The Integrated Food Security and Humanitarian Phase Classification

Technical Manual
Version 1

FSAU

Integrated Food Security and Humanitarian Phase Classification: Technical Manual Version I

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FOREWORD AND ACKNOWLEDGEMENTS

Since 1994 FSAU has invested considerable energy to improve the rigour of the unit's food security, nutrition, and livelihoods analysis, and its relevance for decision making. To help meet these goals of rigor and relevance, since February 2004 FSAU has been developing and using a tool called the Integrated Food Security and Humanitarian Phase Classification (IPC). In addition to consistently improving analysis and facilitating effective response in the context of Somalia, there are strong indications that the IPC is relevant on a wider scale, as it serves as a 'common currency' for food security and humanitarian analysis.

This manual provides technical guidance to the use of IPC among FSAU analysts and technical partners, and will hopefully contribute to on-going global efforts to standardize core elements of humanitarian analysis and response (e.g., the SMART, Benchmarking, Needs Analysis Framework, Humanitarian Tracking Service, and Sphere Project).

The IPC builds from aspects of many existing classification systems and academic literature. The practical strength of the IPC, however, is that it was developed through the every day realities of conducting food security analysis and linking it to action within the context of a complex emergency. In addition, the IPC development has benefited from technical feedback of expert practitioners and high level decision makers through dozens of forums in Africa, Asia, Europe, and the USA. Appendix 7.1 lists just some of these meetings, for whom we are extremely grateful for their technical input.

Within FSAU the IPC has been an on-going technical dialogue among all of our Nairobi based analysts including: Noreen Prendiville, Cindy Holleman, Yusuf Mohamed, Ali Duale, Thomas Gabrielle, Simon Narbeth, Veena Sampathkumar, Zainab Jama, James Kingori, Sicily Matu, Ahono Busili, Bernard Owadi, Tom Oguta, Achoka Luduba, Carol Kingori, and Francis Barasa. FSAU has a close partnership with FEWS NET Somalia, and both Mohamed Aw-Dahir and Sidow Addou have been directly involved in the IPC development. FSAU field staff has also made substantial input. Special thanks to Cindy, Noreen, Thomas, and Veena for their technical editing of this manual.

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ACF	Action Contra la Faim
ALRMP	Arid Lands Resource Management Project
AP	Associated Press
BBC	British Broadcasting Corporation
CAP	Consolidated Appeals Process
CDC	Center for Disease Control
CILSS	Committee for Drought Control in the Sahel
CMR	Crude Mortality Rate
CNN	Cable News Network
CSI	Coping Strategies Index
DFID	UK Department for International Development
EC	European Commission
EFNA	Emergency Food Needs Assessment
FANTA	USAID Food and Nutrition Technical Assistance
FAO	UN - Food and Agriculture Organization
FAQs	Frequently Asked Questions
FEG	Food Economy Group
FEWS NET	Famine Early Warning Systems Network.
FIVIMS	Food Insecurity and Vulnerability Information and Mapping Systems
FNPP	FAO/Netherlands Partnership Programme
FSAS	Food Security Analysis System
FSAU	Food Security Analysis Unit - Somalia
GAM	Global Acute Malnutrition
GHA	Greater Horn of Africa
GIEWS	Global Information Early Warning System
HEA	Household Economy Approach
HPG	Humanitarian Policy Group
IASC	UN Inter-agency Standing Committee
ICRC	International Committee of the Red Cross
IDS	Institute of Development Studies
IPC	Integrated Food Security and Humanitarian Phase Classification
IRIN	Integrated Regional Information Networks
Kcal	Kilo calories
LRRD	Linking Relief, Recovery, and Development
LUCC	Land Use and Land Cover Change
MSF	Medecins Sans Frontieres
MUAC	Mid-Upper Arm Circumference
NAF	Needs Analysis Framework
NGO	Non-governmental Organization
ODI	Overseas Development Institute
SCF - UK	Save the Children – United Kingdom
SCN - UN	UN Standing Committee on Nutrition
SENAC	Strengthening Emergency Needs Assessment Capacity
SLA	Sustainable Livelihoods Approach
SMART	Standardized Monitoring and Assessment of Relief and Transitions
UN/OCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VOA	Voice of America
WFP	World Food Programme
WFS	World Food Summit

1. EXECUTIVE SUMMARY

Within the cross-cutting fields of food security and humanitarian analysis there are increasingly strong calls for improved analysis, including: greater **comparability** of results from one place to another, increased rigour, greater **transparency** of evidence to support findings, increased **relevance** to strategic decision making, and stronger linkages between information and **action**. Improving analysis along these lines would enable food security and humanitarian interventions to be more **needs-based**, **strategic**, and **timely**.

Central to meeting these challenges is the development of a classification system that is **generic** enough to be utilized in a vast array of food security situations, disaster types, and livelihood systems; **simple** enough to be practical in the field and understandable by multiple stakeholders; and **rigorous** enough to meet international standards.

Since February 2004 the Food Security Analysis Unit for Somalia (FSAU1) has been using and progressively developing a tool to meet these challenges called the **Integrated Food Security and Humanitarian Phase Classification** (IPC2). Drawing from extensive literature on international humanitarian guidelines, aspects of existing classification systems, and in situ analysis of food security in Somalia, the IPC has consistently proven to improve analysis and enable more effective response.

The IPC is a set of protocols for consolidating and summarizing **Situation Analysis**, a distinct, yet often overlooked (or assumed) stage of the food security analysis-response continuum. Situation Analysis is a foundation stage where fundamental aspects (severity, causes, magnitude, etc) of a situation are identified—aspects for which there is optimally broad-based consensus by key stakeholders including governments, UN and NGO agencies, donors, the media, and target communities.

The analytical logic of the IPC is that varying phases of food security and humanitarian situations are classified based on outcomes on lives and livelihoods. Outcomes are a function of both immediate hazard events and underlying causes, as well as the specific vulnerabilities of livelihood systems (including both livelihood assets and livelihood strategies). The outcomes are referenced against internationally accepted standards, and their convergence substantiates a phase classification for any given area. Each phase is associated with a unique strategic response framework, while the outcome configuration for any given situation guides the creation of a tailored response unique to that situation. While the phase classification describes the current or imminent situation for a given area, early warning risk levels are a predictive tool to communicate the risk of a worsening phase.

The IPC consists of four components including the **Reference Table**, **Analysis Templates**, **Cartographic Protocols** and **Population Tables**.

The IPC **Reference Table** guides analysis for both the **Phase Classification** and **Early Warning Risk Levels**. The Phase Classification is divided into five **Phases—*Generally Food Secure, Chronically Food Insecure, Acute Food and Livelihood Crisis, Humanitarian Emergency*,** and ***Famine/Humanitarian Catastrophe***. The five phases are general enough to accommodate a wide range of causes, livelihood systems, and political/economic contexts—yet their distinction captures essential differences in implications for action (including strategic design, urgency, and ethical imperative).

Each Phase is linked to a comprehensive set of **Key Reference Outcomes** on human welfare and livelihoods which guide the classification. These include: *crude mortality rate, acute malnutrition, disease, food access/availability, dietary diversity, water access/availability, destitution and displacement, civil security, coping, and livelihood assets*. The breadth of outcomes enables triangulation and ensures adaptability of the IPC to a wide variety of situations. Referencing the outcomes to international standards ensures comparability and consistency of the phase classification in different countries and contexts.

Each Phase is also linked to a tailored **Strategic Response Framework** that provides strategic, non-prescriptive guidance to achieve three objectives: (1) mitigate immediate negative outcomes, (2) support livelihoods, and (3) address underlying/structural causes.

The Reference Table also includes three **Early Warning Risk Levels**: (1) ***Alert***, (2) ***Moderate Risk***, (3) ***High Risk***. Each of these is associated with key information required for effective early warning: Probability, Severity, Reference Indicators, Implications for Action, and Timeline

The **Analysis Templates** are tables which organize key pieces of information in a transparent manner. They facilitate analysis to substantiate a Phase Classification and guide response analysis. The **Cartographic Protocols** are a set of standardized mapping and visual communication conventions which are designed to effectively convey key information concerning situation analysis on a single map. The **Population Tables** are a means to consistently and effectively

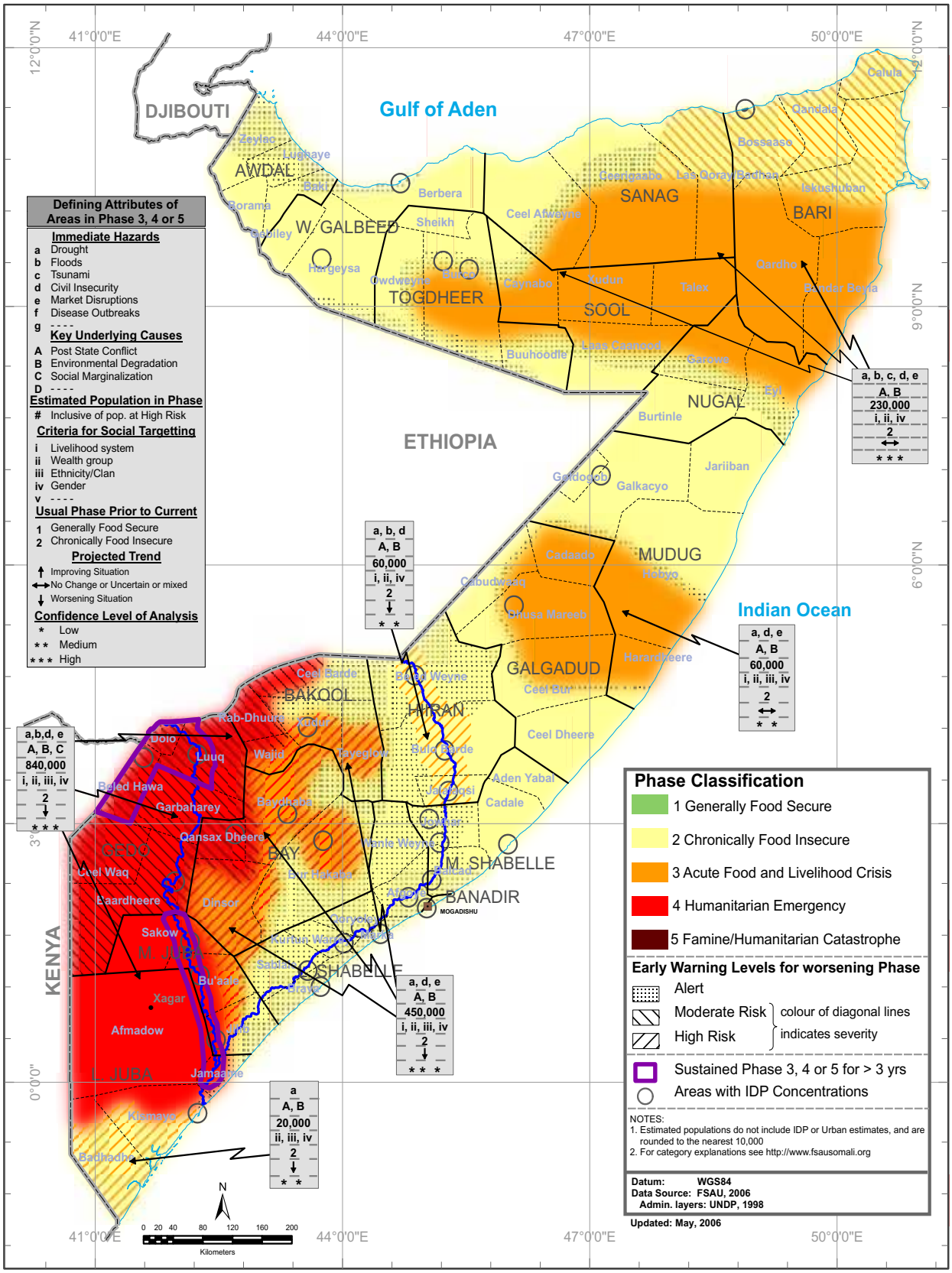
Table 1: Integrated Food Security and Humanitarian Phase Classification Reference Table

Phase Classification		Key Reference Outcomes *(current or imminent outcomes on lives and livelihoods; based on convergence of evidence)*		Strategic Response Framework *(mitigate immediate outcomes, support livelihoods, and address underlying/structural causes)*
1	Generally Food Secure	***Crude Mortality Rate***	< 0.5 / 10,000 / day	Strategic assistance to pockets of food insecure groups Investment in food and economic production systems Enable development of livelihood systems based on principles of sustainability, justice, and equity Prevent emergence of structural hindrances to food security Advocacy
		Acute Malnutrition	<3 % (w/h <-2 z-scores)	
		Stunting	<20% (h/age <-2 z-scores)	
		Food Access/ Availability	usually adequate (> 2,100 kcal ppp day), stable	
		Dietary Diversity	consistent quality and quantity of diversity	
		Water Access/Avail.	usually adequate (> 15 litres ppp day), stable	
		Hazards	moderate to low probability and vulnerability	
		Civil Security	prevailing and structural peace	
		Livelihood Assets	generally sustainable utilization (of 5 capitals)	
2	Chronically Food Insecure	***Crude Mortality Rate***	<0.5/10,000/day; U5MR<1/10,000/day	Design & implement strategies to increase stability, resistance and resilience of livelihood systems, thus reducing risk Provision of 'safety nets' to high risk groups Interventions for optimal and sustainable use of livelihood assets Create contingency plan Redress structural hindrances to food security Close monitoring of relevant outcome and process indicators Advocacy
		Acute Malnutrition	>3% but <10 % (w/h <-2 z-score), usual range, stable	
		Stunting	>20% (h/age <-2 z-scores)	
		Food Access/ Availability	borderline adequate (2,100 kcal ppp day); unstable	
		Dietary Diversity	chronic dietary diversity deficit	
		Water Access/Avail.	borderline adequate (15 litres ppp day); unstable	
		Hazards	recurrent, with high livelihood vulnerability	
		Civil Security	Unstable; disruptive tension	
		Coping	'insurance strategies'	
		Livelihood Assets	stressed and unsustainable utilization (of 5 capitals)	
		Structural	Pronounced underlying hindrances to food security	
3	Acute Food and Livelihood Crisis	***Crude Mortality Rate***	0.5-1 /10,000/day, U5MR 1-2/10,000/dy	Support livelihoods and protect vulnerable groups Strategic and complimentary interventions to immediately ↑ food access/availability AND support livelihoods Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Strategic interventions at community to national levels to create, stabilize, rehabilitate, or protect priority livelihood assets Create or implement contingency plan Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
		Acute Malnutrition	10-15 % (w/h <-2 z-score), > than usual, increasing	
		Disease	epidemic; increasing	
		Food Access/ Availability	lack of entitlement; 2,100 kcal ppp day via asset stripping	
		Dietary Diversity	acute dietary diversity deficit	
		Water Access/Avail.	7.5-15 litres ppp day, accessed via asset stripping	
		Destitution/Displacement	emerging; diffuse	
		Civil Security	limited spread, low intensity conflict	
		Coping	'crisis strategies'; CSI > than reference; increasing	
		Livelihood Assets	accelerated and critical depletion or loss of access	
4	Humanitarian Emergency	***Crude Mortality Rate***	1-2 / 10,000 / day, >2x reference rate, increasing; U5MR > 4/10,000/day	Urgent protection of vulnerable groups Urgently ↑ food access through complimentary interventions Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Protection against complete livelihood asset loss and/or advocacy for access Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
		Acute Malnutrition	>15 % (w/h <-2 z-score), > than usual, increasing	
		Disease	pandemic	
		Food Access/ Availability	severe entitlement gap; unable to meet 2,100 kcal ppp day	
		Dietary Diversity	Regularly 2-3 or fewer main food groups consumed	
		Water Access/Avail.	< 7.5 litres ppp day (human usage only)	
		Destitution/Displacement	concentrated; increasing	
		Civil Security	widespread, high intensity conflict	
		Coping	'distress strategies'; CSI significantly > than reference	
		Livelihood Assets	near complete & irreversible depletion or loss of access	
5	Famine / Humanitarian Catastrophe	***Crude Mortality Rate***	> 2/10,000 /day (example: 6,000 /1,000,000 /30 days)	Critically urgent protection of human lives and vulnerable groups Comprehensive assistance with basic needs (e.g. food, water, shelter, sanitation, health, etc.) Immediate policy/legal revisions where necessary Negotiations with varied political-economic interests Use 'crisis as opportunity' to redress underlying structural causes Advocacy
		Acute Malnutrition	> 30 % (w/h <-2 z-score)	
		Disease	pandemic	
		Food Access/ Availability	extreme entitlement gap; much below 2,100 kcal ppp day	
		Water Access/Avail.	< 4 litres ppp day (human usage only)	
		Destitution/Displacement	large scale, concentrated	
		Civil Security	widespread, high intensity conflict	
		Livelihood Assets	effectively complete loss; collapse	

Early Warning

Early Warning Levels	Probability / Likelihood (of worsening Phase)	Severity (of worsening phase)	Reference Hazards and Vulnerabilities	Implications for Action
Alert	As yet unclear	Not applicable	***Hazard:*** occurrence of, or predicted event stressing livelihoods; with low or uncertain vulnerability ***Process Indicators:*** small negative change from normal	Close monitoring and analysis
Moderate Risk	Elevated probability / likelihood	Specified by predicted Phase Class, and as indicated by color of diagonal lines on map.	***Hazard:*** occurrence of, or predicted event stressing livelihoods; with moderate vulnerability ***Process Indicators:*** large negative change from normal	Close monitoring and analysis Contingency planning Step-up current Phase interventions Preventative interventions--with increased urgency for High Risk populations Advocacy
High Risk	High probability; 'more likely than not'		***Hazard:*** occurrence of, or strongly predicted major event stressing livelihoods; with high vulnerability ***Process Indicators:*** large and compounding negative changes	

Map 1: Somalia Situation Analysis, Post *Deyr* 2005/06 Projection, January 2006 through June 2006



communicate population estimates by administrative boundaries, livelihood systems, and livelihood types.

The IPC is not an assessment method, per se, but a classification system and a set of protocols for Situation Analysis that integrate multiple data sources, methods, and analyses (options for specific assessment methodologies include those endorsed by WFP, ICRC, Save the Children UK, and many others). Effective use of the IPC encourages a mixed-method approach which is obligatory given the complexity of the analysis and the need for triangulation. In this manner, the IPC provides a consistent and meaningful structure to the final statement. To substantiate an IPC statement, whatever the specific methodologies used, the legitimacy of data sources and analytical methods is rigorously evaluated and reflected in the overall confidence level.

The IPC does not replace existing food security information systems or methodologies. It is a complimentary "add-on" that draws from and provides focus to existing analytical systems, enables comparability, and explicitly links analysis to action. The IPC can be adapted to a broad range of information systems with regards to data availability, methodological approach, and human capacity.

