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About this project

In July 2020, iMMAP launched the Global COVID-19 Situation Analysis Project, funded by the Bureau of Humanitarian Assistance (BHA) of USAID. Implemented in Cox’s Bazar, Bangladesh, Burkina Faso, Colombia, Democratic Republic of Congo, Nigeria, and Syria, this project has produced monthly situation analysis reports that provide humanitarian stakeholders with comprehensive information on the spread of COVID-19 and related humanitarian consequences. Data is identified from humanitarian sources and coded using the project’s analytical framework, which is closely aligned with the JIAF framework. Data is stored in DEEP where it can be visualized, disaggregated and aggregated to respond to queries about humanitarian situations.

Based on Lessons Learned for the project, iMMAP commissioned a series of sector-specific lessons learned reports to assess data availability and quality, adaptations, challenges, opportunities that emerged in five humanitarian sectors: education, food security, livelihoods, protection, and water, sanitation and hygiene (WASH). Alongside this, seven thematic reports that focus on identified gaps in data were also commissioned.

It should be noted that the number of tagged documents on DEEP is an underestimation of the true value of documents available globally. Firstly, no system of literature identification and review will capture 100% of data sources. Secondly, there is a lag between date of publication of a document and date of processing and finalization into DEEP. This delay leads to an underestimation of the number of documents in recent time periods.

“This report is the result of a combination of primary and secondary data review exercises that cross-analyze a number of information sources. The views expressed herein do not necessarily reflect the views of USAID, the United States Government, the humanitarian clusters or any one of their individual sources.”

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**Abbreviation**

COVID: Corona Virus Disease  
CPT: Community Perception Tracker  
DRC: Democratic Republic of Congo  
FGD: Focus Group Discussion  
ICRC: International Committee Red Cross  
IDP: Internal Displaced People  
INGO: International Non-Governmental Organization  
IOM: International Organization for Migration  
ISCG: International Standard Chain Guide  
ISWG: Interoperability Sub-Working Group  
KI: Key Informant  
KII: Key Informant Interviews  
LAC: Latin America and the Caribbean  
LGA: Local
Executive Summary

Since its beginning, the COVID-19 pandemic has brought noticeable challenges in implementing and evaluating emergency projects on a global scale. Water, Sanitation and Hygiene (WASH) is one of the sectors that have been affected by a multitude of these challenges. Through this research, the author gathers and assesses some of the experiences and solutions concerning the issues raised by the COVID-19 crisis. For this purpose, the researcher put together a set of case studies from six countries where parts of the populations were already in need of humanitarian assistance prior the COVID-19 pandemic. The six countries in question are: Bangladesh, Burkina Faso, Colombia, the Democratic Republic of Congo, Nigeria and Syria. These six countries represent how the humanitarian context has been affected in different world regions.

In order to assess the quantity and quality of the collected data, this research relied on multiple reports prepared during the COVID-19 crisis, such as need assessments, evaluations, program monitoring documents, situation analysis reports, etc. In addition, a significant part of the literature was available within the DEEP platform, which allowed to dictate the quality and quantity of the reports prepared during 2020.

After collecting all the information available through the literature review and the key informant interviews (KIIIs), the analysis has revealed common challenges and different solutions put in place by WASH actors to gather the information needed. Based on this, the primary purpose of this research is to share the lessons learned for data collection in the WASH sector during the COVID-19 crisis.

The Global WASH Cluster and the WASH Latin America and Caribbean (LAC) Group have shared information on the challenges, solutions, and mitigation measures regarding data collection during the past year. For this purpose, the process of interviews in the selected countries aimed at program coordinators, leaders, co-coordinators, information management officers of the WASH cluster/coordination groups, and key people within the WASH sector from some of the leading International NGOs. In several instances, the questionnaires have been forwarded to suboffices of the WASH organizations. This research tried to get a broad sample of people working within the WASH sector in different humanitarian contexts to have a wide range of information available. The various interviews have provided important information regarding the various humanitarian crises/contexts and the target populations needing water, sanitation, and hygiene services. It also shed light on how the data was collected over the past year.

