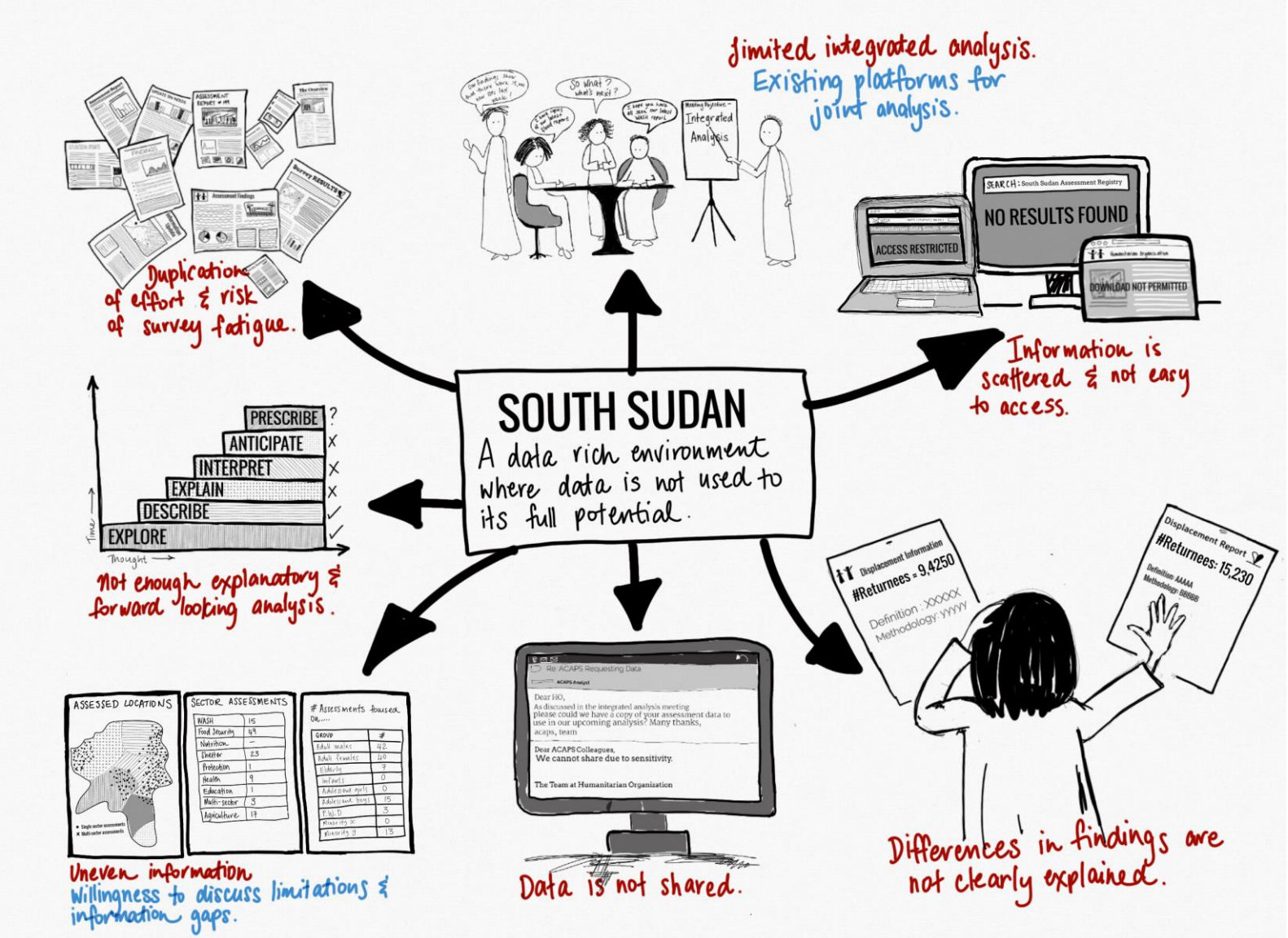
SOUTH SUDAN ANALYSIS ECOSYSTEM

Strengthening the information landscape in South Sudan

Thematic report – March 2020

Humanitarian data analysis aims to provide decision-makers with a rapid understanding of needs, as well as context analysis. In South Sudan there is a large amount of data and information. While this can be positive in some ways, it can also be overwhelming for decision-makers and programmers, as well as for the communities assessed. Further, the information available does not always answer the questions necessary to enhance the effectiveness of humanitarian response, development, and peacebuilding programmes.

ACAPS mapped the information landscape in South Sudan with the objective of identifying information gaps and needs, as well as good practices in data collection and analysis. The overall aim is to support the assessment and analysis community in South Sudan by seeing clearly what is already available in terms of data and information and what areas of the analysis ecosystem could be strengthened.



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Key terms

ACAPS 'ideal' ecosystem

The ideal analysis ecosystem, developed by ACAPS in 2019, is a theoretical construct built to provide a point of comparison with existing information landscapes.

Anticipatory (or forward-looking) analysis

The process of studying past and present circumstances, relationships, and trends in order to develop one or more narratives that help identify the possible evolution of a situation or event, and the consequences or effects of the change(s).

Anticipatory (or early) action

An activity taking place between an early warning trigger (an event or element that signals an increased or decreased probability of a hazard occurring) or a high-probability forecast, and the actual occurrence of the corresponding disaster. An early action is the action or measure taken to mitigate or prevent the humanitarian impact of the anticipated disaster, based on the identified triggers or forecast.

Data

Data can be both facts and statistics collected together for reference or analysis. Data can be both qualitative and quantitative. *Qualitative data* is, for example, findings from focus group discussions, records, and answers from key informant interviews. Examples of *Quantitative data* are percentages of questionnaire responses, malnutrition rates, IPC figures, population figures, etc. *Raw data* is any data that has not been processed, either manually or using an automated software. Initial processing of raw data normally involves structuring, sorting and cleaning it (to detect and correct or remove corrupt or inaccurate records).

Database

A database is an organised collection of structured quantitative or qualitative data, or information, stored so that it can be easily accessed, managed, filtered, manipulated, and/or updated (usually electronically).

Dataset

A dataset is a group of separate elements (data) that have been combined or organised into one set. Any named group of records is called a dataset. Datasets can hold information such as demographic, personal, health, housing records, etc.

Explanatory Analysis

Explanatory analysis looks for associations, correlations and more generally for connections between observations. It is an extension of the descriptive analytical phase and allows for formulation of better hypotheses or theories, based on careful investigation of relationships, underlying processes or causal mechanisms.

Information

Information is data that has been processed in such a way as to be meaningful to the person who receives it. When data (quantitative or qualitative) has been processed, organised, structured or presented in a given context so as to make it useful, it becomes information. Overall, information is any processed, organised, and at times analysed, data that is communicated verbally or in written form.

Integrated analysis

There is no agreed upon definition of 'integrated humanitarian analysis'. In this report, ACAPS refers to integrated analysis as any multi-dimension analysis. Integrated analysis goes beyond multi- or cross sectoral analysis (needs analysis on multiple sectors or needs analysis that explores links across sectors). With integrated analysis we mean the process and output that helps build linkages between the humanitarian, development, and peacebuilding elements of the South Sudan crisis. It is exploring drivers of the crisis and humanitarian needs, explaining pre-crisis vulnerabilities, explaining patterns and trends, including local knowledge and expertise in the analysis, and exploring people's vulnerabilities.

