4.16: Example of coping strategies grouped and ranked by focus group 126
Table 4.17: Example of Child Health and Nutrition module 128
Table 4.18: Demographic data collected through a roster 132
Table 4.19: Collecting data on deceased household members 132
Table 4.20: Demographic data not collected through a roster 133
Table 4.21: Summary of data entry platforms 144
Table 4.22: Summary of statistical measures by type of variable 159
Table 4.23: Example of cross tabulation 167
Table 4.24: Output of the analysis 169
Table 4.25: Example of test of significance for different types of variables 171
Table 5.1: The role of community-level data in a CFSVA 182
Table 5.2: Example of themes and participatory tools for a CFSVA 189
Table 5.3: Topics/issues related to HIV/AIDS addressed during a focus group discussion 189
Table 5.4: Example of summary matrix of qualitative data from multiple focus group discussions 195
Table 5.5: HIV/AIDS topics/objectives that can be addressed with communities 204
Table 6.1: A completed food consumption score template 217
Table 6.2: Food consumption groups with corresponding food consumption score thresholds and corresponding energy intake levels. 217
| Table 6.3a: | Classification of severity of malnutrition in a community for children under 5 years of age | 225 |
| Table 6.3b: | Classification of malnutrition for individual children for mid-upper arm circumference (MUAC) | 225 |
| Table 6.3c: | Classification of adult malnutrition using body mass index (weight in kg/height in m²) | 226 |
| Table 6.4: | Common indicators of micronutrient malnutrition | 226 |
| Table 6.5: | Reliability checks for nutritional surveys | 229 |
| Table 6.6: | Household dependence on markets for food, in selected countries | 234 |
| Table 6.7: | Key market issues to analyse | 236 |
| Table 6.8: | Examples of the association between hazards, shocks, and various forms of livelihood capital | 249 |
| Table 6.9: | Percentage lost revenue (in cash or in kind) that defines various wealth groups as vulnerable to a shock | 256 |
| Table 6.10: | Analysing HIV/AIDS impact: Indicators available from CFSVAs | 262 |
| Table 6.11: | Example of proportion of dependents and dependency ratio calculation | 267 |
| Table 6.12: | Food consumption profiles for Sudan | 295 |
| Table 6.13: | Example - Mozambique Community and Household Surveillance, Round 6 | 296 |
| Table 7.1: | Problem and response analysis | 303 |
| Table 7.2: | Summary of response options | 304 |
| Table 7.3: | Choosing a targeting mechanism | 309 |
| Table 7.4: | Food support for universal access to care, treatment, and support: Main activities supported by WFP in southern Africa | 312 |
| Table 7.5: | WFP-supported interventions with food security objectives in southern Africa | 314 |
# List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Food and Nutrition Security Conceptual Framework</td>
<td>28</td>
</tr>
<tr>
<td>1.2</td>
<td>HIV/AIDS in the Food and Nutrition Security Conceptual Framework</td>
<td>35</td>
</tr>
<tr>
<td>4.1</td>
<td>Household Selection</td>
<td>77</td>
</tr>
<tr>
<td>4.2</td>
<td>Confidence intervals for proportion estimates using simple random sampling</td>
<td>87</td>
</tr>
<tr>
<td>4.3</td>
<td>Livelihood zones in Haiti</td>
<td>90</td>
</tr>
<tr>
<td>4.4</td>
<td>Household and member relationship tables</td>
<td>139</td>
</tr>
<tr>
<td>4.5</td>
<td>One-to-many relationships</td>
<td>140</td>
</tr>
<tr>
<td>4.6</td>
<td>Interlinked tables in MS Access</td>
<td>145</td>
</tr>
<tr>
<td>4.7</td>
<td>Example of a database</td>
<td>152</td>
</tr>
<tr>
<td>4.8</td>
<td>Pasting syntax</td>
<td>156</td>
</tr>
<tr>
<td>4.9</td>
<td>Distribution of per capita expenditure</td>
<td>160</td>
</tr>
<tr>
<td>4.10</td>
<td>Computing a new variable using “sum” command</td>
<td>161</td>
</tr>
<tr>
<td>4.11</td>
<td>Example of incorrect classification of HHs into wealth quartiles</td>
<td>163</td>
</tr>
<tr>
<td>4.12</td>
<td>Define multiple response sets</td>
<td>168</td>
</tr>
<tr>
<td>5.1</td>
<td>Linking community-level and household-level data</td>
<td>195</td>
</tr>
<tr>
<td>6.1</td>
<td>Chronic illness as proxy for HIV/AIDS</td>
<td>259</td>
</tr>
<tr>
<td>6.2</td>
<td>Avoiding misunderstanding of the term “chronic illness”</td>
<td>261</td>
</tr>
<tr>
<td>6.3</td>
<td>Meal frequencies among children 0-15 years of age</td>
<td>297</td>
</tr>
<tr>
<td>6.4</td>
<td>Example of asset ownership in wealth deciles</td>
<td>299</td>
</tr>
<tr>
<td>7.1</td>
<td>Decision tree for response options</td>
<td>305</td>
</tr>
<tr>
<td>8.1</td>
<td>Example of a timeframe for report writing</td>
<td>327</td>
</tr>
</tbody>
</table>
List of Boxes

