A Data Case Study: Famine in Yemen

By: Sarah Vuylsteke

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This report is part of the Sana’a Center project Monitoring Humanitarian Aid and its Micro and Macroeconomic Effects in Yemen, funded by the Swiss Agency for Development and Cooperation. The project explores the processes and modalities used to deliver aid in Yemen, identifies mechanisms to improve their efficiency and impact, and advocates for increased transparency and efficiency in aid delivery.

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The Sana’a Center for Strategic Studies is an independent think tank that seeks to foster change through knowledge production with a focus on Yemen and the surrounding region. The Center’s publications and programs, offered in both Arabic and English, cover diplomatic, political, social, economic and security-related developments, aiming to impact policy locally, regionally, and internationally.
Since 2017, the biggest headlines to grip the world about Yemen have been repeated claims that Yemen is “on the brink” or “one step away” from the largest famine in decades or a century.[1] This has been one of the most visible sound bites of the response, bringing in hundreds of millions of dollars in funding and leading to one of the largest scale-ups in food delivery ever seen. It is a claim that has been repeated for almost four years now by top UN leadership. Mark Lowcock, while serving as the UN’s humanitarian affairs and emergency relief coordinator, routinely appeared before the Security Council warning of famine and stating that Yemenis were on the brink of mass starvation. But is it true?

The data used to build this claim comes from the Integrated Food Phase Classification exercise, known as the IPC, which was introduced in Yemen in 2011. The IPC provides a common global system for classifying acute food insecurity (see Figure 2.3) and malnutrition situations and identifying their key drivers. Currently, the IPC is the most comprehensive and most standardized tool used to monitor food insecurity in more than 30 countries worldwide. Through the IPC process, government authorities, humanitarian actors and civil society organizations as well as other experts collaborate on data collection and analysis.

Their aim is to generate food security data that can be compared across crises and used to more effectively evaluate the severity and extent of food insecurity and malnutrition in a country. This data is then used to inform emergency responses as well as longer-term programming.\textsuperscript{[2]}

\textbf{Figure 2.3}

\textbf{IPC Acute Food Insecurity Classification Scale}

<table>
<thead>
<tr>
<th>Phase</th>
<th>Severity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None/Minimal</td>
<td>Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income.</td>
</tr>
<tr>
<td>2</td>
<td>Stressed</td>
<td>Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies.</td>
</tr>
<tr>
<td>3</td>
<td>Crisis</td>
<td>Households EITHER have food-consumption gaps that are reflected by high or above-usual acute malnutrition OR are marginally able to meet minimum food needs, but only by depleting essential livelihood assets or through crisis-coping strategies.</td>
</tr>
<tr>
<td>4</td>
<td>Emergency</td>
<td>Households EITHER have large food-consumption gaps, which are reflected in very high acute malnutrition and excess mortality; OR are able to mitigate large food-consumption gaps, but only by employing emergency livelihood strategies and asset liquidation.</td>
</tr>
<tr>
<td>5</td>
<td>Catastrophe/Famine</td>
<td>Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies. Starvation, death, destitution and extremely critical acute malnutrition levels are evident (for famine classification, area needs to have extreme critical levels of acute malnutrition and mortality.)</td>
</tr>
</tbody>
</table>

\textit{Source: IPC\textsuperscript{[3]}}

\textsuperscript{[2]} For more information on the IPC, see: http://www.ipcinfo.org/ipcinfo-website/ipc-overview-and-classification-system/en/

WHEN AID GOES AWRY

The definition of famine used by the IPC is, “the absolute inaccessibility of food to an entire population or sub-group of a population, potentially causing death in the short term.”[4] As famine is considered a rare and serious phenomenon, three set standards supported by reliable evidence have to be concurrently present to declare famine:

- at least 20 percent of households in an area face extreme food shortages with a limited ability to cope (usually indicating a near-complete collapse in food and livelihood systems, resulting in extreme food consumption gaps even though coping strategies have been fully employed);
- acute malnutrition rates in children exceed 30 percent; and
- a death rate that exceeds two persons a day per 10,000 people.[5]