The IPC emphasizes food security analysis through a livelihoods approach, but recognizes that it is impossible to separate food insecurity from associated sectoral crises in the fields of health, water, protection, sanitation, shelter, and others. There is highly dynamic interplay between these sectors; deteriorating situations often co-exist, and stress on one most likely leads to stresses on others.

Thus, the IPC emphasizes food security analysis while integrating related humanitarian concerns. The IPC is not meant, however, to substitute for more refined analysis of any particular sector.

The IPC draws together and seeks to integrate:

- aspects of existing classification systems
- the breadth of food security phases, not just emergency situations
- food security and nutrition
- *lives and livelihoods*
- process indicators and outcomes
- *information and action*
- relief, rehabilitation, recovery, and development
- immediate and longer term perspectives
- concepts and practice
- academic standards and field practicalities
- accountability of analysis and response

*Perhaps most importantly, the IPC provides a much needed **common currency** for food security and humanitarian analysis.*

Both within Somalia and the Greater Horn of Africa, the IPC has proven to be an effective means for communicating complex analysis to UN, NGO and government agencies, donors and media. It has been consistently demonstrated to increase technical consensus, comparability over space and time, transparency through evidence-based analysis, accountability, as well as the effectiveness of early warning and strategic response.

In the context of the FSAU, the IPC fits within the overall conceptual, operational, and analytic framework of the Food Security Analysis System (FSAS), as a means of conducting multi-faceted aspects of food security analysis through a livelihoods and evidence-based approach3 (see diagram in Appendix C).

The highly dynamic and complex nature of food security analysis in the context of Somalia has provided a vibrant "developing-ground" for the IPC—with multiple livelihood systems ranging from cropping to fishing to pastoralism, and a variety of hazards ranging from floods to drought to civil insecurity to the Tsunami (FSAU 2005). Most importantly, the IPC has been developed in-situ—drawing from academic literature and international guidelines, but driven first and foremost by the realities of conducting food security analysis on a day-to-day basis and linking information to action (see Appendix D).

Overall, this technical manual has three main objectives:

(1) to provide technical guidance on the use of the IPC for food security and humanitarian analysis

(2) to contribute to global developments related to improving and standardizing food security and humanitarian analysis
(3) to solicit feedback on the current IPC Version 1 from the broad food security and humanitarian community so as to inform the development of an anticipated next version of the manual.

The manual begins with a discussion of why a common classification system is needed as well as a brief review of existing classification systems. The manual next provides technical details of the concepts and practice of using the IPC, and ends with a discussion on the potential for broader applicability of the IPC to other country, regional, and global contexts and future challenges.

At FSAU the IPC has been revised and improved in many versions[4] based on an interative development process which has been supported by dozens of presentations and feedback from hundreds of food security professionals Appendix 7.1).
Although the IPC has proven useful in the present form, it is certain that there will be more iteration, and it is hoped that this paper will solicit feedback for further development.

Footnotes

1 FSAU is implemented by the Food and Agriculture Organization of the United Nations (FAO), and funded by the European Commission (EC) and the United States Agency for International Development (USAID)
2 IPC is a short-hand acronym including the terms integrated phase classification.
3 FSAU's Food Security Analysis System (FSAS) is an overarching framework to integrate conceptual, analytical, and operational components of food security analysis through a livelihoods approach. Core analytical components of the FSAS include: Baseline Livelihoods Analysis, Seasonal Food Security Projections, Emergency Food Security and Nutrition Assessments, Key Indicator Monitoring, Nutrition Analysis, and Applied Research. Other core components include: Information Management System, Communication Strategy, Management, and Partner Networking. Core analytical sectors include: climate, agriculture, livestock, markets, nutrition, and civil security (FSAU 2004b). For more details visit www.fsausomali.org
4 For previous versions of the IPC tool see FSAU Technical Series IV.2/3/4/7/8 and for previous citations see Howe and Devereux (2004), Young et al. (2005), Heimrich (2005), and Field Exchange (2006).

2. BACKGROUND

2.1 The Need for a Food Security and Humanitarian Phase Classification System

Based on a global review of needs assessment practice, the Overseas Development Institute (ODI) HPG Report "According to Need? - Needs assessment and decision-making in the humanitarian sector" (Darcy and Hofmann, 2003), identifies a critical gap in food security and needs assessment practice. While there is a broadly accepted definition of food security1, there is a lack of clarity and common definitions for classifying various situations in terms of varying severity and implications for action. This lack of clarity is operationally problematic because the way in which a situation is classified determines not only the form of response, but the source of funding and its scale, the planning timeframe and the organizational roles of different stakeholders. There is an urgent practical and operational need for a broadly accepted food security and humanitarian classification system.

This "gap" and resulting lack of clarity is well recognized by analysts, donors, governments, implementing agencies, academics and the media. Projects such as the EC/WFP Strengthening Emergency Needs Assessment Capacity (SENAC) project, the EC/FAO Project for Linking Information to Action, and the FAO/Netherlands Partnership Programme (FNPP) are all focused on improving food security assessment practices in order to elicit more effective response. NGO's, including Save the Children, Oxfam, CARE, World Vision and others are also investing in improving assessment practices. Academic institutions such as Institute of Development Studies (IDS) in Sussex, Tufts University, Tulane University, and ODI also guide and contribute to this dialogue.

There are a number of ongoing initiatives to improve and develop global food security classifications systems. Inter-agency and global initiatives include the Standardized Monitoring and Assessment of Relief and Transitions SMART (SMART 2006), the DFID sponsored Benchmarking effort (DFID 2005), and the WHO led Humanitarian Tracking System. Coming to an agreement on a means of classifying humanitarian situations is also identified as a priority activity in the UN Inter-Agency Standing Committee as part of the ongoing humanitarian reform efforts (OCHA 2006). In practice, the food security and humanitarian communities are working towards a consensus on classifying food security situations with increasing attention to humanitarian principles and accountability.

Lessons learned from the last decade of humanitarian crisis assessment and response experience highlight several key challenges that can help to inform the development of a global food security classification system. In summary, a classification system needs to enable:

- ***Technical Consensus:*** Humanitarian crises always involves multiple stakeholders, and their response is much more effective (whether for leveraging resources or coordination) if there is technical consensus on the situation analysis. Without common terminology and criteria, such consensus is very difficult to build, and can be undermined by non-technical agendas.

- ***Comparability Over Space*****:** In order to ensure the best use of limited resources, decision makers1 need to know how the severity of crisis situations compares from one place to another. Only when such a comparison can be made using commonly adopted criteria can humanitarian assistance be best directed to the people most in need.

- ***Comparability over Time*****:** Decision makers need to be able to understand the evolution of a crisis as it worsens or improves in order to increase, decrease, or change the strategic focus of the response as well as identify exit criteria.

- ***Transparency through Evidence-Based Analysis***: Analysts should be fully transparent in how conclusions are made, and decision makers should demand evidence to support findings. Without reference criteria the requirements for an adequate evidence base remain ambiguous.

- ***Accountability*****:** Without consensual standards in reference characteristics, "analytical" accountability is not possible. There is a strong need for reference characteristics to avoid errors of commission (i.e., exaggerating a crisis which can lead to over-response) or errors of omission (i.e., "missing" or understating a crisis which can lead to lack of response). The former can waste resources and undermine livelihoods, while the latter can lead to loss of human lives and chronic poverty. With reference criteria and evidence standards it is possible to enforce accountability from those responsible for analysis through peer review and public challenges to questionable findings.

- ***Effective Early Warning*****:** Decision makers need to know the potential severity, likelihood and timing of a pending crisis. Without a common technical understanding for describing crises, early warning messages can be ambiguous and go unheeded.

- ***More Strategic Response:*** Depending on the specific severity level of a given food security or humanitarian situation, there is a need for fundamentally different emphases in strategic response. Furthermore, the menu of options for mitigating a crisis needs to be fully evaluated, rather than resorting to a 'supply-side" driven response.

2.2 Review of Existing Food Security Classifications Systems

Classification systems are not new, as means of classifying famines date back to the 1880's Indian Famine Codes (Brennan 1984, Howe and Devereux 2004). In practice, classification of some type is necessary in order to make sense of situation analyses and communicate this to decision makers. Currently there are numerous ways in which food security and humanitarian situations are defined and classified. Agencies such as Oxfam, WFP, FAO GIEWS, MSF, FEWS NET, and many others have developed different systems for classifying food security crisis situations. Depending on the country, institutions involved, and persons doing the analysis, classification systems differ. Currently operational systems can be roughly divided into four broad types: "relative terms", "guiding definitions", "specific aspect" and "referenced threshold" classifications. A comprehensive review of the different systems is not presented here, but rather a brief review that identifies aspects of selected systems and illustrates their differences and weaknesses (see and Darcy and Hoffman 2003 for a comprehensive comparative review).

Classification Systems Based on "Specific Aspects"

Specific aspect classification systems are designed to distinguish meaningful categories of specific variables such as malnutrition, conflict, and coping strategies. One example is the MSF nutrition guidelines (2000), where stages of food insecurity are referenced against stages of coping strategies including Insurance Strategies, Crisis Strategies, and Distress Strategies. Other examples of a specific classification system are the conflict typologies developed by Samarasinghe, et al. (1999) for USAID and the Swiss Peace FAST conflict early warning system developed by Krummenacher et al (2001).

These systems are effective to for providing a more detailed and nuanced understanding of a particular variable. Bringing these specific-aspect classification systems together in an integrated system reveals complex inter-relationships between variables and allows for a more comprehensive and robust analysis.

Classification Systems Based on 'Relative Terms'

The most often used classification system utilizes adjective variations on terms such as "vulnerable", "food insecure", "hotspot", etc. to describe or classify different food insecurity situations. While striving to capture the overall essence of a crisis, this type of classification system is based on relative terms whose meaning is open to interpretation (even if the analysts themselves are clear about their meanings). This classification approach can have internal integrity when used within a particular country or context, enabling people or geographic areas to be identified and prioritized. Thus, they can be effective in drawing attention to priority areas within a given system, and imply a degree of severity.

These "relative terms" are generally not accompanied, however, by uniform reference characteristics -- thus opening their use to bias and leading to ambiguous or subjective categorization. As such, systems based on relative terms typically do not enable technical consensus and are not comparable over space and time. The ambiguity inherent in relative terms and the lack of clear reference characteristics often means that transparency and accountability are not achieved.

Classification Systems Based on 'Guiding Definitions'

Other classification systems utilize consistent "guiding definitions" to arrive at a classification. An example of guiding definitions are the current FEWS NET alert levels (FEWSNET, 2005), whereby geographic areas and countries are divided into levels of Emergency, Warning, Watch, Concern, or No Alert3. Associated with each of these terms is a definition that guides its consistent usage (Appendix E). Furthermore, the choice of classification terms is meant to evoke different actions, and the guiding definition has broad implications for decision making.

Another example of a system using guiding definitions is the Kenya Arid Lands Resource Management Project (ALRMP), where stages of Normal, Alert, Alarm, and Emergency are associated with guiding definitions (Appendix E). Additional examples of systems using guiding definitions are Oxfam's severity typology that uses Type 1, Type 2, and Type 3, which describes varying levels of food and nutrition crisis, and FAO's Global Information Early Warning System (GIEWS) which categorizes countries based on shortfalls of food supply and access.

While intended to provide guidance on their usage, the "guiding definitions" are generally descriptive and open to interpretati on, limiting the comparability over space and time. For example, some places may be classified as an "emergency" but are actually less severe than a different place being analyzed by different analysts, and vice-versa. The lack of clear reference characteristics associated with the guiding definitions limits the degree of comparability

of analysis over space and time and does not explicitly set targets for evidence-based analysis.

Classification Systems Based on 'Referenced Thresholds'

"Referenced Threshold" classification systems identify measurable indicators of food insecurity and set cut-off limits for determining various stages. Typically these "measurable" indicators are outcome oriented and based on anthropometry, including malnutrition and mortality. Examples of this approach are the Famine Magnitude Scale developed by Howe and Devereux (2004) and the Food Insecurity Classification developed by Darcy and Hoffman (2003).

The Famine Magnitude Scale of Howe and Devereux includes six levels of famine intensity including: Food Security Conditions, Food Insecurity Conditions, Food Crisis Conditions, Famine Conditions, Severe Famine Conditions, and Extreme Famine Conditions. Each level is referenced against specific malnutrition and mortality thresholds as well as general descriptors of livelihoods. This scale of intensity is further complimented with a magnitude scale that identifies various categories of magnitude according to mortality figures resulting from a crisis (Appendix F).

Darcy and Hoffman's classification of food insecurity includes four levels: Chronic Food Insecurity, Acute Food Crisis, Long-term Food Crisis, and Famine. Each of these levels is associated with specific malnutrition and mortality rates, as well as general food security indicators. This classification also associates each level with general responses.

Both of these initiatives explicitly strive to make the classification comparable over space and time by referencing the classification to internationally accepted, quantifiable criteria. The IPC builds on this approach of linking categories to measurable indicators and integrates a more comprehensive set of outcomes on lives and livelihoods. It also links these to response, early warning, analysis procedures, mapping conventions and population table conventions.

3. OVERVIEW OF THE IPC AND 'SITUATION ANALYSIS'

To address the key challenges noted previously the FSAU has developed the Integrated Food Security and Humanitarian Phase Classification (IPC) which builds on the strengths of the main types of classification systems and makes some unique contributions.

The IPC enables a composite analytical statement on food security and humanitarian situations, drawing together multiple indicators of human welfare and livelihoods to guide consistent and meaningful analysis. Use of the IPC builds upon, but is a separate process from, specific methodologies used to collect and analyze specific data sets. In this way the IPC enables **meta-analysis** of existing data and information from a variety of sources to summarize **Situation Analysis**.

The IPC helps meet the goals of the Humanitarian Charter (Sphere 2004), as well as numerous international conventions asserting human rights such as the World Food Summit Plan of Action (FAO 1996). The IPC is designed around the broad conceptual frameworks for food security analysis including the four pillars of access, availability, utilization, and stability; the UNICEF model of nutrition analysis (UNICEF 1996); and Sen's entitlement analysis (1981). Analytically, the IPC draws from a broad interpretation of a livelihoods approach (FSAU 2004) which includes both livelihood strategies, drawn from the Household Economy Approach (SCF-UK 2000), and livelihood assets, drawn from the Sustainable Livelihoods Approach (Frankenburger 1992, DFID 2001).

3.1 Analytical Logic of the IPC

The IPC is a means for classifying various stages of food security and humanitarian situations based on outcomes on lives and livelihoods. Outcomes are a function of both immediate hazard events along with underlying causes, and the specific vulnerabilities of livelihood systems (including both livelihood assets and livelihood strategies). The outcomes are referenced against internationally accepted standards, and their convergence substantiates a phase classification for any given area. Each phase is associated with a unique strategic response framework, while the outcome configuration for any given situation guides the development of the most appropriate responses within that framework. While the phase classification describes the current or imminent situation for a given area, early warning levels are a predictive tool to communicate the risk of a worsening phase.

Footnotes

[1]The term 'decision makers' is broadly used to include donors, implementing agencies, government officials, the media, and any other stakeholder that utilizes humanitarian information to inform action. Decision makers are distinct from 'analysts', whose responsibility it is to provide relevant, reliable, and timely information.

[2]'Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food for a healthy and active life', World Food Summit Plan of Action, 1996.

[3]FEWS NET is currently developing a revised version of this alert system.

3.2 Components of the IPC

The IPC integrates a suite of tools including the **Reference Table, Analysis Templates, Cartographic Protocols, and Population Tables**.

The IPC **Reference Table** guides analysis for both the **Phase Classification** and **Early Warning Levels**. The Phase Classification classifies geographic areas and social groups into one of five **Phases**—*Generally Food Secure, Chronically Food Insecure, Acute Food and Livelihood Crisis, Humanitarian Emergency and Famine/Humanitarian Catastrophe*. A set of **Key Reference Outcomes** are associated with each Phase to guide the analytical statement. These are drawn from internationally accepted standards, and represent a breadth of outcomes on human welfare and livelihoods that enable triangulation and ensure adaptability of the IPC to a wide variety of situations.

To facilitate linking information to action, each Phase is associated with a Strategic Response Framework that provides strategic, yet generic guidance for achieving three objectives:

(1) mitigate immediate negative outcomes
(2) support livelihoods
(3) address underlying/structural causes

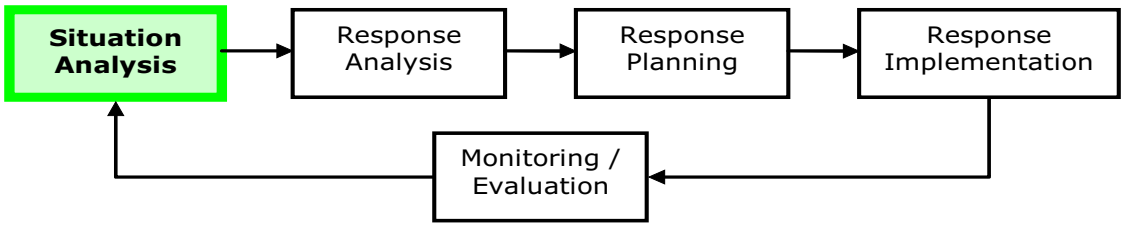
The Reference Table also includes protocols for **Early Warning**, which are divided into three levels: (1) *Alert*, (2) *Moderate Risk*, (3) *High Risk*. Each of these levels is associated with key information required for effective early warning: *Probability, Severity, Changes in Process Indicators, and Implications for Action* (expected duration of the Situation Analysis is included in the cartographic protocols).

The **Analysis Templates** are tables which organize key pieces of information in a transparent manner to substantiate a Phase Classification statement. They include additional important information to guide effective response. The **Cartographic Protocols** are a set of standardized mapping and visual communication conventions that effectively convey key information concerning situation analysis on a single map. The **Population Tables** are a means to consistently and effectively communicate population estimates by administrative boundaries, livelihood systems, and livelihood types.

3.3 Situation Analysis

The IPC enables consistent analysis and communication of Situation Analysis--a distinct yet often overlooked, or assumed, stage in the "analysis-response continuum". The diagram below illustrates its relationship with other broad stages, which include: Response Analysis, Response Planning, Response Implementation and Monitoring/Evaluation.