Interpretative analysis

Interpretive analysis aims at moving beyond findings to drawing well-supported conclusions through careful argumentation, evaluation of the strength of evidence, and attention to context.

Joint analysis

Joint analysis is the collaborative process of transforming data into actionable insights for decision making (JIAF Draft Guidance 2019). It is analysis undertaken by different stakeholders together. Typically, in the humanitarian sector we consider two main types of joint analysis: the common analysis of a situation by experts from different sectors (Food, Health, WASH etc.) and the common analysis of a situation by experts representing different stakeholders (national authorities, international humanitarian agencies, donors etc.).

Joint analysis is conducted to reduce the impact of 'group' or 'stakeholders' biases. Such processes build on structured analytical techniques and specific lines of inquiry to foster critical thinking and alternative explanations, argued on the basis of the strength of evidence, the assumptions made, and the degree of consensus among experts.

Risk

A risk is the chances of a hazard (or multiple hazards) occurring/materialising [probability], combined with the estimated impact of the hazard(s) [magnitude and severity]. In other words: *Risk = Severity x Probability* where *Severity = Hazard x Exposure x Vulnerability/Capacity*.

Risk analysis is the process of identifying and unpacking potential future events that may negatively impact individuals, assets, and/or the environment.

Scenarios

A scenario is a description or picture of a situation at some point in the future based on a set of informed assumptions about how the current situation might develop over time. It is usual practice to develop two or more scenarios to reflect a range of significantly different futures. Scenario building is the process of determining descriptions of possible future conditions or events and their expected consequences or effects, which may be positive, negative or neutral. Scenario building activities are done to inform planning.

Seasonality

A *seasonal* pattern occurs when a time series is affected by seasonal factors such as the time of the year or the day of the week. Seasonality is always of a fixed and known frequency.

Trends

A trend is the general direction in which something is developing or changing. It does not have to be linear. Trend analysis is a process that helps to determine future movements of a variable on the basis of its historical trends. It consists of quantifying and explaining trends and patterns from available data.

Vulnerability

The United Nations Office for Disaster Risk Reduction (UNDRR), formerly known as UNISDR defines vulnerability as "the conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards" (UNISDR 2009). According to IFRC, vulnerability is the "the diminished capacity of an individual or group to anticipate, cope with, resist and recover from the impact of a natural or man-made hazard", due to physical, economic, social and political factors (IFRC 04/02/2020).

Executive summary and recommendations

All recommendations for South Sudan's analysis ecosystem flow from a primary finding: South Sudan is a data-rich environment but data is underused. A large amount of data is collected but not all of it is made accessible and/or used for analysis. This creates gaps in the South Sudan information landscape and hampers a clear understanding of the context and future developments. All the recommendations presented below address specific gaps which are all linked to this main finding. All are required to strengthen the South Sudan analysis ecosystem, ensuring that the humanitarian, development, and peace-building community make the best use of data.

Stakeholders get the most out of available data

Recommendation: Secondary data and lessons learned must be included in the analysis workflow

Secondary data analysis must be a critical part of all analysis, even when primary data has been collected. This ensures that pre-crisis vulnerabilities and lessons learned will be considered, contributing to an understanding of the affected population's conditions and needs.

Pre-crisis information and lessons learned from past response are not sufficiently integrated into the analysis produced on South Sudan. Pre-crisis vulnerabilities are essential to understand the social, ethnic, cultural, geographical, and economic challenges in South Sudan; and, the capacity of the population to withstand shocks. Integrating pre-crisis vulnerabilities analysis into humanitarian analysis will help build a clearer picture of the crisis. Considering lessons learned from past humanitarian response in South Sudan will allow comparison of past and present events, as well as good or bad practices in responding to similar shocks. This will help identify potential best solutions to respond to the current crisis or shocks within the crisis.

Using secondary data to inform new data collection exercises will also create efficiencies. Currently stakeholders in South Sudan are not routinely using existing information (secondary or primary data) to answer key questions and/or design deeper follow-up assessments. Humanitarian actors tend to start from scratch each time they have questions or need to information to plan, programme, or make decisions. Secondary data analysis will help overcome this inefficiency and contribute to reducing assessment fatigue on the affected population as well as duplication of efforts.

Recommendation: Integrated analysis is required

Opportunities for bringing stakeholders together for integrated analysis discussions should be explored. Media, academics, think tanks, and some peacebuilding and development actors were producing analysis on South Sudan prior to the country's independence in 2011. They have a good understanding of historical, political, social, and geographical contexts. Including their analysis with humanitarian needs and impact analysis will strengthen integrated analysis in South Sudan.

Stakeholders know where to find available data and can make further use of it

Recommendation: Store and categorise already collected data and information in user friendly database or registries (Data Storage)

More attention should be given to already available information, including gathering, categorising and storing it in repositories, registries, or databases to make the data accessible and visible to a large number of actors. Actors need to be thinking about who could use the available data and which formats could make it easily accessible and ready to use to run analysis.

Recommendation: Create a more collaborative and open data sharing culture (Data Sharing)

A large portion of the data collected or analysis produced is not published or is shared only within a restricted group. There is not a shared understanding in South Sudan regarding the perceived and real risks of data sharing. The population faces protection risks when data is shared, and agencies or organisations might face operational and institutional risks. Thorough data cleaning and processing can help facilitate the sharing of sensitive data, as it limits concerns over sharing personal data, or having a data set criticised for not being useable or useful. Likewise, having clear and effective data sharing protocols and agreements in place reduces the risks related to sharing sensitive data.
Whenever agencies, organisations and service providers put robust and clear data processes and protocols in place they facilitate responsible data sharing, including politically sensitive data. At the same time, promoting a culture of data sharing is beneficial for collective-based decision making that leads to a coordinated and effective response.

Decision-makers, planners and programmers understand needs analysis

Recommendation: Methodologies should be clear and terminology defined to reduce potential confusion around findings

Given the quantity of data collected in South Sudan, there are times when it may appear that the overlapping data collection exercises by different agencies give contradictory findings. Clarifying methodology and discussing why findings may differ will reduce confusion, make analysis more accessible, and facilitate decision-making processes. When findings appear to be contradictory, taking evidence-based decisions becomes challenging.

Methodologies and definitions are not always shared during joint analysis meetings or published in the reports[1]. This means when findings are shared, they are not fully understood by those not involved in the particular data collection and analysis process. Actors need to be able to understand why different data collection exercises provide different findings, for often valid reasons based on different methodologies or analysis processes.

Methodologies should be stated, and terminology explained, to ensure analysis is clear and useful. Dissemination strategies should take into account the need to communicate sometimes complex analysis workflows to those working outside of the assessment, analysis and Information Management space. Discussions on methodologies and terminologies between data collection and analysis actors should be conducted on a regular basis and used to foster consistent understanding and use of key terminology.

Recommendation: Discuss and share the limitations of assessments and analysis, as well as remaining information gaps in findings

Critical review and questioning of data and analysis is needed to improve any data collection and analysis process and build trust in findings. Assessment and analysis teams should openly explain the limitations, challenges, and information gaps encountered during the data collection and analysis process. Of the 216 products captured in the metadata tab of ACAPS metadatabase, only 31 openly stated the limitations and challenges encountered by teams in their data collections and analysis processes.