In theory, food security data is collected on a yearly basis. IPC acknowledges that the volatile conflict situation hampers data collection in Yemen, resulting in a scarcity of data.[6] This has been confirmed by previous research done on the Yemen IPC process, which found that several types of data often are not available for the analysis (such as mortality — a key data set), that little systematic data exists, either quantitative or qualitative, and that there is a lack of data sharing and transparency.[7] The conflict and lengthy processes required to gather the data have also meant that it has been difficult to gather timely data. As a result, often the IPC analysis is undertaken with a compilation of data that has been collected at varying points in time.[8] For example, the IPC analysis released at the end of 2020 projecting into 2021 used data that was collected seven months prior.[9] This means that the same data used for the analysis measuring outcomes in March 2020 was being used to project scenarios for almost a year later. Yet, in

[4] Ibid., p. 204.
[8] Ibid., pp. 16-17, 25, 35, 37.
[9] Interview with food security analyst #1, November 25, 2020.
IPC, reliability depends partly on the “timeliness” of data. It requires data to be collected within the same season and/or from a similar season in a previous year. Implicit in the use of “previous season” data is that events and circumstances since data collection have not changed, so, with other supporting context, certain inferences can be made from the data. This is where the end-of-2020 Yemen IPC analysis fell short. Data collected at inconsistent time intervals and compilations of data from various times cannot be assumed to be reflective of any similar period. Taking this into account, it is debatable whether the data used for the analysis to project into 2021 remained relevant enough to project accurately.

Data availability and quality became more problematic with increased interference by authorities in the process. This led, for example, to the data collection for the IPC process in 2019 being blocked completely by Houthi-based authorities in areas under their control, resulting in no data. This interference also greatly undermines the independence and quality of the data collected. In theory, data collection is carried out by independent data collection teams trained in the IPC protocol and using questionnaires designed by experts, but this is not the case in Yemen. Particularly in areas under the control of the armed Houthi movement, there is extreme interference in the data collection. Questionnaires have to be approved by Houthi authorities who regularly interfere in the type of questions included in them and the data that can be collected. They also interfere in the selection of teams that collect the data and frequently collect it themselves without the presence of any independent monitors. Experts admit that it is common knowledge that answers to the questionnaires in Houthi-controlled areas are often coached. This opens the potential for data manipulation and bias. Unfortunately, this bias is not transparently shared as a limitation of the data in the process of analyzing the data and the publication of results.

[10] Follow-up interview with food security analyst #1, February 6, 2021.
[13] Author’s experience with IPC in Yemen in 2019; evidenced through internal UN emails with challenges experienced in the IPC process shared with author during the course of this research in 2020; and interviews with UN senior staff member #3, November 30, 2020, and UN agency staff member #4, December 7, 2020.
[15] Interview with UN agency staff member #4, December 7, 2020; author’s experience in Yemen; and evidenced through previous research conducted by Maxwell et al., “Constraints and Complexities,” pp. 20, 29, 31, 33.
The data quality is further compromised by a lack of independent and external review of the data. During the IPC process, it is usual for external experts in food security and nutrition to be included on panels while the IPC data is processed and analyzed at the end of the data collection process. This increases independence and quality control of the data, and improves the conclusions published as an outcome of the data analysis. In Yemen, this is not possible. The Houthi authorities prohibit raw data collected in areas of Yemen they control from being taken out of the country. This means that while it is possible for IPC technical working group (IPC TWG) members present inside Yemen to access the data, it is impossible for anyone outside Yemen to verify any of the general outcomes or test for accuracy based on actual data. [16] This was made even more difficult in 2020 by COVID-19 restrictions, which severely constrained the ability of IPC TWG members to be in Yemen at the time of the analysis.

In addition to this, the IPC framework has its limitations in the Yemen context. Firstly, IPC is geared toward analysis in rural areas predominantly dependent on rural livelihood models and coping strategies. The framework was not set up for urban populations and to properly analyze urban livelihoods and the labor market. Therefore, there is a debate around whether the data accurately reflects and correctly interprets the situation for the approximately one-third of Yemenis residing in urban areas. [17] Secondly, the IPC’s Acute Food Security analysis was designed for a six- to 12-month acute hunger episode driven by a shock or convergence of stressors. The locust infestation in East Africa that began in 2019, for example, destroyed crops and pushed an area from a Phase 2 (with some Phase 3) into a Phase 3/4, but the area retained an ability to recover in a following harvest (and with some support). Another example would be a sudden outbreak of conflict and escalation of needs, such as in Tigray, Ethiopia. IPC indicators are aimed to capture outcomes, for example the sudden need to use coping strategies to mitigate food gaps. This approach is not well suited for a protracted situation when coping is no longer really an option for vulnerable populations such as those in Yemen. [18]