Figure 1: Situating 'Situation Analysis' within Broad Stages of the Analysis-Response Continuum



The overall objectives of each stage are:

- ***Situation Analysis:*** To identify foundational aspects of a given situation (e.g., severity, magnitude, causes, and others) which are most relevant and essential for an effective and efficient response and for which there should be broad technical consensus.
- ***Response Analysis:*** To identify the range of potential strategic responses that would be most effective and efficient in mitigating immediate outcomes, supporting livelihoods, and addressing underlying causes.
- ***Response Planning:*** To identify and put in place operational requirements and systems to enable an effective and efficient response, including logistics, financing, institutional partnerships, advocacy, training and others.
- ***Response Implementation:*** To implement multiple operational modalities towards an effective and efficient response.
- ***Monitoring / Evaluation:*** To detect changes in Response Implementation and Situation Analysis; to determine

degrees of desired impact from project output and overall impact perspectives; and inform adjustments in the response as necessary.

Each of these stages involves unique expertise, institutions, timing and outputs. Therefore, they warrant distinct protocols specifically designed to facilitate that stage and ensure minimal standards of information provision, rigour and consistency.

The IPC provides key protocols for Situation Analysis and provides the platform for subsequent Response Analysis, Response Planning, Response Implementation, and Monitoring/Evaluation. Although these latter aspects of the analysis-response continuum are not covered in this manual, they too warrant formation of basic protocols and standards. The Needs Analysis Framework (NAF 2005) is an example of a global effort to provide protocols for multi-sectoral and inter-agency Response Analysis (IASC 2005).

Situation Analysis is the foundation for planning and implementing subsequent interventions. Optimally there should be broad consensus from all stakeholders (UN agencies, NGOs, governments, donors, media, and affected populations) on Situation Analysis. Strong consensus on Situation Analysis leads to effective coordination, more leverage for resources, and more efficient response.

Key aspects of Situation Analysis include:

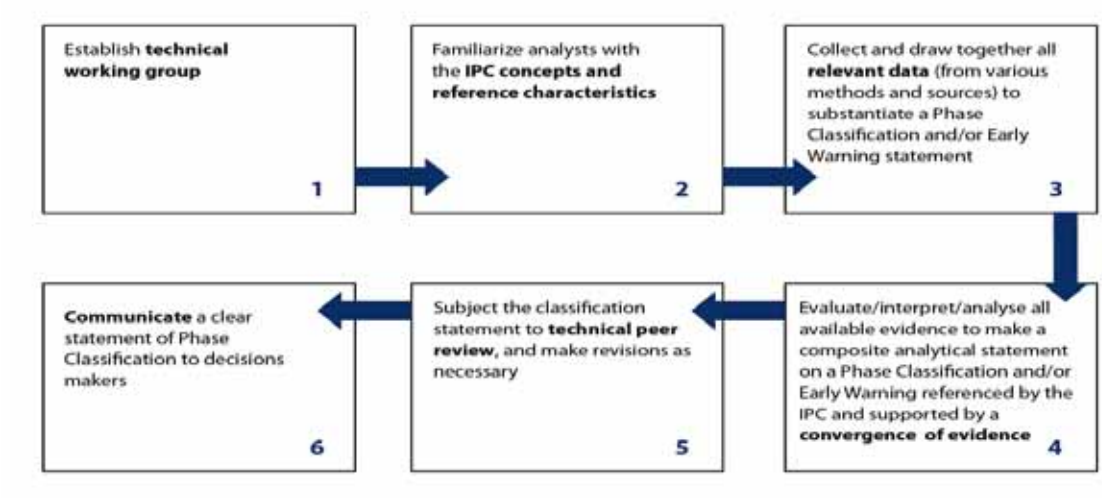
- ***Severity of the situation-*** How severe is the situation with regards to impacts on human lives and livelihoods?
- ***Geographic extent-*** What is the approximate geographic area in crisis? This should be defined according ***to*** actual spatial analysis, but can be guided by livelihood zones, administrative boundaries, agro-ecological zones, and other spatial markers.
- ***Magnitude (# people)-*** What is the estimated number of people experiencing various severity levels of crisis?
- ***Immediate causes-*** What are the direct, or proximate, causes of the crisis?
- ***Underlying causes-*** What are the underlying, distal, or structural causes of the crisis?
- ***Identification of general needs-*** What basic human needs and aspects of livelihood systems require support?
- ***Distinction of transitory or chronic situations -*** Is the underlying nature of an acute crisis generally food secure or chronically food insecure?
- ***Criteria for social targeting-*** What are the key criteria for targeting interventions to the most appropriate social groups?
- ***Projected trend***- Is the future projected trend for the crisis area expected to improve, worsen or stay the same for the foreseeable future?
- ***Confidence level of analysis***- What is the overall confidence level of the analysis as estimated by the analysts and based on a heuristic critique of the available evidence?

The IPC integrates all of these aspects of Situation Analysis in the Analysis Templates and communicates them with the Cartographic Protocols.

3.4 Steps in Using the IPC and its Adaptability to Diverse Information Systems

The general process of using the IPC involves six main steps (Figure 2). Adherence to these steps will enable evidence-based analysis, technical consensus, and linking information to action--all of which underpin the technical integrity of the IPC.

Figure 2: Steps to use the IPC



The IPC is designed to be adaptable to a wide variety of information systems and analytical approaches. In most countries that experience chronic food insecurity or recurrent humanitarian crises, an information system of some type typically exists. This may range from a very rigorous and comprehensive system to a minimal or informal system. The IPC is designed to build from existing information systems in any given country (much like an 'add-on' component), and help make the most rigorous, consistent, and meaningful use of that data and analysis. As such, the IPC can be equally applicable in 'data rich' and 'data poor' settings.

3.5 Unique Approaches of the IPC

The IPC incorporates many elements of the classification systems described previously, and makes new contributions including:

- Enabling the strategic goal of saving ***livelihoods*** through inclusion of the phase of Acute Food and Livelihood Crisis, and inclusion of livelihood assets in the Key Reference Outcomes and Strategic Response Framework and Analysis Templates.
- Integrating a number of different reference outcomes (in addition to nutrition indicators) to allow for greater adaptability to different situations, practicality given data limitations, and increased opportunities for triangulation.
- The explicit inclusion of additional key aspects of Situation Analysis such as causes, magnitude, projected trend, social group identification, underlying conditions, and confidence level of analysis.
- Putting in practice the concept of convergence of evidence to support a phase classification statement. This is practical due to the highly complex and dynamic nature of classifying food security and humanitarian situations as well as widely varying data availability.
- The inclusion of a comprehensive, yet generic and widely-applicable Strategic Response Framework associated with each phase.
- The inclusion of multi-sectoral aspects of humanitarian issues as both Key Reference Outcomes and in the Strategic Response Framework.
- Providing protocols for Early Warning and linking the various risk levels to the Phase classification system.
- Enabling increased rigour and transparency by supporting the classification with an evidence based approach using standardized Analysis Templates.
- The development of Cartographic Protocols to enable standardized and clear communication of complex analysis.
- The development of standard Population Tables that identify the number of people in crisis by administrative boundaries and livelihood systems.

4. IPC REFERENCE TABLE - TECHNICAL GUIDELINES

The IPC **Reference Table** (see Table 1) guides analysis for both the Phase Classification (Phase Classes, Key Reference Outcomes, and Strategic Response Framework), and the Early Warning Levels (Probability, Severity, Reference Hazards and Vulnerabilities, and Implications for Action). These technical guidelines review concepts and technical specifications for each of these components.

4.1 Phase Classes

Concepts

Given the relative urgency with which decisions need to be made in humanitarian situations, classifications need to be objectively distinguished from each other in order to evoke the relative urgency, general conditions, and appropriate response. Academic needs for highly nuanced food security situations are acknowledged, but to provide effective early warning and real-time analysis, the IPC focuses on "getting the big picture right" to ensure decision makers and stakeholders can clearly distinguish important differences in situations and respond appropriately.

The IPC classifies geographic areas and social groups into one of five phases: Generally Food Secure, Chronically Food Insecure, Acute Food and Livelihood Crisis, Humanitarian Emergency, and Famine/Humanitarian Catastrophe. The five phases are general enough to accommodate a wide range of causes, livelihood systems, and political/economic contexts; yet their distinction has profoundly different implications for action (including strategic design, urgency, and ethical imperative).

Inclusion of the complete spectrum—from generally food secure to famine—emphasizes that food security interventions are required at all phases (not just when an emergency breaks out), although the strategic focus will differ. The terminology of "phases" underscores the dynamic and evolving (either positively or negatively) nature of food security. Indeed, the IPC is equally applicable for situations that are deteriorating or improving, enabling comparative analysis of situations over time. Note, however, that changes from one Phase to another are not necessarily sequential (e.g., it is possible to skip from Generally Food Secure to Humanitarian Emergency).

Specifications

The IPC distinguishes five Phases of food security and humanitarian situations, each of which has a general definition in addition to specific Key Reference Outcomes.

The above descriptions highlight general distinctions between the phases. Each of these phases is associated with Key

Table 2: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - General Phase Description

Phase		General Description
1	Generally Food Secure	Usually adequate and stable food access with moderate to low risk of sliding into Phase 3, 4, or 5.
2	Chronically Food Insecure	Borderline adequate food access with recurrent high risk (due to probable hazard events and high vulnerability) of sliding into Phase 3, 4, or5.
3	Acute Food and Livelihood Crisis	Highly stressed and critical lack of food access with high and above usual malnutrition and accelerated depletion of livelihood assets that, if continued, will slide the population into Phase 4 or 5 and/or likely result in chronic poverty.
4	Humanitarian Emergency	Severe lack of food access with excess mortality, very high and increasing malnutrition, and irreversible livelihood asset stripping
5	Famine / Humanitarian Catastrophe	Extreme social upheaval with complete lack of food access and/or other basic needs where mass starvation, death, and displacement are evident

Reference Outcomes with absolute and relative thresholds. The reference outcomes provide an objective means for distinguishing phases and technically support a phase classification, thus enabling comparability and accountability in analysis. Unique to the IPC is the explicit inclusion of Acute Food and Livelihood Crisis (Phase 3) as a food security and humanitarian phase. The food security community has long acknowledged the importance of understanding livelihood dynamics and the links to food security (Frankenburger 1992, DFID 2001, WFP 2005). The IPC literally puts "livelihoods on the map", and draws attention to this critical phase which may not be the "CNN/BBC moment" with stark images of starvation, but nonetheless requires urgent interventions to prevent highly stressed food access from slipping into Humanitarian Emergencies. It also supports the stabilization/recovery from livelihood asset deterioration. Thus, Phase 3 is both an early warning precursor to an impending Humanitarian Emergency as well as a critical phase in its own right that warrants urgent livelihood support.

Although the terminology used to label each Phase is emotive and purposely selected to elicit calls for urgent action, the IPC strives to move beyond the use of these terms as adjectives and metaphors open to relative interpretations by various interests. Rather, each phase is explicitly linked to a set of consistent, internationally accepted, and objective criteria. Each term therefore has a specific technical meaning that becomes a common currency for analysts and other stakeholders (governments, decision makers, implementing agencies, donors, media, etc.).

4.2 Key Reference Outcomes

Concepts

The Phase classification is a composite analytical statement based on a convergence of evidence of **Key Reference Outcomes** representing operative common denominators of human welfare and livelihoods. For each IPC Phase there is a set of Key Reference Outcomes which cover a breadth of outcomes on human well being, including: *Crude Mortality Rate, Wasting, Stunting, Disease, Food Access/ Availability, Dietary Diversity, Water Access/Availability, Destitution/Displacement, Civil Security, Hazards, Coping, Structural Conditions, and Livelihood Assets*. Although the reference outcomes are interpreted and adjusted to fit the IPC phases, they are drawn from well recognized international standards and other classification systems.

The selection of individual reference outcomes for inclusion in the IPC is based on the following **criteria**:

- ***Outcome Indicators rather than Process Indicators:*** This is a critical distinction which gives the IPC comparability over space and time as well as accountability. The IPC Reference Outcomes are based on outcome indicators of resulting impact. Irrespective of the uniqueness of a given situation (the livelihood system, the socio-economic context, the history, the type of hazard, etc.), the international community can generally agree on which outcomes food security and humanitarian interventions should avoid, and which outcomes to work towards. The phase classification reference outcomes are as much as possible oriented around outcome indicators, although even these represent different stages of outcomes (on an individual scale, mortality, for example, would come after distress coping strategies).

  Process indicators represent the dynamics that lead to a particular outcome. These include a wide range of indicators such as market prices, climate indicators, crop production, livestock conditions, and many others. While process indicators are essential for analysis, they work together in a highly dynamic and integrated manner and their ultimate impact (outcome) depends on the nuances of a given situation including its livelihood systems, socio-economic context, history, type of hazard, etc. For example, a 50 percent increase in the market price of milk (a process indicator) has a completely different outcome in a livelihood system that produces milk than in a livelihood system that is a net purchaser of milk, potentially being beneficial for the former and detrimental for the latter.

  While outcome indicators provide direct evidence for a phase classification, the use of process indicators as indirect evidence can also be used to substantiate a phase classification (see the next section on usage for further explanation).

- ***Breadth of Humanitarian Outcomes:*** The reference outcomes include a breadth of outcomes that are either directly or indirectly related to food security. The IPC emphasizes food security analysis, but recognizes that it is impossible to separate severe food insecurity from associated sectoral crises in the fields of health, water, sanitation, shelter, and others. There is a highly dynamic interplay between these sectors, especially as situations deteriorate—for they often co-exist and any stress on one most likely leads to stresses on others. Thus, the IPC emphasizes food security analysis, but integrates other humanitarian concerns. The IPC is not meant, however, to substitute for more refined analysis of any particular sector.

- ***Fewest Possible:*** While aiming to include a broad spectrum of humanitarian outcomes, the reference outcomes are selected to be as few as possible. Keeping their numbers to a minimum contributes to greater consistency

and simplicity in analysis. Indeed, the reference outcomes are not meant to be full descriptions of all the dynamics occurring in a given Phase, but are identified only for their salient ability to signify Phase severity.

- ***Lives and Livelihoods:*** The reference outcomes include outcomes on both human lives and livelihoods. While saving lives is an immediate strategic objective, relief and response should mitigate the vulnerability of individuals and communities to future hazards. Without strategic attention given to supporting livelihoods, people may slide into chronic poverty and perpetual high vulnerability to future hazards, and thus become unable to meaningfully contribute to national development (Sphere 2004 and DFID 2001). Supporting livelihoods is a strategic goal in itself.

  The IPC integrates livelihoods into the reference outcomes through the basic framework of the Sustainable Livelihoods Approach which identifies five main livelihood capitals: human, financial, social, physical, and natural. One current and future challenge for the IPC is that the status of these capitals, which can be legitimately be seen as outcomes in their own right, are difficult to measure in a consistent and objective manner. Developing objective indicators for analysis of livelihood assets is an area for future development.

- ***Measurable/Practical:*** Notwithstanding the challenges related to livelihoods noted above, the reference outcomes are selected based on the ability to objectively measure them in a reasonably practical manner. While the reference outcomes are as objective as possible (e.g., anthropometric thresholds), there are still some qualitative descriptions (e.g., displacement levels). For each of the reference outcomes, there is a range of specific methodologies that provide the objectivity and rigour for that particular reference characteristic.

Use of the reference outcomes to substantiate a Phase Classification is based on:

- ***Current or Imminent Outcomes:*** The Phase Classification is based on reference outcomes that are either currently present in a given situation or imminent. Imminent outcomes include the notions of immediate/foreseeable future as well as the level of confidence that they will occur. Inclusion of imminent in the definition of outcomes is important in ensuring timely response to ensure appropriate action is taken ideally before negative outcomes occur..

- ***Convergence of Evidence:*** Although the IPC strives for objectivity and consistency, the extremely complex nature of food security and humanitarian analysis makes the strict application of single indicator thresholds both impractical and technically questionable in their application to a wide array of situations. To overcome this, the IPC supports a Phase classification statement based on convergence of evidence from multiple sources (not limited to single assessment findings) as evaluated by analysts. Analysts use the reference outcomes as a guide, but ultimately make a classification statement based on the convergence of evidence from all available sources. This can include direct and/or indirect1 evidence of outcomes from a variety of sources and process indicators, depending on data availability and practicality.

  This evidence based approach is not only practical in a wide range of situations, it also focuses the burden of proof on the analysts, who must demonstrate/defend to all stakeholders (as if in a court of law) the validity and relevance of evidence in support of a classification statement, even if that statement is based on their "own best judgment". Such a process enables accountability and accessibility for critique. An additional component of the IPC, the Analysis Templates, guides the organization of the pieces of evidence to facilitate analysis and increase the transparency of conclusions (see further discussion below).

- ***Mixed Signals of Indicators:*** Given the complexity and diversity of food security and humanitarian situations, individual indicators may not consistently support the same Phase Classification. While this is a practical reality, the approach of the IPC is to make these differences explicit, examine them in their broader context and strive to make an overall Phase Classification statement using a convergence of evidence. Any notable deviations for particular indicators will be highlighted in the Analysis Templates, and should be explained.

- ***Direct and Indirect Evidence:*** The Phase Classification can be substantiated with both direct and indirect evidence. Direct evidence includes data sources and methods that specifically indicate the key reference outcomes associated with each Phase. Indirect evidence, however, includes proxy indicators that substantiate the key reference outcomes without direct measurement. Akin to corroborating evidence, indirect evidence typically cannot stand on its own, but can be used to substantiate a Phase Classification. Even though indirect evidence is one step removed from the key reference outcomes, they are still valid and useful in supporting the Phase classification statement, albeit with lower confidence than direct evidence. For example, direct evidence of GAM could include a random sample nutrition survey, whereas indirect evidence could include marked increases in attendance at therapeutic feeding centers.

The classification itself, however, is stronger if referenced against outcomes which can be widely agreed upon

and are applicable in a wide range of situations. For a comprehensive listing of different types of process and outcome indicators, see FAO/FIVIMS 2002 and Riely et al. 1999.

- ***Adaptability:*** With the emphasis on convergence of evidence rather than strict adherence to thresholds, the IPC can accommodate a complex range of situations while maintaining reasonable comparability. Indeed, the reference outcomes listed for each Phase are merely guides. They do not all necessarily need to exist or coincide in a given situation, but are listed to provide the breadth of outcomes and to enable triangulation (for example, there could be prevailing peace during a Humanitarian Emergency). As an important distinction from a strict interpretation of thresholds, the IPC reference outcomes often include both absolute cut-offs as well as changes from normal and trend. While this approach opens up the classification statement to interpretation by analysts, any significant deviation from the reference outcomes would be evident and would demand a technical explanation to convince stakeholders.

- ***Technical Consensus:*** The Phase classification statement is not only supported by a convergence of evidence, but also, due to multi-faceted data sources, methods involved, and required input from multiple institutions, it is also supported by technical consensus. Making the meaning of evidence clear and increasing its accessibility allows technical consensus to be reached through a process of rigorous and technically informed debate.

