



South Sudan

# **“Now the Forest is Blocked”: Shocks and Access to Food**

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## GEOGRAPHIC CLASSIFICATIONS

<b>Region</b>	Under the 10-state system still in use for humanitarian purposes, South Sudan is commonly divided into the three regions of Greater Equatoria (Western Equatoria, Central Equatoria, and Eastern Equatoria States), Greater Upper Nile (Upper Nile, Unity, and Jonglei States), and Greater Bahr el Ghazal (Lakes, Warrap, Northern Bahr el Ghazal, and Western Bahr el Ghazal)
<b>State</b>	States remain the largest recognized administrative unit for which there is a sub-national government body
<b>County</b>	Each state is comprised of counties
<b><i>Payam</i></b>	Each county is comprised of <i>payams</i>

## SUMMARY

In January 2018, an estimated 48% of the population remaining within South Sudan was classified as severely food insecure (over 5 million individuals) under the Integrated Food Security Phase Classification (IPC).<sup>1</sup> This represented a 40% increase from January 2017, when the IPC Key Messages described nation-wide food insecurity as “unprecedented” and declared Famine in two counties of central Unity State.<sup>2</sup>

To provide humanitarians in South Sudan with a better understanding of Famine risk in South Sudan, REACH gathered information on recent and historical experiences of severe hunger, “famine,” and the shocks that cause these circumstances, as told by South Sudanese. Using a qualitative and exploratory approach, 36 FGDs were conducted, yielding indicative findings for 22 counties across all regions of South Sudan.<sup>3</sup>

## KEY FINDINGS

Across South Sudan, numerous populations across different livelihood zones have experienced Famine within one or two generations, most recently in Greater Bahr el Ghazal and Greater Upper Nile.<sup>4</sup> The risk of Famine within the current crisis can be better understood by considering how affected communities experienced and responded to the processes that led to Famine and the experience of Famine once it began.

Respondents consistently reported that unusually severe natural shocks, such as flooding or a large-scale outbreak of crop pests, were the proximate cause of

historical Famines in assessed areas. However, these events followed or happened alongside extended periods of asset loss during armed conflict, with vulnerability to natural shocks, human disease outbreaks, market shocks, and other shocks reportedly increasing as livelihoods were eroded. In many assessed areas, communities reportedly shifted reliance from agriculture to livestock, wild foods, and kinship and social support networks in widely varying ways to bridge growing gaps in food consumption during periods of severe. While these periods were commonly noted by respondents from 1980 to the present, a collapse into Famine only occurred when continued shocks, individually and in combination, further eroded or suddenly removed these food sources and blocked other ways of coping with food insecurity.

Main shocks and some of the main ways they impact access to food included:

### Armed Conflict

- Central role in disruption to livelihoods and reduced access to food
- Holistic targeting of all livelihoods assets and strategies as rapidly accelerating deterioration into severe food insecurity, such as in central Unity State
- Selective targeting of livelihoods assets and strategies as having a wide-ranging impact on access to food, including intensified, large-scale cattle raiding since 2010
- Stark trade-offs reported between coping strategies for physical insecurity and food insecurity, forcing households and communities to make decisions regarding the

<sup>1</sup> South Sudan IPC Technical Working Group (TWG), IPC Key Messages: January 2018.

<sup>2</sup> South Sudan IPC TWG, IPC Key Messages: January 2017.

<sup>3</sup> This assessment utilized the IPC definition of Famine, including the theoretical view of Famine as a process in line with the IPC analytical framework. Catastrophe and Famine (IPC Phase 5) are often the result of an accumulation of one or multiple shocks which disrupt livelihoods and strain coping capacity to the point of collapse over time, often leading to distress migration and human disease outbreaks among severely food insecure populations. Capitalized Famine as a proper noun refers to the IPC Phase and its definition, while lower-case “famine” in quotation marks is used to refer to other definitions, such as those provided by FGD respondents, where it is not possible to confirm the

applicability of the IPC definition of Famine. See the November 2016 IPC Guidelines on Key Parameters for Famine Classification for definitions of Catastrophe and Famine.

<sup>4</sup> See the timeline of Famine events offered in Deng, Luka. Famine in the Sudan: Causes, Preparedness and Response – A Political, Social and Economic Analysis of the 1998 Bahr el Ghazal Famine. Institute for Development Studies 1999. Historical experiences of Famine are concentrated in areas of substantial armed conflict and violent asset stripping in the 1983-2005 war, while no historical experiences are recalled in Greater Equatoria outside of urban sieges and siege-like conditions after World War II. For urban sieges and siege-like conditions, see Human Rights Watch. Civilian Devastation: Abuses by All Parties in the War in Southern Sudan. 1994.



maximization of either safety or food consumption

- Continuation of armed conflict in-between the 1983-2005 war and the current crisis, especially in Greater Upper Nile, as preventing livelihoods recovery and bringing into question the strength of the asset base possessed by many communities when the current crisis began

## Displacement

- Various types of displacement as disrupting livelihoods, including short and long-term, often recurrent displacement
- Adaptive displacement as the shifting of settlements or clusters of settlements in response to persistent physical insecurity or food insecurity, leading to the relocation of whole communities across counties or into new counties, such as reportedly by the Leek Nuer in Rubkona County during the 1983-2005 war
- Reconsidering distress migration in response to food insecurity as occurring in stages, involving movement closer to alternative food sources, such as fishing camps and wild food collection areas, before relocation of households and communities to urban centers and/or displacement camps if food insecurity worsens

## Natural Shocks

- Discussed as the most commonly occurring shocks and typically as having a low impact on access to food
- Also described as having the greatest potential for acting as a catalyst for Famine levels of hunger during periods of armed conflict when vulnerability has been increased
- Several key aspects of natural shocks to consider in Famine early warning emerged in discussions:
  - Geographic and social magnitude of shock – which geographic areas and social groups are affected? How does the scope of the shock impact social and kinship support networks?

- Successive years of crop failure over the same geographic area and among the same social groups, where repeated crop failure begins to severely strain local coping capacity with or without armed conflict
- Lean season milk access and long-term herd viability among cattle-keeping populations, where insufficient milk access represents an immediate rise in vulnerability and declining herd sizes a mid to long-term increase in vulnerability
- Concurrent loss of multiple main food sources, such as agriculture, livestock, and wild foods, in the same year

- Different types of pollution and changes to local climate perceived as contributing factors to recent food insecurity

## Markets

- Markets essential to typical strategies for coping with food insecurity
- Market shocks may also precipitate food insecurity, including through price spikes and disruption to the casual labor markets in both market towns and rural agricultural systems
- Market actors may directly or indirectly disrupt markets themselves, including through trader flight, collusive trade practices, and price gouging

## Human Disease Outbreaks

- Both driver and consequence of food insecurity, sometimes leading to a cycle of worsening hunger, sickness, and death
- Negative effects of human disease outbreaks on labor availability, displacement as populations flee outbreaks, and an overall heightened risk of death for food insecure populations
- Human disease outbreak also prevent displacement, where affected populations in especially remote areas may become too weak to displace
- Trade-offs among coping strategies used for human disease outbreaks, food insecurity,

and physical insecurity, forcing stark choices between health, protection, and food security for households and communities

### Unexpected Cessation of Aid as a Shock

- Local definitions of destitution closely matching external definitions, with a strong emphasis on dependence on assistance from friends and relatives and/or humanitarians
- Some populations described shocks over time as leading to a loss of independence and an inability to access sufficient food without assistance from friends, family, and humanitarians
- Unexpected changes to aid delivery discussed as shocks themselves among populations described as dependent, including Leer and Mayendit Counties

### Policy Changes as Shocks

- Often forgotten within a humanitarian crisis, but still noted as highly impactful
- Examples of policy changes disruptive to livelihoods and typical coping strategies:
  - The devaluation of the South Sudanese Pound and the many price shocks noted by respondents
  - Previous disarmament campaigns and the substantial cattle losses reportedly associated with them
  - Hunting regulations and the administrative blocking of coping strategies

### A CASE OF “FAMINE” IN NORTHERN UNITY STATE 1987-1992

While the Greater Bahr el Ghazal Famines of approximately 1988-1989 and 1998-1999 are well-documented,<sup>5</sup> a period of “famine” was identified locally in what is now northern Unity State. This set of events demonstrates how many of the shocks discussed in FGDs reportedly interacted from 1987-1992 to create conditions which local communities characterized by extreme hunger and large numbers of deaths related to hunger and disease. Respondents from Rubkona, Guit,

Koch, and Leer Counties in Unity State gave similar accounts of a series of natural shocks within a long period of severe raiding followed by a large-scale outbreak of kala azar, otherwise known as visceral leishmaniasis.

- Locally described set of named events leading to substantial deaths from hunger and disease
- Long-term livelihoods disruption occurred through the 1980s and 1990s from armed conflict, especially loss of assets through raiding
- A dry period in 1987 was closely followed by a severe crop pest outbreak
- Following widespread harvest failure, a hunger period known as *Ruon Nyakuojok* occurred in 1988
- 1988-1991 northern Unity communities noted an intense kala azar epidemic, especially in food insecure areas
  - Other research covering 1984-1994 in the same geographic area noted up to 100,000 deaths in the epidemic<sup>6</sup>

### IMPLICATIONS FOR FAMINE EARLY WARNING

Several implications follow from this typology of shocks and the main ways in which they impact access to food, especially related to historical periods of severe and extreme food insecurity.

Most importantly, even when shocks and their impact on access to food and other areas of well-being, such as health, are tracked at all, it is often by many different components of the humanitarian response in South Sudan and so the data is not generally analysed together. Famine early warning in South Sudan would greatly benefit from more robust and regular shocks monitoring, with the subsequent analysis and any follow-on assessments contextualized to the greatest extent feasible with time and resource constraints.

<sup>5</sup> See Keen, David. The Benefits of Famine: a Political Economy of Famine and Relief in Southwestern Sudan, 1983-1989. Princeton University Press, 2008; Deng 1999; Human Rights Watch. *Famine in Sudan, 1998: The Human Rights Causes*. 1999.

<sup>6</sup> Seaman, J, et al. “The Epidemic of Visceral Leishmaniasis in Western Upper Nile, Southern Sudan: Course and Impact from 1984 to 1994.” *International Journal of Epidemiology*, vol. 25, no. 4, 1996, pp. 862–871.

## SHOCKS MONITORING

- Monthly tracking of shocks along several dimensions for both timely response and early warning for Famine
    - Including shock frequency, intensity, and both geographic and social magnitude
  - Utilize existing data streams, including REACH Area of Knowledge monthly remote monitoring, biweekly sectoral program reporting including from health and nutrition sites, and regular nation-wide assessments, such as the biannual Food Security and Nutrition Monitoring System and the annual Crop and Food Security Assessment Mission
  - Flag counties and potentially sub-county areas for on-the-ground assessment and verification of needs
  - Requires inter-cluster data sharing and joint analysis, especially among the Food Security and Livelihoods, Nutrition, Health, and Water, Hygiene and Sanitation Clusters
  - Requires buy-in from main decision-making bodies within the response
    - Humanitarian Country Team
    - Inter-cluster Working Group
    - Cluster lead agencies and co-leads
    - Donors
  - Potential for an online dashboard for use in timely response and early warning
    - Different levels of detail for analysts, operational partners, and strategic decision-makers
- Applicable to a wide range of humanitarian assessments, including household surveys, rapid assessments, and program monitoring

## COPING STRATEGY ANALYSIS

- Consider use of multi-sector coping strategy tools and analysis, including health, protection, and food security, in recognition of the often severe overlap in the options available to households and communities
- Analyze both usage and exhaustion of strategies, as areas at the greatest risk of Famine are those with collapsing or exhausted coping capacity, making an understanding of the use and non-use of strategies essential



## INTRODUCTION

In January 2018, an estimated 48% of the population remaining within South Sudan (over 5 million individuals) was classified as severely food insecure under the IPC in South Sudan.<sup>7</sup> This represented a 40% increase from January 2017, when the IPC Key Messages described nation-wide food insecurity as “unprecedented” and declared Famine in two counties of central Unity State.<sup>8</sup> IPC Key Messages following that Famine declaration, including both September 2017 and January 2018, have continued to warn of a continued risk of Famine in a growing number of counties across South Sudan.<sup>9</sup>

The caseload for severe food insecurity, considered as individuals classified as Crisis, Emergency, or Catastrophe/Famine (IPC Phases 3, 4, and 5), has been steadily rising across successive lean seasons<sup>10</sup> from January 2015. Each harvest season has likewise shown a smaller improvement in food security each year as cereals production continues to decline.<sup>11</sup> The national cereals deficit in 2018 is 26% larger than 2017 and net cereals production in 2017 was 14% below the five-year average.<sup>12</sup> From late 2016 through the end of 2017, REACH observed similarly concerning trends in access to food and livelihood sources through its Area of Knowledge (AoK) remote monitoring in assessed counties within all three of South Sudan’s regions.<sup>13</sup>

To inform analysis of acute food insecurity and the identification of geographic areas at risk of Famine,

REACH sought to better understand local experiences of the most common and most impactful shocks, with special attention to shocks perceived by local communities as most severely affecting their access to food. A qualitative and exploratory assessment was undertaken to gather basic information on local experiences of Famine, the shocks perceived to have caused them, and the general effects of these shocks on food security.

This report first outlines the methodology used in the assessment before outlining key findings, including a discussion of the identified shocks and the main ways in which they negatively impact food security in rural South Sudan. A case study of a locally defined “famine” illustrates how many of these shocks reportedly combined to cause substantial destitution and death related to hunger and disease. The report concludes with a discussion of the implications of the findings for informing timely response to severe and deteriorating food insecurity and early warning for Famine. Each section ends with a summary table of main implications of the findings for Famine early warning in South Sudan.

## METHODOLOGY

This assessment was qualitative and exploratory, focusing on the perceptions of local communities and their experiences of Famine, hunger, destitution, and shocks.<sup>14</sup> This assessment utilized the IPC definition of Famine, including the theoretical view of Famine as a process in line with the IPC analytical framework.

<sup>7</sup> South Sudan IPC TWG, IPC Key Messages: January 2018.

<sup>8</sup> South Sudan IPC TWG, IPC Key Messages: January 2017.

