Constraints and Complexities of Information and Analysis in Humanitarian Emergencies

Evidence from Yemen

A FEINSTEIN INTERNATIONAL CENTER BRIEF

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1. Introduction

The modern-day Republic of Yemen was established in 1990 when South Yemen merged with North Yemen after years of strife (BBC News 2018). The current population is an estimated 28.7 million people.

Yemen is embroiled in a civil war involving numerous parties, but is primarily between the Houthi group and supporters of Yemen's internationally recognized government. The conflict has its roots in the failed political transition following the Arab Spring. The Zaydi Shiite fighters known as Huthisor Ansar Allah or Partisans of God (known informally as the Houthis) began as a theological movement that preached peace and tolerance in Yemen in the 1990s, but the group declared war on the government after government forces killed its founder, Hussein Badr al-Dine al-Houthi. The civil war in Yemen began in September 2014 when Houthis won a series of battles to dislodge the internationally recognized and predominantly Sunni government of President Abdrabbuh Mansur Hadi, taking control of Yemen's capital and largest city, Sana'a (Al Jazeera 2018). Today, Houthis control most of the populated areas of Yemen—Sana'a and parts of northern Yemen on the border of Saudi Arabia—but are not recognized by most of the international community.

In 2015, a Saudi-led coalition (which includes Kuwait, United Arab Emirates, Bahrain, Egypt, Morocco, Jordan, and Sudan) with logistical and intelligence support from the United States, United Kingdom, and France launched a military campaign to restore President Hadi to government. But the main aim of the Saudi-led coalition was to counter the Houthis, whom the Saudis regard as an Iranian proxy. Mirroring the strategy it used to support Lebanese ally Hezbollah in Syria, Iran is reported to provide arms and other supplies to the Houthi movement (Saul, Hafezi, and Georgy 2017). Since the launch of the military campaign, multiple UN-led peace brokering processes have been attempted; most have failed.

Since 2018, the critical port city of Hodeida has been under attack by the Saudi-led coalition. The UN, noting the critical importance of maintaining port operations with nearly two thirds of the Yemeni population relying on aid coming through it, warned of the consequences of its closure and began negotiating a ceasefire around the port city. Many feared that the port's closure would plunge parts of Yemen into famine (FEWS NET 2018). A UN-brokered truce agreement was reached in Sweden on the December 18, 2018. Both the Saudi coalition-backed government and the Houthis agreed to a ceasefire in Hodeida, a truce that is tenuously still in place. Today, Yemen has been dubbed the world's worst man-made humanitarian crisis. Following four years of escalating conflict, Yemen's GDP has reduced by 50 percent since 2014, with its agriculture and fishery sectors—which employed more than half the rural workforce—severely constrained by the conflict (World Bank 2018). Relative to pre-war capacity, oil and gas production is operating at about 10 percent, and exports have been suspended. Inflation spiraled out of control in late 2018, and a credit squeeze in the general economy resulted in the inability of traders to import basic food stuffs.

These conditions triggered an effort by the UN to develop a "roadmap" out of Yemen's crisis in late 2018. The roadmap addressed the conflict as the primary cause of the crisis—and was linked to efforts to negotiate the ceasefire for Hodeida. It also addressed some of the macro-economic drivers of the crisis, including the liquidity crisis and the deterioration in the value of the riyal. The largest humanitarian appeal for Yemen ever, at $2.96 billion, was launched in 2018 (Financial Tracking Services n.d.). As of January 2019, 82.5 percent or $2.44 billion of the required funding had been committed. The governments of Saudi Arabia and the United Arab Emirates (UAE), the leading forces in the military coalition backing the Hadi government in Yemen, contributed 22.2 percent in 2018 (Financial Tracking Services n.d.).

However, outside the Hodeida ceasefire zone, the conflict continues, amid reports of deliberate targeting of civilians and civilian infrastructure (e.g., schools, health facilities, and markets) and other apparent violations of international humanitarian law (IHL). Evidence shows that the Saudi-led coalition is systematically targeting rural livelihood infrastructure, such as agricultural fields and food stores essential to the rural population's productive capacity and survival (Mundy 2018). Humanitarian access remains a huge constraint (ACAPS 2019).