Specifications

While the IPC strives to identify objective and internationally accepted thresholds that correspond to each Phase, some outcomes are more objective than others. The Reference Table (Table 1) illustrates the collection of reference characteristic thresholds for each Phase. Listed below is an explanation of each reference characteristic as it relates to the IPC Phases.

Crude Mortality Rate

- ***Importance:*** Crude Mortality Rate (CMR) is the "mortality rate from all causes for a population" (WFP and CDC 2005, p. 220). It is measured by the formula: (number of deaths during a specific time period) / (number of persons at risk of dying during that period) x (time period) (WFP and CDC 2005). The under 5 mortality rate (U5MR) is calculated the same way, however the reference thresholds differ from the CMR. The Sphere Handbook notes that CMR is "…the most specific and useful health indicator to monitor in a disaster situation" (Sphere 2004, p. 260). In many ways it is the ultimate outcome indicator of extreme food insecurity and humanitarian crises.

- ***References/Sources:*** In emergency situations CMR and U5MR are usually expressed as the number of deaths / 10,000 people / day. The Sphere Handbook notes that, "A doubling of the baseline CMR indicates a significant public health emergency, requiring immediate response" (Sphere 2004 p. 260). UNICEF's State of the World's Children (2003) notes that for Sub-Saharan Africa the baseline CMR is 0.44 and U5MR is 1.14. It further identifies emergency thresholds to be 0.9 CMR and 2.3 U5MR (UNICEF 2003). The United Nations Standing Committee on Nutrition notes, "The CMR and U5MR trigger levels for alert are set at 1/10,000/day and 2/10,000/day respectively. CMR and U5MR levels of 2/10,000/day and 4/10,000/day respectively indicate a severe situation" (SCN 2004 p. 37). On the Howe and Devereux "Famine Magnitude Scale" (2004), CMR rates for levels of "Famine" and "Severe Famine" are set at >=1 but <5/10,000/day and >=5 but <15/10,000/day, respectively. Muireann Brennan and Oleg Bilukha from CDC recommended CMR levels for humanitarian emergency to be from 1 to 2/ 10,000/day, and greater than 2/10,000/ day for famine conditions (Brennan and Bilukha of CDC, April 11 2006).

- ***Explanation of IPC Reference Thresholds:*** The IPC integrates CMR in all Phases. The IPC is generally consistent with the sources cited above, with some modifications to fit the Phases. The criterion of "greater than two times the baseline" is incorporated in Phase 4, as are the dynamics of "greater than usual" and "increasing" (which apply only when situations are deteriorating). These two latter criteria provide further references that can be used in conjunction with absolute thresholds to ensure flexibility in many situations.

Table 3: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Crude Mortality Rate

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Crude Mortality Rate # deaths per 10,000 people per day		CMR <0.5 U5MR<=1	CMR < 0.5 U5MR<=1	CMR 0.5 - 1 increasing U5MR 1-2	CMR 1-2, increasing, or >2x reference rate U5MR >4	CMR > 2 (example: 6000 deaths/ 1,000,000 people/ 30 days)

- ***Limitations:*** Despite its direct relationship to extreme food insecurity, it may be difficult to measure CMR in real time during an emergency. Challenges include: (1) shifting base populations due to dynamic in and out migration, (2) small incidences with high variability, (3) the high potential for as yet "unknown" status and (4) other complicating factors (see CDC 2005 for fuller explanation of calculating CMR).

- ***Potential Methods:*** The best method for measuring mortality is through a well functioning surveillance system which captures most deaths in facilities and the community. This method allows trends to be analyzed on a daily basis, whereas a one time census or a survey would have to be repeated over time. Ideally, a well functioning mortality surveillance system would be complemented by a survey which could serve as a "reality check".

Acute Malnutrition

- ***Importance:*** Wasting is defined as weight-for-height index (w/h) less than -2 Z-scores. Global acute malnutrition rates include the percent of the population that is < -2 Z-scores plus cases of oedema. Acute malnutrition is a direct outcome indicator of recent changes in nutritional status. High or increasing levels of acute malnutrition in a population indicate current or recent stress at individual or household level. Young et al. (2005) review the importance and role of nutrition information in humanitarian classification systems.

- ***References/Sources***: The UN Standing Committee on Nutrition (SCN) states that, "A prevalence of acute malnutrition between 5-8% indicates a worrying nutritional situation and a prevalence of greater than 10% corresponds to a serious nutrition situation" (SCN 2004 p. 37). WHO provides guidance as follows: low (<5%), medium (5-9%, high (10-14%), and very high (>=15%) (quoted from FAO 2005, p 47). Howe and Devereux (2005) reference "Famine Conditions" as 20-40%, and "Severe Famine Conditions" as >40%.corresponds to a serious nutrition situation" (SCN 2004 p. 37). WHO provides guidance as follows: low (<5%), medium (5-9%, high (10-14%), and very high (>=15%) (FAO 2005, p 47). Howe and Devereux (2005) reference 'Famine Conditions' as 20-40%, and 'Severe Famine Conditions' as >40%.

- ***Explanation of IPC Reference Thresholds:*** The IPC incorporates acute malnutrition in all Phases, and is generally consistent with the sources cited above. A key reference threshold is that for Humanitarian Emergency, where wasting is >15%. Making adjustments to fit the IPC phases, the reference threshold for Famine/ Humanitarian Catastrophe is >30%, which is halfway between the thresholds used by Howe and Devereux for "Famine" and "Severe Famine" conditions. Importantly, the IPC includes not just the absolute values of wasting levels to support a Phase Classification, but, for deteriorating situations, also includes the notions of "increasing" and "greater than usual"—thus enabling a more contextual analysis of malnutrition rates and their meaning.

Table 4: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Acute Malnutrition

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Acute Malnutrition (w/h <-2 z –scores)		<3%	>3% but < 10%, usual range, stable	10-15%, > usual, increasing	>15%, > usual, increasing	>30%

- ***Limitations:*** While wasting is a direct outcome of nutritional and health status, limitations in its use and interpretation include: (1) wasting can be a late outcome indicator of a crisis, and response mechanisms based on wasting can be too late for meaningful action, and (2) in populations where levels of acute malnutrition are high outside times of acute crisis, levels during periods of crisis can be difficult to interpret, and (3) there is on-going debate within the nutrition field as to whether wasting rates are comparable across population groups of different physiological structure (UNICEF forthcoming, Bradbury 1998).

- ***Potential Methods:*** The most common method of estimating levels of acute malnutrition levels at population level is through random, representative sampling methods. A supporting method is the Mid-Upper Arm Circumference (MUAC) measurement. Other indirect evidence can include health clinic data, admissions to therapeutic feeding centers, expert observation, and others.

Stunting

- ***Importance:*** Stunting is defined as <-2 Z scores height for age. The CDC defines stunting as, "Growth failure in a child that occurs over a slow cumulative process as a result of inadequate nutrition and/or repeated infections" (WFP and CDC 2005). As such, levels of stunting indicate overall poverty and chronic malnutrition, of which food insecurity can be a contributing factor.

- ***References/Sources:*** WHO provides the following guidance for interpreting stunting prevalence as a % with height for age < -2 Z scores: low (<20%), medium (20-29%), high (30-39%), and very high (>=40%) (FAO 2005 p47).

- ***Limitations:*** In addition to normal challenges with regards to survey sampling and data collection, stunting poses an additional challenge in that it requires the subject's age to be known. For many societies this information is not readily available or can incorrect due to lack of records.

Table 5: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Stunting

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Stunting (h/age <-2z scores)		<20%	20-40%	NDC	NDC	NDC
NDC – Not a Defining Characteristic						

- ***Potential Methods:*** Stunting is best measured through population surveys.

- ***Explanation of IPC Reference Thresholds:*** The IPC only includes stunting for the Phases of Generally Food Secure and Chronically Food Insecure. This is because it is only for these Phases that stunting is a distinctly defining characteristic—for Phases 3, 4, and 5 measurements of wasting are more appropriate as those situations are more dynamically changing. The reference threshold of >20% is used to classify areas that are Chronically Food Insecure.

Disease

- ***Importance:*** In the conceptual model of causes of malnutrition developed by Helen Young (1998) and consistent with MSF (2002) and ACF (2002), "disease", along with "inadequate food intake", is a direct cause of malnutrition. This is also conceptually related to the "utilization" pillar of food security analysis in that the physiological ability of the human body to effectively utilize food can be directly undermined in the presence of disease. In addition to physiological effects, from a household economy perspective the presence of disease can have a direct negative impact on food access and availability. This includes the: (1) diversion of financial resources for health care, (2) removal of productive labor from the household either by the sick person or by caregivers and (3) the potential for social exclusion or marginalization. A number of studies have demonstrated strong linkages between HIV/AIDS and food security (Drimrie 2002, Drinkwater 2003, Haan et al. 2003, UNAIDS 1999, FAO 1995).

- ***References/Sources:*** While the links between disease and food security clearly warrant its inclusion in the IPC, identifying prevalence thresholds will depend on the particular disease in question (e.g., HIV/AIDS, cholera, measles, dysentery, etc.) Epidemiologists make general distinctions between endemic, epidemic and

pandemic outbreaks, which provide general guidance for the IPC. When there are a fairly steady number of people getting sick all the time, and when there is a balance between the host-environment-agent triad, the disease is said to be endemic. When the balance is shifted in favor of the organism and there is a rapid increase in cases, the disease is called epidemic (Nordberg 1999). A disease becomes pandemic if it is spread over a wide geographic area or infecting a large portion of the population.

- ***Explanation of IPC Reference Thresholds:*** The IPC incorporates epidemic and pandemic in Phase 3, 4 and 5. It uses the general terms of epidemic and pandemic to distinguish relative severity levels in populations. These are only general terms whose meaning needs to be interpreted according to the particular disease in question and its implications for food security and humanitarian analysis. Individual diseases have specific thresholds of severity and magnitude to guide analysis for that disease.

Table 6: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Disease

Reference Characteristic/ Outcome / PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
	1	2	3	4	5
Disease	NDC	NDC	Epidemic outbreak; increasing	Pandemic outbreak	Pandemic outbreak
NDC – Not a Defining Characteristic					

- ***Limitations*:** Due to the emphasis of the IPC on food security and humanitarian analysis, disease is analyzed according to its impacts on these overall concerns. Each particular disease has its distinct levels of "emergency" which can vary widely. Even a few new cases of polio, for example, could be considered an emergency from a public health perspective, although this is not likely to have profound effects on food security. As such, the IPC does not replace detailed analysis of public health implications for individual diseases.

- ***Potential Methods:*** Individual diseases require specific methods for data collection and analysis. Potential sources include routine and specific surveillance systems, health surveys, health clinic data and expert observation.

Food Access / Availability

- ***Importance:*** Food access and availability, while not as direct a measure of human condition as anthropometric indicators, are directly linked to human health outcomes. Using food access and availability as a criteria is consistent with the "entitlement theory" of Sen (1981). However, as noted by Webb et al. (2006), the actual measurement of household food access and availability is very difficult to do. As reference characteristics, access and availability are not distinguished—the question is whether or not (and with what trade-offs) the minimum kcal intake is met. In order to understand the nature of a crisis and for programming purposes, it is critical to distinguish whether gaps are due to an availability or access problem. This analysis should be included in the IPC Analysis Templates (see section 5. IPC Supporting Tools).

- ***References/Sources***: A common reference for measuring adequate food access and availability for individual consumption is 2,100 kcal per person per day (SPHERE 2004). This reference characteristic draws on globally accepted norms and on current ongoing initiatives on poverty lines (Lanjouw 1989) and "expenditure gaps" and "food gaps" as used in Household Economy Analysis (FSAU 2006).

- ***Explanation of IPC Reference Thresholds:*** : The IPC integrates food access and availability in all Phases, with specific reference thresholds identified. While 2,100 kcal is used as a reference, other important distinctions are included in the IPC that guide classification. These include stability and whether or not households have to strip assets in order to achieve 2,100 kcal.to strip assets in order to achieve 2,100 kcal.

- ***Limitations*:** An overemphasis on consumption levels of kcal can lead to overlooking the nutritional quality of food intake. This is partly offset by examining dietary diversity, which is also included in the IPC. The reference threshold of 2,100 kcal is a generalized figure that does not represent the specific needs of varying age groups, gender, and levels of activity. Indeed, some analysts suggest that that the reference threshold of 2,100 kcal is misleading and cannot be generalized to various population groups and situations. Rather, the emphasis should be on comparing the normal/typical kcal intake of a population group to that during times of stress. As will other indicators in the IPC, the absolute threshold is merely provided as rough guidance, and conclusions on the Phase levels need to be triangulated with other reference outcomes.

- ***Potential Methods***: Food access and availability is typically analyzed for various population groups including wealth groups, social groups, livelihood groups etc, as opposed to individuals. Because food access and availability results from a complex interaction of multiple variables, it is best examined in a holistic manner that looks at the sources of food, sources of income, expenditure patters, and coping strategies—all at the level of a particular livelihood system. The Household Economy Approach (HEA) (SCF-UK 2000) is one such method. Alternatively household surveys and integrated macro-indicator analysis are also used. Swindale and Bilinsky (2006) have recently developed a method to examine food access that draws from qualitative indicators of household food stress, called the Household Food Insecurity Access Scale (HFIAS). Indirect evidence can be retail sales volumes for local markets, market prices of staple commodities, crop production, domestic imports, and many others that may affect purchasing power, social access, and /or supplies of staple foods (see FAO/ FIVIMS 2002 for a more comprehensive listing of indicators related to food access and availability).

Dietary Diversity

- **Importance:** Swindale and Bilinsky (2005) of the Food and Nutrition Technical Assistance (FANTA) note that, "Household dietary diversity - the number of different food groups consumed over a given reference period - is an attractive proxy indicator for the following reasons:
  - A more diversified diet is an important outcome in and of itself. more diversified diet is an important outcome in and of itself.
  - A more diversified diet is associated with a number of improved outcomes in areas such as birth weight, child anthropometric status, and improved hemoglobin concentrations.
  - A more diversified diet is highly correlated with such factors as caloric and protein adequacy, percentage of protein from animal sources (high quality protein), and household income."

A recent comprehensive survey of food security and nutrition in Darfur led by WFP effectively demonstrated the value of dietary diversity as a component of food security analysis (WFP 2005).

- ***References/Sources***: Swindale and Bilinsky (2005) identify twelve main food groups used to calculate a dietary diversity score: cereals, roots and tubers, vegetables, fruits, meat/poultry/offal, eggs, fish and seafood, pulses/legumes/nuts, milk and milk products, oils/fats, sugar/honey, and miscellaneous. Research conducted at FSAU found that three or less food groups indicates a critical situation (FSAU 2005).

- ***Explanation of IPC Reference Thresholds:*** The IPC makes general distinctions of dietary diversity for Phase 2 and 3, as chronic and acute dietary diversity deficits, respectively. For Phase 4, a numeric reference threshold of regularly less than 2-3 or fewer food groups consumed is used.

- ***Limitations*:** Measures of dietary diversity typically do not include quantities consumed. There can also be significant fluctuations over time in consumption of food groups. This poses challenges in extrapolating survey data to arrive at broad conclusions about the food security status.

Table 8: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Dietary Diversity

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Dietary Diversity		Consistent quality and quantity of diversity	Chronic deficit in dietary diversity	Acute dietary deficit	Regularly 2 to 3 or fewer main food groups consumed	NDC
NDC – Not a Defining Characteristic						

- ***Potential Methods***: Dietary diversity can be measured through nutrition surveys, and estimated through focus group discussions, household interviews and market trader interviews.

Water Access / Availability

- ***Importance:*** "Water is essential for life, health, and human dignity…In most cases, the main health problems are caused by poor hygiene due to insufficient water and by the consumption of contaminated water" (Sphere 2004 p. 63). Thus water access and availability is both a direct indicator (through basic survival levels) and indirect indicator (by affecting the adequate utilization of food) of Phase severity.

- ***References/Sources***: The Sphere Handbook identifies water requirements for different basic survival needs: survival needs for water intake (2.5-3 litres per day), basic hygiene practices (2-6 litres per day), basic cooking needs (3-6 litres per day), and total combined basic water needs (7.5-15 litres per day). These values depend on a number of local factors including climate, individual physiology and social/cultural norms.

- ***Explanation of IPC Reference Thresholds:*** The IPC integrates water access and availability at all Phases, with specific reference thresholds identified. The IPC generally follows the Sphere guidelines for total basic needs, while adjusting these levels to fit the Phase classes. An additional key criterion for Phase 1 and 2 is the stability of water supplies.

- ***Limitations*:** The basic water requirements listed in the IPC are for human usage only. For pastoral societies in particular, water requirements for livestock would significantly increase these amounts, and are necessary to consider for responses. Further, basic water access and availability does not take into consideration other factors such as time and distances required to fetch water. For further key indicators of water supply adequacy (see Sphere 2004 p. 63).

Table 9: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Water Access/Availability

Reference Characteristic/ Outcome / PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
	1	2	3	4	5
Water Access/ Avail	Usually adequate, Stable (>15 ltrs pppd)	Borderline adequate, unstable (>15 ltrs pppd)	7.5 – 15 ltrs pppd; meeting minimum needs through asset stripping	<7.5 ltrs ppp day (human usage only)	< 4 ltrs ppp day

- ***Potential Methods***: Because water sources are fewer and more streamlined than food sources, it is relatively easier to estimate either the amounts used by individual households (through surveys or focus group interviews) or communities that all share the same water source (e.g., boreholes, water trucking, and damns) by estimating the amounts available from the source versus the community population. This latter method, however, must consider purchasing power.

Destitution / Displacement

- ***Importance:*** While not synonymous, both destitution and displacement have strong associations with severe food insecurity, as both a result and a cause. When faced with extreme food shortages families may migrate or may be forced to sell all assets, leaving them destitute. As well, people who are forcibly displaced through conflict or a severe natural hazard such as a flood or earthquake typically lose access to their normal food sources.

- ***References/Sources***: Destitution is a state of extreme poverty that results from the pursuit of unsustainable livelihoods. This means that a series of livelihood shocks and/or negative trends or processes erodes the asset base of already poor and vulnerable households until they are no longer able to meet their minimum subsistence needs, they lack access to the key productive assets needed to escape from poverty, and they become dependent on public and/or private transfers." (Devereux 2003 p11). Displacement is defined as "Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters..." (UNHCR 2005). (See also Dasgupta 1993).

- ***Explanation of IPC Reference Thresholds:*** Destitution/displacement is included in the IPC at Phases 3, 4, and 5. While it is difficult to quantify this variable, given the wide variety of situations, the IPC makes useful qualitative distinctions between: "emerging and diffuse" (which includes the beginning stages and a spatial pattern that still includes integration with other members of society); "concentrated and increasing" (which is the stage at which populations are converging on particular localities (e.g., camps and towns), creating new health, protection, and other social problems in addition to limiting options for food access/availability; and "large scale and concentrated" (which is a qualitative description whose interpretation will depend on the local context).'large scale and concentrated' (which is a qualitative description whose interpretation will depend on the local context).