<sup>9</sup> The September 2017 Key Messages projected “In the worst case scenario, given the severity of the food security and nutrition situation observed during the 2017 lean season, continued conflict, humanitarian access constraints, climatic shocks and macro-economic instability leading up to the 2018 lean season will likely result in Famine (IPC Phase 5) conditions in multiple locations across South Sudan” while the January 2018 Key Messages noted “If the current drivers of food insecurity worsen through the end of 2018, and in the absence of humanitarian assistance, there is a heightened risk of Famine in areas where large populations are already experiencing severe food insecurity”. See South Sudan IPC TWG, IPC Key Messages: September 2017 and Key Messages: January 2018.

<sup>10</sup> While the timing and length of the lean season may vary in any given year due to many factors, it can be considered as May-July here. See the seasonal and consumption calendars for various parts of the country in Famine Early Warning

Systems Network’s (FEWS NET) South Sudan Livelihood Zones and Descriptions, August 2013.

<sup>11</sup> South Sudan IPC TWG, IPC Key Messages Presentation, March 2018.

<sup>12</sup> Ibid.

<sup>13</sup> REACH Food Security Update: Harvest Season, November 2017.

<sup>14</sup> Luka Deng strongly criticized Famine early warning during Operation Lifeline Sudan (OLS) as out of touch with local communities, pointing out that “The endless cycle of assessments, the ‘spatial biases,’ the lack of continuity and institutional memory, together with the burden of current jargon that ‘Africans do not starve but they cope’, all led to a food economy approach that was in-sensitive to changes in people’s vulnerability and unhelpful for effective targeting of relief food aid” in Deng 1999. For the importance of local perceptions of food insecurity and Famine in early warning generally, see also Buchanan-Smith, Margaret, and Susanna Davies. Famine Early Warning and Response the Missing Link. Intermediate Technology, 1995; Burg, S. M. M. (2008);

Catastrophe<sup>15</sup> and Famine<sup>16</sup> (IPC Phase 5) are often the result of an accumulation of one or multiple shocks which disrupt livelihoods and strain coping capacity to the point of collapse over time, often leading to distress migration and human disease outbreaks among severely food insecure populations. Capitalized Famine as a proper noun refers to the IPC Phase and its definition, while lower-case “famine” in quotation marks is used to refer to other definitions, such as those provided by FGD respondents, where it is not possible to confirm the applicability of the IPC definition of Famine.

A qualitative methodology using Focus Group Discussions (FGD) and Key Informant Interviews (KII) was used to address three key research questions. Data saturation was not sought in this round.

## RESEARCH QUESTIONS

1. What were the main shocks perceived by affected communities as having caused the most recent experience of severe food insecurity or locally defined “famine”?
  - a. Shocks were considered along four dimensions:
    - i. *Occurrence*: Which shocks have occurred over various periods of time, including from the start of the current crisis in late 2013 and since the 2005 signing of the Comprehensive Peace Agreement (CPA)?
    - ii. *Intensity*: How severe was the impact of shocks individually and in combination on food access

and livelihoods each time it occurred?

- iii. *Recurrence*: How often has the same shock, at varying intensities, occurred?
  - iv. *Concurrence*: When different shocks overlapped or occurred successively, how did local communities experience the combined effect on food access and livelihoods?
2. How did these shocks – separately and together – affect hunger?
  - a. What were the pathways by which shocks affected different aspects of rural livelihood systems? How did shocks interact with each other and with livelihoods sources in ways that led to severe hunger or “famine”?
3. How do local populations compare what they identify as their most recent experience of severe hunger or “famine” with a previous period of locally defined severe hunger or “famine”?
  - a. Given the historical frequency of Famine in South Sudan, it is helpful to compare recent experiences of severe hunger or Famine to historical periods where local communities report having experienced “famine.” Regardless of externally available data, do local communities feel that they experienced an especially food insecure period and how do they compare it with historical experiences?

de Waal, Alexander. *Famine That Kills* Darfur, Sudan. Oxford University Press, 2005; and Young, Helen, and Susanne Jaspars. *Nutrition Matters: People Food and Famine*. Intermediate Technology Publications, 1995.

<sup>15</sup> IPC allows classification of households into Catastrophe (IPC Phase 5) independently of acute malnutrition prevalence and death rates and is solely based on analysis of food consumption, livelihood change, and contributing factors to food insecurity. In Catastrophe (IPC Phase 5), households are expected to have an extreme lack of food and/or other basic needs even with full employment of coping strategies where starvation and destitution are evident. Households may be in Catastrophe (IPC Phase 5), but the area may not be classified as Famine (IPC Phase 5) if widespread deaths and acute malnutrition have not yet been expressed at the area level, such as when the population facing Catastrophe

represents less than 20% of the area population, the geographic scope of Catastrophe conditions is very limited, or because of the natural time delay expected between food deprivation and collapse of livelihoods, and the consequent increases in acute malnutrition prevalence and death rates. See the November 2016 IPC Guidelines on Key Parameters for Famine Classification.

<sup>16</sup>For IPC, Famine (IPC Phase 5) exists in areas where, even with the benefit of any delivered humanitarian assistance, at least one in five households has an extreme lack of food and other basic needs. Extreme hunger and destitution are evident. Significant mortality, directly attributable to outright starvation or to the interaction of malnutrition and disease, is occurring. See the November 2016 IPC Guidelines on Key Parameters for Famine Classification.

## DATA COLLECTION

Data collection occurred from 8 December, 2017 to 9 January 2018, with the exception of two Kapoeta South County FGDs, which were conducted on 5 March, 2018. In total, 36 FGDs were conducted with 196 participants, averaging 5.3 participants per FGD. 13 FGDs were held with only men, 14 were held with only women, and 9 were mixed-sex. Respondents included 91 adult males (48%) and 100 adult females (52%). A total of 22 counties were assessed across Greater Equatoria, Greater Upper Nile, and Greater Bahr el Ghazal. Coverage included counties from seven of ten former states (exclusive of Northern Bahr el Ghazal, Warrap, and Central Equatoria States) and at least some portion of all eleven livelihood zone profiles identified by the FEWS NET in August 2013.<sup>17</sup> Nine KIIs were conducted, all with men.

Table 1: Data Collection Activities

	FGDs	KIIs
<b>Male-only</b>	13	9
<b>Female-only</b>	14	0
<b>Mixed-sex</b>	9	-

Table 2: Data Collection Coverage

	FGDs	KIIs
<b>Counties with at least one FGD or KII</b>	22	9
<b>States with at least one county assessed</b>	7	3

FGDs were conducted by field-based staff at nine REACH field bases in Yambio town, Yambio County, Western Equatoria State, Kapoeta town, Kapoeta South County, Eastern Equatoria State, the Minkaman humanitarian hub in Aweril County, Lakes State, Bor town, Bor South County and Akobo town, Akobo County, Jonglei State, Renk town, Renk County, Upper Nile State, Nyal town, Panyijiar County and Bentiu town, Rubkona County, Unity State, and Wau town, Wau County, Western Bahr el Ghazal State.

Each FGD sought to have 6-10 participants. While a minimum of one all-male FGD and one all-female FGD per assessed county was attempted, this was not always possible. FGD questions were intended to cover one whole county at a time, though discussions occasionally covered larger geographic areas regarding historical events and their impact on food security. This assessment utilized only administrative areas from the former 10-state system in use by the United Nations (UN) for humanitarian purposes.

While the inclusion of at least one participant from each of the former *payams* of a given county was desired, this was not possible for each FGD. Additional participants were sometimes also included depending on the number of *payams* in a county and to account for *payams* with reportedly larger shares of the county population. Participants under 18 years of age were ineligible, and while age was not an explicit component of inclusion criteria beyond this, facilitators were encouraged to seek out respondents over 30 and/or the elderly and older and current long-term residents or, until recently, long-term residents of the county under discussion to allow for longer historical recall. Most participants were interviewed outside of the county under discussion, including those recently displaced, travelling regular to and from the county, or previously from the county and still in regular contact with people in it.

KIIs were conducted to triangulate FGD findings. Interviewers were instructed to seek out Key Informants (KI) with historical knowledge of specific counties or sets of counties, including those considered as local historians by their communities.

Data was recorded by hand in the field and then notes were transcribed at field bases. FGD and KII transcripts were analysed for common themes and differences by geographic area, livelihood zone profiles, and gender. Direct quotes and some events and concepts, such as the reported crop pests of the period *Ruon Rahk*, were rechecked with FGD facilitators after the data collection as needed.

Secondary data was used to corroborate qualitative findings where possible, especially distinct events discussed by respondents such as severe crop pest or

<sup>17</sup> FEWS NET 2013.

human disease outbreaks. These included a range of humanitarian, human rights, and academic sources.

## LIMITATIONS

- **Mobilization:** It was not always possible to ensure at least six FGD participants, representation of each former *payam* for assessed counties, and single-sex FGDs. Eight counties were assessed with only one FGD.
- **Coverage:** FGDs were limited in Greater Bahr el Ghazal and focused primarily on agriculturalists in Western Bahr el Ghazal. Further FGDs in Greater Bahr el Ghazal, especially with agro-pastoralist communities from the Western Flood Plain in Northern Bahr el Ghazal, Warrap, and western Lakes States, are needed to more deeply probe experiences of the 1988-1989 and 1998-1999 Greater Bahr el Ghazal Famines. All FGDs focused on rural communities, with the exception of Kapoeta South, which was mixed between urban and rural respondents. Findings should be considered only applicable for rural populations and their livelihoods, not urban populations. This also likely reduces the reporting and perceived importance of market-related shocks in this analysis.
- **Lack of Saturation:** All the information presented in this assessment should be considered indicative of key themes that are common, but of uneven importance, throughout the assessed counties. Findings should not be taken as representative of the population as a whole. Further assessment is needed to cover additional populations in Greater Bahr el Ghazal and Greater Equatoria, explore key findings more deeply, and engage in more targeted research for humanitarian programming.

## KEY FINDINGS

The following sections highlight findings related to main shocks and their impact on livelihoods and coping, including armed conflict, displacement, natural shocks

related to rainfall, flooding, and crop pest and livestock disease outbreaks, markets, human disease outbreaks, and a series of less common shocks, including the unexpected end of food assistance, pollution and toxic remnants of war, disarmament campaigns, and shifts in the policy environment, including macro-economic policy, disarmament campaigns, and hunting regulations.

## HISTORICAL EXPERIENCES OF FAMINE AND PERSPECTIVES ON CURRENT FOOD INSECURITY

Across South Sudan, numerous populations across different livelihood zones have experienced Famine within one or two generations, extending back to the 1980s, most recently in Greater Bahr el Ghazal and Greater Upper Nile.<sup>18</sup> The risk of Famine within the current crisis can be better understood by considering how affected communities experienced and responded to the processes that led to Famine and their experiences of Famine once they began.

Respondents consistently reported that unusually severe natural shocks, such as severe flooding or a large-scale outbreak of crop pests, were the proximate cause of historical Famines in assessed areas. However, these events followed or happened alongside extended periods of asset loss during armed conflict, with vulnerability to natural shocks, human disease outbreaks, market shocks, and other shocks reportedly increasing each year. In many assessed areas, communities reportedly shifted reliance from agriculture to livestock, wild foods, and kinship and social support networks in widely varying ways to bridge growing gaps in food consumption each year. While severe or serious hunger was commonly reported from 1980 to the present, a collapse into Famine only occurred when continued shocks, individually and in combination, further eroded or suddenly removed these and other methods of coping with food insecurity.

The worst known Famine years reported in the assessed areas, 1987-1989 and 1998-1999 in WBeG<sup>19</sup>

<sup>18</sup> See the timeline of Famine events offered in Deng, Luka. Famine in the Sudan: Causes, Preparedness and Response – A Political, Social and Economic Analysis of the 1998 Bahr el Ghazal Famine. Institute for Development Studies 1999. Historical experiences of Famine are concentrated in areas of substantial armed conflict and violent asset stripping in the 1983-2005 war, while no historical experiences are recalled

in Greater Equatoria outside of urban sieges and siege-like conditions after World War II. For urban sieges and siege-like conditions, see Human Rights Watch. Civilian Devastation: Abuses by All Parties in the War in Southern Sudan. 1994.

<sup>19</sup> In Western Bahr el Ghazal, Jur River Female FGD respondents provided the most detail regarding experiences of Famine events during 1987-1989 and 1998-1999 in this



and roughly 1987-1992 in what is now central and northern Unity State and Fangak County in Jonglei State, all broadly followed this pathway to Famine or “famine”. While local experiences of shocks differ widely, community responses to them also showed general similarities in coping. In comparison, the period 2013-2017, or specific years within this range, were often described as times of severe hunger and livelihoods disruption caused by armed conflict, but not necessarily “famine” levels of hunger, acute malnutrition, disease, migration, and death.

In making comparisons between historical Famine or “famine” experiences and the current crisis, respondents often contrasted magnitude and intensity between periods. The magnitude of shocks was often given in both geographic and social scope, noting how far over a given physical area a shock extended and which social units were affected, ranging from nearby settlements up to larger sub-tribes that now may occupy roughly a county (such as the Leek Nuer of Rubkona County), as this would determine the overall availability of resources that could be drawn on and shared by affected communities. Discussions of intensity largely focused on deaths due to all causes, including interactions of conflict and violence, disease, malnutrition, and hunger.<sup>20</sup>

*Table 3: Historical Famine Experiences and Implications for Famine Early Warning*

<i>What</i>	<i>How</i>
<i>Comparisons of Historical Periods and Present Crisis – Magnitude and Intensity</i>	FGD and KII comparisons; possible inclusion in AoK and rapid assessments

assessment, though the Wau County Female FGD noted the same Famine with a substantial number of deaths related to hunger. Raga Mixed 1 FGD respondents noted that while they perceived the rest of the country as in Famine in 1998-1999, they retained access to cereals imports from northern Sudan, in stark contrast to the rest of Greater Bahr el Ghazal. See Human Rights Watch 1999 for a deeper discussion of the 1998-1999 Greater Bahr el Ghazal Famine.