Moreover, despite the increased availability of humanitarian funding, access to reliable information on humanitarian needs in Yemen remains sparse. By late 2018, the UN believed that the situation in Yemen

had deteriorated to the point of possible famine. Estimates for December 2018 noted 15.9 million people (i.e., 53 percent of the population facing severe acute food security—IPC Phase 3 or higher) despite ongoing humanitarian assistance (IPC 2018). In the absence of humanitarian food assistance, it is estimated that up to 20.1 million or 67 percent of the population facee severe food insecurity in the same time frame. This included 238,000 people projected to be in IPC Phase 5 or "catastrophe" (IPC 2018). In this context, maintaining and operating a current-status needs assessment system through the Integrated Phase Classification is a high priority. But significant challenges face the IPC and other humanitarian information and analysis systems in Yemen. These are outlined briefly below.

2. Data challenges and constraints

Yemen is a challenging environment in which to work: there are two different authorities—the internationally recognized government in Aden, and the de facto (Houthi) authorities in Sana'a. For several years, a degree of coordination existed between the two, but of late this has increasingly broken down. Other constraints are also common, making the independent collection and analysis of information a challenge. These are analyzed below. Steady progress has been made in improving both the quality and coverage of data required for a comprehensive assessment of humanitarian conditions in Yemen. A Famine Risk Monitoring (FRM) initiative, has ramped up both the frequency and granularity of data collection in particularly at-risk districts. But other challenges remain.

2.1 Data transparency, data sharing, and independent checks

A major concern regarding the analysis of food security, malnutrition, and famine in Yemen is about data transparency. Most data are collected either by, or in

close collaboration with, governmental authorities. Data on food security, nutrition, and mortality are not allowed to be taken out of the country, and extreme limits are imposed on the extent to which data are shared even within the country. This results in a situation in which trust and confidence in the data are seriously undermined. Donors complain that they often have to make resource allocation decisions without seeing the actual data—especially the data on malnutrition and mortality. Independent checks are limited. Other routine checks on data outside the country are not allowed in Yemen. In the absence of data sharing, doubts are raised about its quality and independence.

In many cases, several types of data are missing or very limited. SMART surveys are undertaken only very occasionally in Yemen and are often out of sync with IPC analyses. This means that data are often not available or are as much as a year old by the time an IPC analysis is conducted. Gaps in geographic coverage make the identification of hotspots difficult and may mean that some seriously affected areas are missed. Data on sectors other than food security and nutrition are limited.

2.2 Data quality

Many significant efforts have been made over recent years to improve the quality and reliability of data, but several concerns were highlighted in this regard. Data on nutrition for the November 2018 analysis had been collected as long as a year earlier, with the most recent data having been collected in March 2018. Data on humanitarian food assistance is constantly changing, meaning that results for the impact of food assistance also changes. Many analysts fear that data on mortality badly under-estimates actual death rates. The requirement of working with two separate authorities complicates data collection. Combined with the lack of international checks, this raises questions about the overall quality and reliability of the data.

2.3 Early warning and hotspots

Given the disparate geographic areas and different levels of coverage, one of the major concerns is the means of identifying "hotspots" or emerging areas of concern due to rapid deterioration in humanitarian conditions. The Integrated Famine Risk Reduction Initiative (IFRR) identified 107 districts for closer monitoring, but no districts have been added or removed since 2018—to be effective, the hotspot identification and monitoring process must be dynamic and responsive to changes in context.

3. Analysis challenges and constraints

The central conundrum of the analysis in Yemen is that the indicators of food insecurity have looked very severe for a long time but malnutrition figures have stayed fairly low, and mortality figures are very low—even zero in some cases. It is unclear whether the issue is with the quality of the data, the way in which data are collected, the analytical model on which IPC analysis is based, whether the conundrum simply defies explanation at this point in time, or if either the data or the process is being influenced in ways that confound the analysis. It is likely a combination of all these. The main conundrum concerns what could explain nutritional resilience in the face of such a serious, widespread, and long-lasting food security crisis. All of the other causal factors that might be expected to explain the nutrition figures are also bad. Respondents are aware of this apparent mismatch, but aside from the fact that the nutrition data were quite out of date for the 2018 analysis, no comprehensive explanation emerged.

