Yemen is one of the world’s largest and most complex humanitarian crises. In order to respond to 24 million Yemenis who need humanitarian assistance, decision makers need quality integrated and cross sectoral analysis.

Data collection in Yemen is extremely challenging. UN agencies and NGOs are working creatively to overcome significant barriers – interference, conflict and tough geography – to provide evidence to scale up the response.

The humanitarian analysis community can make this information more useful for decision making by

- bringing more voices into the analysis, including women, local communities, development actors and national NGOs, to build a clearer picture
- increasing cross sectoral and forward looking analysis to help decision makers plan and manage risk, and
- sharing more data and openly discussing challenges, uncertainty and dissenting views in analysis to increase trust in findings.
Recommendations to strengthen the analysis ecosystem in Yemen

ACAPS identified eight priority areas for the Yemen humanitarian analysis community:

1. **Promote data use and sharing**
   Like many conflict zones, collecting data in Yemen is sensitive and challenging. A good quantity of data is being collected but not used or shared (publicly or internally). Lack of capacity or time to properly clean, reference, crosscheck, store and disseminate data prevents some organisations from sharing (especially national NGOs). In other cases, bureaucratic processes delay the publication of information. Sometimes, organisations lack confidence in the rigour of their data. Professional insecurity prevents them from opening up their data sets to criticism. The difficulties in collecting primary data in Yemen make it even more crucial that data is as useful as possible. Developing stronger capacities, mechanisms, institutional agreements and a culture of data sharing can help build a clearer collective picture and avoid duplication of efforts.

2. **Scale up cross-sectoral analysis**
   Only a quarter of publicly available analysis on the Yemen crisis published since 2015 focused on cross-sectoral issues, and only a third considered outlook and trends. This makes it hard for decision makers to prioritise how to respond in a complex, interconnected emergency. Better integrated analysis will help decision makers prioritise scarce resources.

3. **Improve our ability to provide forward looking analysis**
   Understanding potential ways the situation could develop is important for an agile response. However, less than one-third of analysis products on Yemen provide any anticipatory analysis. Forward-looking analysis is needed to help humanitarian decision makers plan ahead.

4. **Bring national NGOs deeper into the analysis ecosystem**
   National NGOs collect a lot of data, but the vast bulk of published analysis relies on UN and International NGO primary data (more than 80% of products reviewed in the metadatabase). Integrating national NGOs into the analysis ecosystem, with the right measures to protect them from risk, will help build a stronger collective picture for joint response. This will also help the international community better understand the role of culture and context in humanitarian response.

**Why did ACAPS conduct this analysis?**

ACAPS mapped the analysis landscape in Yemen during January and February 2019 during the start-up phase of the Yemen Analysis Hub. We developed a meta-database of over 130 primary datasets, needs assessments and analysis products publicly available (mostly in English) and interviewed over 25 organisations working on data collection and analysis in Yemen in the field or remotely. We compared the analysis landscape to an 'ideal' analysis ecosystem and identified lessons and recommendations.

ACAPS published these findings for use by other analysis organisations, researchers or think tanks interested in analysis or analysis capacity building.

To find out more, see the methodology section on page 8.

The meta-database is available at this link.

For more information on the humanitarian analysis reform agenda in Yemen, see Part III of the Yemen Humanitarian Needs Overview 2019.

The analysis ecosystem approach borrows from the earth sciences, recognising that analysis actors operate in complex, open systems and are constantly adapting and changing due to external and internal inputs.
5. **Sharpen the focus on gender and vulnerable groups**

There is a large amount of information published on protection needs in Yemen. However, the majority of publications deal with human rights and conflict issues. There is very little analysis or data on the specific needs of girls, women, boys, men and other groups, such as the elderly, people with disabilities, IDPs, host communities, and rural versus urban populations (though plans are in place to strengthen this in 2019). Information on the needs of women is a particular gap. Collecting data from women can be sensitive. This makes it challenging to plan a response that accounts for the specific needs of particular groups and adapts to Yemen’s unique regional contexts. Renewing efforts to collect data from women and girls in Yemen and building a stronger understanding of gender dynamics and the needs of particular groups will help better target the response.