The literature review and KIIIs showed that the pandemic has dramatically affected data availability, reducing it dramatically since the early days of the breakout. This could be explained by the series of difficulties and restrictions imposed by governments, local authorities, community leaders, and even, on occasions, by the target populations. The rigidity in the budget for assessments and evaluations was another critical factor to consider, as the cost to collect data has increased for many reasons, mostly related to COVID-19 restrictions. These issues have affected humanitarian organizations and government entities related to water sanitation, making it difficult for the latter to provide essential information to the different WASH actors.

To ensure the collection of information, WASH actors have put in place different mitigation measures and systems, such as satellite images, the community's perception focus, the use of alternative collection methods, interviews via telephone and online applications, and the simplification of data collection forms (assuming a reduction of the quality), among others.
Efforts from WASH actors within the frame of the six countries studied are remarkable. Even when data quality and localization were significantly reduced, finding all the challenges and difficulties, the knowledge gathered about the WASH situation of the people in need was impressive. The COVID-19 pandemic has also brought opportunities to improve the data collection systems of the WASH sector. It has produced innovative ways of dealing with the situation at hand, for instance, through the use of technology such as satellite imagery or the use of PREMISE, improving coordination with other humanitarian sectors (health, education, etc.), and even with a different approach collecting on a daily or weekly bases the perception of the community using the Perception Community Tracker.
INTRODUCTION

This research has involved a range of actors within the humanitarian sector, starting with the iMMAP analysts located in the six countries of study and the WASH officers of INGOs, who were able to collect primary data directly from the field. The team leader and the staff also collected information for iMMAPs monthly Situation Analysis Reports, including all the sectors and many other observations within the different countries. The six countries that were targeted for this research are Bangladesh, Burkina Faso, Colombia, the Democratic Republic of the Congo, Nigeria, and Syria. This study aims to identify the best practices to collect information in crises such as the COVID-19 pandemic. The best way to avoid the problems raised by the pandemic is to learn from mistakes and replicate their successes.

Key informants provided valuable information on the lessons learned on data collection during COVID-19. These lessons range from the very first part of a project cycle (proposal and development phase) until the final evaluation of projects and the interaction and coordination mechanisms between different humanitarian WASH actors, sectors, and national and local authorities.

It is also exciting to see how new technologies support data collection in all the countries and how the community-perceptions approach utilized by OXFAM in DRC, Burkina Faso, Syria, and Action Contre la Faim in Nigeria has proved to be successful.

Purpose:

The primary purpose of this research was to document the lessons learned by the WASH sector for data collection during the COVID-19 crisis in terms of humanitarian responses in Bangladesh, Burkina Faso, Colombia, the Democratic Republic of the Congo, Nigeria, and Syria. The research has also focused on identifying successful approaches to keep the flow of information between humanitarian actors, including (local) authorities, during the pandemic. At the same time, the researcher also reported the main difficulties encountered when gathering data through the adaptations.

Other objectives that support the main purpose are the review of primary and secondary data to compare the availability of the humanitarian WASH-sector data before and during the COVID-19 pandemic and determine its impact on the information quality collected by WASH actors. Another objective is to conduct KIIIs with main WASH actors in the six selected countries and at regional and global levels; the information analysis to understand how the WASH sector adapted to and managed to continue providing services and support during the pandemic.

Since this research comprises lessons learned on data collection during the COVID-19 crisis, this study can be a guiding tool for the future.

Methods

This study adopts a case study methodology to understand what factors have influenced data availability and quality in the WASH sector before and during the COVID-19 pandemic. This approach aims to develop explanations and clarifications that can inform and help humanitarian actions in the current and future pandemics. This strategy involves a detailed review of project documents and databases and retrospective key informant interviews (KIIIs).

Key Informants were composed of:
- WASH Sector/ Cluster leaders and Information Management Officers from the selected countries.
- Global WASH Cluster and regional (from the LAC region) coordinators and IMOs.
- WASH leaders of INGOs in the selected countries for the study have been interviewed as key informants to learn about the sector's humanitarian actions.
- Finally, some WASH experts of UN agencies and INGOs who have also taken part in collecting data within the countries of the study.

Ten of the key informants were interviewed by video-call using different software, and eight more could only answer the questions via e-mail due to various constraints (connectivity, schedule...).