3.1 Analytical process

Two different analysis processes—one in Aden and one in Sana'a—are necessary before a national analysis can be completed. This makes the process difficult and time consuming, but the IPC Technical Working Group has managed to make this work over recent years. But, it is inevitably based mostly on food security data. Nutrition teams for the most part are not involved in the IPC analysis—they have their own analytical meetings. This compounds the central conundrum noted above.

3.2 Technical capacity and participation

While IPC analysis has been conducted in Yemen for the past five years, challenges continue regarding technical capacity. As is the case in many famine-risk countries, the turnover in personnel involved in the analysis is high. The Yemen analysis in 2018 was the first time that the IPC Manual Version 3.0 was used, which introduced very different means of doing projections. Although the process was strongly supported by the technical team from the GSU, different people in the process interpreted the changes differently.

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Leadership and management of the process is key, but several constraints remain. Participation in terms of numbers is reported to be good, but local NGOs felt intimidated by the process. It is not entirely clear that the authorities—particularly in Sana'a—trust the process, viewing it as outside their control. At the same time, several respondents noted that there is no verification or voice independent of the authorities. So, judgement about the independence of the analysis depends very much on the perspective of individual stakeholders.

3.3 Causal analysis

Finally, there is the question of what is being analyzed. Most IPC analysis is concerned with current status outcomes for food security and malnutrition (and, in theory, mortality). In Yemen, however, mortality data are often missing, and the food security and nutrition data are only about outcomes. There is little specific analysis of causes. In particular, there is little information about conflict and limited space to discuss conflict, even though it is clearly the major driver of the humanitarian crisis. The situation is much the same for other information that is not collected at the household level. For example, much was made in the analysis of the strong social linkages among Yemeni people, with the resulting observation that sharing resources—including food—provides a strong if informal safety net that mitigates much of the negative impact of the food crisis. Yet there is little in the way of data to support this claim.

4. Influences on food security analysis in Yemen

4.1 Independence of data collection and analysis

Although many respondents noted that data collection processes had improved in recent years, a number of constraints on the independence of the analysis remain. Nutrition data are viewed as very political. Examples were cited where SMART surveys and enumerator trainings were disrupted by national security, making further collection and assessment of information very difficult. Incidents were reported about surveys in which "minders" accompanied field teams and told people how to answer questions. These apprehensions, combined with concerns about the lack of data transparency and sharing, lead to a situation in which many respondents suspect the independence of the data. Thus while some observers suggested that pressure from the authorities is at the root of the issue, others pointed to fear of some major donors to the humanitarian effort—including Saudi Arabia and the United Arab Emirates—who are also major actors in the conflict.

In terms of the analysis, major disagreements have been reported on how final numbers of people in need are determined, but no clear, overall pattern emerges from the interview evidence. Some respondents suggested that numbers might be inflated to attract greater levels of resources; others suggested that numbers are downplayed to avoid annoying one party or another. Numbers can be downplayed and exaggerated at the same time—and this is one way of ensuring the issue of famine does not arise. The case study on South Sudan noted a tendency towards classifying very high numbers in IPC Phase 3 and 4, while leaving no population in Phase 5, the "right-skewed but truncated" population distribution was also very common in Yemen. Figure 1 provides some examples.

This type of distribution at once highlights—and perhaps over-estimates—the number of people in crisis and emergency, while indicating that no one is in Phase 5 or famine conditions. This is not conclusive evidence of external pressure to avoid discussion of famine, but whereas the few dozen cases of this kind of distribution noted in South Sudan over several years of analysis (about 5 percent of the cases analyzed) were cause for alarm there, nearly half of the districts (158 out of 333) in the most recent Yemen analysis showed this kind of (highly improbable) distribution of population—with increasing proportions of the population respectively in Phases 2, 3, and 4, but then no population whatsoever in Phase 5. It should be noted that these figures were for the scenario in which there was no humanitarian food assistance.