Box 1.1: Challenges of incorporating a gender perspective in different settings 31
Box 2.1: Steps for implementing a CFSVA 38
Box 2.2: CFSVA objectives 42
Box 4.1: Probability proportional to size (PPS) 74
Box 4.2: Calculating design weight 82
Box 4.3: Calculating normalized weight 82
Box 4.4: How to double-check weights 83
Box 4.5: Nutrition surveys vs. food security sampling requirements 88
Box 4.6: Key questions for use in conducting gender analysis (WFP 2006) 130
Box 4.7: Correcting errors on paper 141
Box 4.8: Relating child nutrition with other indicators 150
Box 4.9: Example of variable names and labels 151
Box 4.10: Possible effects of outliers 154
Box 4.11: Example of inconsistent values 154
Box 4.12: Example from Laos database 155
Box 4.13: Commonly used logical operators in SPSS 161
Box 4.14: Use of logical operators in SPSS 162
Box 4.15: Some useful mathematical functions in SPSS 162
Box 4.16: Example of aggregate ratio vs. household ratio 163
Box 4.17: Example highlighting the difference in interpretation 165
Box 4.18: Syntax to compute percentages 168
Box 5.1: Qualitative methods 180
Box 5.2: Focus groups and community discussions: pre- and post-survey functions 182
Box 5.3: Key characteristics of good facilitators and assistants 184
Box 5.4: Training topics for qualitative data collection in CFSVAs 186
Box 5.5: General recommendations on questions 188
Box 5.6: General principles for conducting focus group discussions 190
Box 5.7: Contacting households living with HIV/AIDS for focus groups 193
Box 5.8: Linking livelihoods and risk management: Approach adopted in Monrovia, 2003 196
Box 5.9: Example of health section of a focus group discussion questionnaire 200
Box 5.10: Example of a seasonal calendar 201
Box 6.1: Calculation of the food consumption score 216
Box 6.2: Validation of the food consumption score 217
Box 6.3: Nutritional analysis software for calculating z-scores 232
Box 6.4: Additional sources of information on analysis of nutritional data 233
Box 6.5: Trader Survey in Dili, EFSA 2007: Sampling locations and sample sizes 238
Box 6.6: Labour market participation of rural households in Lao, PDR 241
Box 6.7: Potential impacts of price increases on household vulnerability 242
Box 6.8: EM DAT and natural hazard statistics 247
Box 6.9: Calculation of Water Requirement Satisfaction Index (WRSI) (FEWS NET) 248
Box 6.10: Useful Internet resources for drought hazard analysis 248
Box 6.11: Household coping strategies 250
Box 6.12: Food Security Monitoring System (FSMS) data from Burundi 253
Box 6.13: Effect of shocks on household access to food and coping strategies 255
Box 6.14: Assessing the validity of chronic illness 260
Box 6.15: Coping Strategy Index (CSI) 264
Box 6.16: Greater Monrovia Comprehensive Food Security and Nutrition Survey (CFSNS): Education, by parental status 265
Box 6.17: Typical variables used in a wealth index 298
Box 7.1: SWOT analysis 306
Box 7.2: Main programming options for people living with HIV/AIDS 311
Box 8.1: Common WFP acronyms and phrases (jargon) to avoid, or to explain, when communicating CFSVA findings to general audiences 329
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADRA</td>
<td>Adventist Development and Relief Agency</td>
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<tr>
<td>AET</td>
<td>Actual Evapo-Transpiration</td>
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<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
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<td>AIS</td>
<td>AIDS Indicator Survey</td>
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<td>AMS</td>
<td>AgroMetShell</td>
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<td>ANOVA</td>
<td>Analysis of Variance</td>
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<td>AoE</td>
<td>Area of Estimation</td>
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<td>ART</td>
<td>Anti-Retroviral Treatment</td>
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<td>BSS</td>
<td>Behavioural Surveillance Survey</td>
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<td>BMI</td>
<td>Body Mass Index</td>
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<td>CBO</td>
<td>Community-Based Organization</td>
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<tr>
<td>CCA</td>
<td>Common Country Assessment</td>
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<td>CDC</td>
<td>United States Centers for Disease Control and Prevention</td>
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<tr>
<td>CED</td>
<td>Chronic Energy Deficiency</td>
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<td>CFSAM</td>
<td>Crop and Food Supply Assessment Mission</td>
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<td>CFSNS</td>
<td>Comprehensive Food Security and Nutrition Survey</td>
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<td>CFSVA</td>
<td>Comprehensive Food Security and Vulnerability Analysis</td>
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<tr>
<td>CGIAR</td>
<td>Consultative Group on International Agricultural Research</td>
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<td>CFW</td>
<td>cash for work</td>
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<tr>
<td>CHS</td>
<td>Community and Household Surveillance</td>
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<td>CI</td>
<td>Confidence Interval</td>
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<td>CIDA</td>
<td>Canadian International Development Agency</td>
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<td>CO</td>
<td>Country Office</td>
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<td>CRED</td>
<td>Centre for Research on Epidemiology of Disasters</td>
</tr>
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<td>Catholic Relief Services</td>
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<td>Corn-Soya Blend</td>
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<td>CSI</td>
<td>Coping Strategies Index</td>
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<td>CSPro</td>
<td>Census and Survey Processing System</td>
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<td>CTC</td>
<td>Community-Based Therapeutic Care</td>
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<td>DEM</td>
<td>Digital Elevation Model</td>
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<tr>
<td>DFID</td>
<td>Department for International Development (United Kingdom)</td>
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<td>DHS</td>
<td>Demographic and Health Survey</td>
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<td>DOT</td>
<td>Direct Observation Therapy</td>
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<td>DOTS</td>
<td>directly observed treatment, shortcourse</td>
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<tr>
<td>DTP</td>
<td>Desktop Publishing Applications</td>
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<tr>
<td>EFSA</td>
<td>Emergency Food Security Assessment</td>
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<td>EMOP</td>
<td>Emergency Operation</td>
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<td>EM DAT</td>
<td>Emergency Events Database</td>
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<td>EMF</td>
<td>Enhanced Metafile</td>
</tr>
<tr>
<td>EOS</td>
<td>End of Season</td>
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<td>EPI</td>
<td>Expanded Programme on Immunization</td>
</tr>
<tr>
<td>FANTA</td>
<td>Food and Nutrition Technical Assistance</td>
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<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<tr>
<td>FCG</td>
<td>Food Consumption Group</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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</tr>
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<td>FCS</td>
<td>Food Consumption Score</td>
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<td>FEWS NET</td>
<td>Famine Early Warning Systems Network</td>
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<td>FFW</td>
<td>food for work</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>FSMS</td>
<td>Food Security Monitoring System</td>
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<td>GAM</td>
<td>Global Acute Malnutrition</td>
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<td>GDDS</td>
<td>General Data Dissemination System</td>
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<td>GDI</td>
<td>Gender-related Development Index</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GEM</td>
<td>Gender Empowerment Measure</td>
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<td>GER</td>
<td>Gross Enrolment Rate</td>
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<td>GIS</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>GLM</td>
<td>General Linear Model</td>
</tr>
<tr>
<td>GMR</td>
<td>Global Mortality Rate</td>
</tr>
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<td>GPS</td>
<td>Global Positioning Systems</td>
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<td>GTZ</td>
<td>German Agency for Technical Cooperation</td>
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<td>HAZ</td>
<td>height for age</td>
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<td>HBC</td>
<td>Home-Based Care</td>
</tr>
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<td>HDDS</td>
<td>Household Dietary Diversity Score</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>HDR</td>
<td>Human Development Report</td>
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<td>HH</td>
<td>Household</td>
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<td>HIC</td>
<td>Habitat International Coalition</td>
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<td>HIC</td>
<td>Humanitarian Information Centre</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome</td>
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<td>HLS</td>
<td>Household Livelihood Security</td>
</tr>
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<td>IASC</td>
<td>Inter-Agency Standing Committee</td>
</tr>
<tr>
<td>IDP</td>
<td>Internally Displaced Person</td>
</tr>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<td>ILWIS</td>
<td>Integrated Land and Water Information System</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IOM</td>
<td>International Organization for Migration</td>
</tr>
<tr>
<td>IUGR</td>
<td>Intrauterine Growth Retardation</td>
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<td>JMP</td>
<td>Joint Monitoring Programme</td>
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<tr>
<td>LCA</td>
<td>Logistics Capacity Assessment</td>
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<td>LGP</td>
<td>length of growing period</td>
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<td>LSMS</td>
<td>Living Standards Measurement Survey</td>
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<td>MCDA</td>
<td>Military and Civil Defence Assets</td>
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<td>MCH</td>
<td>Mother-and-Child Health</td>
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<td>MICS</td>
<td>Multiple-Indicator Cluster Survey</td>
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<tr>
<td>MTCT</td>
<td>Mother-to-Child Transmission</td>
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<tr>
<td>MUAC</td>
<td>mid-upper arm circumference</td>
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</tbody>
</table>
NCHS  National Center for Health Statistics  
NDVI  Normalized-Difference-Vegetation-Index  
NER  Net Enrolment Rate  
NGO  non-governmental organization  
NHDR  National Human Development Report  
NOAA  National Oceanic and Atmospheric Administration  
OCHA  Office for the Coordination of Humanitarian Affairs  
ODAN  WFP Emergency Needs Assessment Service  
OEN  WFP Needs Assessment Unit  
OLS  Ordinary Least Square  
OMXF  WFP Food Security Analysis Service  
OVC  orphans and other vulnerable children  
PCA  Principal Components Analysis  
PDA  Personal Digital Assistant  
PET  Potential Evapo-Transpiration  
PLHIV  people living with HIV  
PMTCT  prevention of mother-to-child transmission  
PPS  Probability Proportional to Size  
PRA  Participatory Rural Appraisal  
PRRO  Protracted Relief and Recovery Operation  
PRSP  Poverty Reduction Strategy Paper  
PSU  Primary Sampling Unit  
RB  Regional Bureau  
RFE  Rainfall Estimate  
SADC  Southern African Development Community  
SAF  Standard Analytical Framework  
SAM  Severe Acute Malnutrition  
SD  Standard Deviation  
SENAC  Strengthening Emergency Needs Assessment Capacity (project)  
SO  Special Operation  
SOP  Standard Operating Procedure  
SOS  Start of Season  
SRS  Simple Random Sampling  
SSE  sum of squares for error  
SSU  Secondary Sampling Unit  
SWOT  Strength, Weakness, Opportunity and Threat (analysis)  
TANGO  Technical Assistance to NGOs  
TB  tuberculosis  
TFC  Therapeutic Feeding Centre  
TOR  Terms of Reference  
UNCCS  United Nations Common Coding System  
UNCT  United Nations Country Team  
UNDAF  United Nations Development Assistance Framework  
UNDP  United Nations Development Programme
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>UNHCR</td>
<td>Office of the United Nations High Commissioner for Refugees</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>UN-ISDR</td>
<td>United Nations International Strategy for Disaster Reduction</td>
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<tr>
<td>UNU</td>
<td>United Nations University</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
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<tr>
<td>USGS</td>
<td>United States Geological Survey</td>
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<tr>
<td>USU</td>
<td>Ultimate Sampling Unit</td>
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<tr>
<td>VAM</td>
<td>Vulnerability Analysis and Mapping</td>
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<tr>
<td>VAM-SIE</td>
<td>VAM Spatial Information Environment</td>
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<tr>
<td>VBA</td>
<td>Visual Basic for Applications</td>
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<td>WFP</td>
<td>World Food Programme</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WAZ</td>
<td>weight for age</td>
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<td>WHZ</td>
<td>weight for height</td>
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<tr>
<td>WR</td>
<td>Water Requirement</td>
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<td>WRSI</td>
<td>Water Requirement Satisfaction Index</td>
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Glossary