<sup>20</sup> Respondents often discussed these events in a way comparable to an earlier proposal by Howe and Devereux for measuring Famines. See Howe, Paul, and Stephen Devereux. “Famine Intensity and Magnitude Scales: A Proposal for an Instrumental Definition of Famine.” *Disasters*, vol. 28, no. 4, 2004, pp. 353–372.

## ARMED CONFLICT

Within South Sudan, livelihood assets and strategies have been frequent targets during armed conflict, ranging from the seizure of cattle, food stores, and agricultural tools to the chopping and burning of fruit trees. Less attention is often paid to the trade-offs that communities are forced to make in responding to physical insecurity and food insecurity that often have a substantial, though less obvious, effect on access to food. Additionally, many respondents noted frequent, or even continuous, armed conflict from the time of the Comprehensive Peace Agreement in 2005 to the onset of the current conflict in late 2013, largely precluding livelihoods recovery and in some cases continuing an erosion of sustainable livelihoods.

### Livelihoods as a Target of Armed Conflict

FGD discussions revealed differing ways in which armed conflict can directly and immediately affect livelihoods, often leading to a rapid deterioration in food security. As noted in previous Famines in South Sudan and in other regional conflicts, different armed actors often target livelihoods in diverse ways in order to further a wide range of objectives, all of which may change over time.<sup>21</sup> The consequences for food security likewise differ, with armed conflict rapidly causing severe hunger in some situations and contributing to multi-year decline in others.

While asset-stripping actions like cattle raiding and looting are common across the country, and have been in previous conflicts in South Sudan,<sup>22</sup> the targets and intensity of these actions are highly uneven from one event to the next.<sup>23</sup> One key distinction made by

<sup>21</sup> Consider the typology of looting offered by Jutta Bakonyi in “Between Protest, Revenge and Material Interests: a Phenomenological Analysis of Looting in the Somali War.” *Disasters*, vol. 34, 2010.

<sup>22</sup> For example, see descriptions of asset-stripping in the second Sudanese civil war in Johnson, Douglas H. *The Root Causes of Sudan's Civil Wars: Old Wars and New Wars*. James Currey, 2016; Keen 2008.

<sup>23</sup> In a series of analyses of the 1998-1999 Famine in Greater Bahr el Ghazal, Luka Deng notes how raids from armed actors of different backgrounds, Baggara Arabs and Dinka militias, diverged in their effect on Dinka communities in what is now Warrap State and Lakes State. Raiders from a community similar to targeted communities generally had a more severe impact on asset loss than raids from a



respondents was the selectivity of targeting, differentiating between events where “everything” related to livelihoods was targeted, rendering communities destitute and dependent on outsiders, and events that impacted only some assets, such as cattle.

*Holistic targeting: “The county has been flattened”<sup>24</sup>*

Where livelihoods are targeted holistically, most or all available assets and strategies linked to survival are affected simultaneously or in rapid succession, sometimes recurrently over two or more years. Some of the only respondents to describe this situation were from Leer and Mayendit (and to a lesser extent Panyijiar), where a series of Famine warnings were issued in 2015 and 2016 before a declaration of Famine in early 2017.<sup>25</sup> Additionally, some respondents originating from Malakal or settlements on the West Bank of the White Nile also described similar circumstances, though not to the same degree as Unity State respondents.<sup>26</sup> Broadly, respondents described the seizure or destruction of assets like household items, livestock, stored food, and agricultural implements in combination with the large-scale destruction of shelters, community infrastructure like boreholes and health facilities, livestock infrastructure such as *luaks*, dugout canoes, and fruit trees. Grassland may also be burned out of season to deny its usage to cattle herds or to force herds to seek inferior grazing or move to more vulnerable locations. Severe restrictions on movement for people and livestock were established through acts of violence and the creation of strong perceptions of physical threat, leaving often

plentiful wild foods and fish inaccessible to affected populations and forcing livestock into unhealthy environments.<sup>27</sup>

As discussed in various ways by respondents, food security can rapidly deteriorate in these circumstances, even if successful harvests or livestock migrations were recently completed among local communities. If done over a wide area, social and kinship support may not be forthcoming, as the destitute are unable to assist the destitute. As explained by male respondents from Mayendit County:

*“Conflict made people vulnerable. when you depend on your relative, like your sons, and they are all killed, who will support you again?” Male-only FGD with respondents from Mayendit County, conducted in Nyal town, Panyijiar County, Unity State, December 2017*

Vulnerability to natural shocks and human disease outbreaks may rise substantially in previously resilient communities within the affected area, as described by Duk County respondents in discussions of raiding. While not an explicit topic of question in FGDs, recovery from such periods may be difficult given the dearth of remaining assets, stretching or breaking of social and kinship support networks, losses in household labor through displacement and death, and enduring vulnerability to insecurity.

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community different from targeted communities. See Deng, Luka Biong. “Are Non-Poor Households Always Less Vulnerable? The Case of Households Exposed to Protracted Civil War in Southern Sudan.” *Disasters*, vol. 32, no. 3, 2008, pp. 377–398; Deng, Luka. *Confronting civil war: a comparative study of household assets management in civil war*. Institute of Development Studies, 2002.

<sup>24</sup> Male FGD respondent speaking about Leer County, conducted in Nyal town, Panyijiar County, Unity State in December 2017.

<sup>25</sup> South Sudan IPC TWG, IPC Key Messages: August–September 2015; December 2015 Update; April 2016 Update.

<sup>26</sup> Amnesty International noted large-scale asset-stripping, shelter destruction, and displacement from January to May 2017 in “It was as if My Village Was Swept Away by a Flood”: Mass Displacement of the Shilluk Population from the West Bank of the White Nile. 2017. This bore similarities to an earlier period of displacement in 2003–2004. See *Thousands*

*Displaced by Militias into Malakal*. IRIN, 1 Dec. 2015, [www.irinnews.org/report/49562/sudan-thousands-displaced-militias-malakal](http://www.irinnews.org/report/49562/sudan-thousands-displaced-militias-malakal).

<sup>27</sup> The Protection Cluster, various human rights monitors, and conflict analysts noted similar patterns of events in Unity in 2015. For example, see South Sudan Protection Cluster. *Protection Situation Update: Southern and Central Unity* (April – September 2015). 2015; South Sudan Protection Cluster. *Protection Situation Update: Leer County, Southern Unity* (October – December 2015). 2015; South Sudan Protection Cluster. *Protection Situation Update: Leer County, Southern Unity State* (May 2016). 2016; Human Rights Watch. “They Burned It All”: Destruction of Villages, Killings, and Sexual Violence in Unity State, South Sudan. 2015; Amnesty International. “We Are Still Running”: War Crimes in Leer, South Sudan. 2016; Craze, Joshua, et al. *A State of Disunity: Conflict Dynamics in Unity State, South Sudan, 2013–15*. Small Arms Survey, 2016.

### *Selective targeting: cattle raiding and livelihoods disruption*

Respondent discussions of more selective livelihoods targeting during armed conflict most commonly focused on cattle and did not generally refer to efforts to inhibit a wider range of livelihood strategies. This selective targeting of livelihoods often takes the form of cattle raids, which may involve anywhere from several unarmed individuals and a single household's cattle up to thousands of organized armed individuals and tens of thousands of cattle.<sup>28</sup> Several FGDs noted how cattle raiding had increased in intensity, including through numbers of cattle taken and deaths due to violence during raids, at various points from the time of the CPA through to the present, especially respondents from Uror, Nyirol, and Duk County in Jonglei State, Yirol West County in Lakes State, Panyijiar County in Unity State, and Kapoeta South County in Eastern Equatoria State.<sup>29</sup>

Recurrent and severe cattle raiding, which may also involve shelter destruction and cereals theft, may push communities more reliant on cattle for milk, meat, and as tradeable assets into severe food insecurity, even if cattle are predominantly the only asset targeted. As noted by a female FGD respondent in Panyijiar County, "There is nothing to survive on since our cattle were looted. Since our cattle have been raided, it exposes us to terrible hunger". Cattle losses may preclude many

common coping strategies, such as exchanging cattle for cereals, while the raids themselves may prompt short-term displacement and can involve a potentially high number of deaths. Respondents from Duk, Yirol West, and Kapoeta South Counties also described how the security environment may deteriorate over time, such as through tit-for-tat cattle raids,<sup>30</sup> to the point where freedom of movement for people and livestock becomes highly restricted in a similar way to areas contested by armed groups, limiting the utilization of markets, arable land, and wild foods.

### **Trade-offs in Coping Strategies: Protection and Food Security**

The ways in which communities cope with protection issues during periods of insecurity often overlap with how they may prefer to cope with food insecurity, frequently forcing households to choose between increased physical safety and safeguarding food consumption and/or livelihoods.<sup>31</sup> More than half of all FGDs across various livelihood zones described a tension between these types of coping, most commonly through restricted movement and its effects on food security. Especially for agro-pastoralism on the flood plains of Greater Upper Nile and Greater Bahr el Ghazal, the sustainable practice of pre-crisis livelihoods and the ability to respond to shocks is intrinsically linked to freedom of movement for people and livestock.<sup>32</sup>

<sup>28</sup> One of the largest incidents in South Sudan to date involved an estimated 6,000-8,000 armed youth in several organized columns, observed from aerial reconnaissance, attacking a series of towns and other settlements in Pibor County, killing hundreds and displacing over 10,000 individuals. See United Nations Mission in South Sudan. Incidents of Inter-communal Violence in Jonglei State. 2012.

<sup>29</sup> A range of authors have noted the transformation of cattle raiding in South Sudan after 2005. For example, see Pendle, Naomi. "They Are Now Community Police": Negotiating the Boundaries and Nature of the Government in South Sudan through the Identity of Militarised Cattle-Keepers." *International Journal on Minority and Group Rights*, vol. 22, no. 3, 2015, pp. 410-434; Wild, Hannah, et al. "The Militarization of Cattle Raiding in South Sudan: How a Traditional Practice Became a Tool for Political Violence." *Journal of International Humanitarian Action*, vol. 3, no. 1, 2018; Small Arms Survey. *My neighbour, my enemy*. Inter-tribal violence in Jonglei. Human Security Baseline Assessment, 2012.

<sup>30</sup> From 2010 to 2012, for example, an escalatory cycle of cattle and other punitive raiding took hold among several main communal groups in Jonglei. See Gordon, Rachel. In

the Eye of the Storm: An Analysis of Internal Conflict in South Sudan's Jonglei State. Secure Livelihoods Research Consortium, 2014; South Sudan's Hidden Crisis: How Violence against Civilians Is Devastating Communities and Preventing Access to Life-Saving Healthcare in Jonglei – November 2012. *Medicins sans Frontières*, 2012.

<sup>31</sup> For a general discussion of protection and livelihoods a typology of coping strategies overlap, see Jaspars, Susanne, and SORCHA O'Callaghan. *Challenging Choices: Protection and Livelihoods in Conflict*. Overseas Development Institute, 1 June 2010.

<sup>32</sup> In introducing the 2006 Livelihood Zones for Southern Sudan, derived from over 3,000 food security reports from OLS, Muchomba and Sharp, in collaboration with Luka Deng of the then Southern Sudan Centre of Census, Statistics, and Evaluation, note that "The success or failure of all livelihood systems in southern Sudan rests on the ability of people to move and to trade. Mobility allows people to take advantage of seasonal food opportunities in different areas, such as fish and wild foods; it is also crucial for the survival of livestock, which depend on regular migrations between dry and wet season grazing areas" and that "It is only when insecurity keeps people or cattle from moving that periods of unusually

As described by male and female respondents from Nyirol County, typical coping frequently involves movement to access additional resources:

*“What can happen to the community that may make the households severely lack food and ways to get food, the people should migrate from their previous settlement where they [are] facing severe hunger to another settlement where they can access enough food.”- Mixed-sex FGD with respondents from Nyirol County, conducted in Akobo town, Akobo County, Jonglei State, December 2017*

The imposition of restrictions on movement and livelihoods often occurs through the creation of areas of general insecurity, where the threat of violence more than actual violence may effectively close roads and bush routes and make agricultural land, preferred grazing and watering sites, and food-producing bush, forest, and swamp areas dangerous to access. Male respondents from Yirol West County put it starkly, describing their options as either accepting being robbed or killed during travel or dying of hunger inside their homes.

As described by male respondents from Duk County, the current state of insecurity in much of their county is preventing many different means of coping with hunger, which they described as severe within the current crisis. Even as Duk residents are increasingly shifting settlements and agriculture further west towards the Sudd wetlands to reduce vulnerability to raiding, competition with other groups over preferred fishing and hunting grounds in these areas has become violent, also reducing access to wild foods in swamps and forests.

Other respondents also noted the difficulties of assessing risk and making decisions in their current security environment when the motives of armed actors are unclear. In Kapoeta South, one female respondent elaborated on the resulting lack of predictability by contrasting the present with a period when Kapoeta town was heavily contested in the 1983-2005 war, echoed by respondents in Jonglei and Unity States:

*“That time [1988], you knew who you were fighting and you know on which side was the enemy. Now, you cannot see them, they are invisible, they bring insecurity from every side, they are invisible. It makes it even harder than ever to cultivate or do any activities.”- Female-only FGD, conducted in Kapoeta town, Kapoeta South County, Eastern Equatoria State, March 2018*

Persistent physical threats also often lead to large losses of productive labor without active hostilities, including through mobilizations of male community members and maintaining them at a heightened state of readiness. Respondents from Duk and Yirol West Counties described a situation of *abiroor ting*, or “men to oversee,” an indefinite period of time in which one or more communities has recognized an external threat and has shifted productive capacity from livelihoods to more defensive measures. Fangak respondents described a similar practice, where men were unable to work due to local perceptions of constant threat and imminent attack that required them to focus on security tasks.

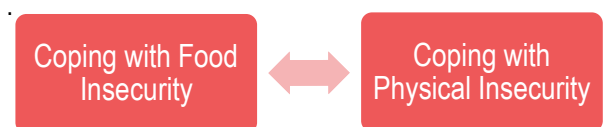


Figure 1: Trade-offs between protection coping and food security coping

## Continuation of Armed Conflict and Long-term Livelihoods Decline

In discussions of historical “famine” experiences, Greater Upper Nile respondents frequently noted a lack of peace between the CPA and the onset of conflict in 2013, including recurrent large-scale displacement, harvest losses, substantial livestock losses, and increasing vulnerability to natural shocks as a result of armed conflict and other insecurity.