Annex 2 details the list of questions prepared explicitly in advance for the WASH sector to ensure that all interviews were conducted with the same starting point (list of questions). The questions were conceived to analyze each of the specific phases of the assessment for the WASH sector during a humanitarian crisis. Each phase poses four questions for the different informants. All questions were formulated based on the challenges and changes resulting from the COVID-19 turmoil, in quantity and quality data. And lastly, with this technique, it was possible to reveal the mechanisms used to cope with the challenges originated by the pandemic.

The researcher conducted a literature review of documents from each of the six countries, including:
- Monthly COVID-19 Situation Analysis Reports produced by iMMAP from June 2020 to May 2021
- COVID-19 Project data gaps analysis
- Community Perception Tracker documentation, including the learning from DRC.
- Assessments available in the database DEEP or shared by WASH clusters
- Documents regarding the approach used by INGOs and UN agencies to cope with COVID-crisis challenges for data collection (e.g., Community Perception Tracker learning documents and findings).

The Data Entry and Exploration Platform (DEEP) is an intelligent web-based platform offering a suite of collaborative tools tailored towards humanitarian crisis responses. It includes standard analysis workflows and frameworks for thinking using structured and unstructured quantitative and qualitative data. The researcher recurred to DEEP to analyze the quantity and quality of the assessments produced by each country with the support of iMMAP specialist. The scoring for each assessment report and the content's quality follows five pillars: fit for purpose, trustworthiness, analytical density, analytical rigor, and analytical writing. Each pillar comprises five indicators, individually rated from one-to-five, from very poor (1) to very good (5).

Finally, the researcher has compiled and analyzed the information gathered through the literature review and the interviews with key informants and has prepared this report that will include:
- Data availability and quality in the WASH sector during COVID-19.
- Challenges in the WASH sector during COVID-19.
- Changes in the quality and quantity of the information gathered due to COVID-19.
- Lessons Learned from the WASH sector for data collection during the COVID-19 pandemic.
FINDINGS

Despite the difficulties and challenges that the WASH sector encountered during the COVID-19 crisis to collect data necessary to implement WASH projects, conduct assessments, and perform monitoring and evaluation, this research has proved that there was available WASH information in the respective countries. However, the data available were lower in quantity and quality: there were fewer cases to consider, and the harsh circumstances affected the quality. The section below outlines the information/data that was available and assesses their quality within WASH for each of the six different countries selected for this research.

Overview of findings:

This research looked at the number of assessments and their implementers by using the DEEP platform. For the six countries in this study, 331 assessments reports were uploaded to the platform from March 2020 to July 2021. Almost half of them were conducted by INGOs, while the remaining were prepared by donors, government bodies, and UN agencies. In addition, local NGOs and clusters have implemented some additional assessments.

The use of the DEEP platform allowed this research to look into the quality of assessments. The quality was measured based on a scoring system of five categories: purpose, trustworthiness, analytical density, analytical rigor, and analytical writing. Overall, the quality of these reports has reached about 50% of the maximum quality expected. A lower scoring compared to the 60% quality scoring obtained from reports before the COVID-19 crisis. It was also noted that there was a remarkable reduction in the reporting quality of the papers uploaded in the platform in the second quarter of 2020 compared with those of the 3rd quarter in most countries. This could be due to the pandemic restrictions, since the smaller (compared with other quarters) amount of assessment reports from the second quarter were, in fact, mostly carried out during the first quarter and uploaded at the beginning of the second one. During the first quarter of 2020, Nigeria, Bangladesh, and Colombia were not able to upload any assessments, although this may be due to reasons linked to the efficiency of the iMMAP/DFS analyst team at the beginning of the project. Also, it is essential to note that DEEP has not recorded a single report that scored 100%. The assessments available in the DEEP Platform for the 3rd quarter of 2020 had already seen the impact of the COVID-19 restrictions and challenges. With this, we can observe a drastic reduction in the quality (e.g., in DRC, the quality is reduced by almost 20%). Moreover, in countries such as Bangladesh, DRC, Burkina Faso, and Colombia, it is interesting to notice how the assessment reports’ quality started to increase again, reaching their quality peak in the 1st quarter of 2021, when the adaptations made in the WASH sector for data collection were in place.