Analysis plan – A plan, based on the key hypotheses to be tested, detailing how the collected data will be analysed. It may also guide which data need to be collected from primary sources and which from secondary.

Asset – Anything considered valuable or useful, such as a skill, a quality, or a person.¹

In the Sustainable Livelihoods Framework, the following six categories of assets are defined:
• human: health and nutrition status, physical capacity, skills, level of education, etc.;
• social: household, gender, kinship and other networks; community groups; values and attitudes; etc.;
• financial: income; credit and loans; savings; liquid assets; etc.;
• physical: productive items such as tools and equipment, stores, housing, livestock, and infrastructure;
• natural: land, water, forests, etc.;
• political: power relationships, access to – and influence over – local and higher-level government processes.

Chronic food insecurity – A long-term or persistent inability to meet minimum food requirements.

Cluster sampling – A sampling technique in which the sample is defined in two or more stages. The population of interest is first divided into groups (clusters), usually according to geographical area or location (e.g. villages are used as clusters). Second, a random sample of clusters is selected. Third, households or individuals from the selected clusters are then randomly sampled. There can be additional stages. Sampling units in the second and subsequent stages are selected from within the selected clusters from the previous stage – e.g. households from within a sampled village, or individuals from within a household.

Community group discussion – A discussion with a mixed group of community members that includes men, women, and young people from all subgroups within the community – village, camp, urban neighbourhood, etc.

Comprehensive Food Security and Vulnerability Analysis (CFSVA) – A study, typically conducted in a crisis-prone food-insecure country, that describes the food security status of various segments of the population over various parts of a country or region, with the purpose of indicating the broader underlying causes of vulnerability, and recommending appropriate interventions to deal with problems identified.

Coping strategies – Activities to which people resort to obtain food, income, and/or services when their normal means of livelihood have been disrupted.

Coping strategies index (CSI) – A quick and simple indicator of household food insecurity behaviour that reveals how households manage or cope with shortfalls in food consumption. Two CSI have been proposed in the literature: a context-specific CSI and a reduced CSI. While the first is based on a series of context-specific strategies and context-specific severity scores, the second always relies on the same short list of (five) coping strategies and the same severity weights.