– ***Limitations*:** Often times when families migrate they split up, with the women and children becoming destitute and displaced while men will search for food, labor, and (in the case of pastoralists) grazing opportunities. Attention to displaced populations should not obfuscate the situation of those people not visible in camps.

Table 10: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Destitution / Displacement

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Destitution /Displacement		NDC	NDC	Emerging/diffuse	Concentrated/ increasing	Large scale, concentrated
NDC – Not a Defining Characteristic						

– ***Potential Methods***: Destitution and displacement can be analyzed through household surveys, key informants, camp registrars, aerial surveys, and other monitoring systems.

Civil Security

– ***Importance:*** Like destitution and displacement, civil insecurity can be both a cause and a result of food insecurity. When resources become scarce some populations may turn to violent options to ensure adequate access. The impacts of civil insecurity are felt directly through destruction or looting of food supplies, disruption of market channels and direct loss of life and bodily impairment.

– ***References/Sources:*** Samarasinghe et al. (1999) outline a conflict typology that includes the level of violence and the nature of the conflict (e.g., civil war, insurgency, protracted social conflict, revolutionary war, and war of succession). The level of violence is divided into two types: (1) High Intensity Conflict (violence characterized by fatality rates averaging >1000/year or extensive (>5%) population dislocation or both), and (2) Low Intensity Conflict (violence characterized by fatality rates <1,000/year (but >100), and <5% population dislocation. If either threshold is exceeded it is counted as a high intensity conflict). Kummenacher and Schmeidl (2001) describe details of conflict monitoring as used by the Swiss Peace Foundation. (See also FSAU (2006)

– ***Explanation of IPC Reference Thresholds:*** The IPC directly integrates the typology provided by Samarasinghe et al. with a few additions, including: (1) unstable and disruptive tensions to describe Phase 2, and (2) the distinction between limited spread and widespread conflict, the former being associated with a relatively small area and particular social group and the later being associated with a large and changing geographic area and multiple social groups.

– ***Limitations*:** Although conflict has direct linkages with negative outcomes on food security, it is also important to recognize that often times some groups benefit from conflict, however unacceptable that may be.

Table 11: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Civil Security

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Civil Security		Prevailing and structural peace	Unstable, disruptive tension	Limited spread, low intensity conflict	Widespread, high intensity conflict	Widespread, high intensity conflict

– ***Potential Methods***: In as much as conflict is defined by the fatality rates and population dislocation, this information can be gained from morality surveys, key informants, official statistics, or observation of burial sites. Field-based conflict monitoring systems, surveys, and key informant descriptions can be used as well.

Coping Strategies

- ***Importance:*** Coping strategies are the resulting behaviors of individuals, households, or communities in the face of stress. The ability to cope with a shock is directly related to the capacity of an individual, household, or community to resist the effects of a hazard or shock. Coping levels are both an observable indicator of severity and an outcome in their own right, as some types of coping involve loss of livelihood assets.

- ***References/Sources***: Although coping strategies vary widely and have different implications, MSF Holland identifies three main levels including: (1) insurance strategies (reversible coping, preserving productive assets, reduced food intake, etc.), (2) crisis strategies (irreversible coping, threatening future livelihood, sale of productive assets, etc.), and (3) distress strategies (no coping, starvation and death, and no more coping mechanisms) (MSF 2005). One approach to quantify levels of coping is the Coping Strategies Index (CSI) developed by CARE and WFP. "The CSI measures behavior: the things that people do when they cannot access enough food. There are a number of fairly regular behavioral responses to food insecurity – coping strategies for short – that people use to manage household food shortage. These coping strategies are easy to observe. It is quicker, simpler, and cheaper to collect information on coping strategies than on actual household food consumption levels" (Maxwell et al. 2003).

- ***Explanation of IPC Reference Thresholds:*** The IPC directly incorporates the MSF typology of coping for Phases 2, 3, and 4. The CSI is also incorporated noting that analysis of CSI data is most effective when using longitudinal data sets to detect changes over time as opposed to analysis the absolute (FSAU 2006).

- ***Limitations*:** Because the CSI is most rigorously applied when analyzed against reference figures, it is necessary to conduct the rapid CSI assessment several times during the course of a crisis. Also, because coping strategies are typically influenced by livelihood systems, it rigour is improved by developing a CSI specific to main livelihood types (FSAU 2006). However since the CSI is contextual and is best referenced to itself (baseline), the comparability across space is limited, yet the degrees of change from the baseline are effective indicators of food security.

Table 12: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Coping

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Coping		NDC	Insurance strategies	Crisis Strategies; CSI > reference increasing	Distress strategies; CSI significantly > reference	NDC
NDC – Not a Defining Characteristic						

- ***Potential Methods***: The CSI is usually a rapid household survey which can be a stand alone or part of a larger survey such as a nutrition survey.

Hazards

- ***Importance:*** As discussed in Section 4.4, Downing et al. (2001) define Hazard as a threatening event, or the probability of occurrence of a potentially damaging phenomenon within a given time period and area. Exposure to and the effects of hazards, as well as vulnerability, lead to risk of negative outcomes.

- ***Reference/ Sources:*** The persistent threat or occurrence of hazards can lead to successive shocks to systems, making it difficult to recover and achieve sustained food security. Hazards come in many forms (natural: hurricanes, floods, drought, earthquakes, cyclones, tsunamis, etc.; and socio-economic: market and trade fluctuations, policy shifts, conflict, etc.).

- ***Explanation of IPC Thresholds:*** As a Key Reference Characteristic of the Phase Classes, hazards are important in distinguishing differences between **Generally Food Secure** and **Chronically Food Insecure**. Note, hazards are also used as a Key Reference Characteristic of the Early Warning Levels described in Section 4.4. Because of the multiple types and potential effects of hazards, the IPC uses a general description to guide the use of hazards to distinguish Phases, making a distinction between *low probability of hazards with low vulnerability and recurrent hazards with high vulnerability*.

- ***Limitations:*** A challenge for hazard analysis is to not merely report on the event, per se, but to analyze the impact of that event based on the vulnerabilities of a particular livelihood system. Further, even within a single geographic area a given hazard is likely to have different effects on various social groups. impact of that event based on the vulnerabilities of a particular livelihood system. Further, even within a single geographic area a given hazard is likely to have differential effects on various social groups.

Table 13: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Hazard

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Hazard		Moderate to low probability of, and/or vulnerability	Recurrent , with High vulnerability	NDC	NDC	NDC
NDC – Not a Defining Characteristic						

- ***Potential Methods:*** Each specific hazard is analyzed in a unique way. However, in general, historic analysis of frequency and effects is useful. Hazards can also be modeled using GIS spatial analysis, statistical analysis and other methods.

Structural Conditions

- ***Importance:*** Structural causes of food insecurity, similar to underlying causes, are often overlooked when it comes to analysis and response. Structural causes of food insecurity (with respect to all the reference outcomes) refers to changes that require a long term strategy and changes/ development of governance structures, infrastructure, trade policies, regulations, environmental degradation, etc.; as well as social structural issues such as inequalities (e.g., gender and ethnicity) citizenship, demographic change, political empowerment, and other markers. Humanitarian situations often overlook structural issues due to the emphasis on saving lives and immediate response. That said, in the interest of promoting sustainable food security they cannot be ignored. On the "relief-development" continuum, whereas saving lives is on one end of the spectrum, addressing structural hindrances to development is on the other.

- ***References/Sources***: Michael Watts (1983) clearly highlighted the structural nature of food insecurity in the case of Nigeria. Stephen Devereux (2003) has also shown how structural issues continue to undermine food security in Ethiopia. Structural causes underlie each of the outcomes listed in the Key Reference Outcomes, and as such inclusion of structural issues forces the analysis and response to address each sector more holistically.

- ***Explanation of IPC Reference Thresholds:*** The IPC incorporates structural conditions as a Key Reference Characteristic for the Phase of Chronically Food Insecure, which distinguishes this Phase from that of Generally Food Secure. However structural issues are present in all phases hence the need for addressing structural causes of food insecurity is highlighted for each Phase in the Strategic Response Framework.

- ***Limitations*:** In as much as the IPC strives for objectivity and measurability, structural issues are not easily "measured", and will vary greatly from place to place.-Potential Methods: Methods that can be used to identify structural issues include problem tree analysis and review of key indicators in the Human Development Index and other socio-economic surveys.

Table 14: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Structural

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Structural		NDC	Pronounced underlying hindrances	NDC	NDC	NDC
NDC – Not a Defining Characteristic						

Livelihood Assets

- ***Importance:*** As previously discussed, it is widely accepted that saving lives is an important but limited strategic objective for food security and humanitarian interventions. It is also important to simultaneously support livelihoods, so as to increase resilience and improve the overall well being of populations thus addressing food security in a holistic, sustainable manner and reducing the probability of aid dependency. Hence, saving livelihoods is a strategic objective unto itself.

- ***References/Sources:*** Livelihood assets as defined in the Sustainable Livelihoods Approach (SLA) are divided into five inter-related capitals: human (e.g., education, health, disease etc.), financial (e.g., savings, access to credit, access to remittances, etc.), social (cooperation, gender empowerment, etc.), physical (e.g., infrastructures like bridges, roads, telecommunications, etc.), political (e.g., representation, good governance, etc.), and natural (e.g., rangelands, soil fertility, fishing grounds, woodlands, etc.) (DFID 2001, Frankenburger 1992). Livelihood assets can be manifest at the household, community, and national level (i.e., public goods and services).

- ***Explanation of IPC Reference Thresholds:*** While a comprehensive application of the SLA requires thorough analysis of how the six capitals interact with each other and through institutions to result in overall livelihood conditions, the IPC incorporates the six capitals in a simplistic manner that emphasizes access, rate of depletion, their risk of complete collapse and their consequent sustainability. Whether or not a change in a particular livelihood asset warrants determining a phase classification will depend on the rate of utilization and depletion and if that asset is vitally important for the overall livelihood of a population group.

- ***Limitations*:** The concept of livelihood assets includes an almost infinite number of variables, and will change dramatically for various livelihood systems. Conducting thorough analysis on any single asset can be complex, which is made more so when considering multiple assets. Further, quantifying status of particular assets will depend on the information requirements of that particular asset. Even so, livelihood assets are an integral aspect of food security analysis, and even "big picture" analysis makes important contributions.

Table 15: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Livelihood Assets

Reference Characteristic/ Outcome	PHASE	Generally Food Secure	Chronically Food Insecure	Acute Food and Livelihood Crisis	Humanitarian Emergency	Famine/ Humanitarian Catastrophe
		1	2	3	4	5
Livelihood Assets (5 capitals: human, social, financial, natural, physical)		Generally sustained utilization	Stressed unsustainable utilization	Accelerated and critical depletion or loss of access	Near complete and irreversible depletion or loss of access	Effectively complete loss; collapse

- ***Potential Methods***: Livelihood assets can be understood through the framework of the SLA (DFID 2001, Maxwell 2003). Specific methods include household surveys, key informant interviews, national socio-economic surveys, institutional and social network mapping etc (FSAU 2005). Better quantifying the status of livelihood assets is a key future challenge for development of the IPC.

4.3 Strategic Response Framework

Concepts

The operational value of the IPC is not only in referencing consistent criteria in support of a statement distinguishing different levels of food security, but also in explicitly linking that statement to appropriate responses. Depending on the phase level of a given area, the response type, configuration, and urgency will differ. As such, linked to each Phase is a Strategic Response Framework outlining key components of appropriate interventions to mitigate humanitarian crisis situations and promote food security. The following table illustrates overall distinctions and strategic emphases of response for each Phase.

The Strategic Response Framework is consistent with the Twin-Track Approach (Pingali et al. 2005, Flores et al. 2005), the EC policy for Linking Relief, Recovery, and Development (LRRD) (EC 1996), and the notion of saving lives and livelihoods (Longley and Max-well 2003, WFP 2005, WFP 2004, FAO 2003).

Three broad objectives:

(1) ***mitigate immediate negative outcomes***
(2) ***support livelihoods***
(3) ***address underlying/structural causes.***

The response framework addresses both immediate needs and medium/longer term responses—hence it incorporates basic needs responses as well as longer term structural issues concerning food security and other important sectoral needs such as water, health, shelter, sanitation, protection, etc.). While not explicit in the Strategic Response Framework, principles such as equity, sustainability, justice, and human rights are cross-cutting throughout.

Food security analysis often gets entangled in overly precise, ambiguous, or non-comparable situation analysis, while insufficient analytical effort is devoted to thorough understanding of the crisis and exploration/prioritization of the wide ranging menu of response options. An underlying goal of the IPC is to facilitate basic type, severity, and magnitude analysis to allow for greater analytical emphasis to be devoted to close examination of situation-specific opportunities and constraints.

For any given crisis situation, thorough analysis is required to determine the most appropriate responses for the situation's unique circumstances. The IPC is a summary tool for Situation Analysis, and the Strategic Response Framework bridges the subsequent stage of Response Analysis.

Specifications

For each IPC Phase, the Strategic Response Framework includes three broad objectives: *mitigate immediate outcomes, support livelihoods, and address underlying/structural causes*.

Like three blades on an airplane propeller, each of these three response components must be simultaneously and fully addressed, or they are doomed to fail in promoting sustainable food security (…as the airplane will crash if it is missing one of the three propeller blades!). At the hub of the propeller lie cross-cutting principles of equity, justice, and sustainability.

The Strategic Response Framework is purposely not prescriptive for which particular type of response is required in a given situation (this would come out of the Response Analysis stage of the continuum described in Section 3.3), rather, it merely provides an overarching framework to ensure that the basic elements of a holistic response are identified. The following table identifies both the general emphasis of the strategic response framework for each Phase, as well as a comprehensive framework to enable mitigating immediate negative outcomes, supporting livelihoods, and addressing underlying/structural causes. In this way the Strategic Response Framework helps in guiding and opening the way for more in-depth analysis of response options that are most appropriate for a given Phase.

Table 16: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Strategic Response Framework

Phase Classification		Strategic Response Framework	
		General Emphasis of Strategic Response	***(mitigate immediate outcomes, support livelihoods, and address underlying/structural causes)***
1	**Generally Food Secure**	Investment in livelihood production systems, trade, and distribution systems; enabling development; addressing issues of equity and sustainability	Strategic assistance to pockets of food insecure groups Investment in food and economic production systems Enable development of livelihood systems based on principles of sustainability, justice, and equity Prevent emergence of structural hindrances to food security Advocacy
2	**Chronically Food Insecure**	Provision of safety nets; risk reduction interventions; livelihood support ; addressing structural hindrances	Design & implement strategies to increase stability, resistance and resilience of livelihood systems, thus reducing risk Provision of 'safety nets' to high risk groups Interventions for optimal and sustainable use of livelihood assets Create contingency plan Redress structural hindrances to food security Close monitoring of relevant outcome and process indicators Advocacy
3	**Acute Food and Livelihood Crisis**	Urgent interventions to increase food access/availability to minimum standards and prevent destruction of livelihood assets.	Support livelihoods and protect vulnerable groups Strategic and complimentary interventions to immediately increase food access/availability AND support livelihoods Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Strategic interventions at community to national levels to create, stabilize, rehabilitate, or protect priority livelihood assets Create or implement contingency plan Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
4	**Humanitarian Emergency**	Urgent interventions to prevent severe malnutrition, starvation, and irreversible asset stripping by increasing food access/availability and other basic needs to minimum standards.	Urgent protection of vulnerable groups Urgently ↑ food access through complimentary interventions Selected provision of complimentary sectoral support (e.g. water, shelter, sanitation, health, etc.) Protection against complete livelihood asset loss and/or advocacy for access Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
5	**Famine / Humanitarian Catastrophe**	Critically urgent protection of human lives through comprehensive assistance of basic needs (e.g., food, water, health, shelter, etc.)	Critically urgent protection of human lives and vulnerable groups Comprehensive assistance with basic needs (e.g. food, water, shelter, sanitation, health, etc.) Immediate policy/legal revisions where necessary Negotiations with varied political-economic interests Use 'crisis as opportunity' to redress underlying structural causes Advocacy

4.4 Early Warning Levels

Concepts

Enabling timely and meaningful early warning is an integral goal of the IPC. Early warning is inherently linked to food security analysis. In particular, as used with the IPC, the term Risk refers explicitly to the risk of changing from one Phase Classification to a worse one.

A simplified relationship between Risk, Hazard and Vulnerability, and Capacity is illustrated in the formula:

$$\text{Risk} = (\text{Hazard Exposure}) \times (\text{Vulnerability}/\text{Capacity})$$

The Risk of a negative outcome (i.e., worsening Phase) is a function of a the severity of a Hazard Event on a system multiplied by the Vulnerability of the system to that Hazard Event divided by the Capacity of the system to resist and adjust to the Hazard. Thus, Risk increases as Hazards become more severe, Vulnerability is high, and/or Capacity is low. Conversely, Risk decreases when the Hazard is less severe, Vulnerability is low, and/or Capacity is high. To understand Risk requires detailed analysis of all three components—Hazard, Vulnerability, and Capacity—rooted in a livelihoods approach.

Risk: Crichton (1999) defines Risk as the probability of a loss, which depends on three elements, hazard, vulnerability and exposure. Downing et al. (2001) define Risk to be: Expected losses (of lives, persons injured, property damaged, and economic activity disrupted) due to a particular hazard for a given area and reference period. As used with the IPC, Risk has specific implications as specified by the "risk of deteriorating into a particular IPC Phase".

Hazard: Downing et al. (2001) define Hazard as a threatening event, or the probability of occurrence of a potentially damaging phenomenon within a given time period and area. As the severity of a Hazard increases, the Risk of a negative outcome also increases.

Vulnerability: Turner et al. (2003) note that, "…vulnerability is registered not by exposure to hazards (perturbations and stresses) alone but also resides in the sensitivity and resilience of the system experiencing such hazards." (see Appendix G for detailed diagrams illustrating these relationships). Brooks notes that, "it is essential to stress that we can only talk meaningfully about the vulnerability of a specified system to a specified hazard or range of hazards.(Brooks 2003 p. 3). Vulnerability is closely related to the ability of people or systems to cope with a shock (Chambers 1991), their resistance (ability to withstand a shock), resilience (ability to return to a similar state after recovering from a shock), and the stability of the system. As Vulnerability increases, the Risk of a negative outcome also increases.