Data Availability:

For this study, data availability was measured with the information extracted from three data sources: 1) DEEP’s variables on data availability; 2) information on data availability gaps from monthly COVID-19 situation reports carried out by IMMAP, and 3) views and perspectives of key informants referring to data availability in each one of the selected countries.

To assess data availability, the DEEP platform applied variables such as the number of WASH-sector documents by country, the number of assessments that included the WASH sector by country; the type of organizations producing the assessments; and the type of coordination employed to produce the reviews.
The number of documents available for the WASH sector in the DEEP platform analyzed for this study pertains to March 2020 – July 2021. Therefore, it may include different types of sources: articles, assessments. Figure 1 below shows the kinds of sources that were used.

**Figure 1: Sources of WASH documents on the DEEP platform (03/2020 - 08/2021)**

The number of assessments that were identified in the six countries within the DEEP platform is 331. International NGOs and UN agencies are the only stakeholders that provided assessment reports for the selected countries.

**SYRIA**

A total of 80 assessments were available in the DEEP platform related to WASH in Syria between March 2020 and August 2021, most of them provided by INGOs and United Nations agencies. However, the information submitted in the assessments regarding market prices and the affordability of WASH items is minimal, with the key informants reporting difficulties accessing these areas.

Through the information obtained with KIIIs, WASH stakeholders reported the unavailability of specific primary data related to the water supply as only general data was accessible, such as the volume supplied for each location. The majority of WASH data comes from focal points in the field. However, there is no recent data on the information needs of other community's, such as the Government-controlled areas of Syria. This can be observed in the technique used for data collection, where 100% of data collection exercises were done through personal interviews (86% key informants and 14 % other individuals). Consequently, there are no recent updates for utilization levels and the trust for different channels of communication that could support Risk Communication Community Engagement initiatives, as the Situation Analysis Monthly report from IMMAP explained in May 2021.

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1 Information provided by the DEEP platform.
According to UNICEF, "Nigeria ranks as one of the top three countries globally in number of people living without access to safe water and sanitation, ranking second for the number of people practicing open defecation." Adding to this reality, IOM and OCHA reported that the pandemic had disrupted the provision of WASH services, making it even harder for vulnerable households, IDP’s and communities to cope.

The DEEP platform identified 45 assessments reports for WASH. The organizations in charge of these assessments are mentioned in the Figure 2 below. Some of these include the ECHO, IOM and UNHCR assessments conducted during the summer of 2020 in response to flooding within the IDP camps in Nigeria. In addition, REACH Initiative and the ISWG conducted a Multisectoral Needs Assessment (MSNA) that covered NFI’s and WASH with data collected during the summer of 2020. This assessment concludes that the lack of a centralized WASH infrastructure database, such as registration, functionality, and maintenance of water points and latrines, remains a crucial issue to addressing the WASH needs of the affected population.

In the DRC, between March 2020 and August 2021, there were 76 assessments reports available in the DEEP platform that were focused on, or contained data on WASH. Most of them were prepared and provided by INGOs, UN agencies, and donors. Details of who conducted the assessments can be seen in the Figure 3 below.

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**NGERIA**

**DEMOCRATIC REPUBLIC OF CONGO**

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2 UNICEF 19/05/2020
3 IOM 21/08/2020 assessment report / OCHA 09/07/2020
4 MSNA (Reach / ISWG) Nigeria 2020
UNICEF and OXFAM evaluated the perception of the needs and health crisis through a pilot program implemented during the last Ebola crisis in DRC,\(^5\) the Community Perception Tracker (CPT).\(^6\) This approach was later re-adapted for the COVID-19 pandemic.

However, there are several areas of limited data available for pre-COVID figures. Since the beginning of the COVID-19 crisis, the DRC Government has given significantly poor proof on the measures that were put in place to enable sufficient WASH coverage and their associated costs. As such, it has not been possible to verify general trends and figures regarding the population's use of different types of water sources. Moreover, neither was it possible to locate information regarding access to sanitation. No information could be found on people with disabilities and the impact of COVID-19 for this population group concerning the WASH sector within the DEEP platform and the literature review done during this study.