Data – Information collected from primary or secondary sources.

Design effect – In the context of sampling, the loss or (exceptionally) the gain in precision of statistical estimates when sampling design differs from simple random sampling.

Focus group discussion – A structured discussion to obtain qualitative information on a particular topic (the focus) with people who are knowledgeable and who have experience in that topic.

Food access – A household's ability to acquire food regularly through one or a combination of home production and stocks, purchases, barter, gifts, borrowing, and food aid.

Food availability – The food that is physically present in the area of concern, through all forms of domestic production, commercial imports, reserves and food aid. This might be aggregated at the regional, national, district, or community level.

Food consumption score (FCS) – A composite score based on the dietary diversity, food frequency, and relative nutritional importance of the various food groups consumed. The higher the FCS, the higher is the dietary diversity and frequency. High food consumption increases the possibility that a household achieves nutrient adequacy.

Food security – The state at which all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life (World Food Summit, 1996).

Food utilization – (i) A household's use of the food to which they have access; and (ii) individuals' ability to absorb and metabolize nutrients (i.e., the efficiency of food conversion by the body).

Gender perspective – An approach that includes a comparative analysis of the roles and relations between men and women, and boys and girls, with respect to division of labour, productive and reproductive activities, access to and control over resources and benefits. The perspective includes systematic investigation of socio-economic and environmental factors that influence roles and relations as well as the differential impacts of humanitarian or development intervention on women and men, girls and boys.

Gender-sensitive indicators – Indicators used to measure the extent of gender inequality (e.g. female share of total, ratio between females and males, gender gap).
Geospatial data set – A set of data that includes detailed location information. The data may be organized by geographic area or with geographic features such as coordinates, and line and polygon attributes.

Hazard – Something that has the potential to cause harm; also, the probability of occurrence of a potentially damaging phenomenon within a given time period and area.

Hazard analysis – The identification, study, and monitoring of any hazard to determine its potential, origin, characteristics, and behaviour.

HIV perspective – An approach that takes into consideration the immediate, medium-term, and long-term effect of HIV and AIDS on food security.

Indicator – A variable or combination of variables that give insight into a particular aspect of a situation.

Information needs – The data that must be collected and processed from primary and secondary sources in order to fulfil assessment objectives.

Key informant interviews – Interviews with individuals who have good knowledge about particular aspects of a community or a given emergency.

Literature review – The collection and assessment of findings in existing documents relevant to a food security analysis being conducted.

Livelihood group – A group of people who share the same basic means of livelihood and lifestyle – the same main subsistence and income-generating activities, and social and cultural practices – and who face the same risks of food and nutrition insecurity.

Livelihoods – The capabilities, assets (both material and social), and activities required for a means of living linked to survival and future well-being.²

Livelihood strategies – The means by which households use resources, household assets, and skills to obtain the income necessary for welfare goals such as enjoying food security, living a healthy life, having sufficient shelter, and educating their children.

Primary data – The data collected during the assessment, (e.g. interviews with key informants, focus groups, households and individuals). Primary data analysis is the process of analysing primary data.

Proxy indicator – An indicator that is used to indirectly measure a variable that is difficult to measure or cannot be measured directly.

Purposive sampling (non-probability sampling) – A method by which groups are selected for interview according to the researcher’s choice. Purposive sampling does not involve random selection, so extrapolation of results to wider populations is not

possible; the method’s value lies in selecting information-rich cases for in-depth analysis related to the issue being studied.

**Qualitative data** – Observations that are categorical rather than numerical; qualitative data often includes attitudes, perceptions, and intentions.

**Quantitative data** – Measurements of quantities, amounts, or ranges, expressed as numbers, that can be analysed using statistical methods and models.

**Questionnaire** – A series of questions that have been carefully formulated and ordered to provide information from individuals, households, and communities. In a selected sample, the same individual, household, or community questionnaire is addressed to each individual, household, or community, respectively.

**Random sampling (probability sampling)** – A sampling method in which all members of the sampled population have a known, non-zero chance of being selected. Results can be extrapolated to the entire population with a degree of accuracy that depends on the sample size and the variability of the indicator. Based on formal statistical theory, random sampling allows reliable estimates to be calculated and minimizes bias.

**Resilience** – The ability to recover after being affected by a shock.

**Response analysis** – Analysis to determine the need, or otherwise, for an intervention and, when appropriate, to identify the most suitable types of interventions, an intervention’s timing, and its targeting criteria.

**Risk to food insecurity** – The probability of food insecurity resulting from interactions between a natural or human-induced hazard and vulnerable conditions.

**Sample** – A subset of households or individuals extracted from the total population under study. Samples can be probability or non-probability samples.

**Sampling frame** – A complete list of potential sampling units. If households are the primary sampling units (PSU), the sampling frame is the list of all the households living in the area under study. Most of the time, food security assessments use villages/clusters as primary PSUs. In such cases, the sampling frame is the comprehensive list of villages of the study area, and for each selected village/cluster, there is a related household sampling frame consisting of all households from the village.

**Secondary data** – Data collected from outside the current assessment. Examples include data collected by other agencies. Secondary data analysis is the act of re-analysing existing data so that the findings inform the conclusions of the CFSVA.

**Semi-structured interview** – An interview based on a prepared series of questions and a checklist, the phrasing, order, and form of which are not fixed.

**Shock** – An event that has a negative impact on food and nutrition security. Shocks can be natural or caused by human action.
Simple random sampling – A technique in which the primary sampling units (PSUs) are selected directly from the sampling frame. Each unit has the same probability of being selected. No intermediate steps are undertaken.

Stage sampling – See cluster sampling.

Stratified sampling – A sampling method by which the population of interest is split up into subgroups (i.e. strata) that have something in common. In the context of food security analysis, administrative boundaries or food security zones can be strata.

Thematic map – A map that displays the spatial pattern of a single theme or series of attributes related to a single subject matter.

Transitory food insecurity – A short-term or temporary inability to meet minimum food requirements, indicating a capacity to recover.

Triangulation – A process for comparing information from different sources to determine if evidence converges.