Openly stating that information gaps and limitations exist is the first step to overcome them. Stating limitations can help the audience understand the level of representativeness of assessments or analysis findings, what and why some information is missing, and what are the practical challenges assessment teams or analysts might encounter when producing and sharing information in South Sudan. It is important to understand that *lack* of information is also information. The absence of information often gives indications on why some type of data is hard to get or share. In the same way, lack of information suggests which necessary questions remain unsolved to improve response and help decision-making. Eventually, lack of data also pushes the community to explore creative solutions to collect, share, or report on missing data.

Analysis moves beyond the descriptive to explanatory and anticipatory analysis

Recommendation: Build capacity in the areas of explanatory and interpretative humanitarian analysis, including trends analysis

A large number of analysis products are published in South Sudan but very few go beyond descriptive analysis. For the humanitarian response to be as appropriate as possible it is important to understand the drivers of needs, as well as how the needs and situation has changed over time and why, and what is likely to happen next. A good analysis product answers questions that go beyond 'what's happening', 'where', and 'who is affected', and include 'Why is this happening? What does it mean?' and 'What might happen next?' And, finally, 'What can we do to prevent/resolve/respond to this?' This will enable planning for emergency response, mitigating potential risks, as well as designing longer term activities to respond to South Sudan's complex crisis.

It is important to enhance the capacity for explanatory analysis in South Sudan. In particular, trend analysis is essential to understand changes in context and the needs of affected populations over time, establishing the basis of forward-looking analysis. Explanatory and anticipatory analysis can also be supported by a stronger collaboration between the humanitarian Information Management sector, think tanks, conflict analysts, and researchers.

1 The majority of the products compiled into ACAPS metadatabase (94 of the 187) did not include or were not linked to a methodological note. 61 clearly cited the methodology they followed, 23 respond to global methodologies which can be easily found in the web pages of the issuing organisations, and in 6 the report included a few sentences on the methodologies followed, without entering into details.

The Analysis Ecosystem in South Sudan

Why does South Sudan need humanitarian analysis?

South Sudan is in a complex humanitarian crisis. Since South Sudan's independence from Sudan, in 2011, the population has continued to be subjected to conflict and insecurity, facing high protection concerns, including widespread human rights violations.

After independence, a civil war broke out in 2013. In 2015, parties to the conflict signed the Agreement on the Resolution of Conflict in South Sudan (ARCSS), giving space to possible stability and peace. The peace agreement failed and violent conflict erupted again in 2016. The new peace agreement, also known as the Revitalised Agreement on the Resolution of Conflict in South Sudan (R-ARCSS), signed in 2018 has brought a fragile truce and led to the formation of a Transitional Government of National Unity (TGoNU) in February 2020. However, **around 4 million people have been displaced, within and outside the country, and 7.5 million people are in need of humanitarian assistance** of a population of estimated 11.7 million.

Conflict has not allowed the country to develop an adequate infrastructure and basic services, including health and education. Critical malnutrition levels and severe food insecurity persist; conflict, coupled with climatic events, such as seasonal flooding, have **disrupted and continue to disrupt livelihood activities and food production.**

The current crisis has exacerbated pre-crisis vulnerabilities. Problems such as poverty, weakness or absence of governance, and dependence on imports of basic commodities have worsened due to conflict. Prior to independence in 2011, a range of sociopolitical and cultural factors contributed to the vulnerability of the population, including conflict dynamics related to control over land, resources, and cattle grazing routes; a tribal system characterised by ethnic divisions; relationships with border countries; social practices related to traditional medicine; gender relations and cultural norms. Understanding the interactions between elements of the current crisis and these pre-existing vulnerabilities is critical to planning a contextually relevant and effective response.

Analysis is necessary to enable evidence-based decision making. Given that the crisis in South Sudan is multi-dimensional and protracted, decision makers need explanatory and interpretative analysis, including trend analysis, to understand the needs of affected communities over time, the drivers of these needs, and the vulnerabilities of different groups. Trend analysis is also the first step to develop high quality and well-funded forward-looking analysis. Trend and forward-looking analysis will support targeted response for the ongoing crisis, planning for any emergencies likely to occur (such as weather-related events), and programme longer term activities.

What are the environmental challenges with data collection and analysis in South Sudan?

Since the signing of the Revitalised Agreement on the Resolution of Conflict in South Sudan (R-ARCSS) in September 2018, access within the country has improved. Humanitarian actors can collect data more easily, covering locations that were previously not accessible. Some access constraints remain, however, and those involved in data collection and analysis continue to face a number of challenges, especially in hard-to-reach areas, due to:

Lack of, or limited, infrastructure: the poor quality of the limited road network is a significant access constraint in South Sudan. The estimated total track length in South Sudan is 90,200km. As of 13 km of gravel roads and only around 300km of sealed roads (Logistics Cluster 13/05/2019). Not only does the bad quality of roads hamper access, but it also means that data collection teams need considerable resources to access some areas, including expensive vehicles adequate for the field or relying on air transportation. In addition, in some areas of South Sudan there is no phone coverage or internet; this makes it difficult to communicate, collect information, and share information with assessed communities. Mobile networks in South Sudan cover about 20% of the country, principally major towns, while the internet penetration rate is at only 12%. This means that only around 17% of the population has access to internet (Media Landscapes 30/01/2020). Travel times are also significant due to the bad roads, meaning data collection is time consuming.

Insecurity: insecurity continues to cause access constraints in much of South Sudan. It is difficult to collect data in border areas and militarised areas. Clashes, including cattle raiding, intercommunal violence, or fighting between armed groups and governmental forces persist. General insecurity, road ambushes, hijackings, or other criminal activities, as well as the presence of mines and unexploded ordnance (UXO) hamper access in some locations. Sometimes these events are hard to predict, and halt or delay data collection activities.

Natural hazards: The rainy season in South Sudan (June-September) has a significant impact on physical access due to the poor road infrastructure. Some areas, especially along rivers, get flooded and become inaccessible. Despite efforts from humanitarian organisations, assessing the impact of localised flooding in an emergency response is logistically very challenging.

Interference: South Sudan's government agencies often endorse analysis by humanitarian actors, however some stakeholders reported issues in publishing their analysis or assessment findings, following disagreement with authorities. A number of journalists and local correspondents have been prevented from doing their work, arrested, or expelled from the country for providing findings that are in disagreement with the government narrative.

Who are the main analysis actors in South Sudan?

OCHA coordinates the humanitarian response including data collection and analysis efforts in South Sudan. It co-leads the Needs Analysis Working Group, with REACH, bringing together actors engaged in data collection and analysis and those involved in operations and response. Integrating needs analysis and response information, enables a prioritisation of areas of response based on needs. The NAWG also facilitates the coordination of assessments. OCHA leads the Coordination and Common Services Cluster, with the objectives, among others, of strengthening joint needs analysis and strategic response planning, and enhancing programme quality through strengthened accountability to affected populations. Finally, OCHA regularly issues humanitarian situation updates, information on ongoing humanitarian response and operational presence, and the humanitarian access conditions across the country.

IOM's DTM is one of the main UN organisations conducting primary data collection in South Sudan. IOM DTM has significant coverage in South Sudan. The Mobility Tracking Round 6, run in June 2019, covered all of the country's 78 counties and over 2,300 locations with presence of IDPs and/or returnees. Further, IOM DTM triangulates data, partners with other agencies and organisations to collect data, and adopts a multi-sectoral approach (DTM South Sudan).