Another important aspect that went undocumented has been the impact of lifting restriction on access to WASH services and how services have had to adapt and equip themselves to comply with health standards during the pandemic. Moreover, it was impossible to find reliable data regarding the water shortage announced in Kinshasa in November 2020.

**COLOMBIA**

The number of assessments available in the DEEP platform is lower than prior to the COVID-19 crisis. For example, between March 2020 and August 2021, 19 assessments reports were done and uploaded to DEEP, 81% of them provided by INGOs and UN agencies. Before the COVID-19 crisis, the different WASH program assessments emphasized and detailed groups' needs with special vulnerabilities. However, during the pandemic, this type of disaggregation has been replaced with more general evaluations.

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The COVID-19 crisis sparked a lack of information on the situation of small communities (rural areas) in the reports analyzed. This was confirmed during the interview with the WASH cluster when the difficulties of reaching these communities were reported due to restrictions posed by the government and the community leaders. An additional area of information gaps includes data on the Afro-Colombian population, which is lower than the data gathered for the indigenous communities. A striking reality, considering that the Afro-Colombian populations represent a significant proportion of the population and suffer from chronic and accentuated conditions of vulnerability due to the COVID-19 crisis.

Since the beginning of the COVID-19 crisis, it has not been possible to quantify the territorial inequality in the coverage of water, hygiene, and sanitation services. Neither is there recent representative data concerning the ways of obtaining drinking water by the population.

It can be concluded that the contact with communities has decreased, and one of the reasons is the lack of information on access to hygiene items at household level in the education institutions. Consequently, understanding the communities’ perception and the coping mechanisms that they have adopted related to their living standards also proved to be more challenging.

**BURKINA FASO**

There are 84 assessment reports from March 2020 until July 2021, with the WASH sector included within Burkina Faso. Different organizations took the lead in these assessments, as shown in Figure 4 below.

*Figure 4: WASH assessments in Burkina Faso by organizations in DEEP platform*

However, the figures available in the reports analyzed are at a national level. Therefore, they do not consider the situation of the different demographic groups and geographic regions affected by the specific needs of the COVID-19 crisis. Moreover, the needs of the groups with specific needs are barely mentioned in WASH sector reports. Therefore, the information reflected by the population and the priorities expressed by the people in need was either limited or not available. Additionally, there is

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7 Rapport d’Analyse Situationnelle Burkina Faso IMMAP September 2020
no current data on water access. The most recent figures regarding water access at national level are
from 2018.\footnote{Rapport d’Analyse Situationnelle Burkina Faso IMMAP septembre 2020}

The key informants reported that the measures to fight against the COVID-19 pandemic had deeply
changed the availability and collection of primary data in the country. In fact, the reports do not show
any information regarding specific WASH mechanisms of adaptation during this crisis. A reason for
this is that some heads of households expressed a categorical refusal of contact with their family
members.

OXFAM Community Perception tracker has been implemented during the COVID-19 crisis in Burkina
Faso after the experience in DRC.

Data Quality:
Data quality, for this research, was measured with information extracted from three data sources: 1)
DEEP’s variables on data quality; 2) information on WASH data quality gaps in iMMAP’s monthly
situation analysis reports; iii) and views and perspectives on data quality obtained through key
informants interviews. The DEEP variables employed to examine data quality were the quality score
(see figure 5 below); the methodology/technique, assessments by focus and affected groups.

Figure 5: Scoring methodology in DEEP platform

It should be noted that according to the scoring methodology, assessments that utilize and triangulate
multiple data collection methodologies score higher.

One key finding from the assessments, that was confirmed by key informants is the reduction of the
Focus Group Discussions and the Direct Observation methodologies for data collection relative to pre-
COVID-19 assessments.
**SYRIA**

The average score in the assessment reports available in the DEEP platform that included WASH in Syria during the time analyzed is 4.2 (out of 10). This score has not fluctuated significantly throughout the COVID-19 crisis. Even with new measures for data collection, the difficulty in Syria in visiting vulnerable populations hindered essential visits to the sites. Overall, 86% of assessments used remote KI interviews as their primary methodology, with only 3.5% of the evaluations using direct observation for data collection.