Vulnerability to food insecurity – Conditions that increase the susceptibility of a household to the impact on food security in case of a shock. Vulnerability is a function of how a household’s livelihood would be affected by a specific hazard and how it would manage to cope with this impact.
Introduction
WFP’s mandate to address hunger and food insecurity demands a comprehensive understanding of household food security situations, particularly in fragile nations, to enable an effective response. WFP food security/vulnerability assessment and analysis is a key tool for programme formulation, and at country level, the Vulnerability Analysis and Mapping (VAM) units provide regular and comprehensive analysis of the prevailing food security situation in a given country to guide WFP and its partners’ operational responses. Comprehensively addressing various aspects of food security ensures that WFP plans relevant and efficient interventions based on timely identification of the problem and thorough analysis of its impact on the affected population. This in-depth understanding ensures that WFP targets only those most in need. It also ensures that WFP’s response strategies (general food distributions, food for work, food for education, and food for health) are appropriate for saving lives and strengthening livelihoods, thereby reducing future vulnerability.

As of 2008, WFP is operational in 80 countries, and its large technical field network of more than 100 VAM staff members gives it a comparative advantage to undertake food security analysis. Since 2005, WFP, through the multi-donor-funded Strengthening Emergency Needs Assessment Capacity (SENAC) project, has invested millions of dollars to strengthen its food security analysis methodology. Throughout its existence, the Food Security Analysis Service (OMXF, which incorporates VAM) has worked to provide normative technical guidance in the analysis of food security and vulnerability. Although some of this guidance was published, much of the methodological support given to the field remained without a formal written record.

Under the SENAC project, a refinement and consolidation of food security analysis methodology, primarily as it is used in Comprehensive Food Security and Vulnerability Assessments (CFSVAs), is taking place. The existing draft guidelines for this analysis methodology, along with guidelines on the core principles and themes surrounding CFSVAs, needed to be consolidated, edited, and harmonized. They aim to guide VAM officers and partners with a food security analysis background, in the conduct of the CFSVA.

**What are CFSVAs?**

The CFSVA process generates a document that describes the food security status of various segments of a population over various parts of a country or region, analyses the underlying causes of vulnerability, and recommends appropriate interventions to deal with the problems. CFSVAs are undertaken in all crisis-prone food-insecure countries. Given their relevance, analytical rigour, and comprehensiveness, CFSVAs have become a key reference for decision makers involved in planning and implementing food security-related programmes. The location-, population-, and livelihood group–specific information and analysis provided through these studies are used to design and implement broader sectoral interventions to address the supply-and demand-side constraints to food security.

CFSVAs involve activities ranging from reviewing existing literature and data to undertaking surveys to collect and analyse primary data. A CFSVA can be an extensive exercise, usually taking around four to eight months from initiation to dissemination of results. The timeframe depends on the size of the study, the political environment, and other characteristics of the country.
CHAPTER 1. Introduction

The overall objective of a CFSVA is to analyse the food security and vulnerability condition of population groups and communities, and to provide baseline information on the population in a “normal” situation. CFSVAs provide to WFP decision-makers and partners in government, civil society, and the donor community timely and relevant information on household food insecurity and vulnerability, who and how many people are affected, and where they are located, allowing for recommendations on (food) interventions to improve the situation.

CFSVA principles

• CFSVAs should be undertaken, where possible, in partnership with other United Nations system agencies, government counterparts, and key civil society organizations.
• All CFSVAs should include a thorough literature review and secondary data analysis to identify data gaps and, when necessary, to justify primary data collection.
• Analytical methods found in CFSVAs should be clearly defined so as to ensure transparency.
• The shelf life of CFSVAs is determined by the indicators being collected and reported. In most situations, CFSVA findings are valid for three to five years, unless there are drastic food security changes in the meantime.
• CFSVAs can be completed using secondary data in countries and regions where such data are recent and of good quality.

How are CFSVAs used?

Needs assessments:

• CFSVAs can inform the design of WFP operations - especially in the context of protracted relief and recovery operations (PRROs), country programmes, special development activities, and, in some situations, emergency operations (EMOPs).
• In complex emergencies and post-conflict situations, CFSVAs can provide an important form of updated information for all sectors and partners until standard surveys (e.g. income/expenditure, demographic and health surveys [DHS]) can be conducted.

Baseline vulnerability analysis:

• Information found in CFSVAs can be used to design and implement food security monitoring systems, which track key trends and regions within a country.
• CFSVAs can act as a benchmark for emergency food security assessments in the event of a crisis or shock (pre-crisis baseline). Since comparability is a key element, definition of indicators should be standardized and the sampling approach made compatible with eventual subsequent emergency food security assessments (EFSAs).
• In some situations, CFSVAs can be used as a “global food security baseline” against which the impact of specific WFP projects/programmes can be compared (project/results monitoring).

Government policy and rural development initiatives:

• CFSVAs are a strategic entry point for partnership and collaboration with other United Nations system agencies - especially in the context of Poverty Reduction Strategy Papers (PRSPs), UNDAF Common Country Assessments (CCAs), and the United Nations Cluster Approach.
• CFSVAs can be the umbrella under which new WFP research efforts - such as market analyses, cross-border trade, safety nets - are launched.
• CFSVAs can be used as the basis for planning capacity-building initiatives in collaboration with government partners.

CFSV analysis is based on a particular understanding of food security and vulnerability. The Food and Nutrition Security Conceptual Framework presented in Figure 1.1 informs not only the selection of indicators for analysis and use in geographic targeting, but also the design of field assessment instruments and the organization of standardized reporting formats.

1.1 PURPOSE AND STRUCTURE OF THIS DOCUMENT

The purpose of these guidelines is to provide the CFSVA analysis team with currently recommended procedures and protocols for undertaking a CFSVA. It is not a manual or protocol, but rather a collection of guiding frameworks, tools, and approaches to CFSVA planning, implementation, analysis, and dissemination. It consolidates existing CFSVA guidelines into one unique, comprehensive document. It should be used as a reference to ensure that most aspects of a CFSVA exercise are adequately covered. The reader should already possess basic knowledge of food security and social research techniques, which should be applied according to the guidance in this document. These guidelines are organized in the following way. First there is a section on the key planning steps for implementing a CFSVA. This is followed by sections organized by the different types of data used: desk review, household and community data collection, and how such data are typically analysed. The next section covers food security analysis, and how information from all sources is combined to answer the key questions of the CFSVA. The document ends with sections on conclusions and response options and report preparation and dissemination. Gender and HIV/AIDS are cross-cutting elements of the document.