WFP conducts regular market and food price monitoring, and contributes to quarterly IPC assessments conducted at state level. The WFP Vulnerability and Analysis Mapping (VAM) unit runs regular food security and nutrition assessments. The Food Security and Nutrition Monitoring System (FSNMS) is run every six months in all 78 counties, focusing on the rural population. The FSNMS also includes a WASH component and includes specific data to calculate the level of wealth and resilience of the assessed population. WFP also conducts joint analysis with other organisations or agencies, including UNICEF (WASH and nutrition component), FAO, government agencies, and academia (WFP VAM South Sudan; WFP VAM Dataviz).

The Integrated Phase Classification (IPC) is also a main source of information on food security in South Sudan. The IPC is a framework designed by a global partnership of non-governmental and governmental agencies. Globally, the IPC is a harmonised approach, based on a five-scale classification, that allows description of food emergencies using a common language and standards (FEWS NET). The IPC in South Sudan is a well institutionalised process. The results of the IPC are used as a primary source for food security and nutrition information and are used to coordinate the response, especially between WFP, FAO, the government, and other NGOs.

FAO regularly collects data and produce analysis on food security and livelihoods and works in collaboration with other agencies and organisations, including WFP and FEWS NET. Among others, it gathers and disseminates agrometeorological data, data and information on crop production and livestock, and market and trade analysis. Besides participating to the IPC, FAO also produces forward-looking analysis, including climate outlooks and early warning summaries on markets, terms of trade, and rainfall. FAO also produces analysis on resilience and food security (CLiMIS South Sudan).

REACH, an organisation specialised in assessment and data analysis, provides support to clusters and front-line data collection agencies, and designs and conducts assessments, including joint initiatives. REACH also conducts regular, thematic, or rapid needs assessments in identified hard to reach areas (based on the Area of Knowledge Assessments methodology). In addition, REACH produces needs analysis for and co-leads the NAWG, helping prioritise response based on needs (REACH South Sudan).

Clusters publish detailed information on sectoral needs. The amount of sectoral information available is definitely a strength in South Sudan and helps clusters to programme targeted response. Clusters' coordinators and Information Management Officers also participate in a number of platforms to coordinate response, discuss joint analysis, and share information.

Media, academics, think tanks, and peacebuilding and development actors also have been producing analysis on South Sudan, including prior to the country's independence in 2011. They have a good understanding of historical, political, social, and geographical contexts.

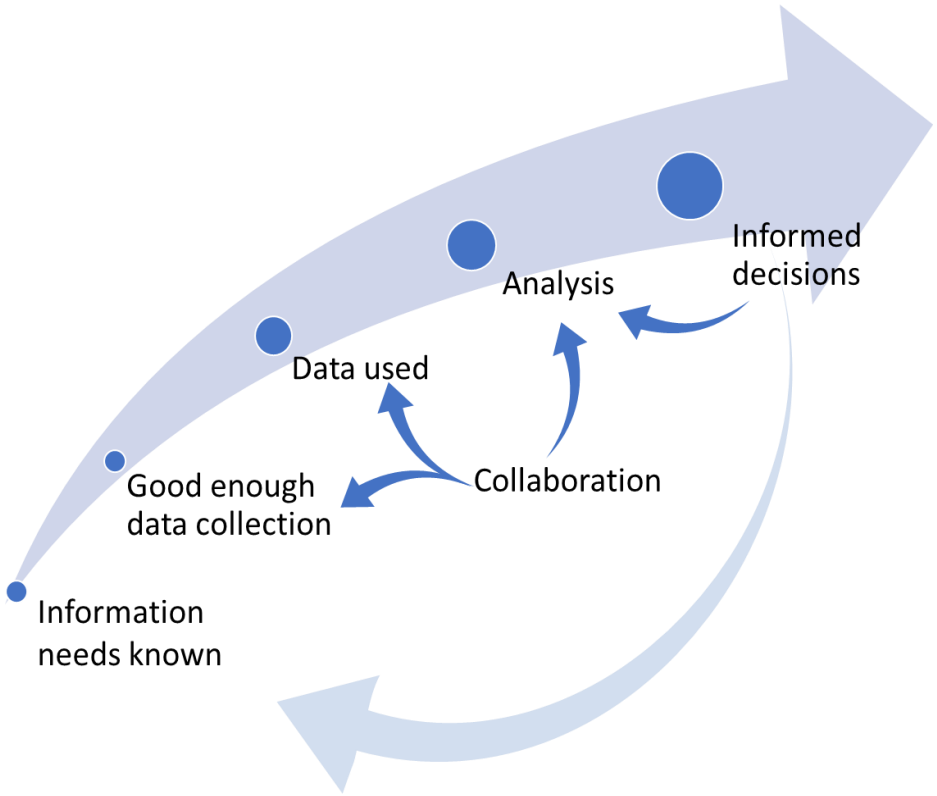
National and International NGOs make a big contribution to the information landscape in South Sudan as they are often working directly with populations in need and collecting data. Especially local NGOs collect data and often have better access to local communities and areas.

The South Sudan NGO Forum does not produce analysis but promotes information sharing among INGOs, NGOs, UN agencies and the UN, and the government of South Sudan, and researchers through its South Sudan Knowledge Network initiative.

Steps to strengthening the Analysis Ecosystem in South Sudan

Over time ACAPS has identified five key elements of an 'ideal' analysis ecosystem (involving both data collection and analysis processes). Processes around humanitarian needs assessment and analysis in South Sudan have been reviewed based on these elements. The picture below shows the information flow cycle in an ideal analysis ecosystem.

What will happen in an ideal Analysis Ecosystem?



1. Decisions are informed and new information needs are known

The purpose of humanitarian analysis is to provide an evidence base for better decision making. The first step in providing useful analysis is knowing what information is required to make decisions. When information needs are clear, the data collection and analysis process is more efficient and better targeted.

Knowing what you need to know: information needs are clear

The sheer volume of information published on South Sudan can make it challenging to identify and absorb the most relevant information, and enable the formulation of new questions to better understand the situation and inform response.

Information is often scattered and not compiled in user-friendly repositories. There is no comprehensive Survey of Surveys, also known as Assessment Registry, available on the South Sudan crisis, and very rarely information is shared through the HumanitarianResponse.info global site, although this is recommended by OCHA. This means that, except for regular assessments, it is very difficult to track the assessments and surveys carried out in South Sudan between 2016 and 2019. Datasets, covering different topics and sectors (e.g. conflict, food security and livelihoods, environment, etc.) as well as baseline data and indicators are shared through the Humanitarian Data Exchange online platform (HDX). The datasets available on HDX are normally updated on a regular basis (HDX South Sudan page). The data shared through HDX could be used to build a user-friendly and inclusive core data set on South Sudan to facilitate the research and navigation of data.

Overall, without knowing what information is available we risk asking the same questions, without addressing information gaps and possible new information needs. As a result, knowledge and understanding do not deepen, and assessment fatigue among the population grows.

Integrating existing data and information, including lessons learned from past response, into the analysis workflow would help us understand what questions still need to be answered and what has to be done to enhance the effectiveness of the response.