Capacity: Capacity is a concept that some organizations (e.g. ICRC) bring explicitly into Risk analysis so as to draw attention to the ability of the system (human, technological, and institutional capacities) to respond to a shock through preventative measures, coping mechanisms, or adjusting livelihood strategies. As Capacity increases, the Risk of a negative outcome decreases.

Components of Effective Early Warning

To be effective for decision making, early warning needs to include five main dimensions: (1) probability (how likely is it to happen?), (2) predicted severity (how bad things might get), (3) substantiation (what evidence is available to support the early warning analysis?), (4) appropriate action (what is the most prudent and appropriate response?) and (5) timeframe (when is it expected to happen?)

As a whole, early warning systems involve much more than merely clear classification as guided by the IPC. They involve institutional networks, identification of priority indicators, communication strategies, issues of timing, and many others. These aspects and many other details of early warning are described in the FEWS NET Early Warning Primer (Chopak 2000).

Specifications

The IPC combines concepts of hazard and vulnerability to formulate a Risk statement that is specific to the probability of deteriorating into a particular Phase, thus giving risk a concrete and actionable meaning. Three Early Warning Levels are operationalized: Alert, Moderate Risk, and High Risk. For each of these levels the main dimensions are specified, including: Probability, Severity, Reference Hazards and Vulnerabilities, Implications for Action and Timeframe. The Early Warning Levels are applied to the existing Phase Classification for a given area.specified, including: Probability, Severity, Reference Hazards and Vulnerabilities, Implications for Action and Timeframe. The Early Warning Levels are applied to the existing Phase Classification for a given area.

Table 17: Integrated Food Security and Humanitarian Phase Classification Reference Characteristics - Early Warning Levels

Early Warning Levels	Probability / Likelihood (of worsening Phase)	Severity (of worsening phase)	Reference Hazards and Vulnerabilities	Implications for Action
Alert	As yet unclear	Not applicable	***Hazard:*** occurrence of, or predicted event stressing livelihoods; with low or uncertain vulnerability ***Process Indicators:*** small negative change from normal	Close monitoring and analysis
Moderate Risk	Elevated probability / likelihood	Specified by predicted Phase Class, and as indicated by color of diagonal lines on map.	***Hazard:*** occurrence of, or predicted event stressing livelihoods; with moderate vulnerability ***Process Indicators:*** large negative change from normal	Close monitoring and analysis Contingency planning Step-up current Phase interventions
High Risk	High probability; 'more likely than not'		***Hazard:*** occurrence of, or strongly predicted major event stressing livelihoods; with high vulnerability ***Process Indicators:*** large and compounding negative changes	Preventative interventions--with increased urgency for High Risk populations Advocacy

The **Probability** for each Early Warning Level differs.

- For ***Alert,*** probability is not applicable as it is yet unclear or uncertain that deterioration in the situation will occur. With the IPC an area is put on ***Alert*** status if there are signals indicating potential stress and/or small negative changes in process indicators.

- For ***Moderate Risk,*** there is an "elevated" probability/likelihood above the normal/usual risk level. Although everyone at all times is at some degree of risk of food insecurity, for areas at ***Moderate Risk***, conditions suggest there is an increased, or heightened, risk above that normal level, and this risk is cause for concern that the situation will deteriorate

- For ***High Risk*** there is a "high probability", or "more likely than not", that the predicted severity level will occur

The level of **Severity** for each Early Warning Level depends upon the integrated analysis of potential hazards and vulnerability. Depending on how dire the future outlook is, the Early Warning severity predictions can include any of Phases 3, 4, or 5. (The severity level is signified by the color of diagonal lines as drawn on the map - see Cartographic Protocols).

Each of the Early Warning Levels has a **General Description and Change in Process Indicators** that provide guidance for the substantiation of an early warning statement. It is critical to note, however, that risk analysis of the impact of hazards and process indicators requires an understanding of the livelihood system for a given area, which enables vulnerability analysis. Depending on the situation (type of hazard and livelihood system), the relevant process indicators will vary, and can include any variables that would affect purchasing power, social access, or supply of staple foods or other basic humanitarian needs. Examples include: market prices, crop production, livestock conditions, political trends, etc. See FAO/FIVIMS (2002) and Riely et al. (1999) for a comprehensive list of indicators. A key distinction concerning process indicators between Moderate Risk and High Risk is that while the former has "large negative changes from normal", the later incorporates the notion of "large and compounding negative changes"--meaning that multiple indicators are simultaneously deteriorating and mutually exacerbating the situation.

Each Early Warning Level is linked to general **Implications for Action**. For all levels, close monitoring and analysis is required. The Moderate and High Risk levels also include contingency planning, advocacy, the need for stepping up interventions required at the current Phase, and the need for preventative interventions. The main difference in Implications for Action between Moderate and High Risk levels concern increased urgency and imperative for High Risk populations.

And lastly, the time frame of the projected early warning should be made explicit. This will depend on the particular situation and should include both the starting period and anticipated ending period of the risk at hand. In some cases this will be oriented around seasonal cycles, but not always (e.g., civil tensions, global trade and marketing shocks, etc.). This information is summarized in the complimentary Cartographic Protocols.

5. IPC SUPPORTING TOOLS

To increase the rigour and communication effectiveness of the IPC, FSAU has developed a set of complimentary and supporting tools. These include:

A Analysis Templates—a tool to organize evidence to support a phase classification statement in a logical, transpar-

ent, and accessible manner

B Cartographic Protocols—standardized mapping conventions to convey essential Situation Analysis information

C Population Tables—a standardized approach and format for identifying the number of people facing crisis by administrative boundaries and livelihood systems.

5.1 Analysis Templates

Concepts

Due to the profound implications on many people (sometimes millions) and the multiple stakeholders involved in food security and humanitarian response, whatever the method and however complex the analysis may be, the final results should be understandable and accessible to critique. Key to achieving the overall goals of accountability and transparency is the development of a simple format for organizing key pieces of evidence in support of findings as well as additional information required to inform effective response.

This **evidence-based approach** enables critical evaluation of findings by analysts, peers and decision makers. It opens the analytical process up to informed critique and subjects the results to an almost judicial (i.e., court of law) process whereby the 'burden of proof' is incumbent on the analysts.

The **Analysis Templates** are designed to increase transparency and have the strong effect of facilitating key data access and report writing. They serve three main purposes:

(1) to guide rigorous, evidence-based analysis
(2) to enhance transparency by documenting key information for ease of access and historical archiving
(3) to simplify writing reports and presentation creation by providing the core elements of information in a consistent and logical manner

Specifications

The Analysis Templates contain three parts:
(1) Phase Classification statement,
(2) Key Information for Mitigating Immediate Outcomes, and
(3) Key Information for Supporting Livelihoods and Addressing Underlying Causes.

1) Phase Classification Statement: This part guides the listing of: (1) the affected area, (2) its phase classification, (3) which Key Reference Outcomes (from the IPC Reference Table) are applicable, (4) direct evidence supporting the classification, and (5) indirect evidence supporting the classification. Evidence is collected from a plethora of sources, depending on the situation. Since evidence has varying degrees of reliability, each individual piece of evidence is assigned a reliability score of 1, 2, or 3 depending on whether the evidence is very reliable, somewhat reliable, or unconfirmed. These scores are considered when assessing the overall confidence of the analysis.assigned a *reliability score* of 1, 2, or 3 depending on whether the evidence is very reliable, somewhat reliable, or unconfirmed. These scores are considered when assessing the overall confidence of the analysis.

Table 18: IPC Analysis Template: Analysis of Key Reference Outcomes and Evidence[1]

Part 1: Area Affected, Phase Classification, Key Reference Outcomes and Evidence (Primary and Supporting)					
Affected Area (by Region , District and Livelihood Zone)	Phase Classification (F/HC, HE or AFLC)	Timeline Current/Imminent or Early Warning (Current, Imminent, Alert, Moderate Risk, High Risk)	Applicable Reference Outcomes (As defined by Reference Table)	Direct Evidence • Direct Outcome Evidence • Source of Primary Evidence • Evidence Reliability Score (1=very reliable, 2=somewhat reliable 3=unconfirmed)	Indirect Evidence • Indirect Evidence-Effects on Livelihood Assets and/or Livelihood Strategies • Source of Secondary or Supporting Evidence • Evidence Reliability Score (1=very reliable, 2=somewhat reliable 3=unconfirmed)

F/HC= Famine/Humanitarian Catastrophe, HE=Humanitarian Emergency, AFLC=Acute Food and Livelihood Crisis

2) Key Information for Mitigating Immediate Outcomes: This part guides the listing of: (1) immediate hazards for each affected area, (2) effects on livelihood strategies, (3) nature of food insecurity in terms of Access, Availability, or Utilization, (4) characteristics and percentage of population in Phase 3, 4, or 5, (5) projected trend, (6) risk factors to monitor, and (7) opportunities for response.

Table 19: IPC Analysis Template - Analysis of Immediate Hazard, Effects on Livelihood Strategies, and Implications for Immediate Response

Part 2: Immediate Hazards, Direct Food Security Problem, Effects on Livelihood Strategies, Risks to Monitor and Opportunities for Response								
ANALYSIS							ACTION	
Affected Area (Region , District and Livelihood Zone)	Phase Classification (F/HC, HE, LC)	Immediate Hazards (Driving Forces)	Direct Food Security Problem (Access, Availability, and/or Utilization)	Effect on Livelihood Strategies (Summary Statements)	Population Affected (Characteristics & Percent of Population)	Projected Trend (Improving, No change. Uncertain, Worsening)	Risk Factors to Monitor	Opportunities for Response (Immediate Response to Improve Access to Food and Assist with Other Immediate Needs, i.e. Health, Shelter, etc.)

3) Key Information for Supporting Livelihoods and Addressing Underlying Causes: This part guides the listing of: (1) the underlying causes for each affected area, (2) the effects on livelihood capitals/assets, (3) projected trend for each livelihood capital, (4) risk factors to monitor and (5) opportunities for supporting livelihoods and addressing underlying causes.

Table 20: IPC Analysis Template - Analysis of Underlying Causes, Effects on Livelihood Assets, and Opportunities for Mitigation in the Medium and Long Term

Part 3: Undermining Structures and Processes, Effects on Livelihood Assets, and Mitigation in the Medium and Long Term						
ANALYSIS					ACTION	
Affected Area (Region , District and Livelihood Zone)	Phase Classification (F/HC, HE, LC)	Underlying Causes (Environmental Degradation, Social, Poor Governance, Marginalization, etc.)	Effect on Livelihood Assets (Summary Statements)	Projected Trend (Improving, No Change. Uncertain, Worsening)	Risk Factors to Monitor	Opportunities for Mitigation in Medium and Long Term (Policy, Programmes and/or Advocacy)

Much of the information included in the Analysis Templates is communicated in summary format using the Cartographic Protocols.

Footnote

[1] *Direct evidence* includes data sources and methods that specifically indicate the key reference outcomes associated with each Phase. *Indirect evidence*, however, includes proxy indicators that substantiate the key reference outcomes without direct measurement. Akin to corroborating evidence, indirect evidence typically cannot stand on its own, but can be used to substantiate a Phase Classification. Even though indirect evidence is one step removed from the key reference outcomes they are still valid and useful to support the Phase classification statement, albeit with lower confidence than direct evidence. For example – Direct evidence of GAM could include a random sample nutrition survey, whereas indirect evidence could include marked increases in attendance at therapeutic feeding centers.

5.2 Cartographic Protocols

Concepts

Drawing from best practices of poverty mapping (Snel and Henninger 2002, Davis 2003), the Cartographic Protocols enable communication of a vast amount of complex information in an accessible way (a map) to facilitate decision making and action. They are specifically designed to communicate salient elements of Situation Analysis in addition to the Phase Classification itself. Through consistent use of the Cartographic Protocols, users can readily interpret complex information. Adherence to the Cartographic Protocols enables longitudinal analysis to examine how food security situations improve or deteriorate from one point in time to another. The Cartographic Protocols developed for the IPC summarize the salient characteristics of food insecurity information for effective response. After all, a picture paints a "thousand words".

Specifications

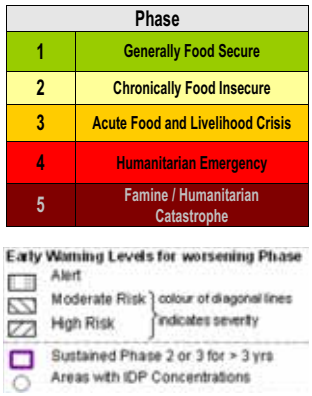
An example of the IPC Cartographic Protocols is FSAU's recent food security projections following the 2005/06 Deyr season is provided in Map 1 (FSAU 2006). In addition to spatially demarcating all areas of Somalia into their respective IPC Phases and Early Warning Levels, the map provides additional information on Defining Attributes for Areas in Phase 3, 4, or 5. The title of the map explicitly states the projected timeline for the analysis.

Cartographic Protocols for illustrating this information include:

- ***Spatial Delineation of IPC Phases:*** **Using distinct, emotive colors** the map delineates the respective areas in various phases of the IPC including *Generally Food Secure, Chronically Food Insecure, Acute Food and Livelihood Crisis, Humanitarian Emergency, and Famine/Humanitarian Catastrophe*.

  Though the core unit of spatial analysis is the Livelihood Zone, the spatial extent of the various phases does not necessarily correspond to a prescribed boundary (e.g., admin unit, livelihood zone, watershed, agro-ecological zone, etc.). Thus, analysts must utilize a wide range of information sources and methods (existing geographic datasets, satellite imagery, GIS spatial analysis, key informants, focus groups, household/nutrition surveys, field observation, etc.) to arrive at the best approximation of the spatial extent of a given phase.

Figure 3: Spatial Delineation & Early Warning Levels



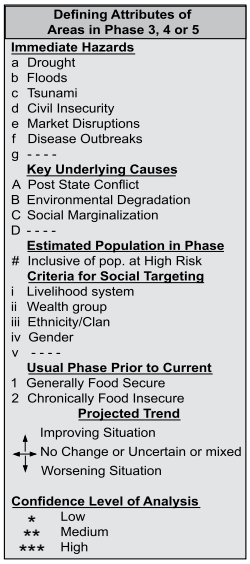
- ***Early Warning Levels:*** **Early Warning Levels** are divided into three types: Alert, Moderate Risk, and High Risk. These are overlaid on top of the color signifying the current Phase Classification and graphically distinguished by dots, downward sloping diagonal lines, and upward sloping diagonal lines, respectively. The color of the diagonal lines indicates the predicted severity level as specified by the corresponding color of the Phase Classification.

- ***Sustained Conditions:*** In general, the longer a crisis continues the relatively more essential it is to address underlying or structural causes if interventions have any chance of sustained positive effects. A *purple* border denotes areas of "sustained" levels of crisis in Phase 3, 4, or 5 for greater than three years (though an arbitrary threshold, it is inclusive of several seasonal cycles),. By hi-lighting these areas, it informs the type of strategic response and draws attention to "forgotten emergencies" for which complacency may have set in.

- ***Defining Attributes of Crisis Areas.*** For each area currently in or at risk of Phase 3, 4, or 5 a call-out box is included with situation specifics. A symbol key is provided for each defining attribute, including:
  - Key immediate hazards
  - Key underlying causes
  - Estimated magnitude (i.e., the number of people estimated in Phase or at High Risk)
  - Criteria for social targeting
  - Usual Phase prior to current (which allows for distinction between chronic and transitory food insecurity)
  - Projected trend
  - Overall confidence level of analysis (which is an overall, heuristic statement on the confidence of the analysis as assessed by the analyst)

The key is generic, whereas the call-out boxes contain the specific attributes relevant to that crisis area. The attributes currently include those which have relevance to various places in Somalia. However, this can easily be expanded to suit a wider array of situations.

Figure 4: Defining Attributes of Crisis Areas



5.3 Standardized Population Tables

Concepts

The IPC is not a method and does not, in itself, offer guidance on how to estimate of the number of people in crisis. There are numerous ways to go about this. Whatever method is used to estimate populations, it is necessary to have a consistent and meaningful way to represent those findings.

There is an important distinction, however, in the way the IPC represents population figures from commonly used methods. Often times analysis presents the "number of people in need" (e.g., number in need of food aid, water, health services, etc.). The IPC, however, does not make such conclusions and merely identifies the number of people estimated to be in Phase 3, 4, or 5—without an a priori statement about whether or not they need anything (in terms of resource transfer). Consistent with its emphasis on Situation Analysis, rather than Response Analysis, the Population Tables provide the basic information to decision makers, who, through in-depth analysis of the potential response options, can then decide if the crisis situation can be mitigated through non-resource transfer means (such as policy change, negotiations, market interventions, etc.), or through resource transfer (such as food aid, cash aid, etc.), or a combination of both. Sector specific needs-based population tables would be useful and complement the ones used in the IPC.

Specifications

The Population Tables identify the estimated number of people in Phase 3, 4, or 5 (including those at High Risk) by administrative boundaries (e.g., regions, districts, etc.), livelihood zones, and main livelihood systems. The percent of population in each phase is also identified. The example below illustrates the Population Tables by regions in Somalia. Liberal usage of footnotes provides more detailed clarifications on sources and interpretations where necessary (see FSAU 2005 for a comprehensive example of population estimates).

Table 21: Estimated Population by Region in Humanitarian Emergency and Acute Food and Livelihiood Crisis

Affected Regions	Estimated Population of Affected Regions [1]	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) [2]	Humanitarian Emergency (HE) [2]	Total in AFLC or HE as % of Region Population
North				
Bari	235,975	45,000	0	19
Nugal	99,635	20,000	0	20
Sanag	190,455	55,000	0	29
Sool	194,660	50,000	0	26
Togdheer	302,155	40,000	0	13
Coastal (fishing)		20,000		
SUB-TOTAL	*1,022,880*	*230,000*	*0*	*22*
Central				
Galgadud	319,735	40,000	0	13
Mudug	199,895	20,000	0	10
SUB-TOTAL	*519,630*	*60,000*	*0*	*12*
South				
Bakol	225,450	45,000	105,000	67
Bay	655,686	135,000	395,000	81
Gedo	375,280	80,000	180,000	69
Hiran	280,880	55,000	0	20
Lower Juba	329,240	60,000	115,000	53
Middle Juba	244,275	50,000	120,000	70
SUB-TOTAL	*2,110,811*	*425,000*	*915,000*	*63*
TOTAL	3,653,321	715,000	915,000	*45*

Source: FSAU 2006 Post Deyr Food Security Projections

6. CONCLUSION

This manual provides overall explanations of the IPC as well as specific technical guidelines for its usage. The case is made as to why a classification system of some type is necessary, and how the IPC meets key challenges in food security and humanitarian analysis.