Given the depth of asset-stripping recorded in parts of Greater Upper Nile and Greater Bahr el Ghazal from 1983-2005, it is unclear how some of the worst-affected areas from 2005-2013 would have achieved substantial livelihoods recovery or been willing to invest in asset accumulation.<sup>33</sup> While respondents described major

acute hunger occur.” See Muchomba, E. and B. Sharp (2006) Southern Sudan Livelihood Profiles. Southern Sudan Commission for Census, Statistics and Evaluation/Livelihoods Analysis Forum, <http://www.sudanarchive.net>.

<sup>33</sup> For the evolution of this argument, see the following from 1990, 2003, and 2013: Duffield, Mark. “From Emergency to Social Security in Sudan - Part I: The Problem.” *Disasters*, vol. 14, no. 3, 1990, pp. 187–203; Keen, David, and Vivian Lee. “Conflict, Trade and the Medium-Term Future of Food

internecine fighting throughout the 1990s and violent disarmament processes soon after the CPA, a series of insurgencies<sup>34</sup> and other major periods of raiding from the time of the 2010 national elections through to the onset of the current crisis in late 2013 seemed to have the greatest impact on food security.<sup>35</sup>

Additionally, some respondents noted a lack of male community members as a result of repeated periods of intense violence and the effects on household labor capacity. Successive periods of armed conflict may leave generational gaps<sup>36</sup> in men of productive age in affected populations, sometimes referred to as “missing men”.<sup>37</sup>

*Table 4: Armed Conflict and Implications for Famine Early Warning*

<i>What</i>	<i>How</i>
<i>Asset Loss Over Time</i>	Better incorporation in household surveys; comparison of asset holdings between time periods

Security in Sudan.” Disasters, vol. 31, 2007; Deng, Luka. “Changing Livelihoods in South Sudan.” Humanitarian Practice Network, Overseas Development Initiative, May 2013, [odihpn.org/magazine/changing-livelihoods-in-south-sudan/](http://odihpn.org/magazine/changing-livelihoods-in-south-sudan/). For a similar dynamic of prolonged recovery from asset stripping, see also See Fitzpatrick, Mary, and Helen Young. “Risk and Returns: Household Priorities For Resilient Livelihoods in Darfur.” Risk and Returns: Household Priorities For Resilient Livelihoods in Darfur | Tufts – Feinstein International Center, Feinstein International Center, Mar. 2017.

<sup>34</sup> “By September 2011 at least a dozen individuals had launched or coordinated at least seven insurgencies against the Southern government since the April 2010 elections.” See Fighting for Spoils: Armed Insurgencies in Greater Upper Nile. Small Arms Survey, 2011. Most of these insurgencies were suppressed by a mixture of means by 2013, just before the current crisis began. See Small Arms Survey. “Pendulum swings: The rise and fall of insurgent militias in South Sudan.” 2013. Continuing armed conflict was not confined only to Greater Upper Nile, however, and extended throughout Lakes and Greater Equatoria. See Gordon, Sophie et al. “Reluctant Hosts: The Impact of the Lord’s Resistance Army on Communities in Southern Sudan’s Western Equatoria State.” World Vision, 2007; McEvoy, Claire, and Emile Le Brun. “Uncertain Future: Armed Violence in Southern Sudan.” Human Security Baseline Assessment for Sudan and South Sudan, Small Arms Survey, 2010; Schomerus, Mareike. “Violent Legacies: Insecurity in Sudan’s Central and Eastern Equatoria.” Human Security Baseline Assessment for Sudan and South Sudan, Small Arms Survey, 2008; Small Arms Survey. “Persistent Threats: Widespread Human Insecurity in

*Protection  
Coping and  
Food Security  
Coping*

Expanded coping strategy analysis within existing indicators; multi-sector coping strategies considered in needs assessments; possible linkages within existing AoK

*“Missing  
Men” and  
Household  
Labor  
Capacity*

Better incorporate SMART and other demographic data into food security analysis through household and community labor supply and demand; FGDs and KIs on labor availability for key livelihoods activities; use of existing AoK

## SHIFTING PERSPECTIVES ON DISPLACEMENT

Displacement was widely reported throughout nearly all FGDs, most commonly involving the abandonment of livelihoods assets and short-term or indefinite stoppage in livelihoods.<sup>38</sup> Often, hunger results from loss of assets in an initial wave of displacement, with the

Lakes State, South Sudan, since the CPA<sup>1</sup>. Human Security Baseline Assessment, 2006.

<sup>35</sup> A 2012 baseline and follow-up qualitative research in Jonglei noted over 40% of households surveyed lacking livestock of any kind, with the average household showing poor dietary diversity indicators and moderate to severe outcomes on perceptions of hunger. Widespread cattle losses were described in Nyirol and Uror, corroborating the findings of the four FGDs in these two counties for the period 2010-2013. See D’Errico, Marco, Karolina Kozłowska and Daniel Maxwell. Surveying livelihoods, service delivery and governance: baseline evidence from South Sudan. Secure Livelihoods Research Consortium, 2012; Maxwell, Daniel, et al. Livelihoods, Access to Services and Perceptions of Governance: An Analysis of Uror and Nyirol Counties, South Sudan. Secure Livelihoods Research Consortium, 2014.

<sup>36</sup> Standardized Monitoring and Assessment of Relief and Transitions (SMART) surveys frequently report population pyramids at the county-level, while some larger household surveys for food security, livelihoods, and nutrition, including the Integrated Food and Nutrition Security Causal Analysis exercise undertaken by FAO, WFP, and UNICEF in 2016-2017 in Northern Bahr el Ghazal and Warrap States, may provide this age and sex breakdown for livelihood zones. As observed in the September 2017 national IPC workshop, gaps in productive-age males reached up to 33% of their expected proportion of the population as compared to the 2008 census in a series of counties in Unity State.

<sup>37</sup> See Checchi, Francesco and Les Roberts. Interpreting and using mortality data in humanitarian emergencies: A primer for non-epidemiologists. Humanitarian Policy Group, 2005.

<sup>38</sup> Maxwell, Daniel, et al. “Conflict and Resilience: A Synthesis of Feinstein International Center Work on Building Resilience



consequent hunger then forcing migrations in search of food over the course of the following agricultural season. Respondents from Ayod, Fangak, Urur, and Malakal Counties also noted the impact of an influx of IDPs and the subsequent strain on local community resources. Additionally, some respondents noted two types of displacement less commonly considered in food security analysis in South Sudan: displacement that becomes adaptation and stages of displacement in response to worsening food security, often referred to as distress migration.

### Adaptive Displacement

Both FGDs in Rubkona County explained that one response of the entire Leek Nuer during a period of heavy raiding from the north called *Ruon Murhaleen* (1979-1996 as recounted by respondents) was to consolidate effectively their entire community to the south of what is now Rubkona County. Respondents from Duk County noted a more recent shift in populations from eastern Duk into eastern Duk in response to a persistent threat of raiding from other groups in Jonglei State, despite acknowledging a clearly higher disease risk deeper within the Sudd wetlands.<sup>39</sup>

In cases such as these, what appears to be recurrent displacement of populations out of a high-threat area into a low-threat area may become permanent, either from IDPs establishing permanent residence in the new location, as with Leer Nuer communities during *Ruon Murhaleen*, or as a result of a collective decision to permanently relocate to a settlement or set of settlements, as in Duk County more recently. One implication of these responses is that the pattern of settlements within a county or across several counties

may over time adapt to a new security environment and potentially a shift in livelihoods, involving settlement relocation and more densely clustered settlements. The settlement patterns seen in current humanitarian maps may not necessarily reflect the settlement patterns seen prior to other periods of armed conflict. While the goal of such movement is often reduced vulnerability to external physical threats, the relocation may increase exposure to other hazards, such as human and livestock disease, and may contribute to the overuse of natural resources like wild foods.<sup>40</sup>

### Stages of Migration due to Food Insecurity: Primary and Secondary Distress Migration

While populations at risk of starvation or already experiencing starvation generally begin migrating in search of greater access to food,<sup>41</sup> such distress migration as a result of food insecurity may occur in stages. FGD discussions described two categories of distress migration related to food insecurity of escalating severity, what has been termed here as primary and secondary distress migration.

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and Protecting Livelihoods in Conflict-Related Crises." Conflict and Resilience: A Synthesis of Feinstein International Center Work on Building Resilience and Protecting Livelihoods in Conflict-Related Crises | Tufts – Feinstein International Center, Feinstein International Center, Dec. 2017.

<sup>39</sup> This strategy was also noted in the REACH Yirol West Food Security and Livelihoods Brief: Yirol West County, Lakes State, South Sudan, January 2018 in response to acute food insecurity.

<sup>40</sup> From a historical perspective, Naomi Pendle describes the emptying of the borderlands between present-day Warrap and Unity States after the 1991 SPLA split. She notes that "In 1999, at the Wunlit people-to-people peace meeting,

participants listed 417 displaced settlements between the Dinka and Nuer lands [between present Warrap and Unity States]. These lands had never previously been so fully deserted" in Pendle, Naomi. "Contesting the Militarization of the Places Where They Met: the Landscapes of the Western Nuer and Dinka (South Sudan)." *Journal of Eastern African Studies*, vol. 11, no. 1, 2017, pp. 64–85. For a recent and similar occurrence in Karamoja sub-region of Uganda, see Stites, Elizabeth, et al. "Foraging and Fighting." *Foraging and Fighting | Tufts – Feinstein International Center*, Feinstein International Center, Aug. 2010.

<sup>41</sup> Devereux, Stephen et al. *Famine: Lessons Learned*. Humanitarian Learning Centre, 2017.



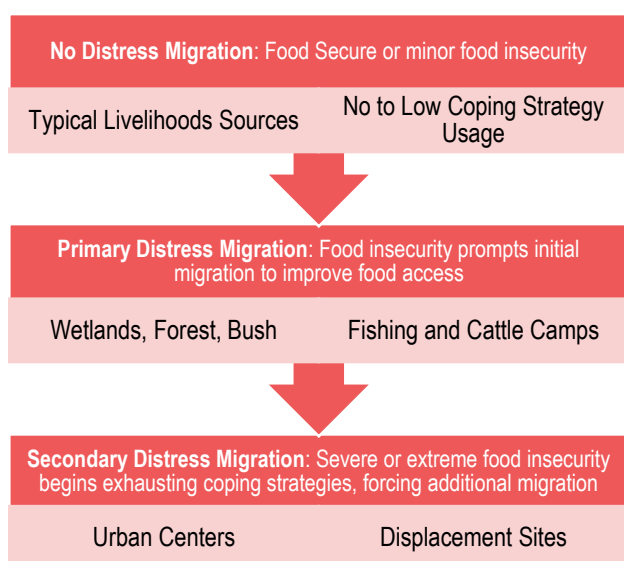


Figure 2: Basic examples of stages of distress migration

### Primary Distress Migration

Respondents from Nasir County offered a direct relationship between historical periods of flooding and inter-communal armed conflict which caused severe hunger and the formation of new fishing camps within nearby wetlands. Some Uror County respondents described a 1993-1994 drought-related experience of “famine” as a time of migration to cattle camps and violent competition over reduced fishing grounds and grazing land. Respondents from both counties contrasted these historical experiences with the recent crisis, where insecurity appears to have forced more of the local populations into refugee camps in nearby Ethiopia. In Fangak County, male respondents specifically mentioned that an early response to predicted or current food insecurity would be the relocation of some household members to wetlands fishing grounds to improve food access.

Respondents from several counties peripheral to the Sudd wetlands, including Ayod, Fangak, Leer, Panyijiar, and Duk, all described varying trade-offs involved in their utilization of wetlands for coping with food insecurity. These largely focused on short-term, often seasonal increases in access to food, especially through wild foods collection and fishing, and exposure to diseases such as malaria and cholera.

These strategies are generally most advantageous, however, when affected populations are able to freely choose their wetland destination, as opposed to periods of high insecurity when speed and adequate hiding from armed actors may be of greater concern than short-term food access. Respondents from Wau County, for example, noted that fleeing to bushland was not necessarily helpful for maintaining food access if they could not access seasonal rivers to fish due to insecurity. Female respondents from Mayendit County likewise described that while some wetland areas allowed for improved access to food, they may remain physically inaccessible to people lacking access to canoe transportation and insecurity often forced people to displace to areas lacking adequate food access.

From these and other FGD discussions, primary distress may include the age and sex-specific relocation of community members within a limited geographic area, such as to seasonal cattle and fishing camps or other locations deeper within wetlands. This movement of people, with or without livestock, may appear to outsiders as movement related to typical livelihoods or as more general internal displacement, rather than a warning sign of acute food insecurity. When considering the severity of food insecurity, identifying primary distress migration may add greater predictive value to early warning for Famine.

### Secondary Distress Migration

Secondary distress migration likely entails the more conventional out-migration to urban centers, Protection of Civilians (PoC) sites, collective centers, and refugee camps and is more likely to be the result of coping strategy exhaustion. Wau County respondents further described that many of the displaced were often ultimately forced as a last resort to move to the Wau town Protection of Civilians site Adjacent Area (PoCAA) or a collective center due to increasing hunger and the failure of coping strategies. Male respondents from Fangak County described how IDPs arrived from Upper Nile State and Unity State between 2014 and 2016 and subsisted on food from friends and relatives as long as possible. Following a livestock disease outbreak in 2016 which reduced local food access and threatened the ability of local communities to cope in the future,

many IDPs then migrated onwards to refugee camps in Sudan “with nothing in hand”.

This secondary distress migration may reportedly include the outmigration of some household members, entire households or communities, or larger sub-areas within a county to displacement camps or towns in search of food. Communities may engage in primary distress migration and then return to normal places of residence if food security improves or, if food insecurity becomes prolonged or deteriorates further, may begin secondary distress migration. At present, Famine early warning generally focuses on secondary distress migration only.