As most data comes from focal points in the field, there is no representative sample of the people in need, which reduces the quality of the information gathered. Information regarding market prices and affordability of WASH items comes from key informants, not from the surveyor getting the information directly from the market. This is due to the mobility restrictions, thus affecting the high score trustworthiness. It is anticipated that such information exists, however, it is not commonly available to humanitarian actors.

These assessments mainly focused on determining the COVID-19 containment measure (48%), leaving humanitarian conditions and needs in 31% of the assessments reported to DEEP. Moreover, the assessments targeted all the region’s population, with 56% of the cases, of which 28% representing internally displaced people.

**NIGERIA**

In the period analyzed, Nigeria scored 4.6 (out of 10) in the assessment reports of DEEP. This number included WASH parameters in the country. This score has been gradually increasing throughout the COVID-19 crisis because of the improved measures for data collection put in place by WASH actors (information provided by the key informant interviews). The main methodology used for data collection within Nigeria has been key informant interviews (61.4%), followed by household interviews done by telephone (29.8%). Other techniques that have been employed include FGDs (3.5%), direct observation, and secondary data review (1.75% each), but in a limited scale due to the access limitations. It should be noted that security and access issues in some areas of Northeast Nigeria were already resorting to the increased use of remote data collection techniques before the pandemic.

The assessment reports from ECHO, IOM, and UNHCR after the flooding delivered both quantitative and qualitative data, providing a good overview of the WASH situation in those contexts in Nigeria affected by flooding. The IOM report also brings technical information about the quality of the sanitation superstructures, for which the presence of WASH experts on the ground has been necessary.

The sampling of the MSNA conducted by REACH and the ISWG was not conducted to ensure each group was represented in the findings at LGA level. Therefore, the results should be treated as indicative only. This report brings quantitative information and some qualitative through questions to the population (not clear in which way). A WASH expert in the field can only provide part of the data supplied by the MSNA. This can be observed in the information regarding the reality of the communities and camps and the technical manner of the quality of water sources provided.

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9 MSNA (Reach / ISWG) Nigeria 2020; Access to sanitation and hygiene behaviour tables.
10 MSNA (Reach / ISWG) Nigeria 2020; Main water source by LGA and population group.
DEMOCRATIC REPUBLIC OF CONGO

The average score obtained in the assessment reports available in the DEEP platform that included WASH in DRC over the period analyzed is 6.0 (out of 10). After the first wave of restrictions at the beginning of the COVID-19 crisis, this score reduced significantly. However, the method of measuring data collection put in place by WASH actors (information provided by the key informant interviews) improved the quality of the assessments over time. Within DRC, key informants have been the main method for WASH data collection (81.6%). Other less used techniques that deserve to be named have been household interviews and direct observation, with around 5% of the data being collected using this modality.

From different sources of information studied (OCHA, ICRC...), it is possible to know about the water points available for the people in need but only the quantitative figures: number of sources, liters per person, etc. This means that only general data was available, including some mathematical calculations with the individual data reported. The quality of this information is limited due to the lack of qualitative data to compliment and contextualize the quantitative data.

REACH reports with information collected over the last months of 2020 provides more qualitative information regarding the hygiene practices with a limitation of 3 provinces and the water collection (type of containers used and time needed to fetch water). The Health Cluster, OCHA and UNICEF all collected the information regarding WASH-related diseases through key informants as there are no specific primary data in these reports.

COLOMBIA

For Colombia, the DEEP platform records an average score of 6.2 (out of 10) for all assessment reports available that included WASH during the analyzed period. Because of the first set of pandemic restrictions, the scoring had first decreased, only to later remount to its current value. The measures for data collection put in place by WASH actors (information provided by the WASH cluster in Colombia interview) improved the quality of the assessments. Individual telephone interviews were used as the central methodology for the WASH data collection (47.4%). Increasingly, other methods used for data collection were key informant interviews (21%), secondary data review (15.8%), direct observation (10.5%), and focus group discussion (5.3%).

Recently, and due to access restrictions affecting certain areas during the pandemic, reports developed in the country have taken more of a hypothesis-type approach, making assumptions of the situation instead of using verified information.