1.2 A LIVELIHOODS APPROACH FOR CFSVA

1.2.1 Key terms, concepts, and issues

In the last decade, international and national agencies have used the concept of sustainable livelihoods and the application of livelihoods analysis as a means to better understand and respond to the multidimensionality of poverty and food insecurity. Given that the causes of poverty are complex, it is essential in a CFSVA to understand the web of poverty and people's mechanisms for dealing with it (CARE, 2002).

A DEFINITION OF LIVELIHOOD
A livelihood comprises the capabilities, assets (stores, resources, claims, and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation: and which contributes net benefits to other livelihoods at the local and global levels in the long and short term. Source: Chambers and Conway, 1992

3. Part of this section is taken from VAM, VAM Standard Analytical Framework: Role and Objectives of VAM Activities to Support WFP Food-Oriented Intervention, WFP, Rome, 2002.

Livelihood systems are made up of several components:
- The activities households engage in to earn income and make a living. These include a range of on-farm and off-farm activities that together provide a variety of procurement strategies for food and cash.
- The assets and other resources a household possesses.
- Social networks and safety nets, the human and social capital that a household possesses or can call on in times of need.

Thus, livelihood systems are quite diverse. Each household can have many possible sources of entitlement (i.e. the rights, privileges, and assets a household has, and its position in the legal, political, and social fabric of society). (CARE, 2002).

Livelihood strategies and outcomes
Generally speaking, the goal of household livelihood strategies is to improve welfare levels in some way, ensuring that: (a) the household has enough to eat; (b) their fluctuating income is stabilized; (c) children are able to go to school; (d) the household can afford or access health services; or (d) natural resources are better managed.

Households often use their skills and know-how to diversify income sources and offset risks. Households are able to meet their needs through six main tangible and intangible assets.

1. Human capital: skills, knowledge, ability to labour, nutritional status of adults and children;
2. Financial capital: financial resources, savings, credit, liquid assets;
3. Natural capital: types and quantities of crops grown and harvested;
4. Physical capital: assets and land available to households;
5. Social capital: informal community support networks, extended family structures, or community labour-sharing systems; and
6. Political capital: participation in community decisions and power relations.

Levels of security derived from these assets are generally termed livelihood outcomes, a set of factors that govern household welfare. It is important to take into account: which resources must be combined or transformed to ensure sustainable livelihoods; the tradeoffs that exist between resources; which resources are prerequisites to others; and the trends in long-term use (adapted from Scoones, 1998). Household livelihood security is defined as adequate and sustainable access to income and resources to meet basic needs. Basic needs include food, proper nutrition, clean water, health and health facilities, economic and educational opportunities, housing, physical safety, and time for community participation and social integration. Having enough to eat is one of the livelihood outcomes. A household’s attempts to secure sufficient amounts of food are a central component of its livelihood strategies. Therefore, food security is a sub-component of household livelihood security. However, food is only one important basic need among several, and adequate food consumption is sometimes sacrificed for other important needs.

1.2.2 Policies, institutions, and organizations

Policies and institutions affect the livelihood choices of poor and food-insecure households and are the last piece of the conceptual framework. Policies are generally split into the following three broad categories:
• **Macroeconomic policies** place the focus on medium- and long-term measures that aim to stabilize a given economy (currency devaluations, labour markets, interest rates on borrowing capital, privatization, financial liberalization, public investments, and trade liberalization).

• **Social policies** place the focus on measures that can improve health and nutrition, education, safety nets, and social protection schemes for the disadvantaged.

• **Sectoral policies** place the focus on specific areas within an overall economy and society (e.g. agriculture, water supply, management and sanitation, energy infrastructure, and the environment).

**Institutions and organizations**, the structures through which policies are formulated and implemented, represent the interface between households and policymakers.

- The **state**, in addition to services, may provide safety nets, change policies, or limit freedoms, all of which can have positive or adverse affects on livelihood systems.
- **Formal civil society** may offer support of conditions that enable households; or may confine household opportunities.
- **Informal civil society** may negatively or positively influence the livelihood strategies pursued by households.
- The **private sector** may augment or constrict opportunities for households.

The political, institutional, and economic environment has a profound effect on household livelihoods (assets, strategies, and outcomes). For example, the local agricultural policy governing input and output markets has an effect on whether households whose main activity is farming can effectively use their land, labour, water, and livestock (livelihood assets). Input and output markets facilitate the production, movement, and exchange of agricultural commodities (e.g. seeds, fertilizer, storage, marketing, farm-gate purchases). If such systems are inefficient, then farming-based livelihoods are rendered ineffective, leading to losses in income and contributing to a broader decrease in household welfare. This shows clearly how policies and institutions can affect availability of assets, access to those assets, and ability to utilize assets productively.

### 1.3 THE FOOD AND NUTRITION SECURITY CONCEPTUAL FRAMEWORK

CFSVA is based on a particular understanding of food security and vulnerability. The Food and Nutrition Security Conceptual Framework informs not only the selection of indicators for analysis and use in geographic targeting, but also the design of field assessment instruments and the organization of standardized reporting formats. The Food and Nutrition Security Conceptual Framework adopted by CFSVAs considers food availability, food access, and food utilization as core elements of food security, and links them to households’ asset endowments, livelihood strategies, and political, social, institutional, and economic environment. The strength of the household livelihoods approach lies in its ability to obtain a holistic and multidimensional profile of a micro-level context.
CHAPTER 1. Introduction

- food, nutrition, livelihood, and rights-realization - with strong regional and national contextualization, allowing for the scaling-up of interventions (CARE, 2002).

Food security was broadly defined in the 1996 World Food Summit Plan of Action with the following text:

> Food security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

While this is a goal-level notion, it is important to define operational measures of food insecurity, vulnerability to food insecurity, and its determinants. The CFSVA focuses on identifying specific metrics for food insecurity and vulnerability and it adopts a risk analysis framework for understanding the distribution and causes of vulnerability and resiliency of countries, regions, communities, and households.

During a CFSVA, this framework serves two purposes by providing:

- a basis for developing initial hypotheses on the level of vulnerability and food insecurity, and the causes and effects of both; and
- a succinct way of visualizing the relationships among factors that affect food and nutrition security, which is helpful during data collection and analysis.


The analysis of food security begins with an examination of livelihood assets; the agro-ecological, political and institutional context of the area; and the resulting livelihood strategies adopted by the people that may lead to food security. Various hazards and more gradual changes affect the macro context and household-level assets and strategies, and hence household food security.