*Table 5: Displacement and Implications for Famine Early Warning*

<i>What</i>	<i>How</i>
<i>Settlement Relocation</i>	FGDs and KIs regarding links between settlement relocation and food security; consideration in rapid assessments
<i>Stages of Distress Migration</i>	Utilization in coping strategy analysis, displacement tracking, household surveys, and rapid assessments; existing AoK

## NATURAL SHOCKS

Natural shocks, such as inadequate rainfall, floods, and outbreaks of crop pests and livestock disease, were generally described by respondents across all assessed areas as the most common and most expected shocks. In times of peace, rural communities were reportedly well-adapted to many of these events, including through community infrastructure such as dikes, as discussed by male respondents in Mayendit and Leer Counties. In Greater Upper Nile and much of Greater Bahr el Ghazal, at least some disruption to agriculture from natural events is common in a given year and, where freedom of movement exists for people and livestock to maintain access to food, does not necessarily lead to acute food insecurity by itself.

However, respondents broadly noted that severe natural shocks were the proximate causes of past

Famines, or “famines,” and that natural shocks overall were connected with recent experiences of severe hunger. It appeared that natural shocks may severely impact food insecurity either when they are more extreme individual events, sets of concurrent or successive events of varying severity, or the vulnerability of communities has been increased by other shocks, such as through asset-stripping armed conflict and repeated displacement.

## Natural Shocks and Famine Risk: Key Aspects to Monitor

Floods, rainfall in the wrong quantity or at the wrong time, crop pests, and livestock diseases have the potential to individually or in combination bring about severe food insecurity, even if they are regular events across much of South Sudan in a given year. In a time of heightened vulnerability for many communities, especially through restricted movement due to insecurity, it is increasingly difficult to analyse and predict the impact of natural shocks on food security and which events may increase the risk of Famine.

### *Magnitude of Natural Shock: Geographic and Social*

The magnitude of natural shocks was often described along two dimensions: geographic and social coverage. Both give different indications of how an event that may have disrupted agriculture and caused asset loss may also inhibit coping. If harvests are poor in a section of a single county, affected populations may readily access the resources of social and kinship networks throughout the rest of the county or in nearby counties, as well as nearby markets and trade routes.

When harvest losses are severe across a wide area within a single year or over successive years, social and kinship networks may become overstretched or even fail. Sharing, borrowing, bartering, and purchasing of food and other resources may become difficult or impossible within the affected area regardless of the strength of social and kinship networks and market systems.<sup>42</sup> This was especially discussed as an issue among Greater Upper Nile respondents.

<sup>42</sup> For discussions on the stretching or breaking of social networks due to geographically widespread severe hunger in South Sudan, consider Deng, L. B. “Social Capital and Civil War: The Dinka Communities in Sudan’s Civil War.” *African*

*Affairs*, vol. 109, no. 435, 2010, pp. 231–250; Johnson, Douglas H. “Political Ecology in the Upper Nile: the Twentieth Century Expansion of the Pastoral “Common Economy”.” *The Journal of African History*, vol. 30, no. 03, 1989, p. 463;

## Recurrent Crop Failure

*“And you know cultivation is our main way of surviving in Raga, you imagine if people haven’t cultivated for two years, how can people get food to eat?” – Mixed-sex FGD with respondents from Raga County, conducted in Wau town, Wau County, Western Bahr el Ghazal State, January 2018*

Broadly, respondents across all assessed areas highlighted combinations of armed conflict, including general insecurity, and natural shocks throughout the current crisis as negatively impacting agricultural production in successive years. A wholly successful harvest appeared unusual and it is difficult to determine what “successful” could be considered as outside of the main agricultural areas of South Sudan, including Western Bahr el Ghazal and most of Greater Equatoria. This is partially a result of which areas of the country were assessed, as FGDs were concentrated in agro-pastoralist livelihood zones in flood plains and semi-arid areas. However, despite enduring challenges to agriculture, respondents still described how successive years of reduced or failed harvests may erode coping capacity and place unsustainable strain on alternative sources of food. In agro-pastoralist areas, livestock may help to sustain affected populations, though likely involving a mixture of sales, barter, and even slaughter. In agriculturalist areas, two-year cassava may serve as a similar contingency.<sup>43</sup> However, reliance on lean season strategies over extended periods of time may show diminishing returns for food consumption and eventually lead to the exhaustion of sustainable coping strategies.<sup>44</sup>

## Minimum milk production and herd viability

*“When your cattle are raided, you will die as it is your main food. You will also die of disease, because sometimes you are immune to diseases, such as malnutrition, as you are drinking a lot of milk.” –*

and Maxwell et al 2014. For a more general discussion, see Campbell, David J. “Strategies for Coping with Severe Food Deficits in Rural Africa: A Review of the Literature.” *Food and Foodways*, vol. 4, no. 2, 1990, pp. 143–162.

<sup>43</sup> Consider the following from the 2011 Crop and Food Security Assessment Mission (CFSAM) to South Sudan from FAO/WFP: “Cassava represents an important food safety net throughout the Green Belt areas in three Equatoria States...the crops are left for the forests to close around them during the third year (24–36 months) when harvesting is completed plant-by-plant as needed...The cassava crop translates to substantial reserves of carbohydrates for consumption from Raja to Kajo-Keji and Yei.”

*Male-only FGD with respondents from Mayendit County, conducted in Nyal town, Panyijar County, Unity State, December 2017*

Unity respondents, and most emphatically the worst-affected counties of Mayendit and Leer, repeatedly noted the importance of cattle to immediate access to food and a range of coping strategies. Two main components of sustaining food access through cattle emerged: the ability of a herd to provide a minimally adequate quantity of milk in the short-term and the overall viability of the herd in the mid to long-term.

As noted in Unity State FGDs especially, milk is essential to bridging consumption gaps, particularly for young children,<sup>45</sup> and production may become inadequate for a variety of reasons. Inadequate rainfall or flooding may lead to insufficient pasture, heightened livestock disease risks, and irregular migration routes, while livestock diseases may reduce milk production, directly kill animals, or force unexpected migrations. There may also be an insufficient number of lactating stock, which become invaluable during severe food insecurity, for other reasons, such as the calling in of cattle debt for marriage or blood compensation.<sup>46</sup> Animals may also become physically inaccessible even if milk production is adequate, such as when they are relocated to improve safety or access to grazing and water. Herd viability is threatened when can a herd no longer sustain itself by its own population growth, primarily through a lack of core breeding stock for generally similar reasons.<sup>47</sup>

## Concurrent loss of multiple food sources: Buoth mi diit e long

Female respondents from Ayod County offered a clear local definition of “famine” when questioned on historical experiences, with a similar explanation also

<sup>44</sup> Devereux, Stephen. “Goats before ploughs: Dilemmas of household response to sequencing during food shortages.” Institute of Development Studies, 1993.

<sup>45</sup> Sadler, Kate, et al. “Tufts – Feinstein International Center.” *Milk Matters: A Literature Review of Pastoralist Nutrition and Programming Responses* | Tufts – Feinstein International Center, Feinstein International Center, Feb. 2009.

<sup>46</sup> Pendle et al. “Pastoralism in Greater Upper Nile: Socio-Political Report.” USAID South Sudan 2015. The authors also note that “cattle camps are places of food security.”

<sup>47</sup> Catley, Andy, et al. “Livestock Mortality in Pastoralist Herds in Ethiopia and Implications for Drought Response.” *Disasters*, vol. 38, no. 3, June 2014, pp. 500–516.

given by female respondents from Mayendit County. They described how it was uncommon to lose multiple main sources of food, including agriculture, livestock, fish, and wild foods, at the same time. Should one or even two fail, another would likely remain. However, if an event like a large flood washes away crops, brings disease to highly concentrated livestock, and prevents wild food collection, then people will begin migrating in search of other food. This is the situation they would consider to be “famine,” or *buoth mi diit e long* (the phrase may vary by the dialect) in *thuok naath* (the “language of the people”, where people is a self-reference to the Nuer broadly).

A comparison was made by the Ayod respondents between a severe flood in the 1950s, called *Ruon Nyoj Pilual*, that displaced a substantial portion of the area population and the present crisis, which has included armed conflict, flooding, and both livestock and human disease outbreaks in Ayod. Between the 1950s and recent years, hunger was reportedly comparable, while displacement appeared greater during *Ruon Nyoj Pilual*. Deaths were perceived as greater in 2016-2017 as a result of cholera, or *baahb*. The situation was not described as “famine,” but was noted as a time of historical difficulty and a high number of deaths.

## Pollution and Toxic Remnants of War

In several locations spread throughout South Sudan, respondents felt that the air, land, or water in and around their communities had been physically contaminated as a result of recent events, especially incidents of violence, resulting in reduced access to food through crop failure and livestock deaths. Male and female respondents from Uror, Yirol West, Leer, and

Kapoeta South Counties placed most of the blame on the weapons and tactics of war, including various kinds of artillery.

While some of the discussion, such as of chemical weapons or weapons capable of changing climate, cannot be taken at face value, respondents still articulated empirically backed observations of recent environmental destruction, such as through far-reaching pollution from the Thar Jath oil drilling sites in Koch County,<sup>48</sup> and shifting rainfall patterns over time as a result of climate change, well-noted in the international community as a severe issue negatively impacting livelihoods in South Sudan.<sup>49</sup> Recent discussion regarding Toxic Remnants of War (TRW) must also be considered, given the lack of clear evidence on how the weapons of war, especially accumulated over decades, interact with the surrounding environment and food production systems.<sup>50</sup>

Women in Kapoeta South County acknowledged the likely climatic causes behind poor crop production, but also felt that the concurrence and recurrence of so many severe shocks were so damaging as to not be coincidental:

*“We don’t know if it is the climate changing or if we are just unlucky, sometimes we wonder: is it because so much blood has spilled in the ground that the food refuses to grow?” Female-only FGD with respondents from Kapoeta South County, conducted in Kapoeta town, Kapoeta South County, Eastern Equatoria State, March 2018*

<sup>48</sup> Hell Rueskamp et al found clear evidence of environmental and ground water contamination in “Effect of Oil Exploration and Production on the Salinity of a Marginally Permeable Aquifer System in the Thar Jath-, Mala- and Unity Oilfields, Southern Sudan.” *Zentralblatt für Geologie Und Paläontologie, Teil I*, vol. 2014, no. 1, 2014, pp. 95–115. Fritz Pragst et al then established a connection to contamination of people in “High Concentrations of Lead and Barium in Hair of the Rural Population Caused by Water Pollution in the Thar Jath Oilfields in South Sudan.” *Forensic Science International*, vol. 274, 2017, pp. 99–106. All scientific evidence was then brought to the attention of the UN General Assembly in 2017, described in “The human rights situation in South Sudan – oil-caused contamination and its effects upon humans and the environment”, written statement\* submitted by the Sign of Hope e.V. - Hoffnungszeichen, a

non-governmental organization in special consultative status, February 2017.

<sup>49</sup> Murray, Lisa. *Building Resilience to Climate Extremes and Disasters in South Sudan: An anthropological study exploring the perceptions of climate change, adaptation and resilience among agro-pastoral and agriculturalist communities in the Greater Bahr el Ghazal Region*. United Kingdom Department for International Development, Building Resilience to Climate Extremes and Disasters Consortium, 2016; Warner, K. et al. *Climate Change Profile: South Sudan*. Netherlands Commission for Environmental Assessment: Dutch Sustainability Unit, 2015.

<sup>50</sup> Ghalaieny, Mohamed. *Toxic Harm: Humanitarian and Environmental Concerns from Military-Origin Contamination*. The Toxic Remnants of War Project, 2013.



Table 6: Natural Shocks and Implications for Famine Early Warning

What	How
<i>Social Magnitude of Shock</i>	Quantitative data collection for aspects of social support and ability of households and settlements to access and utilize social and kinship support; establish indicators of support system stress and failure <sup>51</sup>
<i>Recurrent Crop Failure – Geographic Areas and Social Groups</i>	Annual CFSAM cereals production data at county-level over time; existing AoK; quantitative and qualitative sub-county exploration
<i>Milk Access, Especially Lean Season</i>	Household surveys; existing AoK; rapid assessments
<i>Concurrent Loss of Multiple Typical Main Food Sources</i>	Existing AoK; household surveys and main food source through Food Consumption Scores; rapid assessment usage of Food Source Exhaustion FGDs; compared to 2006 Livelihood Zones and 2013 Livelihood Zone Profiles

## THE MIXED ROLE OF MARKETS

In a typical year, markets are essential to food access across South Sudan, both as a primary source of food and as a mechanism for coping. As noted by male respondents from Panyijiar County, a common lean season strategy for agro-pastoralists is to sell livestock in order to acquire cereals after the exhaustion of a household's own production.<sup>52</sup> In consideration of the coverage of this assessment, it must be noted that many FGDs occurred in locations where market integration is considered poor, and so many reported market shocks may be highly localized.<sup>53</sup>

<sup>51</sup> Consider the tiers of social support utilized by affected populations before and during the 2011 Somalia Famine, as described in Maxwell, Daniel, et al. "Facing Famine: Somali Experiences in the Famine of 2011." Food Policy, vol. 65, 2016, pp. 63–73.

<sup>52</sup> For a case study of market systems for livestock offtake and cereals import, see Mercy Corps. Emergency Market

Markets may be disrupted by shocks in many ways, such as through physical destruction, trader flight, price spikes, and trade route disruption. Markets may also be the shock themselves, in terms of the behaviour of market actors and the effect on food access. As noted by Edward Thomas in a March 2018 presentation to aid workers on cash programming in South Sudan, "markets are not neutral spaces".<sup>54</sup> They are subject to the interests of a wide range of actors within a market system and may be manipulated and used to exploit affected populations, including through price-gouging and trader collusion.

## Market Prices and Casual Labor

Respondents noted price increases within markets for several reasons, including armed conflict within or near the market, along main and feeder trade routes, and related to inflation. Respondents from counties containing key stops on major trade routes, such as Malakal town in Malakal County, Upper Nile State, Yirol town in Yirol West County, Lakes State, and Kapoeta town, Kapoeta South County, Eastern Equatoria State, appeared the most affected by price and trade route shocks and the most concerned with the continued functionality and accessibility of markets. Market prices were discussed in relation to not only food, but also other basic needs, including medicine. The zero-sum nature of household decision-making regarding the allocation of highly limited resources was common across most FGDs when market prices were discussed.