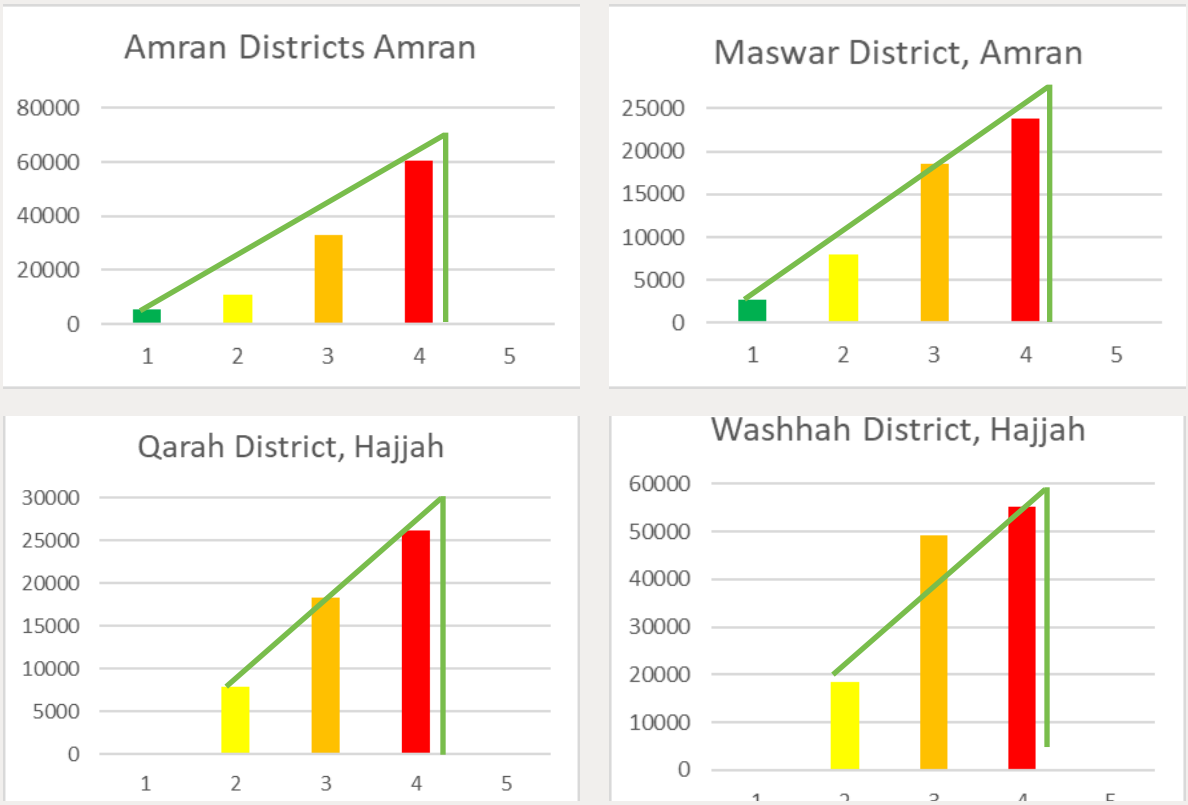
Other forms of influence were more subtle. Agencies directly involved in data collection and analysis were extremely careful about what they said in public, effectively amounting to self-censorship. Respondents reporting this self-censoring noted that failure to do so could make access more difficult for future assessments or could result in difficulties in registration or the withholding of visas or work permits or perhaps even the expulsion of agencies.

4.2 Access constraints

The second major way in which the results of the analysis are potentially distorted concerns populations that are accessible and those that are not. At the moment, some 1.4 million people are estimated to be in inaccessible areas and the extent to which available data accurately reflect their conditions is not known. Obtaining the necessary permissions to collect data can be very time consuming. Some of this is due to security concerns, but some is simply bureaucratic constraints. There is also little coordination between levels of government in granting permissions. Access constraints may be driven by concerns for the physical safety of the enumeration teams, or may result from attempts to distort what the data show, or may simply be bureaucratic obstacles.

When this results in missing information, analysts face three choices: extrapolate from out-of-date data (collected when access was possible), use data that is believed to be biased (such as extrapolating from accessible areas), or simply delete inaccessible areas from the analysis (leave blank both in terms

Figure 1. "Right-Skewed/Truncated" Distributions of Population of Selected Districts, by IPC Phase Classification, Yemen, 2018



Source: IPC Technical Working Group-Yemen

of numbers and mapping classification). All three of these choices have consequences for the independence and quality of the data—and the accuracy and validity of the analysis. For the most part, in Yemen, even inaccessible areas are still classified, but it is not clear to users on what basis classifications are made.