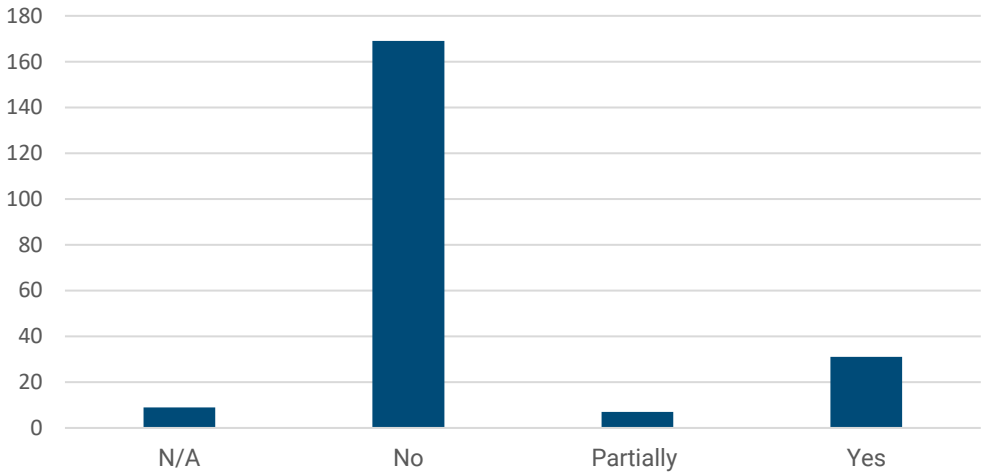
Information needs should be clear and form the basis of an analysis plan developed at the outset of assessment design. This avoids collecting unnecessary or unwieldy information, or missing key information. Involving analysis organisations, and including secondary data review and qualitative information at the beginning of data collection planning processes will result in better targeted and more accurate analysis.

Information needs might vary in time and according to stakeholders' scope of work. In this report ACAPS identified as main information needs: consistent and up to date

population data; information on populations' vulnerabilities and specific populations groups; information on drivers of needs and crisis, lessons learned from past response.

Critical review and questioning of data and analysis is also needed 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. Of the products captured into ACAPS metadatabase only 31 products clearly stated limitations, challenges, or information gaps of the analysis or assessments into the report.

Info gaps and limitations identified in the ACAPS metadatabase



Decision making and programming would benefit from the integration of more local knowledge and context analysis. Stakeholders interviewed reported a need for more local knowledge and geographically specific analysis (location level information) on South Sudan. Local NGOs, national staff, as well as local communities and local experts, are often the ones having the local knowledge useful for programming and decision making. Integrating local knowledge with humanitarian analysis would provide a clearer picture of the crisis and the South Sudan context.

A number of interviewed stakeholders pointed out that more objective and independent analysis would favour evidence-based decision making. Biases are almost unavoidable when running analysis. However, biases can be identified and overcome, including social biases such as institutional biases or 'groupthink'. (For more information see Common Biases in Humanitarian Analysis, ACAPS 2016). Organisations that run analysis for their own programming purposes are inevitably more likely to reflect their institutional biases when running analysis or data collection exercises.

Integrating local experts and affected population's feedback into humanitarian analysis is critical. Further, people affected by the crisis should be made aware of the purposes of data collection and know how the information they provide will be used.

2. Good enough data is collected

Avoiding duplication and assessment fatigue

Stakeholder interviews revealed that primary data collection processes in South Sudan are strong as good quality data is regularly collected by a wide range of actors. However, the data collection actors encounter some **main challenges, such as:**

- the absence of a strong, up to date, harmonised tool and methodology for multi-sectoral and sectoral assessments, which helps compare indicators and findings and facilitate cross-sectoral analysis (with the exception of the inter-cluster Initial Rapid Needs Assessment (IRNA));
- unreliable population data, based on 2008 census, which has an impact on estimating population figures and demographic breakdowns, and sampling.

As for the **limitations, the main issue to address** according to stakeholders is over-assessment and survey fatigue, which has an impact on affected communities' willingness to participate in data collection exercises.

Assessment fatigue was reported to be a significant problem in South Sudan. The tendency to run a new assessment anytime responders and decision-makers ask new questions is due to the fact that:

a) information in South Sudan is scattered, difficult to track
b) data available is not sufficiently shared
c) the presence of a high number of assessment tools and methodologies does not always allow for comparison of datasets and production of integrated analysis.

Carrying out secondary data review before running any assessment is necessary to know what information is already out there and could be used for analysis or programming, if

there is the need for this information to be updated, and what questions should still be answered.

Another limitation encountered by some of the interviewed stakeholders is **the difficulty to define geographic areas in South Sudan**. Following Independence in 2011, South Sudan was formally divided in ten states (Admin level 1) and 78 counties (Admin level 2). Administrative boundaries were then re-designed by South Sudan's government in 2015, increasing the number of states to 28. In 2017, administrative divisions were newly updated by the Government of South Sudan, and contested by its opposition, setting the number of states at 32. Throughout 2018 and 2019 most INGOs and UN agencies run assessments and sample population based on the former ten-state administrative division, and follow the same administrative division for operational purposes. Yet a number of other INGOs and NNGOs assess and sample population groups following other political administrative divisions (based on the 32 states). This can result in inconsistency in findings among data collection actors. On 15 February 2020 the Government of South Sudan announced the return to ten states and three administrative areas. As a result, some of the data collection and analysis actors in South Sudan will start sampling and assessing the population based on the new administrative divisions.

Joint data collection and coordination can lead to fewer, better targeted, and better utilised assessments (sectoral or multi-sectoral), decreasing or avoiding survey fatigue. Building the trust to share information and data is also essential. If data is not shared, questions will be answered only for a few actors.

Discussions around a Multi-Sectoral Needs Assessment for South Sudan

REACH and OCHA's suggestion to run a Multi-Sectoral Needs Assessment for South Sudan in 2020 could be used as a momentum to discuss the harmonisation of methodologies, joint data collection exercises, and the inclusion of new indicators to existing surveys. This could promote joint multi-sectoral analysis, as well as data collection processes that would cover different population groups, and both rural and urban areas of South Sudan. An exercise like the MSNA should not replace the current and regular work done by some clusters and organisations in collecting specific data, or running rapid needs assessments whenever needed. Still, an MSNA could be used as a way to collect multi- and cross-sectoral data, replacing the use of multi-sectoral rapid needs assessments tool when not sufficient to capture information on the living conditions, needs, and vulnerabilities of South Sudan's population.

3. Data is collectively used

Sharing data to make full use of it

ACAPS identified gaps in data sharing in South Sudan. Stakeholder interviews revealed that although a large amount of data is being collected, not all is used for analysis. One way of getting the most out of collected data is by making it available among analysis actors, responders, and decision-makers. Ideally other actors would be able to use the data sets, not just the findings.

Stakeholders reported that a significant quantity of data collected in South Sudan is not made available. Numerous assessment and analysis reports are shared through meetings, working groups, restricted mailing lists, informal discussions or *tukul* events. However, **within and across sectors, raw data is often not even shared internally** within the same cluster or working group. Where data sharing protocols are in place, the processes are often lengthy, meaning data is rarely shared within reasonable delays to produce timely analysis. Stakeholders also reported that not all actors have data sharing protocols in place, despite collecting sensitive data. Learning how to put in place efficient data sharing mechanisms, understanding their purpose and implementation, as well as learning the nuances among different mechanisms is key for sharing data securely.

Data sensitivity inhibits data sharing. Protection data was mentioned in the large majority of stakeholders' interviews as the least shared data. ACAPS is aware of the efforts of the Protection Cluster to try to share this information, at least internally, through the setup of a Protection Monitoring and Analysis Group. Some specific stakeholders (a very limited number) do share their protection data or analysis also with actors outside the protection cluster, following data cleaning and data sharing processes. In any setting, humanitarians have the obligation to protect personal information of aid recipients and affected population. To allow data sharing while upholding this requirement, the international community has well developed approaches to clean, anonymise and review data to make it appropriate for publication and sharing.