[17] Interview with food security analyst #1, November 25, 2020.
[18] Follow up interview with food security analyst #1, February 6, 2021.
Furthermore, the impact of humanitarian food assistance (HFA) on food security in Yemen is not well understood because of the protracted nature of providing it. Most other countries deliver HFA through different models. In South Sudan, for example, food assistance is provided on a seasonal cycle, being distributed during lean seasons. It is, therefore, possible to understand and analyze the effects of food assistance on a population by comparing periods of HFA versus periods without it. In Yemen, food assistance is given year round and has been since the start of the L3 in 2015. In fact, food aid has scaled up massively in recent years. In December 2015, the World Food Programme (WFP) reached 1.8 million people;[19] by late 2019/early 2020, more than 12 million people were reportedly being reached.[20] Yet, with the widespread interference and diversion that has been well-evidenced, it is unclear if and how much of the food assistance reaches populations affected by food insecurity and how this impacts these people’s situation. When conducting food analysis in Yemen, it is unclear whether we are

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[20] “Yemen: Emergency Dashboard,” WFP, Sana’a, February 2020, https://docs.wfp.org/api/documents/0779e; 12.84 million people were assisted in January 2020, but by January 2021, this figure had gone down to 7.9 million: https://api.godocs.wfp.org/api/documents/001a
looking at populations with or without HFA, or with how much HFA, and what
coping mechanisms people are using because these are not properly documented,
analyzed or understood. For this reason, the impact of HFA remains unclear,
detracting from the accuracy of the analysis.[21]

Despite the shortcomings evidenced above, IPC data remains at the core of strategic
planning related to food and nutrition, and purportedly provides the rationale for
statements by UN leaders about the severity of Yemen’s food insecurity when
they seek donor funding. Therefore, IPC outcomes and data since 2017, when
warnings of impending famine became routine, merit review to understand the
reliability of these claims.

The 2017 IPC

The 2017 IPC classified 17 million people in Yemen as facing acute food insecurity.
The data used was based on Emergency Food Security and Nutrition Assessments
(EFSNAs) carried out by the UN Food and Agriculture Organization (FAO),
UNICEF and WFP in 18 governorates in 2016. For two other governorates, 2014
data was used. For the two remaining governorates, it was unclear which data
was used.[22] No classification was made for any pockets of the population being
in Phase 5, though it was estimated that 6.8 million people (24 percent of the
population) were thought to be in emergency Phase 4 of food security.[23] Nutrition
data collected had major gaps,[24] but the data did not indicate the required
threshold of 30 percent of acute malnutrition in children had been exceeded,
which would be an IPC indicator of famine.[25] EFSNA data on mortality collected
using Standardized Monitoring and Assessment of Relief and Transitions

[21] Interviews with food security analyst #1, November 25, 2020, and senior food security expert, January 20, 2021.
www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1026467/?iso3=YEM
[24] In 2016, only five SMART surveys (in Al-Dhalea, Hudaydah, Sa’ada, Sana’a and Taiz) were conducted, and only
three (Ibb, Lahj and Shabwa) in 2017. See: SMART Surveys Reports for 2016 and 2017, OCHA Services website,
https://www.humanitarianresponse.info/fr/operations/yemen/document/smart-surveys-reports-2016 and
[25] Ibid.
(SMART) survey methodology found that none of the 18 governorates assessed showed a death rate (crude or under-5) of 1 or above per 10,000 people per day.[26]

In late 2017, after the Saudi-led coalition closed Yemen’s land, air and sea ports in a temporary tightening of its blockade, Lowcock began warning of “the largest famine the world has seen for many decades, with millions of victims,”[27] apparently based on the vulnerability of populations found to be in IPC Phase 4. This came despite the fact that IPC thresholds for famine were not met.

The 2018 IPC

The 2018 IPC process saw some improvement, with analysis taking place at the district level for the first time, allowing for better analysis and differentiation in areas where challenges to gathering the data were fewer or surmountable. In October 2018, two months before results of the IPC were even published, the UN began to refer to the food security situation as a “potential famine.”[28] The references to famine increased as the publication deadline of the IPC came closer, and throughout the 2018 battle for Hudaydah, the specter of famine was heavily used to advocate against a military push to oust Houthi forces from Hudaydah city.[29] The role and wisdom of humanitarian advocacy in political (and military) decisions related to Hudaydah is discussed in more detail in a later report, ‘A Principled Response’, but by its own criteria, the data did not bear out the rhetoric.