Within the Somalia context the IPC has consistently proven to be an effective tool for improving analysis and informing response. This has been demonstrated for a number of different crisis types (e.g., slow onset drought and economic crises, and rapid onset floods, civil insecurity, and the Tsunami). The IPC has also been successful in drawing attention to "forgotten crises" and ensuring investment in livelihood support. Perhaps the most compelling aspect of the IPC, however, is its ability to enable comparative analysis over space and time. It answers the questions of how does one crisis compare to another in a different location and how has it changed over time?

In the context of food security and humanitarian decision making for Somalia, the IPC has been an integral and guiding aspect of planning. In addition to individual UN, NGO, and government agency's usage of the IPC to guide local planning, the UN Consolidated Appeals Process consistently uses the analysis of the IPC to guide response planning and appeals for funding.

The IPC has been presented and discussed in dozens forums ranging from analyst-practitioner workshops to global level IASC meetings. The development of the IPC has been a two year iterative process, and has drawn directly from constructive comments made at these meetings. Appendix B reviews some of the questions that are frequently asked at such presentations, and their answers. As such it is hoped that the IPC will contribute to global efforts to harmonize and improve food security and humanitarian analysis for action. The current version of the IPC should be seen as a usable platform for current use , while at the same time serving as a discussion document for critical review and improvement in future versions.

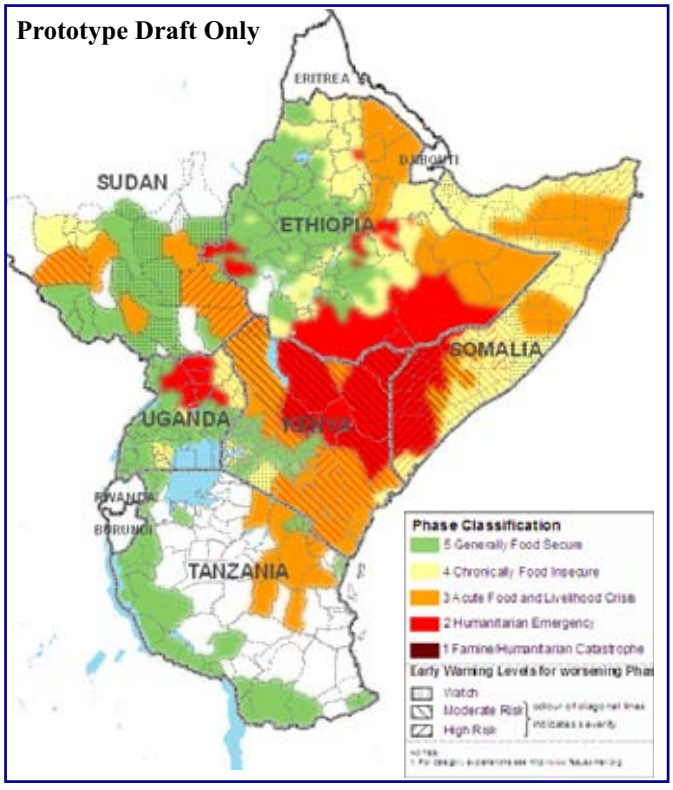
6.1 Potential for Replication and Expansion

The cross-border drought affecting Kenya, Ethiopia, and Somalia in 2005/06 necessitated comparative analysis across the region, and the IPC was used in several regional technical meetings to harmonize the analysis from each country. That analysis was widely used for proportionate funding, strategic planning, and advocacy by governments, donors, UN/NGOs, and media agencies.

Following the Greater Horn of Africa (GHA) Climate Out-look Forum, FSAU, FEWS NET, WFP, and several GHA ministry representatives used the IPC to interpret the climate predictions for the food security outlook. Although the resulting analysis is only in prototype and draft form (due to the need to seek technical consensus within each country and the need to rigorously apply the evidence-based analysis), even the draft result is telling both analytically and in terms of demonstrating the potential for the IPC to inform regional analysis and response. The map below is a prototype result of this process.

The GHA Regional Food Security and Nutrition Working Group (RFSNWG) has endorsed the IPC as a means to enable comparability and improve analytical rigour across the region. In June of 2006 FAO and FEWS NET co-sponsored a regional technical workshop on behalf of the FSNWG to generate IPC results for seven countries in the GHA. Analysts from government, UN, and NGO agencies came from each country and worked through the Analysis Templates and final Phase Classification analysis. The participants critically reviewed the process and identified three main messages: (1) that the IPC has strong potential for adoption in the various countries, (2) that it is necessary to increase

Map 2: Greater Horn of Africa Food Security Projection July to Dec '06--Based on a below normal rainfall scenario (March '06)



[1]This Map is based on preliminary results and is yet to be officially endorsed.

Source: FSAU, FEWS NET, WFP, CARE, SC UK, OCHA, UNICEF, FAO, GOK

exposure of the IPC among national stakeholders to generate "buy-in", and (3) that the technical use of the IPC is most effective if done at the national level first (with a more representative technical working group), and then integrated into a regional analysis.

The design of the IPC is based on internationally accepted standards, and meant to build from existing methodologies and information systems—thus the IPC can be adopted with current systems with minimal adjustments and used as an "add on" component. While the IPC brings together commonly required information for Situation Analysis, individual organizations and agencies will still want and need to tailor the end-use of the IPC results to meet their specific organization goals and interests, while using the IPC results as a common platform.

To ensure the IPC fosters technical consensus, application is best done at the country level and drawing from, or creating, a forum for technical coordination and consensus building. In most countries such forums already exist (e.g., the Vulnerability Assessment Committees throughout Southern Africa, the Kenya Food Security Steering Group, the Disaster Preparedness and Prevention Agency in Ethiopia, CILSS in West Africa, the Livelihood Analysis Forum in South Sudan, and others).

6.2 Future Challenges and Way Forward

The IPC, if widely applied, has great potential to better rationalize humanitarian assistance in terms of reaching people most in need and ensuring effective use of resources. Ensuring its technical integrity however, will require adherence to a rigorous, evidence-based approach. Usage of the IPC would be undermined over time if users classify situations without appropriate substantiation (either direct or indirect evidence), and the Analysis Templates are designed to promote rigorous analysis.

Further development and revisions of the IPC is a near certainty. FAO encourages critical feedback on the IPC and anticipates a revised version of the manual will be produced in the coming year. This will occur through technical feedback on this Manual as well as further piloting and testing in different country and regional contexts.

The overall vision of the IPC is consistent with existing efforts such as the Good Humanitarian Donorship (GHD), SMART, Benchmarking, and Humanitarian Tracking System initiatives, and the Sphere Project to better harmonize food security and humanitarian analysis. The recently launched Central Emergency Response Fund (CERF) (OCHA 2006) will need some basis for making objective decisions for humanitarian assistance, and the IPC well meets that need.

In order to achieve this greater vision, the broad food security and humanitarian community must come together in forums, such as the Inter-agency Standing Committee and others, to technically review and eventually adopt a common classification system that meets international standards, is adaptable to a wide array of situations and contexts, and is practical in the field. It is hoped that the IPC will contribute to this debate and development.

APPENDIX A

Selected list of Forums at which the IPC has been presented

While the IPC's development over the past two years has been driven first and foremost by the day to day realities of applied analysis, there have also been dozens of opportunities to present the IPC at a wide range of meetings and workshops. Each of these presentations has generated considerable interest and constructive feedback, which has directly led to further development of the IPC. Listed below are just a few of these forums, which are followed by answers to some of the frequently asked questions.

Somalia Humanitarian Response Group Meetings (Nairobi)
Somalia Food Security and Rural Development Meetings (Nairobi)
FSAU Analysis Workshops (Somalia)
OCHA GHA Regional Scenario Development Workshops (Nairobi)
OCHA GHA Regional CAP Workshops (Nairobi)
GHA Drought Crisis Media Briefings (Nairobi)
GHA Climate Outlook Forums (Nairobi)
UNICEF Regional Workshop (Nairobi)
GHA Food Security and Nutrition Working Group Meetings (Nairobi)
Save the Children HEA Practitioners Workshop (Nairobi)
FAO Emergency Coordinators Workshop (Nairobi)
FAO ESAF Out posted Officers Workshop (Rome)
FAO/WFP Needs Analysis Framework Workshop (Nairobi)
FAO Sustainable Livelihoods Seminar (Rome)
FAO TCE Seminar (Rome)
FAO Emergency Needs Assessment Workshop (Nairobi)
WFP ODAN/VAM Seminar (Nairobi)
GHA Cross Border Analysis Workshop (Nairobi)
FEWS NET II Workshop (Johannesburg)
Southern Africa Vulnerability Assessment Committee Methodology Review Workshop (Johannesburg)
Asian FIVIMS Workshop (Bangkok)
USAID GHA Regional Analysis Workshop (Nairobi)
IASC 64th Meeting (Rome) GHA Appeal Launch to Permanent Representatives of Donor Countries (Geneva)
European Forum on International Disaster Response Laws, Rules and Principles (IDRL)
RC/RC National Societies, UN and IOs, and NGOs. Senior Managers of the IFRC Federation
WFP SENAC Board Meeting (Rome)
ALNAP Meeting (Nairobi)
Oxfam UK (Oxford)
World Food Summit—Conference on Food Security (Rome)

APPENDIX B

Frequently Asked Questions (FAQs)

- ***Is the IPC too technically complex for decision makers to understand?*** While any classification system will have some degree of complexity, based on repeated experiences using the IPC (well over one hundred) describing food security and humanitarian situations in Somalia and the Greater Horn of Africa to a broad range of analysts and high level decision makers (including Presidents, Permanent Secretaries, Ministers, the Special Envoy, the UN Under Secretary for Humanitarian Affairs, and heads of UN, NGO, and donor agencies), this is not the case. On the contrary, without exception each of these decision makers has readily understood the main thrust of the IPC, the logic behind it, and the implications for action. Further, numerous members of the media (from Reuters, AP, BBC, VOA, CNN, IRIN, Le Monde, Financial Times, and others) have positively welcomed the IPC as a means of clear communication to mass audiences. While underpinning the IPC are layers of complex analyses, the situation analysis and implications for action are presented in a simple manner. This broad accessibility enables technical consensus not just among analysts, but with other stakeholders as well. The IPC is like a tree with a complex root structure (analysis) that forms the foundation of a much simpler trunk (the situation classification).

- ***What if some of the Key Reference Outcomes 'benchmarks' are reached but not others?*** The overarching strategy of the IPC is not based on thresholds and benchmarks as much as it is based on analysts" interpretation of all available evidence with clear reference to the IPC Key Reference Outcomes. This "convergence of evidence" approach is different from approaches that rely on clear cutoffs of limited indicators. While the ideal goal is to have rigorous and measurable thresholds to define Phase Classifications, from a practical and field perspective (including issues of crisis complexity, livelihoods complexity, information urgency, widely varying data availability, analysis capacity, and others) it is eminently more practical to classify overall food security and humanitarian situations with a convergence of evidence approach. An academic purist may insist on absolute thresholds, but this is not always feasible from a field perspective. The IPC bridges academic and internationally accepted thresholds with field practicality

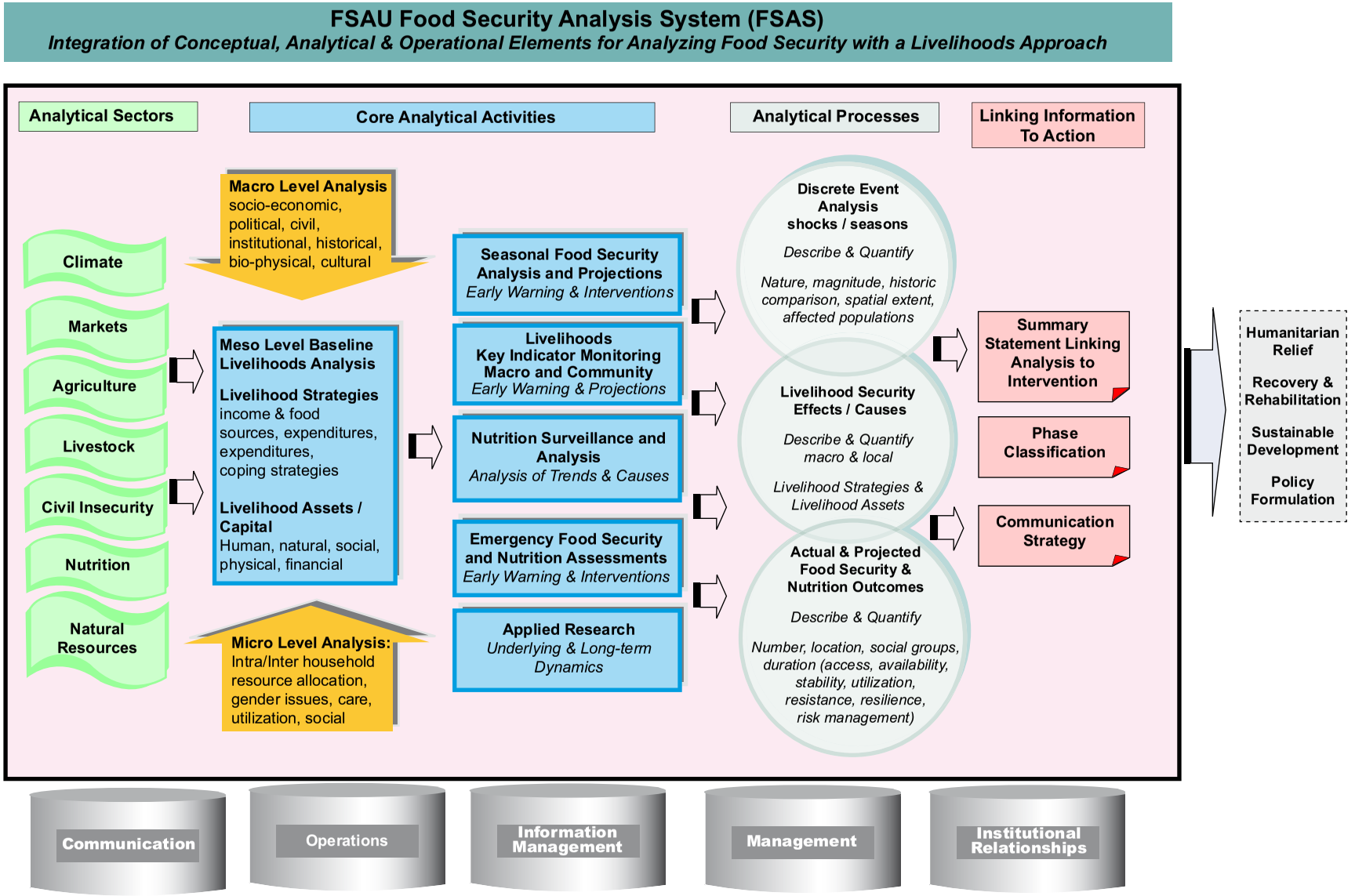
- ***What if variation of severity is greater within a specified area than across areas?*** The point of mapping areas is to capture the general situation in a given area for planning purposes—surely there is great variation within a given area which does pose special challenges for analysis and targeting humanitarian assistance. The IPC accommodates this to some degree by (1) identifying specific social groups within a geographic area who are at risk, and (2) identifying, where necessary, numbers of people in conditions of Humanitarian Emergency as well as in Acute Food and Livelihood Crisis if they co-exist in a given area. Even for areas that are classified as "Generally Food Secure" the IPC recognizes that pockets of food insecurity can still exist, and in the Strategic Response Framework the first action listed is to address those pockets. If small area analysis is necessary, it is equally possible to apply the IPC to limited geographic areas as small as individual villages if desired.

- ***Isn't it adequate to just monitor the outcomes as measured by nutrition indicators?*** No. With regards to nutrition indicators, the IPC explicitly draws from this information, but, importantly, not exclusively. This is critical from both a practical perspective (as such nutrition data is not always available and needs to be triangulated with other food security data), as well as a conceptual perspective (it is well accepted that nutrition is a late outcome indicator of food insecurity, which means that responses that are solely based on such data are likely to either (1) be too late to save lives that could have been saved, and/or (2) miss out on the opportunity (if not imperative) to initiate appropriate responses earlier so as to prevent livelihood destruction, and thus entry into a poverty trap. Thus, the IPC draws from nutrition data, but also draws from indicators that provide both triangulation and earlier indications that crisis is imminent.

- ***Can the IPC be applied in country settings where a comprehensive data collection and analysis unit like the FSAU does not exist?*** Yes. FSAU operates in a context where there is no central government to maintain and provide basic statistical data sets, and for which field access is often times limited due to security restrictions. Most other countries in the world regularly collect important data that can be used to support the IPC. Further, in countries of recurrent crises, there are a plethora of UN and NGO agencies that regularly conduct surveys and have monitoring systems that would support the IPC. The challenge is to draw from existing data availability and make the best use of it, while prioritizing future data collection efforts to have the most meaningful use.

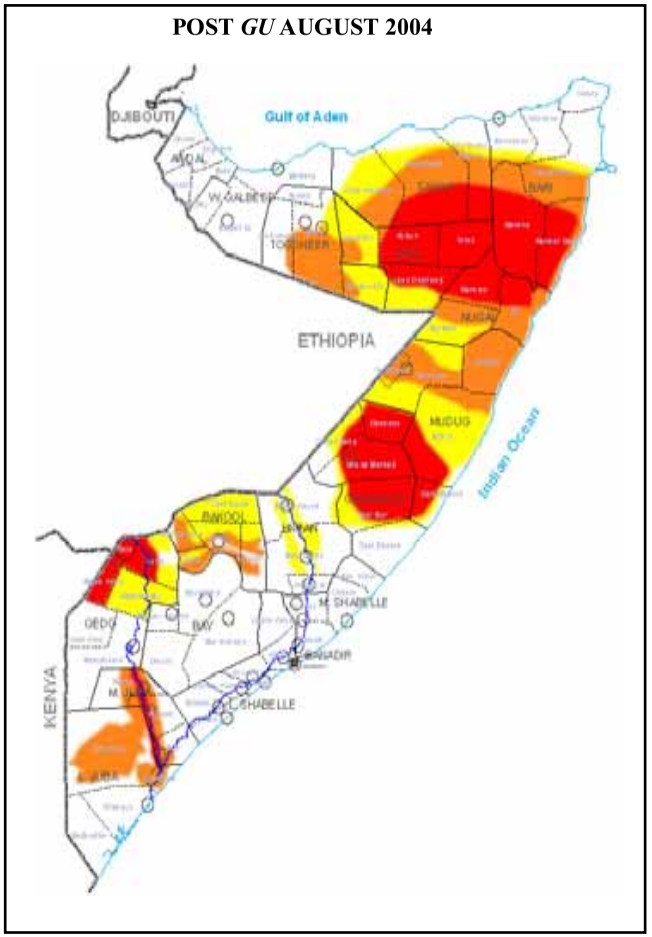
- ***Since the IPC was developed in the Somalia context, isn't it 'Somalia-specific'?*** No. The concepts and reference outcomes of the IPC are explicitly drawn from internationally accepted standards (e.g., the Sphere standards), which are equally applicable any where in the world. Different contexts, however, will require some flexibility, which is "built-in" to the IPC, while providing a framework for rigour and reasonable comparability.