The food security status of any household or individual is typically determined by the interaction among a broad range of agro-environmental, socio-economic, and biological factors. As with the concepts of health or social welfare, there is no single, direct measure of food security. However, the complexity of the food security problem can be simplified by focusing on three distinct, but interrelated, dimensions: aggregate food availability, household food access, and individual food utilization.

Achieving food security requires addressing all three of these separate dimensions, ensuring that:

- the aggregate availability of physical supplies of food from domestic production, commercial imports, food aid, and national stocks is sufficient;
- household livelihoods provide adequate access for all members of the household to those food supplies through home production, market purchases, or transfers from other sources; and
- the utilization of those food supplies is appropriate to meet the specific dietary and health needs of all individuals within a household.

Vulnerability is a forward-looking concept aimed at assessing community and household exposure and sensitivity to future shocks. Ultimately, the vulnerability of a household or community is determined by their ability to cope with their exposure to
the risk posed by shocks such as droughts, floods, crop blight or infestation, economic fluctuations, and conflict. This ability is determined largely by household and community characteristics, most notably a household’s or community’s asset base and the livelihood and food security strategies it pursues.

The framework shows that exposure to risk is determined by the frequency and severity of natural and man-made hazards, and their socio-economic and geographic scope. The determinants of coping capacity include household levels of natural, physical, economic, human, social, and political assets; levels of household production; levels of income and consumption, and, most important, the ability of households to diversify their income and consumption sources to mitigate the effects of any risks they face.

Coping behaviour involves activities such as the sale of land or other productive assets, the cutting of trees for sale as firewood, and, in an extreme example, the sale of girls into prostitution. These practices undermine not only the long-term productive potential of vulnerable households, but also important social institutions and relationships. The extent of reliance on these destructive practices is an indicator of vulnerability levels during a crisis.

While an understanding of how households cope is important to analysis, knowing how well households cope, or the resilience of household livelihoods, is more important.
CHAPTER 1. Introduction

How well the local economy can absorb the additional labour or products, such as livestock or firewood, that appear on the market as the result of coping behaviour during a disaster, and the stability of wages and prices for those products, are critical factors in understanding vulnerability.

Food security analysis is primarily a static view of food access and household constraints to that access, from either a short- or long-term perspective. In contrast, risk and vulnerability analysis, because it includes the element of risk that households face in their day-to-day decision-making and their capacity to respond effectively over time, views food access from a more dynamic, forward-looking perspective.

In the end, there is a significant overlap between households that are currently food insecure and those at risk to the severe fluctuations in food access that threaten well-being. While, in concept, all households may be considered vulnerable to a certain degree, from an operational perspective, the primary emphasis of vulnerability analysis should be on households that are nearly, or already food insecure.

CFSVAs should provide stakeholders with an analysis of food insecurity and livelihoods at the sub-national level by addressing the five VAM questions:

1. Who are the food-insecure or vulnerable people?
VAM surveys are conducted at the household level. The collected information is regrouped and analysed in order to create livelihood groups. Looking at household expenditure and income, the analyst is able to determine which are the most vulnerable households and what risks (drought, flood, pest, insecurity) will affect them the most. In Liberia, it was noted that households that had recently returned were particularly vulnerable to food insecurity, as they had to restore their livelihoods in an environment that had been destroyed by the war. These households are now a priority for WFP.

2. How many people are food insecure or vulnerable?
During the design phase of the survey, a sample of households is drawn using probability sampling methods. The prevalence of food insecurity and vulnerability found in the sample is applied to the entire population from which the sample was drawn in order to estimate the total number of food-insecure and vulnerable people. (For example, in Mali, VAM estimated in 2005 that 6.2 million people were food insecure and vulnerable.) These numbers are then used to target WFP PRROs and EMOPs.

3. Where do the food-insecure and vulnerable people live?
CFSVAs provide an essential package of maps showing the areas most affected by food insecurity and vulnerability. These are crucial tools for decision-makers and for targeting aid. The maps are produced by VAM staff with considerable experience in geographical information systems.

4. What are the underlying causes and threats of food security and malnutrition?
CFSVAs collect a wide range of information that allows VAM and WFP to explore the determinants of food insecurity/vulnerability. Using qualitative and quantitative techniques, together with local expert judgment, the CFSVA analysis team is able to identify the local contextual causes of food insecurity and vulnerability.
5. What are the implications for food security interventions?

VAM gives recommendations for interventions in a country based on the conclusions of the CFSVA and input from WFP programme officers and partners in development involved in the CFSVA and in the field of food security.

### 1.4 BASIC GENDER CONCEPTS, FRAMEWORKS, AND INDICATORS

#### 1.4.1 Gender analysis and CFSVA studies

The purpose of gender analysis is to determine gender disparity. This knowledge can then be incorporated into gender-responsive programming with positive measures taken to level the playing field. The effective integration of gender analysis into CFSVA studies entails exploring how gender roles relate to all aspects of food security (availability, access, and utilization) and food aid interventions. Specific issues include:

- Understanding how gendered division of labour and decision-making power are related to food availability and access;
- Exploring variability of food consumption (i.e., utilization), health, and nutrition by gender and how these factors affect food utilization for both genders;
- Analysing how the benefits of food aid interventions can be effectively targeted to both men and women and used to promote gender equality; and
- Anticipating any negative impacts interventions may have on women or men, girls or boys, or on gender relationships.

Applying a gender perspective to CFSVA studies demands that a gender-sensitive approach be taken during research design, data collection, data analysis, reporting, and, ultimately, programme planning. This requires an explicit sensitivity to the varying needs of men and women. It is therefore crucial to involve men and women in all stages of the research, and to sensitize enumerators and other research team members to gender issues relevant to the context in which a study is being conducted.

#### Avoiding assumptions

Although the term gender has often been misinterpreted as focusing on women, a gender perspective requires a comparative analysis of men and women, as well as the relations between them.

Assumptions concerning the relationship between gender and vulnerable groups are inappropriate prior to the analysis of the particular context under study, and run the risk of introducing bias into the research design.

#### 1.4.2 Gender analysis frameworks

Gender relates to all three aspects of food security:

- **food availability** - productive, reproductive and community roles;
- **food access** - differentiated access to and control over resources, power, and decision-making at the household and community level; and
- **food utilization** - caring practices, reproductive health, gender-specific diseases.

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CHAPTER 1. Introduction

Several conceptual frameworks provide examples of how a gender perspective can be applied to studies of food security and vulnerability.