6. **Build an understanding of pre-crisis vulnerabilities**

Yemen has historic, economic, tribal, social, environmental and geographical challenges which impact on communities’ ability to withstand new shocks. Much of this understanding sits with development agencies, think tanks, and peacebuilding actors. Working along the humanitarian-development nexus can help build a clearer picture.

7. **Nurture an open discussion about methodology, uncertainty, limitations and diverging views**

Only one-third of products reviewed by ACAPS included a clear discussion of how the information was collected and analysed, including challenges and information gaps, diverging views, biases or limitations. The lack of transparency around how data is collected and analysed is contributing to widespread questioning of the quality of data. Analysts should not be afraid to openly discuss challenges. When lives are at stake, humanitarians need to make decisions based on the best available evidence. In the humanitarian setting, information gaps are the norm, not the exception. Diverging interpretations are a normal part of the analysis process. Promoting an open and honest dialogue about how information is collected and analysed, including limitations faced, will help shift the conversation towards the issues that matter most – do we understand the current crisis? Do we have the information we need to make decisions? Developing standards, tools and platforms for safe data sharing, backed by training and capacity building, can also help build a culture of transparency. Documenting discussions about uncertainty, diverging views and information gaps will help analysts identify and constructively address limitations and gaps, and set the agenda for future analysis.

8. **Build stronger feedback loops between decision makers and communities in Yemen**

The purpose of analysis is to help humanitarians make better decisions. There needs to be good communication between decision makers, analysts, data collection organisations and affected communities so that humanitarian analysis is focused on providing timely, relevant information and answering the questions that decision makers need to do their jobs. Humanitarians also need to provide feedback to communities in Yemen on how their information is being presented to humanitarian decision makers. People have a right to know what is being written about them and how collected information is being used. This latter step is skipped too often in the challenging humanitarian response context. Strengthening the voices of affected communities in analysis will help decision makers plan more appropriate, effective and accountable interventions.

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The Analysis Ecosystem in Yemen

Why does Yemen need humanitarian analysis?

Yemen is in a severe, complex humanitarian crisis. The UN declared an L3 emergency in July 2015. **24.1 million people need humanitarian assistance** (HNO 2019).

Conflict, beginning with local grievances in Yemen’s North in 2004, escalated to nationwide fighting in 2015, with Saudi and UAE forces intervening in support of the UN backed Hadi government against Houthi forces.

Fighting has devastated Yemen’s economy, displaced 3.34 million people and triggered alarming rates of food insecurity and disease.

**Two-thirds of Yemenis, almost 20 million people, face Crisis or Emergency levels of food insecurity** (IPC 3 or 4) and 238,000 people would be in IPC Phase 5 (Catastrophe) without humanitarian assistance.

Food insecurity could increase further if the current ceasefire fails and fighting resumes over the strategic Al Hudaydah port – the lifeline of Yemen’s import dependent economy. 90% of Yemen’s food is imported (World Bank, May 2018).

**19.7 million people lack access to adequate healthcare.** The collapse of the water network has led to cholera outbreaks over three consecutive years, with over 1.5 million suspected cases and over 2,900 deaths between October 2016 and February 2019 (WHO 2019).

**The current crisis has exacerbated historic vulnerabilities.** Poverty, weak governance, corruption, over-dependence on imports, dwindling oil revenues, and water scarcity have impacted communities in Yemen for decades. Understanding how the recent crisis interacts with pre-existing vulnerabilities is critical to planning a contextually relevant and effective response.

Given the scale and complexity of the Yemen crisis, decision makers need targeted analysis to understand the needs of affected communities, prioritise life-saving interventions, understand the vulnerabilities of different groups, and plan ahead to manage risk.

What are the challenges with analysis in Yemen?

Data collection and analysis organisations face significant challenges related to insecurity, bureaucratic interference, and Yemen’s complex geography.