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The 2018 IPC was the source of heated debate in humanitarian circles. Food security analysts and nutrition experts fundamentally disagreed on the results of the data collection, with nutrition experts pointing to a lack of data to support any famine declaration from their side while food security experts pushed for a famine declaration based on food consumption data alone. Médecins Sans Frontières (MSF), which has a presence across Yemen, also disputed the push to declare a famine, stating its medical staff had not seen any change in mortality and nutrition rates in their treatment facilities – including in comparison to times before the conflict. Despite this, using only the food security side and discounting the other required IPC thresholds in the analysis, UN leaders came out with, and media headlines amplified, fresh cries of imminent famine.

The disagreement over the data and a push to classify famine in some areas of Yemen led to the review by a famine review committee (FRC) in November 2018. It was a challenging task for the FRC, which was unable to find a solid reason for the contradictory food security and nutrition data. Though internally divided, the IPC TWG ultimately confirmed the evidence did not support a famine or famine-likely classification. As a result, despite high levels of the population found to be suffering from acute food insecurity, the consensus outcome of the 2018 analysis was that there was no famine, and none projected. Still, senior humanitarian leaders continued to use the term and the food security data to infer a potential famine, pushing the narrative without supporting scientific evidence (see: ‘Challenging the Narratives’).

[30] Author’s discussion with UN staff member in Sana’a in 2019; interview with humanitarian analyst #2, December 15, 2020; and Maxwell et al., “Constraints and Complexities,” p. 32. For information on areas classified as at risk of famine, see the 2018 IPC report: http://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1151858/


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Despite the lack of evidence for famine, the 2018 IPC data did reflect a concerning situation. It reported that 15.9 million people — 53 percent of the population analyzed — were acutely food insecure, despite ongoing humanitarian food assistance. It estimated that 17 percent of the population (about 5 million people, and more than 1 million fewer than in the 2017 IPC) fit the food security classification of IPC Phase 4 (emergency) and that an additional 63,500 people were in IPC Phase 5 (catastrophe). The 45 districts flagged as hosting populations in IPC 5 had been inaccessible to assessors, meaning that this data, like much gathered in 2018, had been collected remotely. While the data collection can be questioned, sub-par food consumption and coping methods were beginning to be more widely evidenced on the ground as reflected in the data available.

A health worker weighs a baby at a malnutrition treatment center in Hajjah governorate on November 22, 2020. /Sana’a Center photo

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[37] Internal UN emails shared with the author during the research period by key informants, supporting knowledge gained in a debriefing of the 2018 IPC process.
An attempt to undertake an IPC assessment in 2019 was severely hampered by the restrictions imposed by Houthi authorities in Yemen and resulting disagreements between WFP (and the UN as a whole), and the Houthis. Ultimately, the 2019 IPC process was never completed. Initial plans to monitor the 45 districts deemed most at risk for famine based on the 2018 analysis also were hampered by access restrictions. A finding within a hotspot analysis of 2019 is, however, interesting to note: Only 29 of the 45 districts that had reported pockets of population in Phase 5 in 2018 were accessible in 2019 and, therefore, could be included in the hotspot analysis, but no evidence of Phase 5 conditions was found in any of them, raising questions about the veracity of the remotely gathered data initially collected from those locations.

The 2020 IPC

The next IPC analysis was published in July 2020, following a fraught process that initially resulted in data only being published for areas under the control of the internationally backed Yemeni government. Eventually, a food security update was released for the whole country in December 2020, although by the end of the year nutrition data had still only been published for areas outside Houthi control. Following the contested process in 2018, external experts were


[39] Ibid.


allowed for the first time to participate in the IPC analysis process remotely. Their access to data remained limited, however, with the Houthis ban on letting raw data out of Yemen remaining in place. As a result, only generic output tables were accessible to analysts participating remotely, which meant the data quality could not be adequately tested.\[43\] Sources of data and how it had been collected also remained opaque.\[44\]

The final analysis published found that 13.5 million people (45 percent of the analyzed population) were facing high levels of acute food insecurity (IPC Phase 3 or above), despite ongoing HFA. This included 9.8 million people (33 percent) in IPC Phase 3 (Crisis), 3.6 million (12 percent) in IPC Phase 4 (Emergency) and, of greatest concern, approximately 16,500 people in IPC Phase 5 (Catastrophe), with numbers expected to increase in the first half of 2021.\[45\]