More broadly, market shocks were discussed as they related to income generation and coping capacity, including through declines in casual labor opportunities, an inability to trade livestock, and the general unavailability of food and other basic commodities within markets. Respondents in Yirol West and Kapoeta South Counties described the negative impact on food access of reduced casual labor opportunities within market towns, while respondents from predominantly agricultural areas, such as Raga, Wau, Yambio, and Nzara Counties, appeared the most affected by

Mapping and Analysis: Livestock Off-take and Sorghum Market Systems in Leer County, Unity, South Sudan, 2015.

<sup>53</sup> D'Silva, Brian, and Olivia Tecosky. "Sub-Regional Integration in Sudan: the Key to Food Security and Recovery." Disasters, vol. 31, 2007; World Food Programme. South Sudan: Rapid Market Assessment. 2015.

<sup>54</sup> Quoted with the written permission of Edward Thomas.



declines in casual labor related to agriculture in rural areas.<sup>55</sup> Part of this difference may also be a result of greater demand for agricultural labor among agriculturalists and the comparatively less labour-intensive herding practices of many Greater Upper Nile communities.<sup>56</sup>

### Market Actors in a Crisis

Some respondents, including those in Yirol West County, felt that prices had been unreasonably increased, even during a time of crisis. Others, including those from Kapoeta South, Duk, and Panyikang Counties, in addition to those from Yirol West County, described how most or all of the traders in their local or main markets were from other countries. In Duk County, this was linked to a lack of business opportunities for local communities, especially given differential access to capital. In Panyikang, female respondents observed that the foreign traders quickly fled the area during times of insecurity, causing sudden local market failure and food shortages. This discussion, while limited, hints at a larger issue of the behaviour of market actors within a crisis. As seen in South Sudan in the current crisis<sup>57</sup> and in previous crises,<sup>58</sup> not every price spike or period of sustained high prices for basic goods is the result of a market shock per se, but may instead be market actors reacting opportunistically within an otherwise

well-functioning market for short-term gains during a time of crisis.<sup>59</sup>

*Table 7: Market Shocks and Implications for Famine Early Warning*

<i>What</i>	<i>How</i>
<i>Market Prices</i>	Market price and supply chain monitoring; existing and additional AoK for food access impact; analytical consideration of market actor causes of price changes
<i>Casual Labor Market Systems</i>	Inclusion of wage rates, Terms of Trade (ToT) in market price monitoring; household surveys; extension of price and ToT monitoring to rural agricultural labor market systems

### HUMAN DISEASE: DISEASE FROM HUNGER, HUNGER FROM CONFLICT

Death in Famine is rarely the result of outright starvation, but typically occurs through the interaction of severe hunger, acute malnutrition, and disease. In many cases, a collapse in coping and subsequent distress migration in search of food greatly raises the risk of human disease outbreaks among severely food insecure populations.<sup>60</sup> This basic understanding of a process of Famine sometimes leaves the analysis of

<sup>55</sup> Additional insight into the importance of agricultural labour and the early crisis impact on the labour market can be found in Oxfam. Emergency Market Mapping and Analysis of Agricultural Labour Market Systems: Western Bahr el Ghazal State and Warrap State, 2013.

<sup>56</sup> For a discussion of herding labor requirements, see Gebreyes, Yacob et al. The Impact of Conflict on the Livestock Sector in South Sudan. Food and Agriculture Organization of the United Nations, 2016.

<sup>57</sup> Price-gouging and collusive trader behaviour have been recorded in main markets, including in Rumbek town in Rumbek Centre County in Lakes State, further down the Western Corridor, one of two main trade arteries in South Sudan, from Yirol town, Yirol West County. In Crop and Livestock Market Information System. South Sudan Traders Survey Technical Working Paper. November 2015, the authors, which includes the National Bureau of Statistics of the government of South Sudan, notes that "The SSP has experienced significant currency-exchange rate volatility this year, aggravated by a strong predatory speculative economic network of cartels exploiting the already fragile macroeconomic situation in the country."

<sup>58</sup> Thomas spoke in reference to the 1998-1999 Greater Bahr el Ghazal Famine and the identification of market

manipulation as conducive to the onset of Famine and an increase in its intensity, as described in Keen 2008.

<sup>59</sup> Another example of this dynamic is the "checkpoint sector", or the usage of armed checkpoints along major roads and waterways to extract tolls and in-kind payments from commercial, private, and humanitarian traffic. This alternative sector is noted as common and thriving, both in South Sudanese government publications and those of the humanitarian community. See South Sudan Cost-to-Market Report: An Analysis of Check-Points on the Major Trade Routes in South Sudan. South Sudan National Bureau of Statistics, 2011; WFP 2015. For broader analysis of the political economy of markets in South Sudan within the current crisis, see Mosel, Irina, and Emily Henderson. Markets in Crises: South Sudan Case Study. Overseas Development Institute, 2015.

<sup>60</sup> De Waal 2005; Devereux et al 2017; Jaspars, Susanne and Helen Young. The meaning and measurement of acute malnutrition in emergencies: A primer for decision-makers. Humanitarian Policy Group, 2006; Swift, Jeremy. Understanding and Preventing Famine and Famine Mortality. Institute of Development Studies, 1993.

human disease outbreaks to when food insecurity is already severe or thought to be at risk of deteriorating into Famine. Respondents seriously challenged this perspective by highlighting a series of ways in which human disease outbreaks act as both a driver and a consequence of severe food insecurity, especially alongside armed conflict, throughout a longer process of Famine. The inseparability of armed conflict, hunger, and disease was clearly highlighted by female respondents from Wau County:

*“Any event of conflict moves together with hunger and diseases, so we cannot separate them. Diseases are being caused by hunger and the hunger is being caused by the conflict. We could not separate them.”- Female-only FGD with respondents from Wau County, conducted in Wau town, Wau County, Western Bahr el Ghazal State, January 2018*

As both epidemics and more minor occurrences, a wide array of human diseases were reported by nearly all respondents as having a negative impact on access to food. FGD respondents from counties on the periphery of the Sudd, including Ayod, Fangak, Duk, Leer, Mayendit, Panyijiar, and Panyikang, consistently reported human disease outbreaks as more disruptive to livelihoods and food access as armed conflict and frequently as much more damaging than most natural shocks.

Most respondents described human disease outbreaks and their effects in reference to whole communities. Female respondents from Duk County, however, highlighted that morbidity was so high in their communities that household-level illness was a serious issue on a daily basis, emphasizing that at least one of the FGD respondents would likely be sick the next day.<sup>61</sup>

### Cause and Consequence of Food Insecurity

As a driver of food insecurity, human disease outbreaks were most commonly reported as causing large shortfalls in labor availability as community members became sick, spent time caring for the sick, died, or fled the area of an outbreak. Food production and income generation were then reduced, leading to hunger during and after the outbreak. Outbreaks during more labour-

intensive periods, such as planting or harvest seasons, reportedly had a more severe impact on food security.

As a consequence of food insecurity, human disease outbreaks both exacerbated ongoing food insecurity as a further driver and occurred at the end of a process of Famine among severely food insecure populations often densely concentrated following displacement, leading to large numbers of deaths. The links between hunger, acute malnutrition, disease, and death was commonly discussed, with female respondents from Panyijiar County explaining:

*“When you have caught malaria and also have malnutrition, that malaria will kill you immediately as you will have no energy to fight, [not] have the necessary resistance against malaria.”- Female-only FGD with respondents from Panyijiar County, conducted in Nyal town, Panyijiar County, Unity State, December 2017*

### Human Disease Outbreaks and Migration

One commonly discussed mechanism through which human disease outbreaks acted as both cause and consequence of food insecurity was its relationship with migration. Outbreaks may cause migration, occur because of migration, or prevent migration.

Disease was reported as a driver of displacement as communities seek to protect themselves from its spread. Respondents from Ayod, Mayendit, and Panyijiar Counties described how human disease outbreaks may prompt large numbers of community members to displace in search of safer areas. In Panyikang County, one female respondent described a prevailing belief in the area that people fleeing a human disease outbreak must leave behind their food, as it is likely contaminated by disease. As discussed in other sections, displacement as a result of hunger or insecurity may force affected populations to accept a greater exposure to disease in order to mitigate other risks, such as death by violence or hunger.

Respondents from Panyijiar and Ayod Counties also described how disease may weaken community members to the point where they cannot flee, regardless of the insecurity or hunger faced by those who remain behind. Community members may become too weak or poor to carry or purchase transport for the

<sup>61</sup> For a more detailed discussion of idiosyncratic shocks, see Young and Fitzpatrick 2017 and Heltberg, Rasmus, and Niels Lund. “Shocks, Coping, and Outcomes for Pakistan’s Poor:

Health Risks Predominate.” *The Journal of Development Studies*, vol. 45, no. 6, 2009, pp. 889–910.

sick as a result of hunger and disease. Respondents from Fangak and Koch Counties both described how a previous epidemic of kala azar, referred to as *Ruon Bantoor* and *Ruon Kala azar*, respectively, also prevented displacement. Many community members were perceived to have died of kala azar, including entire villages, as a result of not being able to leave the affected area due to insecurity and physical weakness from both hunger and illness. In such cases, humanitarians would potentially not know the severity of food insecurity or an outbreak in the worst-affected areas.

### Trade-offs in Coping Strategies: Health and Food Security

Coping strategies related to human disease outbreaks also have trade-offs with the strategies used to cope with food insecurity and physical insecurity. Respondents from Ayod, Fangak, Duk, and Leer Counties, for example, elaborated a clear understanding of the risks associated with movement into swampier locations in search of food and/or physical safety, especially for diseases like cholera, measles, and malaria. While locations such as the Sudd wetlands ensure a final set of contingency options for hiding from armed actors and seasonal access to wild foods and fish, they are also a primary source of disease and offer limited to no access to services, such as healthcare and nutrition feeding programmes.

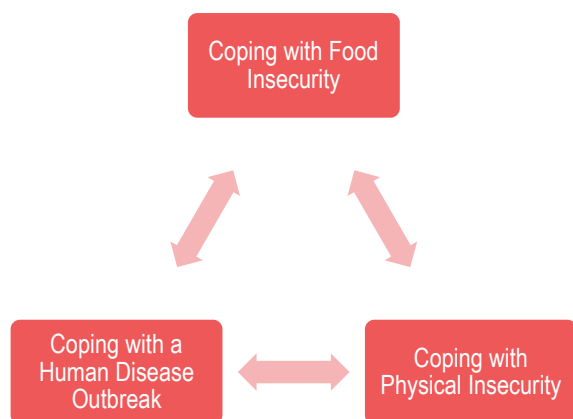


Figure 3: Trade-offs between protection coping, health coping, and food security coping

Other respondents noted how limited resources, especially following asset loss due to armed conflict or

coping with previous food insecurity, may be utilized for caring for the sick. Male respondents from Malakal County discussed how during severe human disease outbreaks, limited livestock holdings or even stored food may have to be sold off in order to procure medicine for the sick, effectively forcing them to mortgage future food security for immediate survival in the absence of access to free health services.

Table 8: Human Disease Outbreaks and Implications for Famine Early Warning

What	How
Human Disease Outbreaks	Closer analysis of existing idiosyncratic shock data from household surveys; inclusion of health facility and disease outbreak reporting in food security analysis; existing AoK
Household Labor Capacity	Better incorporate SMART and other demographic data into food security analysis through household and community labor supply and demand; FGDs and KIs on labor availability for key livelihoods activities; use of existing AoK
Health, Protection, and Food Security Coping	Expanded coping strategy analysis within existing indicators; multi-sector coping strategies considered in needs assessments; possible linkages within existing AoK

### RELiance ON FOOD ASSISTANCE FOR SURVIVAL: UNEXPECTED CESSATION OF AID AS A SHOCK

*"Destitution is a state of extreme poverty that results from the pursuit of 'unsustainable livelihoods', meaning 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."*<sup>62</sup>

This working definition of destitution was echoed by a number of respondents from Greater Upper Nile. While most closely matched by respondents from Leer, Mayendit, and Panyijiar Counties in descriptions of the current crisis, respondents described components of it in Nasir, Ayod, Fangak, Uror, and Nyirol Counties in

<sup>62</sup> Devereux, Stephen. Conceptualizing Destitution. Institute of Development Studies, 2003.

reference to recent and historical experiences of severe hunger.<sup>63</sup> Among all these respondents, a loss of independence or a state of dependence on external support, such as social and kinship networks and humanitarian assistance, was used to describe the most difficult periods of asset loss and hunger and to contrast them with relatively better times.<sup>64</sup> In Nasir County, respondents listed off their assets and sources of food that had been lost between 2010 and 2017, along with their ability to be generally self-sufficient. FGDs in Leer, Mayendit, and Panyijar described irregularities in the General Food Distribution (GFD) cycle as shocks unto themselves, given their lack of alternative sources of food because of asset stripping in conflict and other shocks.

*Table 9: Local Definitions of Destitution and Implications for Famine Early Warning*

What	How
<b>Local Definitions of Destitution – Who is “Dependent” and How Do They Survive?</b>	Compare data on household assets, asset loss, main food sources, and coping strategy usage against local definitions of destitution; may require further qualitative exploration through FGDs and KIIs by Livelihood Zone

## POLICY CHANGES AS SHOCKS

While often forgotten or considered irrelevant during armed conflict, the policy environment is a critical component of livelihood systems.<sup>65</sup> Sudden changes in policy may have severe implications for populations already seeking to cope with food insecurity, protection

issues, and human disease outbreaks. The imposition of new regulations may have unintended or intended negative effects on food access and income generation, including a range of coping strategies.

## Disarmament Campaigns: Balance of Power and Livelihoods Impact

In discussions specifically focused on large-scale losses of livestock, respondents from Ayod, Urur, Nyirol, and Duk Counties indicated that the period 2006–2009 was a time of especially large losses for a substantial number of communities within their counties. These were often explicitly linked to disarmament campaigns, including resistance to the campaign itself and the perceived shifts in the balance of power among various groups within Jonglei State afterwards.<sup>66</sup> Respondents discussed a multi-year series of atypically large and intense raids, in which many cattle were stolen and smaller numbers simply killed during raids, leading to reduced access to food through a loss of milk, meat, and tradeable assets.<sup>67</sup>

## The Devaluation of the South Sudanese Pound

While respondents did not explicitly offer the devaluation of the South Sudanese Pound as the cause of reduced access to food when referring to market shocks, the price increases of 2015 and 2016, followed by hyperinflation, were commonly discussed. Again, respondents near trade centers appeared the most affected, likely due to greater market reliance for income and food. Ultimately, the initial shock was

<sup>63</sup> Maxwell et al 2014 reported similar findings of asset loss and dependence in Nyirol and Urur.