**Insecurity:** Conflict frontlines, numerous checkpoints, the presence of listed terrorist entities such as Al Qaeda and ISIS in parts of the country, and the breakdown of law and order make Yemen a dangerous place to operate. Data collection and analysis organisations have had to develop creative solutions, including remote data collection and partnerships, to gather humanitarian information.

**Bureaucratic interference:** All parties to the conflict are sensitive about data collection. Restrictions on access for assessment teams, and the requirement for approval of survey questions and findings, slow down the information collection process and undermine confidence in findings among humanitarian stakeholders. Many frontline organisations have told ACAPS about field teams being arrested, detained, or prevented from collecting data in some areas of the country.

**Tough terrain:** Yemen is made up of 22 governorates and 333 districts. Hadramaut governorate alone is larger than Jordan, Syria and Lebanon put together. Sharp mountains, vast deserts, islands, and wadis make nationwide data collection challenging under ideal circumstances. Yemen’s regions have distinct histories and contexts. Important divisions between tribal, rural, and urban communities; agricultural and industrial regions; and political differences between the former socialist South and the republican North make Yemen a difficult context for outsiders to understand. The humanitarian community is working to address these challenges by managing the humanitarian response through six regional operational hubs (Aden Hub, Al Hudaydah Hub, Ibb Hub, Sa’ada Hub, Sana’a main office, and Al Mukallah Hub). But bringing these diverse contexts together into concise analysis to inform rapid humanitarian response planning is an ongoing challenge.

Who are the analysis actors in Yemen?

Despite a challenging context, a number of organisations are collecting good information for response planning.

OCHA published a detailed Humanitarian Needs Overview (HNO) and Humanitarian Response Plan to set response priorities in 2019. OCHA also publishes regular Flash Updates, access snapshots, commodity trackers, and monthly organisational presence information (3Ws). The 2019 HNO sets out an ambitious agenda to increase the granularity of information (down to the community level) and improve the understanding of vulnerable groups. See Part III of the Yemen HNO 2019 for details.

Clusters publish detailed information on sectoral needs. The amount of sectoral information available is a strength of the Yemen response. Major data collection exercises planned for 2019 include Famine Risk Monitoring, HeRAMS (Health Resource and Availability Monitoring System), nutrition SMART surveys (Standardized Monitoring and Assessment of Relief and Transitions), eDEWS (Electronic Disease Early Warning System), morbidity tracking and cholera updates, Camp Coordination and Management Baseline Assessments, Civilian Impact Monitoring Project reporting, Community Needs and Services Assessments, the Country-level Task Force on the Monitoring and...
Reporting Mechanism (CTFMRM) and the Gender Based Violence Information Management System (GBV IMS) (HNO 2019). 

IOM's DTM is one of the main UN organisations conducting primary data collection on the ground in Yemen. IOM supports the annual Multi-Cluster Location Assessment, and carries out displacement tracking and monitoring, and flow monitoring.

WFP conducts regular market and food price monitoring, and contributes to quarterly IPC assessments conducted at household level, mainly focusing on the 45 priority districts in IPC Phase 5. WFP VAM Yemen conducts remote data collection and food security monitoring using the mobile Vulnerability Analysis and Mapping (mVAM). 

WHO monitors outbreaks and publishes epidemiological bulletins, including on cholera. WHO also coordinates HeRAMS assessments.

International and National NGOs collect large amounts of primary data, both on behalf of the Clusters and for their own planning purposes.

Specialist assessment and information management organisations provide support to Clusters and front-line data collection agencies. REACH designs and conducts assessments, as well as joint analysis on market and household-level WASH assessments. iMMAP provides technical expertise and capacity building in assessments, information management and GIS.

Technical networks like FEWS NET and IPC track and respond to food insecurity.

Media, academics, think tanks, and peace building and development actors have been working in Yemen for decades. They have a good understanding of historic, economic, tribal, social, environmental and geographical contexts in Yemen. However, the scope and complexity of this information can make it difficult for busy response planners to absorb and use.