Within the reports studied, there is a lack of disaggregated data for the needs of vulnerable groups, an issue that the WASH cluster has also confirmed in Colombia. This is due to the difficulties in accessing certain areas and the reduction of focus group discussions compared with the assessments done before the COVID-19 crisis.

BURKINA FASO

In Burkina Faso, the average score in the assessment reports available in the DEEP platform that included WASH during the period analyzed is 5.5 (out of 10). This score went below 5 at the outset of the COVID-19 crisis due to the initial mobility restrictions in the country. However, during the next few months, the measures implemented by WASH actors improved the quality of the assessments.
quarter of the pandemic, the adaptations in data collection used by the WASH sector (reported during the key informant interviews) improved the assessments' quality, bringing assessment quality scores up to pre-pandemic levels. The assessments carried out in the country are based on WASH data collection mainly gathered through key informant interviews (40.5%) and focus group discussions (25.2%). Other methods that have been employed are household interviews (17.8%), individual interviews (8%), secondary data review (3.7%), and with a percentage of use below 3% direct observation, satellite imagery, and community group discussions.

During the first quarter of preparing this study, key informants reported that people’s priorities in need came mainly from the humanitarian actors instead of the affected population themselves due to the lack of access. However, after the mobility restrictions were decreased, WASH actors were able to conduct assessments within most of the communities in need, thus increasing both the quantity and quality of the information gathered.13

The lack of qualitative and quantitative data on the evolution of cases of diarrhea and other water-borne diseases since the onset of COVID-19 does not allow to establish a clear link between the pandemic and the increase in these diseases, as a consequence of the limited data available.

**BANGLADESH**

The average score obtained in the assessment reports available in the DEEP platform that included WASH in Bangladesh over the time-lapse analyzed is 5.3 (out of 10). The adaptations used for data collection in WASH sector (reported during the key informant interviews) improved the quality of assessments throughout the duration of the outbreak. Assessments in Bangladesh have employed eclectic methodologies, with no single methodology representing more than the 25% of primary assessment methodologies. The main techniques used were household interviews (22.9%), individual interviews by telephone (22.9%), secondary data review (20%), and telephone interviews with key informants (20%). Focus Group Discussions were also used (8.6%), as were satellite imagery (2.8%) and direct observation (2.8%).

Due to the mobility and access restrictions to enter the camps in Bangladesh, needs assessments (made by ISCG and IOM) were conducted through Key Informant interviews by telephone, which reduced the quality of the data collected. Moreover, the key informants were not all located in the camp areas, thus impacting even more, the representativeness of the information gathered. Finally, 90% of the informants utilized were male, giving a very poor gender representative balance.

There was an evident decrease in the communication with people in need, which can be observed in the figures of sanitation problems reported by the population before (70%) and just after the beginning of the COVID-19 crisis (59%).14

**Overview of data challenges and solutions:**

In 2020, the COVID-19 pandemic had a significant global effect on humanitarian work, not only in practical terms but also concerning the collection of quantitative and qualitative data. Throughout the outbreak, many organizations have continued to implement humanitarian and development programs. Overall, the challenges between the different countries (as defined within this study) have been similar. It was possible to identify several country-specific challenges linked to the type of crisis (i.e.,

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13 Information provided by the Key Informants during interviews for this research.
14 REVA 4 15/04/2021
conflict, international refugee crisis, etc.) and the level of functioning government institutions/systems in place. Therefore, solutions and approaches used in the selected countries have been adapted to match each context’s particularities further.

The following section will focus on challenges faced by the different countries, such as data collection and information management; the data availability and its quality; and finally, the solutions that were used and put in place by the WASH sector as a whole (as well as organizations separately) in order to maintain the flow of information and understand the needs of the populations, as well as development and monitoring of WASH programs.

Challenges:

- **Mobility restrictions for international, national and local movement of WASH staff to collect data in the response location.** This has been amongst the largest factor in disrupting data collection, with a disproportionate impact on rural areas. For example, in Colombia, following the first decree imposed by the national government (especially Decree 417 of March 16 of 2020), there was a limited range of action for many humanitarian organizations projects that focused on response and evaluations, monitoring and WASH follow-up. Similarly in Bangladesh, the Government restricted and later limited the access for most humanitarian aid workers to the Rohingya refugee camps in Cox’s Bazar.