<sup>64</sup> This closely matches a working definition of vulnerability taken from research with Dinka populations during OLS: “Vulnerable individuals are therefore defined in Dinka terms as those without an adequate kinship structure around them to protect them.” See Harragin, Simon. Southern Sudan Vulnerability Study. Save the Children, 1998.

<sup>65</sup> Carloni, Alice Stewart and Eve Crowley. “Rapid guide for missions: Analysing local institutions and livelihoods. Guidelines. 2005.

<sup>66</sup> See also Cormack, Zoe. “Borders Are Galaxies: Interpreting Contestations Over Local Administrative Boundaries In South Sudan.” *Africa*, vol. 86, no. 03, 2016, pp. 504–527 and Pendle, Naomi. “Interrupting the Balance: Reconsidering the Complexities of Conflict in South Sudan.” *Disasters*, vol. 38, no. 2, 2014, pp. 227–248 for a discussion

of how interrupted balances of power among various Greater Bahr el Ghazal led to outbreaks of localized violence including the burning of a county capital.

<sup>67</sup> John Young wrote of a 2006 campaign in central Jonglei that “The immediate implication of the Jonglei disarmament was that the people were facing serious food shortages” in Sudan People’s Liberation Army Disarmament in Jonglei and its implications. Institute for Security Studies, 2007. See also Human Rights Watch. “They Are Killing Us”: Abuses Against Civilians in South Sudan’s Pibor County.” 2013; O’Brien, Adam. “Shots in the Dark: The 2008 South Sudan Civilian Disarmament Campaign.” Small Arms Survey, 2009; and Small Arms Survey. “Persistent Threats: Widespread Human Insecurity in Lakes State, South Sudan, since the CPA”. Human Security Baseline Assessment, 2006 for similar dynamics in Pibor County, Jonglei State and Lakes State.



brought by a policy shift, with severe implications for both urban and rural populations.<sup>68</sup>

## Hunting Regulations

Respondents from Wau and Kapoeta South Counties noted regulations regarding hunting as precluding a preferred means of coping and for improving dietary diversity in difficult periods. Violators reportedly may face fines and physical punishments if caught hunting or transporting or trading in illicit bush meat. A similar dynamic was also noted in a February 2018 rapid assessment to Canal/Pigi County in Jonglei State.<sup>69</sup>

Table 10: The Policy Environment and Implications for Famine Early Warning

What	How
<b>Remember Policies, Institutions, and Processes (PIPs)</b>	Consideration for “illegal/risky/degrading” coping strategies, non-usage of strategies, severity rankings of strategies

## RECONSIDERING FAMINE HISTORY IN SOUTH SUDAN: THE CASE OF RUON MURHALEEN, RUON RAHK, RUON NYAKUJOK, AND RUON KALA AZAR

While the Greater Bahr el Ghazal Famines of approximately 1988-1989 and 1998-1999 are well-documented,<sup>70</sup> a period of “famine” was identified locally in what is now northern Unity State. This set of events demonstrates how many of the shocks discussed in FGDs reportedly interacted from 1987-1992 to create conditions which local communities characterized by extreme hunger and large numbers of

deaths related to hunger and disease. Respondents from Rubkona, Guit, Koch, and Leer Counties in Unity State gave similar accounts of a series of natural shocks within a long period of severe raiding followed by a large-scale outbreak of kala azar, otherwise known as visceral leishmaniasis.

Beginning before the start of the 1983-2005 war, respondents identified a long period of continuous raiding by Sudanese groups called *Ruon Murhaleen*, which reportedly lasted from 1979-1996. This involved recurrent asset loss, especially of cattle, and adaptive displacement over time for some groups, such as the Leek Nuer, as described by Rubkona County FGDs. This long-term livelihoods disruption increased the vulnerability of local communities to a series of natural shocks.<sup>71</sup>

Respondents described a severe crop pest outbreak in 1987-1988, called *Ruon Rahk*, identifying the pest as grasshoppers/locusts and/or mealy bugs. It is possible that this outbreak refers to a massive Desert Locust plague in roughly the same period, when swarms originating in north-eastern Sudan and northern Ethiopia may have transited through the borderlands of contemporary Sudan and South Sudan.<sup>72</sup>

In debriefing with the field team that conducted FGDs in Bentiu town, Rubkona County, Unity State, a dry period in northern Unity in approximately 1987, which affected crop production, was also highlighted. Male respondents from Mayendit County further explained a perceived causal relationship between dry periods or drought and crop pest outbreaks, indicating that the former is likely to increase the occurrence and intensity of the latter.<sup>73</sup>

<sup>68</sup> See the discussion of “policy losers” in the Special Working Paper on Devaluation of South Sudan Pound: Short-Term Food Security Implications. World Food Programme-South Sudan, 2016.

<sup>69</sup> REACH Diel Displacement and Access to Services Brief, March 2018.

<sup>70</sup> See Keen 2008; Deng 1999; Human Rights Watch 1999.

<sup>71</sup> A similar dynamic of especially intensive raiding from the same general Sudanese groups in approximately the same time period was a major driver of both the 1988-1989 and 1998-1999 Famines in Greater Bahr el Ghazal. See Deng 1999; Duffield, Mark. “NGOs, Disaster Relief and Asset Transfer in the Horn: Political Survival in a Permanent

Emergency.” *Development and Change*, vol. 24, no. 1, 1993, pp. 131–158; Keen 2008; Human Rights Watch 1999.

<sup>72</sup> See the outbreak map depicted in Showler, A T, and C S Potter. “Synopsis of the 1986-1989 Desert Locust (Orthoptera: Acrididae) Plague and the Concept of Strategic Control.” *American Entomologist*, 1991, pp. 106–110. Summer.

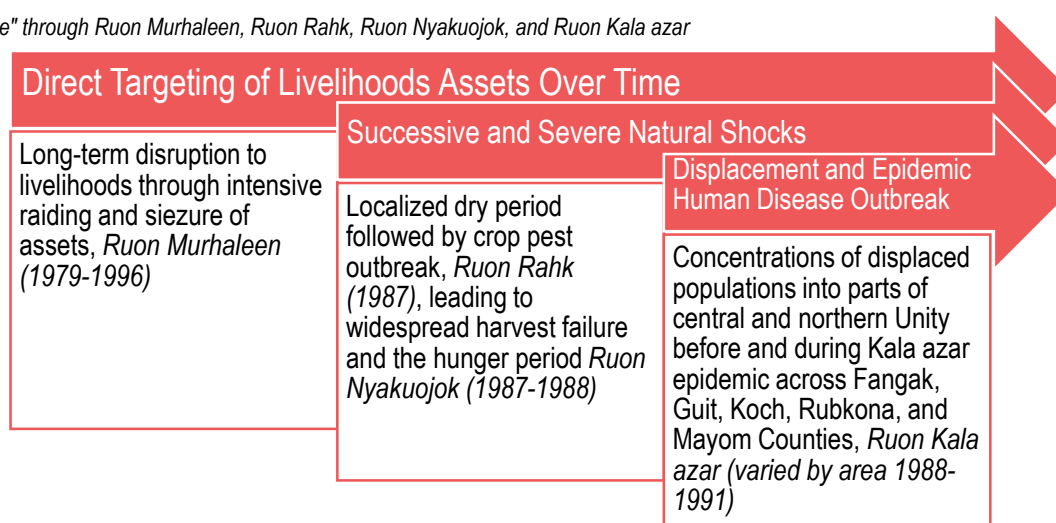
<sup>73</sup> This perception is supported by further research, which highlights a non-linear relationship between drought and some types of crop pest outbreaks. See Mattson, William J., and Robert A. Haack. “The Role of Drought in Outbreaks of Plant-Eating Insects.” *BioScience*, vol. 37, no. 2, 1987, pp. 110–118; Raupp, J. Michael. “How Drought Affects Insect Outbreaks.” *Tree Services Magazine*, 2016.



*Ruon Rahk* reportedly caused widespread crop losses across northern Unity State, severely affecting harvests in what are now Rubkona, Guit, Koch, and parts of Mayom. The resulting lean period extended through much of 1987-1988, causing extreme hunger and a large number of deaths related to hunger. This hunger period was named *Ruon Nyakajuok*, a reference to the green wild plant that sustained local communities at the time. There was strong agreement among respondents from northern Unity State on the severity of hunger, the substantial deaths that resulted from it, and the geographic scope of both hunger and deaths.

Various humanitarian actors, including Medecins sans Frontieres-Holland, working in what is now Unity State reported a severe epidemic of kala azar in the same areas, including what are now Rubkona, Guit, Koch, Leer, and Mayom Counties. Following the return of armed actors from endemic kala azar areas in Ethiopia, kala azar-carrying sand flies were spread through parts of what are now southern Upper Nile State, northern Jonglei State, and northern Unity State, all of which then experienced outbreaks. Patient records from treatment facilities in the affected area and seven retrospective mortality surveys from 1990-1994 in what is now Unity State revealed overall death rates of 38-57%, reaching

Figure 4: "Famine" through *Ruon Murhaleen*, *Ruon Rahk*, *Ruon Nyakuojok*, and *Ruon Kala azar*



Male respondents from Koch County discussed how a kala azar outbreak among extremely food insecure populations during *Ruon Nyakuojok* prevented many people from engaging in normal coping strategies, such as collecting wild foods, due to a lack of healthy community members, exacerbating hunger and contributing to a higher death toll overall.<sup>74</sup> Other research also reported a *Ruon Kala azar* in Mayom County described by local communities as having occurred predominantly in 1991.<sup>75</sup>

up to 70% in the worst-affected areas, including what is now Koch County. Peak incidence was given as 1988-1989 in what are now southern Guit and Koch Counties and 1990-1991 in what are now southern Rubkona and eastern Mayom Counties, all matching the named periods of hunger and human disease outbreaks given by local communities. By 1994, an estimated 100,000 individuals out of an estimated total of 280,000 may have died. Displacement was given as a primary contributing factor, with poor nutritional status as a likely contributing factor, as well.<sup>76</sup>

<sup>74</sup> Respondents from Fangak County also described what has been taken as the same kala azar outbreak, termed *bantoor*, in 1990 following an atypical flood and consequently severe hunger in 1988-1989, with movement highly limited due to widespread sickness and a large number of deaths reportedly occurring due to both hunger and disease. A similar flood in approximately the same time period was reported in Guit County as *Ruon Pini*, or a flood affecting sections of a single county.

<sup>75</sup> Pendle et al 2015.

<sup>76</sup> Seaman, J, et al. 1996. Additional research noted high mortality due to kala azar among new arrivals from then southern Sudan, see Beer, Peter De, et al. "A Killing Disease Epidemic among Displaced Sudanese Population Identified as Visceral Leishmaniasis." *The American Journal of Tropical Medicine and Hygiene*, vol. 44, no. 3, 1991, pp. 283-289. For an overview of the links between malnutrition and mortality risk from kala azar, see Malafaia, G. "Protein-Energy Malnutrition as a Risk Factor for Visceral Leishmaniasis: a Review." *Parasite Immunology*, vol. 31, no. 10, 2009, pp. 587-596. For the spread of the outbreak into what is now

Through a series of named events in northern Unity and north-western Jonglei States as described by respondents and secondary research, it appears that a “famine” period likely occurred. Against a backdrop of livelihoods erosion due to armed conflict, multiple severe natural shocks, including insufficient rainfall, flooding, and a crop pest outbreak, caused severe harvest failure over a wide geographic area, affecting the ability of local communities to utilize social and kinship support networks. A widespread, high-mortality human disease outbreak then occurred among extremely food insecure populations, in some cases preventing distress migration out of the worst-affected areas of what is now Koch County. Mortality also appears to have been higher as a result of displacement, including the adaptive displacement of the Leek Nuer into what is now southern Rubkona County and of other Nuer groups out of the borderlands between what are now Warrap and Unity States,<sup>77</sup> both as a result of sustained armed conflict and livelihoods disruption.

This set of events serves as a historical example of how successive and concurrent shocks may interact to create extreme food insecurity and lead to substantial loss of life. It provides a clear demonstration of the need to actively track shocks and to monitor their impact on food security, with special attention to an accumulation of shocks.

## CONCLUSION

Food insecurity continues to worsen across South Sudan, with the IPC TWG again warning of an enduring and heightened risk of Famine in January 2018. To provide humanitarians with a better understanding of Famine risk in South Sudan, REACH gathered information on recent and historical experiences of severe and extreme hunger, “famine,” and the shocks that cause these circumstances as told by South Sudanese. Using a qualitative and exploratory

approach, 36 FGDs and 9 KIIs were conducted, yielding indicative findings for 22 counties across all regions of South Sudan.

Reported local experiences of severe hunger and “famine” provided a range of insights into shocks, livelihoods and food access, and local perceptions of concepts like Famine and destitution. Key findings included a familiar typology of shocks, but also a complicated series of ways in which they interact with each other and with access to food. Armed conflict remains central to livelihoods disruption and reduced access to food, but a loss of freedom of movement and the relationship between a protection crisis and a food insecurity crisis was a critical and cross-cutting issue across all shocks discussed. Trade-offs in coping strategies used for protection, health, and food security were identified, with affected populations often able to achieve improvement on one or two at the expense of the others.

Some suggestions may be made for informing timely response to severe food insecurity and Famine and potentially improved early warning in the context of South Sudan, where Table 10 summarizes the implications of the key findings for Famine early warning.