4.3 Influences on the process

Several respondents did report instances when they knew that data had been deliberately manipulated, albeit more likely for the purposes of ensuring resource flows than to influence the assessment of the severity of the crisis. Others noted that the issue wasn't so much about the actual numbers being changed, but that constraints on access, refusal to share the data, the banning of some surveys and the use of others to extrapolate to unreachable areas, and difficulties in cross-checking all meant that the door was open to all kinds of influences on—and varying interpretations of—the evidence.

Finally, there is the issue about how the "technical consensus" is formulated. Several respondents referred to the consensus being driven by the "loudest voice in the room" a phenomenon that has also been witnessed elsewhere. A "consensus" outcome is essentially driven by the most powerful individual members of the analysis team—in this case the group that has all the data.

5. Lessons learned and recommendations

To summarize, the analysis of famine in Yemen has progressed significantly since this crisis began in 2014. The level of granularity, the prioritization of the most at-risk districts through the FRM initiative, and the coordination of the analysis between two different authorities (who are otherwise hostile towards each other) are all significant achievements. Nevertheless, concerns remain with the independence and reliability of the data collection processes, many pieces of information remain missing from the analysis, and some of the data that do exist present analytical conundrums that no one can adequately explain. Examples of direct interference with both data collection and analysis processes have been noted, but much of it appears to be indirect. Several clear conclusions or lessons learned emerged from the foregoing analysis. These are summarized briefly below, followed by some specific recommendations.

Data concerns. A clear and urgent issue regards data transparency and data sharing. Missing data, data that are extremely out of date, or data that are not representative of the specified unit of analysis all constitute significant challenges to rigorous and independent analysis of food security and nutrition in Yemen. The times between analyses is often very long—too long for trend extrapolation to provide reliable results for decision making. Data on mortality in particular are frequently missing. As a result, the humanitarian community has some major decisions to make related to advocacy for good quality and optimum coverage of evidence collection. There are also decisions to be made about the management of the transparency of the data.

Analytical concerns. Yemen presents an analytical conundrum that so far has defied full explanation: extremely high levels of reported food insecurity, the collapse of the public health system, a WASH-related crisis—and yet low levels of reported malnutrition and extremely low levels of reported mortality. The fact that this conundrum remains unresolved, and that there are so many counter-narratives in the media and from other humanitarian sources, undermines faith in the analysis. The analysis is not well joined up. The IFRR process aims to address this question and perhaps needs more time to come to fruition. And some confusion remains between current status (empirical) and early warning (probabilistic) or between current status reporting and projections. The Famine Risk Monitoring initiative, for instance, is not really measuring risk—it is measuring current status outcomes.

The lesson learnt is that if the IPC is to be the sole judge of both the classification of a famine and the risk of famine, then all agencies involved in IPC analysis have the duty to ensure that the analyses are more frequent (ideally two or three times per year in a crisis of this severity and magnitude), more timely in terms of data analyzed (data no more than two or three months old is the usual standard), the risk of false negatives is significantly reduced, and projections are of much greater quality. This will require the mobilization and support from the highest management level of agencies involved in data collection and their full support to the IPC process.

Influences. The data collection and analysis process may be influenced in several ways. One of these is access and, when access is blocked, how agency leadership can take up the concerns with the authorities. Some respondents mentioned intimidation as a real deterrent to this kind of support. At the same time, there is persistent pressure, at least at a high level, for positive publicity from donors who are also direct belligerents in the war that is driving the humanitarian crisis.

Some observers believe that information and analysis has been politicized to secure more resources, although others note that the humanitarian capacity to handle more humanitarian funding isn't really the issue. Some observers believe that, like in other countries studied, a general fear of the politics of famine exists, and thus discussions of the topic of famine are subtly avoided. Many of the institutions of government are under the control of de facto authorities in Sana'a, and in some cases technical staff have been replaced with political appointees, resulting in a loss of technical capacity and independence.