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Strengthening the Analysis Ecosystem in Yemen

ACAPS identified five key elements of an ‘ideal’ or healthy analysis ecosystem. We used this construct to look at the strengths and weaknesses of data collection in Yemen and identify areas where we could collectively do better:

**Information needs are known**

The purpose of humanitarian analysis is to provide an evidence base for better decision making. When decision makers know what information is already available and can easily communicate their information needs, the data collection and analysis process is more efficient and better targeted.

There is a huge amount of information published on Yemen. However, it is not always available in formats accessible to humanitarian decision makers. Also, the sheer volume of publications can make it challenging to identify and absorb key information.

UN agencies publish a large amount of analysis on sectoral needs in Yemen, including on protection, food security, shelter, and nutrition.

Think tanks, academics, research organisations, development and peace building actors also publish a large body of cross sectoral literature on local historic, social, economic, tribal and political dynamics.

Detailed sectoral and pre-crisis information needs to be translated into targeted products for humanitarian response planners so they can rapidly absorb and make sense of existing information and identify outstanding information gaps.

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**What will happen in an ideal analysis Ecosystem?**

Source: ACAPS metadata base

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Information needs should also be integrated into data collection planning at the very beginning to avoid wasted effort collecting unnecessary or unwieldy information. Involving analysis organisations, and including secondary data review and qualitative information (including discussions with Yemeni experts and field teams) at the very beginning of data collection planning processes will result in better targeted and more accurate analysis.

Collecting good enough data
Data does not have to be perfect. In a humanitarian setting, the focus should be on getting data that is good enough to inform the decisions that need to be made in the time available (often at very short notice). If organisations spend too long collecting large amounts of data, or endlessly refining and perfecting their data collection tools, they may miss the window in which decisions need to be made. Also, overly onerous or poorly coordinated needs assessments can frustrate local communities and undermine confidence in the humanitarian response.

Humanitarian actors face significant constraints collecting data in Yemen. This includes physical access, bureaucracy and administrative barriers, and interference in the assessment process. Often, humanitarian organisations have to negotiate with the National Authority for the Management and Coordination of Humanitarian Affairs and Disaster Recovery (NAMCHA) in Ansar Allah (otherwise known as Houthi) controlled areas to gain access to communities. In the internationally recognised government-controlled areas, data collection agencies struggle with unclear processes and the need to negotiate access through a bewildering array of local militias and armed group. Maintaining space to operate in line with humanitarian principles is a constant challenge in Yemen.

Conflict front lines, the presence of explosive remnants of war and mines, poor roads and telecommunications infrastructure also make data collection difficult.

Despite these challenges, data collection and analysis organisations in Yemen are managing to find creative ways to gather the information needed to plan the response. Data agencies have developed adaptive remote management approaches and partnerships to gather and cross check information.

The current level of data generated in Yemen is good given the challenges. However, removing the external constraints facing data collection and analysis organisations would reduce the effort and cost involved in data collection, and close the (sometimes significant) time lag between collecting and publishing data.

ACAPS also believes that constraints on data collection are having a major impact on the quality and granularity of protection data, especially information on the needs and voice of Yemeni women and girls.

Although there is a large quantity of reporting on protection issues, current protection information focuses heavily on conflict and human rights related issues. There is very limited analysis on gender issues, especially the specific needs of women and girls, or gender-based violence. It is also difficult to distinguish the needs of vulnerable groups in Yemen (who are vulnerable groups in Yemen? Why are they vulnerable? What are their main needs?). Most parties to the conflict in Yemen are extremely sensitive about data collection on gender, especially regarding women’s economic and socio-political empowerment. According to development stakeholders this issue pre-dates the current crisis.

Strengthening analysis of the specific needs of women and girls, and other groups in Yemen, will make it easier for humanitarians to plan a targeted and effective response.

Making full use of data
A significant quantity of data collected in Yemen is never disseminated (publically or, at times, even internally). This waste of effort is particularly concerning given the challenges involved with collecting data.