7.3 FSAU Food Security Analysis System (FSAS)

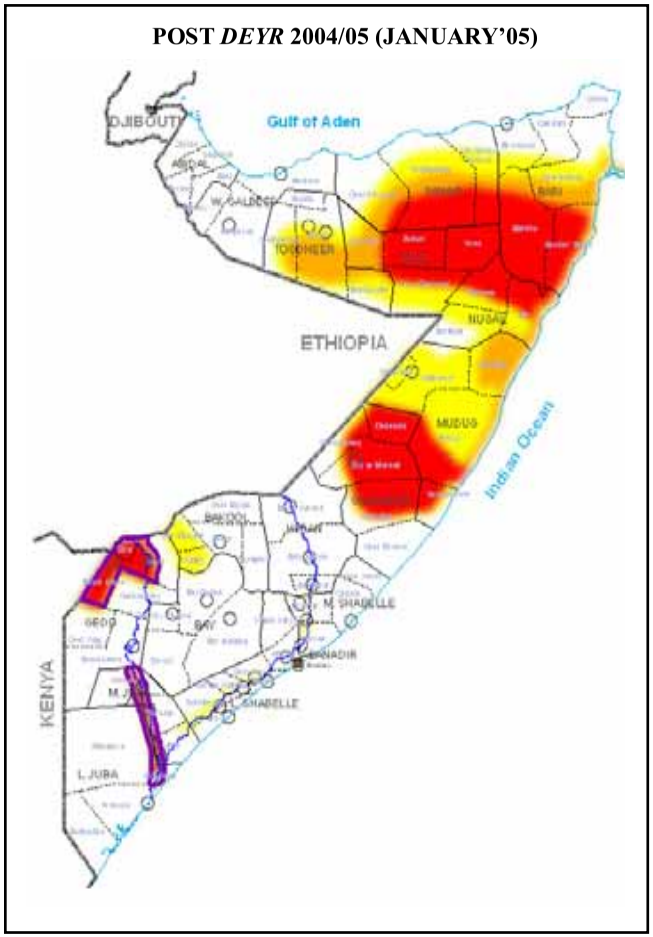


7.4 Comparison of FSAU Integrated Phase Classification for Gu 2004, Deyr 2004/05 and Gu 2005.

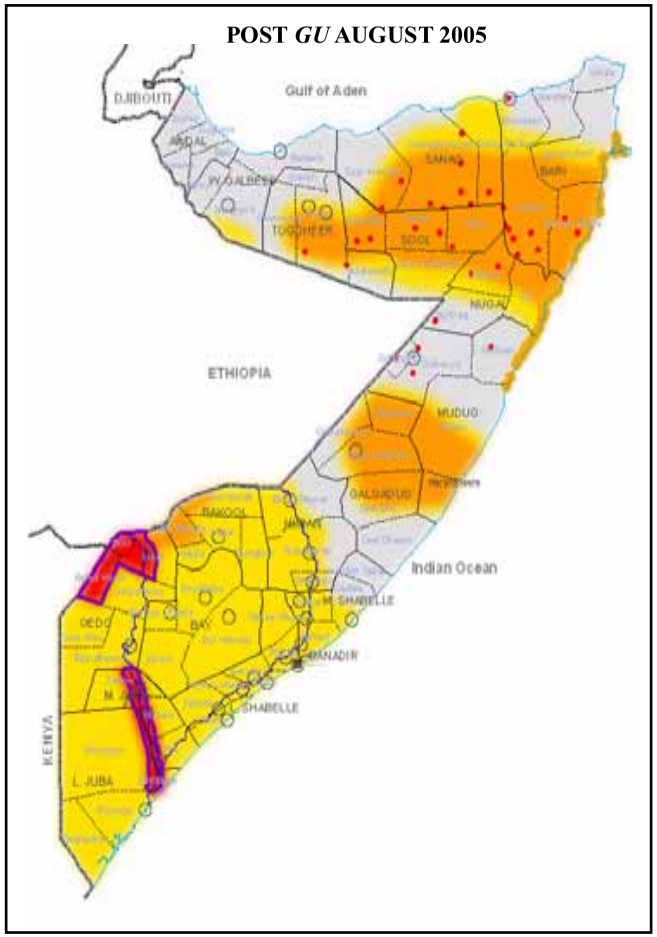
POST *GU* AUGUST 2004



POST *DEYR* 2004/05 (JANUARY'05)

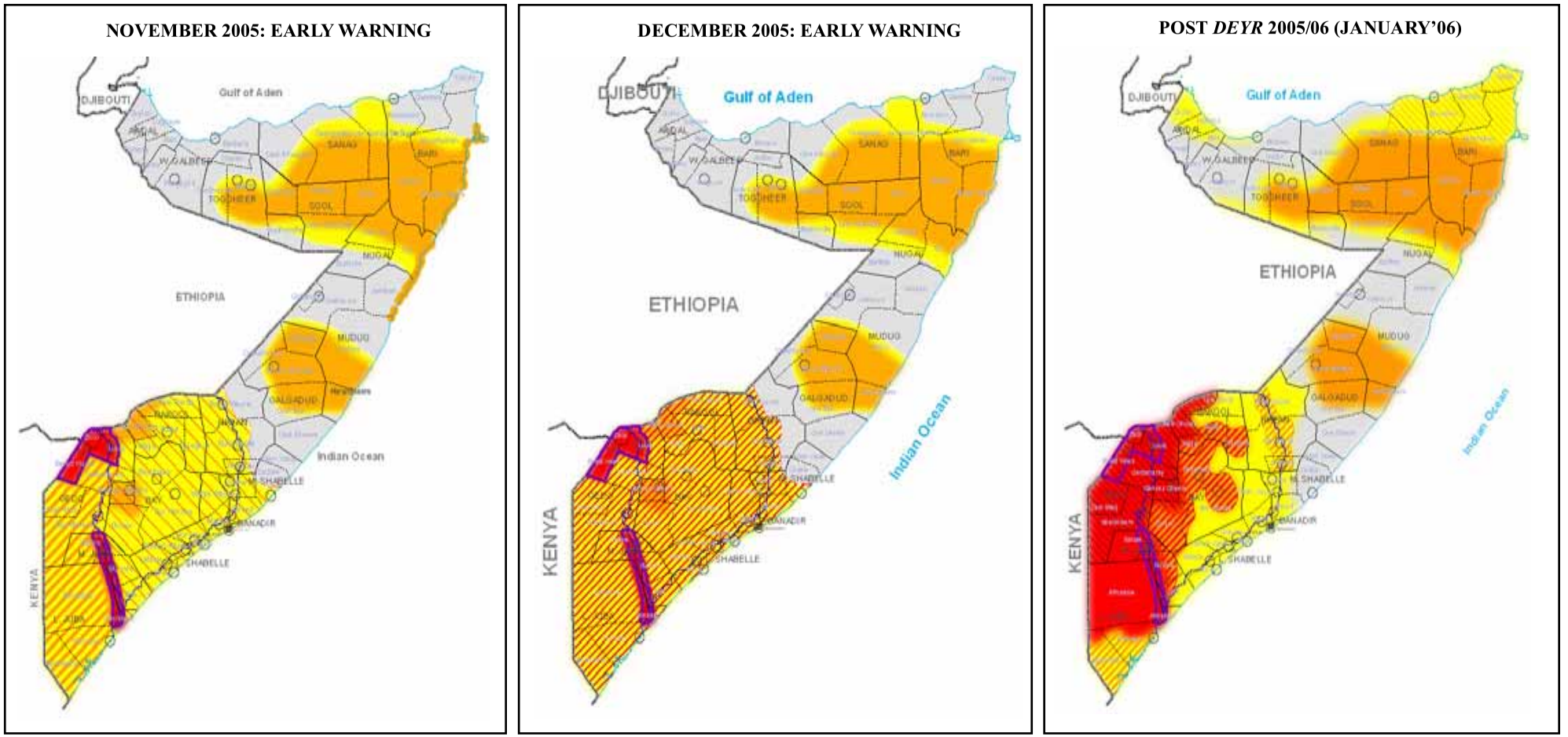


POST *GU* AUGUST 2005



Source: FSAU

7.5 Example of FSAU Integrated Phase Classification Progression in Early Warning - November '05 - January '06.



Source: FSAU

7.6 Existing Food Security Phase Classifications

FEWSNET ALERT LEVELS

EMERGENCY

A significant food security crisis is occurring, where portions of the population are now, or will soon become, extremely food insecure and face imminent famine. Decision makers should give the highest priority to responding to the situations highlighted by this Emergency alert.

WARNING

A food crisis is developing, where groups are now, or about to become, highly food insecure and take increasingly irreversible actions that undermine their future food security. Decision makers should urgently address the situations highlighted by this Warning.

WATCH

There are indications of a possible food security crisis. Decision makers should pay increasing attention to the situations highlighted in this Watch, and update preparedness and contingency planning measures to address the situation.

NO ALERT

There are no indications of Food Security problems.

Source: http://www.fews.net/alerts/index.aspx?pageID=alertLevelsDefined

appendix

7.7 Arid Lands Resource Management Project, Early Warning System - Warning Stages

NORMAL:	Environmental, livestock and pastoral welfare indicators show no unusual fluctuations and remain in the expected seasonal range.
ALERT:	Environmental indicators show unusual fluctuations outside expected seasonal ranges. This occurs within the entire district, or within localised regions, OR: Asset levels of households are still too low to provide an adequate subsistence level and vulnerability to food insecurity is high.
ALARM:	Environmental and livestock/ agricultural indicators fluctuate outside the expected seasonal ranges, affecting the local economy. This condition occurs in most parts of the district and directly and indirectly threatens food security of pastoralists and/or agro-pastoralists.
EMERGENCY:	All indicators are fluctuating outside the normal range. Local production systems are collapsed as well as the dominant economy within the district. The situation affects the asset status and purchasing power of the population to an extent that welfare levels have been seriously worsened resulting in famine threat.

Source: Ministry of Health, SCF-UK and Oxfam-GB. Report of Nutrition Survey in Central Division, Wajir District North Eastern Province, Kenya, August 31 to September 4, 2000
http://www.univ-lille1.fr/pfeda/Ethiop/Docs01/0105scf.doc

7.8 Famine Magnitude Scale of Howe and Devereux

Levels	Phrase designation	'Lives': malnutrition and mortality indicators	'Livelihoods': food security descriptors16
0	Food security conditions	CMR < 0.2/10,000/day and Wasting < 2.3%	Social system is cohesive; prices are stable; negligible adoption of coping strategies.
1	Food insecurity conditions	CMR >= 0.2 but < .5/10,000/day and/or Wasting >=2.3 but < 10%	Social system remains cohesive; price instability, and seasonal shortage of key items; reversible 'adaptive strategies' are employed.
2	Food crisis conditions	CMR >=.5 but < 1/10,000/day and/or Wasting > =10 but < 20% and/or prevalence of Oedema	Social system significantly stressed but remains largely cohesive; dramatic rise in price of food and other basic items; adaptive mechanisms start to fail; increase in irreversible coping strategies.
3	Famine conditions	CMR >=1 but < 5/10,000/day and/or Wasting > =20% but < 40% and/or prevalence of Oedema	Clear signs of social breakdown appear; markets begin to close or collapse; coping strategies are exhausted and survival strategies are adopted; affected population identify food as the dominant problem in the onset of the crisis.
4	Severe famine conditions	CMR >5= but <15/10,000/day and/or Wasting > = 40% and/or prevalence of Oedema	Widespread social breakdown; markets are closed or inaccessible to affected population; survival strategies are widespread; affected population identify food as the dominant problem in the onset of this crisis.
5	Extreme famine conditions	CMR > =15/10,000/day	Complete social breakdown; widespread mortality; affected population identify food as the dominant problem in the onset of the crisis.

Source: Howe, P. & S. Devereux. 2004. Famine intensity and magnitude scales: A proposal for an instrumental definition of famine. Disasters *28(4)*, 353-372. p 10

7.9 Objectives of Each Stage of Situation and Response Analysis

Stage	Overall Objective
Situation Analysis	To identify foundation aspects of a given situation upon which there should be technical consensus, including severity, magnitude, causes, and others.
Response Analysis	To identify the range of potential strategic responses (and their linkages) that could best mitigate short and longer term aspects of a situation, as well as the requirements to implement the response.
Response Planning	To identify and put in place operational requirements and systems, including advocacy and fund raising, to enable effective response.
Response Implementation	To implement multiple aspects of effective response including operational modalities and ensuring desired impact
Monitoring / Evaluation	To detect any changes in the Situation Analysis and determine degrees of impact of response.

7.10 Vulnerability Models - Turner et al. 2003

Fig. a Vulnerability framework. Components of vulnerability identified and linked to factors beyond the system of study and operating at various scales.

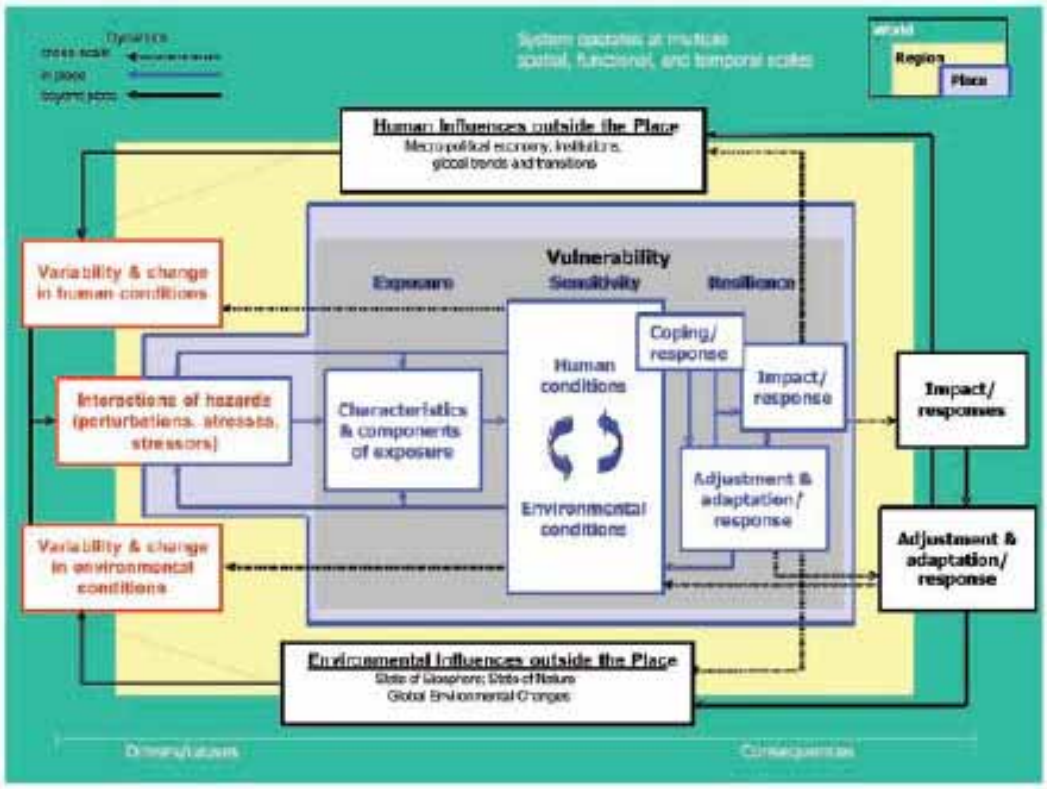
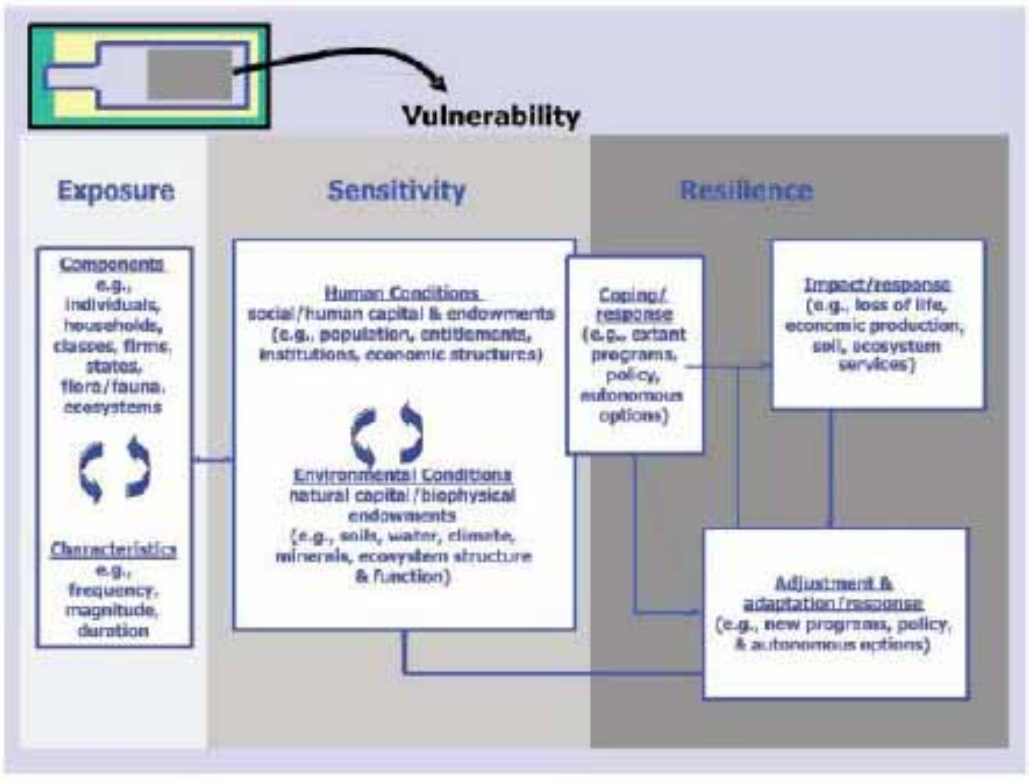


Fig b. Details of the exposure, sensitivity, and resilience components of the vulnerability framework. Figure at the top left refers to the full framework illustrated in Fig. A



Source: Turner, B.L., R. Kasperson, P. Matson et al. 2003. A framework for vulnerability analysis in sustainability science. Proceedings of the National Academy of Sciences of the United States of America *100 (14)*, 8074-8079.

APPENDIX H
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