In order to share information it is also necessary to gather and store it in repositories or a database. Data and information should be categorised and stored in a way which can be easily found and made accessible. By thinking about who could use available data, it can then be gathered, stored, and classified in a way that allows humanitarian, development, and peacebuilding actors to navigate it and use it to run analysis.

Data sensitivity is also related to political sensitivity. Conflicting narratives or numbers which appear contradictory result in some actors avoiding or being pushed by authorities to not publish their data or analysis. The political sensitivity of data it is caused not only

by the will of national authorities or international stakeholders to give a certain image of the country, but also to the territoriality of organisations and mandates, which might influence narrative and way of reporting on South Sudan crisis

Reputational and operational risks related to sharing sensitive data cannot be denied, yet they can be overcome or reduced through, among others, honest discussions around the situation in South Sudan; the inclusion of independent, non-partisan and non-operational actors in joint analysis processes; or, as some operational organisations are already doing, sharing data with non-operational actors who can conduct and publish the analysis with their data without major challenges or risks.

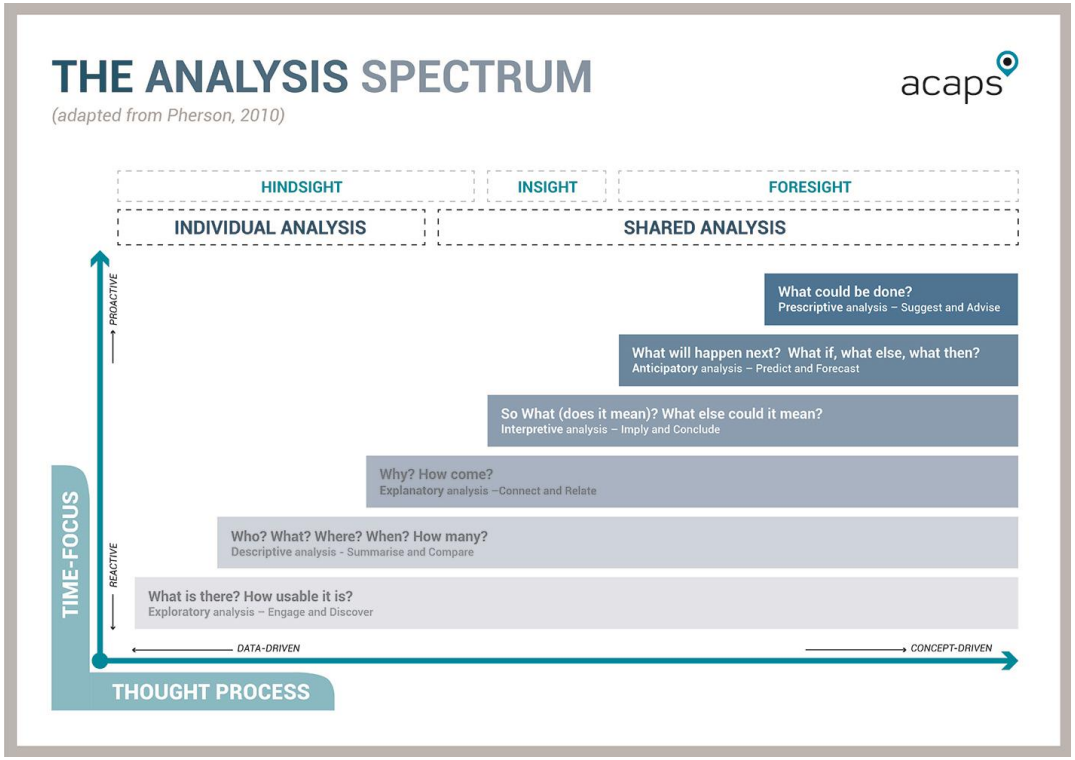
4. Collaborative analysis informs decisions

Producing explanatory analysis

For information to be useful for decision making, it also needs to be analysed, interpreted, triangulated with other sources, and tailored to the needs of response planners. **In South Sudan, a large number of analysis products are published but very few go beyond descriptive analysis.**

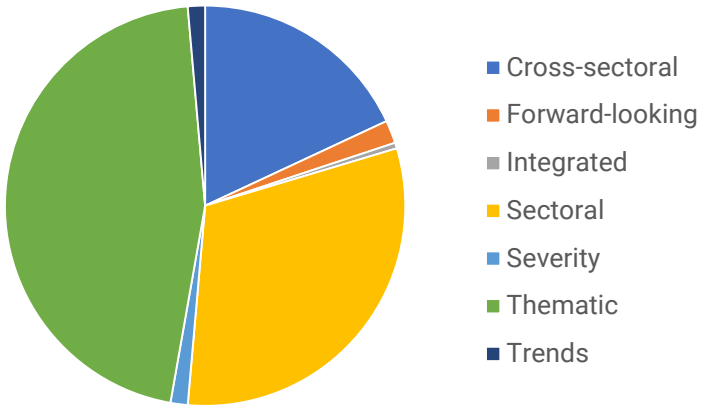
In order for response to be as appropriate as possible to meet real needs, it is important to understand the drivers of needs, integrate analysis of the current situation with pre-existing vulnerabilities, understand how the needs and situation has changed over time – and why – and what is likely to happen next. The questions a good analysis product should answer go beyond 'what's happening', 'where', and 'who is affected' to ask: 'Why is this happening? What does it mean? What might happen next?' And, finally, 'What can we do to prevent/resolve/respond to this?' (For further reference see The Analysis Spectrum, ACAPS 2016).

Overall, trends, severity, and forward-looking analysis are significantly underrepresented in the metadata compared to thematic, sectoral, and cross-sectoral descriptive analysis2. The metadata findings are in line with the feedback ACAPS has received from stakeholder interviews. A number of actors said there is a need for more trend- and integrated analysis on South Sudan, as well as analysis on specific locations for operational purposes.