Some contention exists around the data outcomes. In early 2020, Houthis officials approved one type of survey needed to establish the level and severity of malnutrition. The survey was carried out soon after, before the first Covid-19 cases were detected in Yemen. When the time came for the IPC analysis, Houthi-based authorities refused to allow UN agencies and the IPC technical working group access the survey data, without giving a convincing reason as to why.\[46\]

One food security expert who participated in the analysis process said the final results did not reflect the data that was presented to the external review panel during the process, especially with regard to the final determination of populations in IPC Phase 5 conditions. As per the analysts’ review, “the data used was quite insufficient to make such statements, especially about Phase 4 and Phase 5 populations.”\[47\]

\[43\] Interview with food security analyst #1, November 25, 2020.
\[44\] Ibid.
\[47\] Interview with food security analyst #2, December 3, 2020.
Regardless, the final outcome of the analysis found that famine in Yemen was not present and was not a likely scenario. This was backed up by Famine Early Warning Systems Network (FEWSNET) analysis, which provides additional analysis to the IPC.[48] Nutrition data for areas under the control of Houthi authorities was not available at the time of the analysis, and current, reliable mortality data remains unavailable in Yemen. A more recent report on food security in 2020 offers interesting insight. According to the 2021 Global Report on Food Crises, Yemen showed the largest change in the number of people considered to be in crisis Phase 3; with a 15 percent improvement in food security, the largest among the improvements seen globally.[49] The numbers above also are notable, with the number of people in Phase 4 having continuously dropped over the years (from 6.8 million in 2017 to 3.6 million in 2020). The veracity of pockets of populations in IPC Phase 5 is questionable in light of the findings in 2019 (29 districts purported to have populations in famine-like conditions actually had none) and in 2020, when 16,500 persons were thought to be experiencing famine-like conditions compared to 64,000 in 2019. Rather than a country falling into famine, the data coming in has increasingly been indicating that Yemen’s food security is improving. Still, less than two weeks before the release of the food security analysis, and with only a partial nutrition analysis conducted (which did not find any evidence to reach the nutrition threshold for famine),[50] Guterres once again declared that “Yemen is now in imminent danger of the worst famine the world has seen for decades.”[51] The purpose of the statement was to call for more funding. And despite the lack of evidence, this narrative has continued to be used indiscriminately, even following the IPC findings, mainly to push for more funding.[52]


FOOD SECURITY IS A PROBLEM IN YEMEN, FAMINE IS NOT

Yemen is a country with a big population compared to some others in crisis. As a result, the numbers are big, and will always look big side-by-side with South Sudan or northeast Nigeria, which can warp perception (relative comparisons of figures can be seen in ‘Challenging the Narratives’). In Yemen, there are large populations with acute and chronic food insecurity and pockets of people who are considered to experience severe forms of food insecurity. But there is no scientific, or anecdotal, evidence that this food insecurity is leading to increased death rates and large-scale starvation. In other places, overall numbers may be much lower, but acute food insecurity is visibly resulting in increased deaths and populations who are wasted. These places, which get little public attention, are much more at risk of famine according to assessments grounded in data-based, scientific findings. Several areas of South Sudan, for example, are considered “famine-likely” following IPC analysis.[53] Yet, months into a famine declaration in Pibor, South Sudan, there has been no visible scale-up of assistance to these areas.[54] One shock in these locations could collapse food consumption and lead to high excess mortality due to hunger and disease.

The debate on “famine” or “no famine” is an emotive one, and often, a fundraising one. As evidenced above, the accuracy of these claims has not been a concern for the UN and the Yemen humanitarian response as there is no evidence, and never has been, to support a famine declaration in Yemen. Even anecdotally, there has been no evidence of people dying in large numbers of food insecurity. Claiming famine only heightens skepticism about the fundamental basis on which the response claims to work and fundraise. It also misses the point. Food security is a


[54] Follow up interview with food security analyst #1, February 6, 2021, and an internal report by an INGO in South Sudan that followed a February 2021 assessment of the Pibor area, shared with the author in February 2021.
problem in Yemen, famine is not, and skewing the narrative skews the appropriate response. Cries of famine simply lead to agencies such as WFP trying to increase general food distributions by throwing actual food at the problem. This does not fix the underlying problem of food security, though it greatly increases the risk of food diversion. Investment in markets and production would far more sustainably solve systemic food security problems. Until a nuanced, realistic and honest analysis and debate is held about food security in Yemen, it will not be properly addressed.