As noted in other country case studies, numerous incidents were reported of "the loudest voice in the room" swaying the analytical consensus. Related to

this observation, there is some acceptance of high numbers in Phase 3 and 4, but not Phase 5. A population to be shown in Phase 5 is unacceptable, but the high number of people in Phase 4 is somehow "acceptable." The very high proportion of districts analyzed to have a "right-skewed but truncated" distribution of population by IPC phase classification is strongly suggestive evidence of this phenomenon. This results in funding decisions having to be made in the absence of reliable assessment results, in the view of most donor representatives interviewed. The further potential result is that resources are not targeted impartially, undermining the very purpose for which these data collection and analysis processes were invented.

5.1 Recommendations

Several recommendations follow from the conclusions offered above.

1. *Develop strong protocols for data transparency and data sharing*. This lack of data transparency causes many observers to believe some information is being withheld from decision makers. Donors can encourage data transparency and data sharing, but leadership is required at the level of agencies—both globally and in Yemen.
2. *Build and engage high-level support for access*. Some agency directors and sometimes the Humanitarian Coordinator engage with authorities to ensure access. This process needs to be regularized, and pressure needs to be maintained until improved access is achieved. This requires strong and constant advocacy with the authorities. Donors can help as well.
3. *Ensure the most independent, impartial, and neutral evidence possible for decision making*. The politics of information may differ from one period to the next, calling for vigilance and mitigation of the factors that influence the analysis through a system of governance that is as transparent, participatory, and inclusive as possible. The arguably unique political environment in Yemen is testing the limits of the IPC governance system. To ensure that the system is seen to be as transparent and independent as possible, more attention to governance of the system is required at the most senior levels of the UN and donors in Yemen.
4. *Build greater participation*. Participation goes beyond attendance in meetings—it really means the ability to engage in assessment and analysis without fear or intimidation. Broader participation and an empowered multi-stakeholder analysis are probably the best guarantees of independent analysis—particularly if they are strong enough to mitigate the potential sources of influence.
5. *Streamline timely and coordinated processes of assessment and analysis*. Access is the biggest issue to tackle, but if and when better access is permitted by governing authorities, the humanitarian community needs to be ready with plans for more frequent, more agile, and more coordinated data collection and analysis processes. Improved identification of hotspots should be a priority. A more flexible approach to the timing and coverage of each analysis is also needed. Attempting to have regular, country-wide analyses has likely undermined their timeliness and utility.
6. *Balance data integration and prioritization*. The current focus on incorporating food security, nutrition, and mortality into a single, combined survey protocol with a focus on national analysis risks further complication, undermining the timeliness and utility of the food security assessment system. A better balance is needed between integrated pan-territorial food security assessments and in-depth assessment of hotspots.
7. *Continue to build technical capacity*. Many of the issues identified here are not necessarily technical, but the observation applies that strong technical capacity is one of the safeguards against influences on the process.
8. *Clarify the difference between current-status information and early warning information*. IPC analyses often have to be based on data that are out of date. While there is an analysis of contributing factors, the use of dated current status information to build accurate projections is clearly a gap in the current process. Better early warning information is needed to help identify hotspots or rapidly deteriorating situations where resources (both for assessment and response) can then be concentrated.

A dedicated team of analysts and agencies has met the challenge of improving the quality and usefulness of evidence for decision-making in the highly dynamic and volatile situation in Yemen over the recent years of conflict. Great credit goes to them for their perseverance and expertise in the face of significant constraints. Timeliness, utility, and consensus, as well as the independence and integrity of the analysis, need to be the guiding principles for the analysis of famine in Yemen. These principles call for the famine analysis system (including, but not limited to the IPC) to be more agile, and more willing to learn and adapt to a changing environment. The risk of large-scale mortality requires all stakeholders to acknowledge that a pursuit of a perfect analysis risks being at the expense of having "good enough" evidence to guide the response for the Yemeni population.

6. Methodological note

The study was comprised of a background desk review, key informant interviews, and a series of private meetings with key stakeholders to test initial findings. The team conducted 62 interviews with 78 informants. This brief summarizes the findings for IPC analysis in Yemen and lays out a condensed version of the main report, which can be found at http://fic.tufts.edu and http://whatworks.co.ke.

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