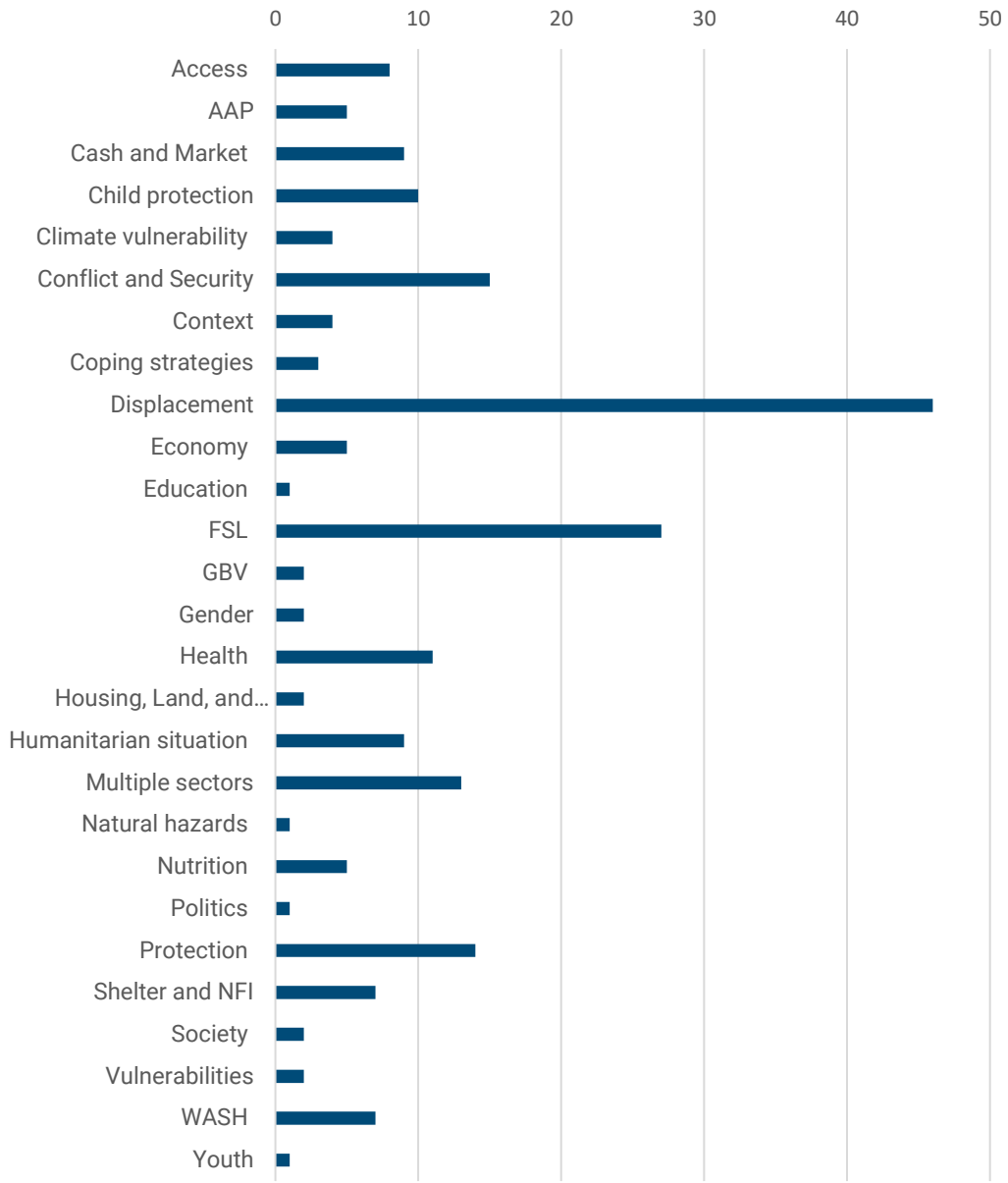


2 For more information on how products into ACAPS metadatabase were classified you can access the public metadatabase at the following link.

Type of analysis



Main topic/Sector



There is enough primary and secondary data collected and produced over time in/on South Sudan, which would enable trend analysis, as well as integrated analysis. Very few actors indicated forward-looking analysis as a gap, stating that meetings and events to discuss risks, as well as scenario building exercises, take place throughout the year. It is difficult to assess if the lack of published forward-looking analysis contributes to the lack of demand. A number of actors mentioned the importance of including lessons learned in analysis products. This could help identify recurrent dynamics in the South Sudan crisis, as well as good and bad practices in the response, helping stakeholders to take better decisions based on past experience. Inclusion of lessons learned is essential for anticipatory analysis.

Strengthening integrated and joint analysis

The majority of analysis produced on the South Sudan crisis (including assessment reports, maps, infographics, and briefings) is thematic or sectoral. Within the products classified by ACAPS, the majority focus on displacement, food security and livelihoods, and conflict and security. This is to be expected given the nature of complex crisis in South Sudan. **Considering the high protection concerns in the country, more timely and regular analysis focusing on protection-related issues would also be expected. Very little publicly available analysis focuses on gender or vulnerable groups.** The most vulnerable or sub-groups of people affected, including people with disabilities, are not represented well enough by available analysis. Similarly, there is not enough information available on mental health and the psychosocial needs of the population.

Think tanks, academics, research organisations, development and peacebuilding actors also publish a large body of cross-sector literature on local historic, social, economic, ethnic and political dynamics. Yet, very rarely their analysis is integrated into humanitarian analysis. **Detailed sectoral and pre-crisis information needs to be included in targeted products for humanitarian response planners**, to build linkages with the development and peacebuilding elements working within South Sudan's complex. These elements are critical to understand South Sudan's changing context.

Finally, local NGOs are particularly underrepresented in the analysis processes, despite their role in primary data collection. Local NGOs do not participate in the whole data collection and analysis process mainly because of:

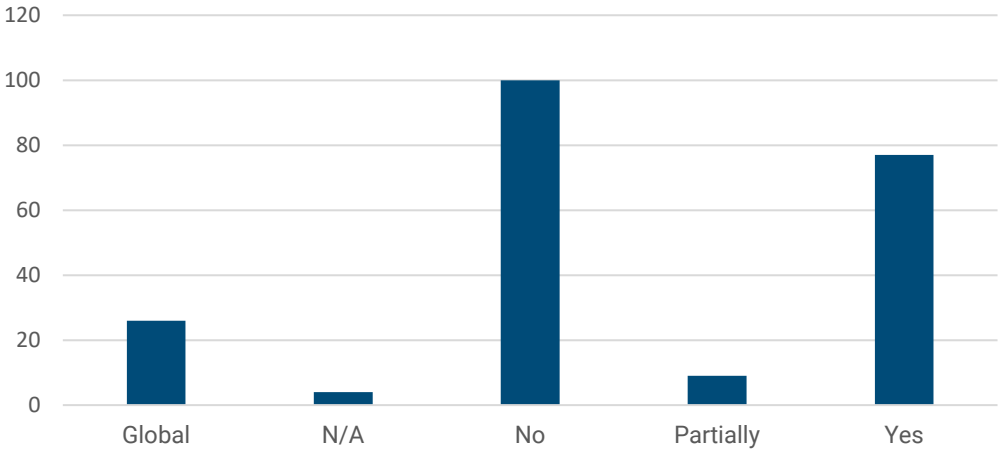
- lack of internal capacity or resources to clean, process, and analyse data;

and/or

- their specific role and space in the data collection and analysis landscape. Local organisations often collect data for UN agencies or INGOs who then produce written products, or for their programmatic purposes, but not with the scope of producing analysis.

Continuing or starting to work on capacity building of local partners and staff in the field on data collection tools, analysis methodologies, and reporting could strengthen the quality of data collection and analysis overall.

Clarity in methodology followed



5. Decisions are informed and new information needs are known

Having open discussions around methodologies and terminology

Understanding and interpreting analysis relies on a shared understanding of the methodology used to collect information (the objectives, theory, steps, tools, and sources behind data collection and analysis). The majority of products compiled into the metadata tab of ACAPS metadatabase (100 of the 216) did not include or were not linked to a methodological note. 77 clearly cited the methodology they followed, 26 used global methodologies which can be easily found in the web pages of the issuing organisations, and in 8 the report included a few sentences on the methodologies followed, without details.

In South Sudan, methodologies are not always shared or highlighted during discussions, which sometimes means that the analyses shared are not fully understood by actors for whom data collection and analysis is not their main area of interest/scope of work. For analysis to be clear and useful, and for assessment and analysis processes to be transparent, methodologies should be stated, definitions shared, and terminology explained and possibly well understood, for example in presentations when findings are shared.

Better informing people, enhancing better response

Regular and timely analysis products are essential for decision-making. Delays in publication hamper the trust between assessors and those who want the information and reduce the utility of findings. Products are not published regularly (even ones that are supposed to be regular) or if they are, they are issued several months after the assessment or research has been conducted (even three months later) due to lengthy internal review processes. Most of the timely information is shared internally, within organisations and working groups, but publication is often delayed. When timely analysis is needed to take rapid decisions, secondary data analysis (including of existing assessment and datasets) could be prioritised over collecting new primary data. Delays mean there is little chance communities will see any connection between their expression of needs and responses to meet these needs.