There are a number of reasons why organisations are not fully using and sharing data. These include limited resources or capacity to clean, analyse and disseminate data, data sensitivity (real or perceived), professional insecurity about the quality of data, or lack of awareness of how or why to publish information. A large amount of data is being collected for narrow purposes, such as reporting or project planning, but never made widely available to contribute to the broader humanitarian effort. There are risks to sharing information in conflict settings and humanitarians have obligations to protect personal information. However, the international community has well developed approaches to clean, anonymise and review data to make it appropriate for publication. These approaches are being underused in Yemen.
Local NGOs are particularly underrepresented in published analysis products. Over 80% of analysis products reviewed by ACAPS referenced data collected by UN agencies or International NGOs. However, local NGOs collect large amounts of data and often have better access to local communities. Local NGOs raised a number of issues that were preventing them from fully participating in published analysis:

- lack of internal capacity to analyse/process data
- local organisations collect data for UN agencies or INGOs who then produce written products, or
- local organisations collect data purely for program proposals or reporting and do not share or use it for broader analysis.

Bringing national organisations more prominently into the humanitarian analysis space in Yemen will build local capacity and improve the international community’s understanding of how local social, political, and economic dynamics impact on humanitarian outcomes. This needs to be done in a way that builds the capacity and voice of local actors. We need to be careful not to transfer risk to downstream partners or expose them to harm.

Integrated and collaborative analysis

For information to be useful for decision making, it needs to be analysed, interpreted, compared with other sources, and tailored to the needs of response planners. Data, like people, has biases and blind spots. Bringing more diverse sources into the analysis process – local NGOs, Yemeni experts and field staff, development and peace building actors – can help resolve inconsistencies in data and complement limited evidence, identify patterns and trends, promote a stronger shared situational awareness and build consensus on findings.

Less than one-third of all the analysis products examined by ACAPS provided forward looking analysis. Only a quarter of products were cross-sectoral. This makes it difficult for response planners to make sense of complex and interconnected issues and prioritise interventions.
Good analysis also relies on a shared understanding of the methodology used to collect information (the objectives, theory, steps, techniques, and sources behind data collection and analysis). Only 36% of the publicly available products reviewed by ACAPS included a discussion on methodology. Stakeholders told ACAPS that the lack of discussion about how data is collected and analysed is contributing to widespread questioning or distrust about the accuracy of data in Yemen among humanitarian stakeholders. Promoting an open and honest dialogue about how information is collected and analysed will help shift the conversation towards the issues that matter most – do we understand the current crisis? Do we have the information we need to make decisions? A clear explanation of the methodology and limitations in data collection and analysis would improve the transparency of the process and build credibility.

Critical review and questioning of data and analysis is essential to improve the data collection and analysis process and build trust in findings. Assessment and analysis teams should not be afraid to openly explain the limitations, challenges, and information gaps encountered during the data collection and analysis process. Working with information gaps is common when analysing complex crises. Assessment and analysis teams should always discuss, document, and constructively address dissent and the diversity of interpretations. Considering diverse interpretations and approaches in analysis means including all voices/views during joint analysis. By documenting and discussing diverging interpretations of shared data, analysts can identify, share, and constructively address limitations and gaps.

In addition, training and capacity building on both data collection and analysis methodologies could strengthen the quality of data collection and analysis overall, and help organisations provide more comprehensive and good quality analysis.

**Better response, informed people**

Current data collection and analysis efforts in Yemen are impressive given the challenges.

However, key stakeholders told ACAPS they need more integrated analysis (which brings diverse sources of information together into one place) to make sense of complex, interconnected challenges. Decision makers also requested trend and forward-looking analysis to identify and manage risk and targeted information on how social, cultural, economic, and tribal dynamics impact on humanitarian outcomes.

Local communities are a key source of information, and a key reference point for how we are performing as a humanitarian community. Security, access, and geographic challenges in Yemen make it difficult to communicate with communities in Yemen. However, we need to strengthen this communication loop to make sure our response is as effective and transparent as possible.

**Methodology**

ACAPS developed the Analysis Ecosystem in Yemen through secondary data review of published analysis products and discussions with analysis stakeholders in January and February 2019.