## SHOCK MONITORING FOR TIMELY RESPONSE AND FAMINE EARLY WARNING

A basic list of shocks should be tracked on a monthly basis along several dimensions over time, including frequency, intensity, and concurrence. Areas could be monitored for a build-up of shocks of varying intensities within the same geographic area and across the same social groups, checked against existing data streams like monthly site reporting for health and nutrition programming and the biannual Food Security and Nutrition Monitoring System, and flagged as at-risk for worsening food insecurity. In tracking shocks, greater attention must be given to various types of displacement, human disease outbreaks, and health

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Upper Nile State through General Food Distribution sites, see Mercer, Alec, et al. “Kala Azar in Eastern Upper Nile Province, Southern Sudan.” *The Lancet*, vol. 345, no. 8943, 1995, pp. 187–188. For the further spread of the outbreak into pastoralist groups migrating through the affected area with their animals, see El-Hassan, A.m., et al. “Kala-Azar in Western Upper Nile Province in the Southern Sudan and Its Spread to a Nomadic Tribe from the North.” *Transactions of*

the Royal Society of Tropical Medicine and Hygiene, vol. 87, no. 4, 1993, pp. 395–398. For a historical overview of kala azar outbreaks in the 20<sup>th</sup> century in Sudan, including southern Sudan, see Osman, Omran F., et al. “Leishmaniasis in the Sudan: a Literature Review with Emphasis on Clinical Aspects.” *Tropical Medicine and International Health*, vol. 5, no. 8, 2000, pp. 553–562.

<sup>77</sup> Pendle 2017.

and nutrition service provision before food insecurity becomes severe.

To achieve regular shocks monitoring, inter-cluster data sharing would be required, especially among the Food Security and Livelihoods, Health, Nutrition, and Water, Hygiene, and Sanitation Clusters. An online mapping or dashboard tool, potentially on the model recently trialled in Somalia, could facilitate joint analysis and dissemination to operational agencies and other decision-makers.<sup>78</sup>

Such a process would need to be widely inclusive, with indicators and thresholds, ranges, and weighting decided by a range of humanitarian stakeholders, including cluster co-leads and lead agencies, Humanitarian Country Team and Inter-cluster Working Group members, and other key end-users of such information. The information included in any potential online tool would have to satisfy the varied needs of analysts, operational partners, and strategic decision-makers, likely requiring different levels of information. Shocks tracking of this kind could aid in the differentiation of a growing number of counties in Crisis and Emergency (IPC Phases 3 and 4) and help to identify hotspot locations for on-the-ground needs assessment.

## COPING STRATEGY ANALYSIS

Coping strategies, at least in areas of greatest concern, should be analysed from a multi-sector perspective. Rather than protection coping, health coping, and food security coping in isolation, a wider range of strategies should be considered within the same analysis. Without a broader understanding of the decision-making process behind the usage or non-usage of strategies, it may be difficult to interpret related data. Trade-offs between strategies may also allow for more predictive analysis, as food insecure populations move into areas of high disease risk seeking improved food access or make decisions about market utilization from the perspective of protection, rather than food access.

Greater consideration of the exhaustion of coping strategies within protection, health, and food security must also be considered. Given the overlap among the

three types of coping strategies as well as the long-term asset loss experienced by some communities, the absence of certain coping strategies does not necessarily imply a more positive situation. In at-risk areas, it may be more beneficial to compare coping strategies reported as exhausted or unviable against those still in use, rather than exclusively focusing on usage. Any initiative to revise a Coping Strategies Index for different areas of South Sudan would need to consider a multi-sector perspective and both utilization and exhaustion of strategies.

Table 11: Shocks, Access to Food, and Some Implications for Famine Early Warning

What	How
Comparisons of Historical Periods and Present Crisis – Magnitude and Intensity	FGD and KII comparisons; possible inclusion in AoK and rapid assessments
Asset Loss Over Time	Better incorporation in household surveys; comparison of asset holdings between time periods
Protection Coping and Food Security Coping	Expanded coping strategy analysis within existing indicators; multi-sector coping strategies considered in needs assessments; possible linkages within existing AoK
“Missing Men” and Household Labor Capacity	Better incorporate SMART and other demographic data into food security analysis through household and community labor supply and demand; FGDs and KIIs on labor availability for key livelihoods activities; use of existing AoK
Settlement Relocation	FGDs and KIIs regarding links between settlement relocation and food security; consideration in rapid assessments
Stages of Distress Migration	Utilization in coping strategy analysis, displacement tracking, household surveys,

<sup>78</sup> Oxfam. From Early Warning to Early Action in Somalia: What can we learn to support early action to mitigate humanitarian crises?. 2017.

<i>Social Magnitude of Shock</i>	and rapid assessments; existing AoK Quantitative data collection for aspects of social support and ability of households and settlements to access and utilize social and kinship support; establish indicators of support system stress and failure	<i>Human Disease Outbreaks</i>	ToT monitoring to rural agricultural labor market systems Closer analysis of existing idiosyncratic shock data from household surveys; inclusion of health facility and disease outbreak reporting in food security analysis; existing AoK
<i>Recurrent Crop Failure – Geographic Areas and Social Groups</i>	Annual CFSAM cereals production data at county-level over time; existing AoK; quantitative and qualitative sub-county exploration	<i>Household Labor Capacity</i>	Better incorporate SMART and other demographic data into food security analysis through household and community labor supply and demand; FGDs and KIs on labor availability for key livelihoods activities; use of existing AoK
<i>Milk Access, Especially Lean Season</i>	Household surveys; existing AoK; rapid assessments	<i>Health, Protection, and Food Security Coping</i>	Expanded coping strategy analysis within existing indicators; multi-sector coping strategies considered in needs assessments; possible linkages within existing AoK
<i>Concurrent Loss of Multiple Typical Main Food Sources</i>	Existing AoK; household surveys and main food source through Food Consumption Scores; rapid assessment usage of Food Source Exhaustion FGDs; compared to 2006 Livelihood Zones and 2013 Livelihood Zone Profiles	<i>Local Definitions of Destitution – Who is “Dependent” and How Do They Survive?</i>	Compare data on household assets, asset loss, main food sources, and coping strategy usage against local definitions of destitution; may require further qualitative exploration through FGDs and KIs by Livelihood Zone
<i>Market Prices</i>	Market price and supply chain monitoring; existing and additional AoK for food access impact; analytical consideration of market actor causes of price changes	<i>Remember Policies, Institutions, and Processes (PIPs)</i>	Consideration for “Illegal/risky/degrading” coping strategies, non-usage of strategies, severity rankings of strategies
<i>Casual Labor Market Systems</i>	Inclusion of wage rates, Terms of Trade (ToT) in market price monitoring; household surveys; extension of price and		



## ANNEXES

### ANNEX 1: FOCUS GROUP DISCUSSION TOOL

#### INTRODUCTION

##### 1. Facilitator's welcome, introduction and instructions to participants [5 minutes]

- *Facilitator records number, sex, and age of participants.*
- Welcome and thank you for volunteering to take part in this discussion. You have been asked to participate as your point of view is important. I appreciate your time.
- This discussion is designed to understand the overall welfare situation in your community and factors and risks affecting this welfare amongst communities like yours across Jordan.
- **Anonymity:** I would like to assure you that the discussion will be anonymous. We would appreciate it if you would refrain from discussing the comments of other group members outside of this session. If there are any questions or discussions that you do not wish to answer or participate in, you do not have to do so; however please try to answer and be as involved as possible.
- The discussion will take no more than 1-1.5 hours. We will have a quick break in between.

##### 2. Ground rules [2 minutes]

- The most important rule is that only one person speaks at a time. There may be a temptation to jump in when someone is talking but please wait until they have finished.
- There are no right or wrong answers.
- You do not have to speak in any particular order.
- When you do have something to say, please do so. There are many of you in the group and it is important that I obtain the views of each of you.
- You do not have to agree with the views of other people in the group.
- Does anyone have any questions? (*answers*)
- With this in mind, may I tape the discussion to facilitate its recollection? (*if yes, switch on the recorder*)
- OK, let's begin.

**Note:** Do not refer to events with participants, only events that can contribute to, or cause, more hunger than normal in a year.

**Note:** Do not refer to a timeline with participants, but a small history of the community.

*A flip chart or similar way to display information is strongly recommended, but not required, for this FGD. No map is needed.*

*On the below, do not read anything out in italics. They are only notes for the facilitator.*

## **Section 1: Historical Experiences of Extreme Hunger and Types of Events That Can Cause It**

1. When was the last time this community experienced [extreme or very bad hunger, or a time when many have died as a result of hunger – **it does not have to explicitly be called Famine**]?
  - a. *Look for local terms that mean “Famine” or similar levels of hunger rather than normal, lean season hunger, like the difference between buoth (hunger) and buoth mi diit e long (Famine) in thouk naath (Nuer)*
  - b. *Probe for when this event occurred – we want the most recent occurrence as close to a year or set of years as possible, link to historical events*
  - c. *Probe for the local name of this year, set of years, or distinct event*
2. What were the events that led to this period of extreme hunger [or local term/event name]? How did the situation become so difficult for this community?

**Using a flip chart, start making a list of all events/events.**

  - a. *Probe for specific events or sets of events that led to this time (i.e. murhaleen (raiding from Sudan) raiding over successive years led to Ruon Nyakuojok (a period of famine) in Unity through disrupted agriculture and lost cattle, etc)*
3. What are all the other events that can cause more hunger than normal, especially worse than a normal lean season? What can happen to the community that may make the households severely lack food and ways to get food?
  - a. *Begin with a general discussion, probing now for a typology of events – issues of rainfall and flooding, livestock disease, conflict and raiding, etc.*
  - b. *Remember: many events are cross-cutting across livelihoods and have different levels of impact on different livelihoods activities!*
  - c. *[Depending on answers, follow-up as needed on core livelihoods]*
    - *What about events that can affect cultivation, such as for [preferred local cereal], [preferred local root if applicable], or [preferred local pulse if applicable]?*
    - *What about events that can affect livestock, the cows and the goats or sheep?*
    - *What about events that can affect hunting, fishing, or gathering?*
    - *What about events that can affect markets and casual labor opportunities?*
4. Preferably via flip chart, refer back to cumulative list of all events
  - a. Here are all the types of events that we talked about. Are there any events that can lead to severe hunger, more than in a normal lean season, that are not here?
    - i. *Read out list, check for agreement and disagreement*

5. Which of the events on the list do you feel most often affect your communities within a single year? Which events do you feel least often affect your communities in a single year?
  - a. Rank events starting with those that are perceived to happen the most often and ending with those that happen least often. For example, “too little rain” could be most common, then “raiding,” “livestock disease outbreak,” and so on
  - b. Use a new sheet of flip chart paper so that the group can see the ranked list
  - c. Cross-reference each event against the events above and below it on the list – check to see if people agree with the ranks before proceeding
  
6. Within the last year, what impact did the events that we discussed have on the community’s ability to get enough food?
  - a. Go through each event from above list and assign an impact score on a flip chart

Impact of Events that Increase Hunger in Communities					
Impact Scores	1 – “Normal lean season hunger”	2 – “Somehow more than normal lean season hunger”	3 – “Much more than normal lean season hunger”	4 – “There is an emergency, hunger is very bad”	5 – “Hunger is the worst it can be, all over, and causing sickness and death”
Events					
Event A		x			
Event B				x	
...	x				

- b. For the first event in the list, ask participants to first give a score from 1 to 5, where 5 is the worst and should occur only a small number of times
- c. After giving a score, ask why they have given this score and see if their explanation lines up with any of the descriptions for each score – if it does not match, ask if they think it should be changed
- d. Repeat these two steps for every event in the ranked list
- e. Beginning again with the first event, compare the impact score against the impact scores of each other event – do participants still agree with the score they give? Do the scores seem logical when compared against each other? Are there very many impact scores of five?
- f. Repeat this for each event and ensure all pairs of events are cross-checked

## Section 2: Recent History of Events in This Area

7. From the time of independence for South Sudan, in 2011, when have each of these events we have discussed (from questions 2 and 3) happened?
  - a. *On a new flip chart sheet, draw a basic timeline of events from 2011 through 2017*
  - b. *Discuss each shock and when communities in the county were affected by it from 2011 to 2017*
8. From the time of the CPA, in 2005 (*Year of Garang* in many areas), have there been any events where any part of this county lost most of their cattle? When did these losses occur?
  - a. *Probe for as accurate of a year or set of years as possible*
  - b. *From 2011 to present, attempt to match large losses in cattle with events already recorded*
  - c. *For 2005-2010, determine the cause of the losses by event – where did the cattle go?*



## ANNEX 2: KEY INFORMANT INTERVIEW TOOL

To triangulate FGD information and to cross-check the timelines developed in them, at least one KII should supplement the FGDs. Suggested KI's include local community leaders, NGO staff – preferably from the area – that have worked in FSL or related programming in the area for an extended period of time, or individuals considered to be highly knowledgeable about local history, such as a prominent elder. KIIs should occur after the FGDs have been completed.

### KII Question Guide

1. In a discussion with members of communities in this county, we developed a short history of some negative events that affected hunger and how people could get enough food to eat. How do you see this list of events that we developed? Do you see any issues with what is here?
  - a. *Present unranked list in writing to KI and discuss*
2. In the same discussion, people ranked how common each event is. How do you see this ranking of events that we developed? Do you see any issues with what is here?
  - a. *Present ranked list in writing to KI and discuss*
3. In this discussion, we also talked about how severely each event usually affects hunger and how people can get enough food. How do you see the scores that we developed for each event? Do you see any issues with what is here?
  - a. *Present scored list in writing to KI and discuss*
4. We also looked at a short history of these events from the independence of South Sudan in 2011 to now, in 2017. How do you see this timeline that we have here? Do you see any issues with it?
  - a. *Present timeline to KI in writing and discuss*
5. Going back further in the history of the community, we also discussed times when most cattle in an area were lost for any reason, from the time of the CPA in 2005 to the present. How do you see this livestock timeline that we have here? Do you see any issues with it?
  - a. *Present timeline to KI in writing and discuss*

Cover Photo: Stefanie Glinski, taken in Minkaman, Aweril County, Lakes State, South Sudan. March 2018.

### About REACH

REACH is a joint initiative of two international non-governmental organizations - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH's mission is to strengthen evidence-based decision making by aid actors through efficient data collection, management and analysis before, during and after an emergency. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. All REACH resources are available on our resource centre: [www.reachresourcecentre.info](http://www.reachresourcecentre.info). To find out more information please visit our website: [www.reach-initiative.org](http://www.reach-initiative.org)

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