Good practices and lessons learned

ACAPS identified the following good practices, from direct observation, expert judgement, and feedback from stakeholder interviews:

- In South Sudan there are numerous platforms for joint analysis that function on a regular basis. Among them, interviewed stakeholders cited the Needs Analysis Working Group, the IPC initiative, the NGO Forum, and joint data collection and analysis initiatives, such as joint market assessments, or the Food Security and Nutrition Monitoring System (FSNMS), that puts together FSL, nutrition, and WASH indicators. These platforms and initiatives provide decision-makers and responders with good quality impact and needs analysis, and help them prioritise response based on needs.
- There is a high level of interest in working on data limitations and information gaps in South Sudan. The will of actors to strengthen the analysis ecosystem leaves space for collaboration, presence and support of technical experts to the community, and discussions around revision or adoption of new tools, methodologies, and processes.
- Although formal data sharing and publication can be difficult in South Sudan, stakeholders look for ways to share information, where possible, through informal channels, through restricted audiences or by passing data to non-operational actors who may not face the same risks in publication. This is a good example of overcoming a risk connected to information sharing.
- ACAPS found out that a number of actors are working on Accountability to Affected Population (AAP), specifically as part of data collection and analysis process. Internews and REACH, for instance, both work respectively on AAP and Communicating with Communities (CwC), producing useful reports from their work. REACH gathers information on the affected population's perception of humanitarian assistance, in order to give voices to the affected population and assess the level of awareness, effectiveness, and fairness of humanitarian service delivery (REACH 03/09/2019). Internews supports training and advocacy activities on the critical importance of CwC and, during their regular activities informs communities on context developments and humanitarian services; they also collect feedback on aid recipients' perception of humanitarian services and unaddressed needs (Internews). FAO is currently working on CwC, trying to find the most efficient way to disseminate meteorological data to communities, at county level. This will enable communities, especially herders and farmers, to plan their agro-pastoral activities.

  Although work on AAP is happening, there is space for strengthening this area in assessment and analysis. This could be done, for instance, by regular information sharing between actors having an AAP component in their assessments and analysis, and actors conducting monitoring and evaluation. Also, regular and public reporting on AAP is essential to make the humanitarian community understand the importance, utility, and feasibility of engaging and communicating with affected communities, involving them in their programme cycle. Certainly, analysis and data collection actors should explore this area and come together to find possible ways to strengthen the work on AAP in analysis.

Methodology

This report was developed using secondary data review of published analysis products and discussions with some 24 stakeholders in October and December 2019.

This exercise had several purposes. From one side, it helped ACAPS capture the analysis needs and gaps in South Sudan to understand how independent analytical capacity could best support the humanitarian community in South Sudan. This was linked to understanding if there is a need and interest to establish an ACAPS South Sudan Analysis Hub. This exercise also had the objective of recording and disseminating the findings for use by other researchers and analysts working on South Sudan, and to help understand which areas of the analysis ecosystem could be strengthened. Our process was as follows:

1) We developed a metadatabase:
   a. ACAPS reviewed over 200 products among primary datasets, assessment reports, and analysis on the South Sudan crisis, published between 2016 and 2019.
   b. ACAPS classified key features of the publications (e.g. type of analysis, type of product, issuing organisation, topic/sector of focus) and compiled the information into a metadatabase.
   c. ACAPS analysed the products in the metadata tab of our metadatabase according to: type of product per type of analysis; main type of analysis conducted; main type of data used; type of data per type of product; products per

issuing organisation; products that follow a clear methodology versus products that are not linked to a methodology; number of products per geographical area.

2) **We held discussions with over 20 stakeholders working on South Sudan.** The stakeholders interviewed were mainly people involved in data collection, analysis, and monitoring and evaluation, as well as decision makers and responders that use analysis to decide on programming and prioritise activities. Fifteen of the interviewed stakeholders work in the humanitarian sector. The rest of the stakeholders interviewed are not humanitarians, but at least six of them are organisations that do collaborate, support, or engage with the humanitarian sector, including peacebuilding actors, consultancies, think tanks, or development organisations.
3) **We participated in several working groups**, such as the Needs Analysis Working Group, the Information Management Working Group, or the Inter-Cluster Coordination Group, to better understand the purpose and functioning of these platforms, and to see how data and analysis is used for decision-making and response planning.
4) **We developed an 'ideal' analysis ecosystem:**
    a. We developed the ideal analysis ecosystem model based on the ACAPS Theory of Change developed in February 2019 by the Yemen Analysis Hub and ACAPS' Technical Note: Survey of Surveys (ACAPS 2011).
    b. We reviewed the findings from our discussions and the metadatabase against the ideal ecosystem construct and identified initial findings.
5) **We tested and refined our findings with ACAPS technical experts and analysis stakeholders in January 2020.**

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

Selectivity: Given the vast quantity of information published on South Sudan, ACAPS had to use professional judgement in selecting sources. Besides the period of publication, the products were selected based on issuing organisations (we tried to cover publications by think tanks, development and peacebuilding actors, or organisations involved in providing technical expertise), relevance (at times, we included publications that were older than 2016 but relevant to better understand the South Sudan crisis), as well as a variety of type of products published per organisation.

Period of assessment: The charts and figures in this report are a snapshot based on a sample selected by ACAPS, compiled into a metadata tab of the metadatabase between 21 October 2019 and January 2020. It is not an exhaustive categorisation. Latest information is not included in the metadatabase.

Implicit vs explicit information: The metadatabase looked only at published (explicit) information. This is why ACAPS cross-checked the findings from the metadata analysis through stakeholders' interviews and discussions with technical experts or experienced analysts working in South Sudan. Only a couple of interviewed organisations shared internal analysis or assessment products with ACAPS. Therefore, ACAPS was unable to assess implicit information.

An ideal ecosystem: The ideal analysis ecosystem, developed by the Yemen Analysis Hub in 2019 for a similar exercise in that context, is a theoretical construct developed to provide a point of comparison with existing information landscapes. Compared to a healthy 'ideal' ecosystem, any real analysis ecosystem will present weaknesses, and we acknowledge that the ideal is not achievable. The findings of this mapping exercise are an attempt to provide a common understanding of the information landscape in South Sudan and the areas that could be strengthened by the combined efforts of the humanitarian community. **This report is in no way intended as a criticism of current practice.** On the contrary, ACAPS observed and acknowledges the good work that is being done in South Sudan in terms of data collection, information sharing, and analysis.

ACAPS' restricted capacity in the field: currently ACAPS has one Information Analyst in South Sudan. Despite the remote support given by ACAPS management, senior experts, and colleagues, this was an ambitious undertaking within a three-month period. ACAPS had to limit the type and number of sources to include in the metadatabase, as well as the number of stakeholders interviewed.

Acknowledgements

This product would not have been possible without the time and expertise given by a wide range of professionals in South Sudan. Any insights in this analysis are due to their local knowledge, thoughtful insights, and conversations on South Sudan's complex crisis and analysis ecosystem. ACAPS wishes to publicly acknowledge the following, and thanks those who contributed significantly to this product, participating in ACAPS interviews or/reviewing this report. **Any mistakes are entirely ACAPS' own.**