DFID\(^6\) has developed a Gender Analysis Framework that offers key issues to consider in four areas of enquiry: gender roles, assets and livelihoods, power and decision-making, and needs analysis.

**Roles and responsibilities**
- What do men and women do?
- Where (location/patterns of mobility)?

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6. DFID Infrastructure Department
• When (daily and seasonal patterns)?
• What are their productive roles (paid work, self-employment, and subsistence production)?
• What are their reproductive roles (domestic work, child care, and care of the sick and elderly)?
• What is their community participation/self-help (voluntary work for the benefit of the community as a whole)?
• What is their community politics (decision-making/representation on behalf of the community as a whole)?

**Assets**
• What livelihood assets/opportunities do men and women have access to and control over?
• What constraints do they face?
• What are their human assets (e.g. health services, education)?
• What are their natural assets (e.g. land, natural resources)?
• What are their social assets (e.g. social networks)?
• What are their physical assets (e.g. infrastructure)?
• What are their economic assets (e.g. capital/income, credit)?

**Power and decision-making**
• What decision-making do men/women participate in?
  - Household level (e.g. expenditure decisions, use of savings)?
  - Community level (e.g. decisions on the management of community water supplies)?
• What decision-making do men/women usually control?
  - Household level (e.g. expenditure decisions, use of savings)?
  - Community level (e.g. decisions on the management of community water supplies)?
• What constraints do they face?

**Needs and priorities**
• What are the needs and priorities of both men and women?
  - “Practical” gender needs - inadequacies in immediate necessities such as water access, food, and employment (e.g. a more convenient water point to save women time and energy)?
  - “Strategic” gender needs - structural changes that challenge subordinate roles and create greater equality (e.g. legal rights, equal wages, reproductive choice)?
• What perspectives do they have on appropriate and sustainable ways of addressing their needs?

Gender, while not explicitly illustrated in the Food and Nutrition Security Conceptual Framework pictured in Figure 1.2, is a critical dimension of food security and should always be taken into consideration. The questions listed in section 1.4.2 provide good guidance on how a gender lens can be applied to this framework and guide analysis and project design.
CHAPTER 1. Introduction

1.4.3 Gender-sensitive indicators

Various indicators can be used to measure the extent of gender inequality, based on the number of females and males in a given context (female share of total, ratio between females and males, gender gap) or by comparing the variable outcomes among the two subgroups.

An illustrative list of generic, quantitative indicators that can be used to incorporate gender analysis into food security and vulnerability studies is provided in Table 1.1. Examples of their application in developing indicators are also provided (in the right-hand column). These indicators are a useful tool for ensuring that sex-disaggregated quantitative data are generated during primary data collection and allow for gender analysis to be incorporated into the overall food security and vulnerability analysis.

### Table 1.1: Gender-sensitive indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Formula</th>
<th>Interpretation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female share of a total</td>
<td># (females) *100 / # (females + males)</td>
<td>• 50% = gender equality</td>
<td>Share of women participating in political meetings at the community level</td>
</tr>
<tr>
<td>Ratio between females and males</td>
<td># (females) / # (males)</td>
<td>• 1 = gender equality</td>
<td>The ratio between girls’ and boys’ school enrolment rates (no. of girls per 1 boy)</td>
</tr>
<tr>
<td>Female characteristic as percentage of male characteristic</td>
<td>mean female characteristic / mean male characteristic *100</td>
<td>• 100% = gender equality; The closer to 0%, the more females are disadvantaged; Values &gt;100% = males are disadvantaged</td>
<td>Average earnings of women as percentage of average earnings of men</td>
</tr>
<tr>
<td>Gender gap (% difference between no. of females and males vs. the no. of males in the same population)</td>
<td>(# males - # females) *100 / # males</td>
<td>• 0% = gender equality; The closer to 100%, the more females are disadvantaged; Values &lt;0% = females are advantaged</td>
<td>Differences in school enrolment between boys and girls; differences in access to (or control over) productive assets between men and women</td>
</tr>
</tbody>
</table>

1.4.4 Gender dynamics

Understanding gender relations and dynamics is critical to our understanding of livelihood systems and intra-household issues. Often gender plays a large role in the division of labour, access to goods and services, control over resources, and power relations and rights.

Women and men often allocate resources differently, which has a differential impact on household welfare. Women frequently allocate more resources to meet a household’s...

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7. See also CIDA: Guide to Gender-Sensitive Indicators, Quebec 1997, 9-13.
basic needs than men do. However, much of women’s work is unpaid and/or taken for
granted. As a result, it is often not counted, and their contribution to household livelihood
security is thus undervalued. Additionally, women often have limited power in household
decision-making, and in choosing how they will contribute to the household livelihood system.

1.5 UNDERSTANDING THE IMPACT OF HIV/AIDS ON LIVELIHOODS

The Food and Nutrition Security Conceptual Framework helps to demonstrate the
impact of HIV/AIDS on food security (see Figure 1.2). The framework underlines that
illnesses and deaths due to AIDS have both an immediate and a long-term impact on
households’ and communities’ vulnerability to food insecurity. It suggests considering
both the direct impact of AIDS at all livelihood levels (human, financial, social, natural,
and physical) and the indirect impact of policies, institutions, and processes on
livelihoods.

Finally, it draws attention to the feedback loop generated by the epidemic: livelihood
assets are often negatively impacted by AIDS; livelihood strategies are usually
adapted in response to HIV/AIDS, but the strategies can hardly prevent the increase
in poverty and food insecurity. This increases susceptibility to HIV/AIDS. Most of the
studies that adopted the Sustainable Livelihoods Framework found that HIV/AIDS had
significant impacts on all capital assets, including human, financial, social, natural,
and physical.

In countries highly affected by HIV/AIDS, consideration for HIV/AIDS should be
mainstreamed in each component of the CFVSA, including:
• Secondary data/literature review;
• Collection of household-level data; and
• Collection of community-level data (e.g., infrastructures, perception of the
  community).

8. Detailed guidance on how to mainstream HIV/AIDS into CFVSA is provided by the technical guidelines “HIV/AIDS
Guidelines are available online on the Food Security Analysis/VAM website, www.wfp.org/food-security.
1.6 KEY REFERENCES

- VAM. 2002. VAM Standard Analytical Framework: Role and Objectives of VAM Activities to Support WFP Food-Oriented Intervention, WFP Rome.