The purpose of this exercise was twofold: To help ACAPS better understand the analysis needs and gaps in Yemen to support planning for the scale up of the ACAPS Yemen Analysis Hub, and to record and disseminate our findings for use by other researchers and analysts working on Yemen. Our process was as follows:

1) We developed a metadatabase
   - ACAPS reviewed over 130 primary data, assessment reports, and analysis products on the Yemen crisis, published between 2015 and 2019
   - ACAPS classified key features of the publications (product type, issuing organisation, category) and recorded the information in a metadatabase
   - we analysed the products in the metadatabase according to: product type and sector; products per organisation; sectoral verses cross sectoral products and; products that include a clearly stated methodology.

2) We held discussions with 25 analysis stakeholders working on Yemen. The stakeholders’ interviews included one to four interviews per type of organisation/group from each of the following categories: staff from humanitarian and development INGOs, staff from humanitarian and development UN agencies, donors, staff from local NGOs, members of think tanks and assessment and analysis experts. The majority of the interviews (15 of 25) were conducted with stakeholders based in Yemen, or who travel regularly to Yemen for work. The remaining 10 interviews were with stakeholders who worked on Yemen remotely, mainly from Amman.
3) We developed an ‘ideal’ analysis ecosystem
   a. We developed the ideal Analysis Ecosystem model based on the Yemen Analysis Hub’s Theory of Change and ACAPS’ Technical note: Survey of Surveys (ACAPS 2011).
   b. We then reviewed the findings from our discussions and the metadatabase against the ideal ecosystem construct and identified initial findings.

4) We tested and refined our findings with ACAPS technical experts and analysis stakeholders in February 2019.

The analysis ecosystem approach borrows from the earth sciences, recognising that analysis actors operate in complex, open systems and are constantly adapting and changing due to external and internal inputs.

The full metadatabase is available at this link.

Limitations

ACAPS does not have a direct presence inside Yemen. These findings were developed using remote monitoring techniques. ACAPS attempted to address this weakness by seeking input and advice from operational actors or analysts who work, or have recently worked, inside Yemen (15 of the 25 stakeholders interviewed were based in Yemen or travelled regularly to Yemen for work), but the possibility of errors and misunderstandings remain.

Gaps in data and information: This paper highlights gaps in data and information on women and girls in Yemen. However, further research is needed to understand why. What is the role of political restrictions imposed by local authorities or other actors on collecting gender data? To what extent do social and cultural norms prohibit an open discussion? Is lack of capacity or fear by data collectors an inhibiting factor? Do assessment methodologies take into consideration women’s participation and gender breakdowns?

Selectivity: Given the vast quantity of information published on Yemen, ACAPS had to use professional judgement in selecting sources. The charts and figures in this report are a snapshot based on a sample selected by ACAPS, not an exhaustive categorisation.

Implicit vs Explicit information: The metadatabase looked only at published (explicit) information. In a fast-paced humanitarian response, a large amount of information is exchanged through meetings or informal discussions. ACAPS attempted to balance this gap by cross-checking our findings through discussions with experienced Yemen analysts.

An ideal ecosystem: The ideal analysis ecosystem is a theoretical construct developed to provide a point of comparison. Humanitarian response by its nature is a messy endeavour. Ideals are not achievable (and possibly not even desirable). The findings in this paper should be seen as an attempt to provide a common understanding for shared work going forward, not as a criticism of current practice (a lot of which is quite good).

Lack of Arabic language: ACAPS was still in the process of recruiting native Arabic speakers at the time of publication. As such, we mainly reviewed published documents in English and only included English sources in the metadatabase. We also conducted all discussions in English. We have likely missed key Arabic language information sources (both written and verbal).

Role of local institutions in data collection and analysis: This paper provides a very simplified characterisation of the role local institutions play in analysis. The relationship is nuanced and complex. Some local authorities continue to support humanitarian analysis. Others are imposing bureaucratic impediments. Key individuals at the working level continue to cooperate with analysis and data collection actors, despite broader agency level challenges. An accurate and full study of the role of local authorities in analysis in Yemen was beyond the scope of this report.

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