Some countries have imposed a quarantine on international arrivals, thus further impacting international support from the humanitarian actors. The restriction to national trips has reduced the capacity of the WASH sector to send staff to the field for data collection, among other activities.

- **COVID-19 protocols have caused difficulties in collecting data in the humanitarian WASH sector.** Protocols including distancing, face masks, sanitizing, and a maximum number of people allowed per car, designed to reduce the spread of COVID-19, have caused visible issues to carry out data collection in the WASH sector. Consequently, in-person data collection was possible by following necessary biosecurity measures recommended by WHO, in compliance with the rules of government authorities. However, this increased cost and decreased the frequency or comprehensiveness of data collection.

- **The cost of data collection has increased,** reaching even 5% of the total budget in the case of Burkina Faso:
  - Procurement PPE and disinfectants for the surveyors (an increase of the market price and logistic constraints)
  - A greater requirement for single rooms and days for the training of investigators are required (including induction on barrier measures)
  - Fewer surveyors per car, prompting the need for more cars or fewer surveyors (more days per surveyor)

- The physical distancing mandated by governments worldwide was particularly challenging in Cox Bazar and Nigeria, where households live in such proximity. There was also a significant negative impact on the accessibility and availability of many services that the camp population rely on.

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15 IFRC 08/07/2020
16 Information provided by the WASH cluster in Burkina Faso
Moreover, there was a general little to no awareness and/or poor compliance in face masks, social distancing, and good hygiene practices, making the on-site collection of information more difficult.

Lack of reliability in the information provided by the national and local authorities and/or the information promised by the government.

**Fear amongst the community of external visitors due to COVID-19 has also been reported in several countries.** For example, in Colombia, some humanitarian organizations have received threats for working in some communities during the pandemic. This issue made it difficult and sometimes impossible for surveyors to work directly in the required locations.

**Fear amongst humanitarian staff.** In addition to generalized issues around stress, INGOs personnel also reported that doing data collection in a potentially hostile environment with reduced access and essential needs has created fear and psychological stress for some of the practitioners.  

The closure of schools during the pandemic has further fuelled difficulties to evaluate the challenges and needs in educational institutions for their re-opening and to collect the children's perceptions of and knowledge in hygiene behavior.

**A reduced Laboratory Capacity.** Limited laboratory capacity in many humanitarian settings was already an issue before COVID-19. However, the arrival of a global pandemic meant that many laboratories have shifted to COVID-19 testing. This has led to a reduction in the availability of laboratories to test water samples.

**Lack of internet connectivity.** The shift from in-person data collection to remote modality requires access to the internet or mobile roaming coverage. The poor penetration of telecommunications, such as in some rural communities, has affected the process of information gathering. It has also led to a disproportionate representation of persons with a higher wealth-income (who are more likely to have access to a phone or internet).

These challenges for the WASH sector data collection and information management have resulted in the following consequences:

- Difficulty in securing a representative sample of the population in need.  
- Some surveys are limited to purely qualitative aspects, while others to just quantitative.  
- Finding specific units of analysis is more restrictive (e.g., the flow of water sources) than the period before the pandemic.  
- Within Burkina Faso is reported that on many occasions during the outbreak, the surveyor in charge of collecting the data within the communities was unknown and had no contact with the surveyed. Therefore, there is no direct presence of the surveyor in the evaluated community.  
- The surveyors cannot directly observe and interpret the non-verbal communication of the people surveyed, which is essential, particularly in hygiene behaviors.

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17 Information provided by Oxfam WASH officers in the field via e-mail interview.
18 IMREF, 01/07/2020
19 IMREF, 01/07/2020
20 Situation Analysis Report Burkina Faso IMMAP September 2020
21 Situation Analysis Report Burkina Faso IMMAP September 2020
- There is limited capacity for the humanitarian actors to collect primary data. Moreover, some methods for data collection, e.g., in-person observation, cannot be used effectively.\textsuperscript{23}
- There is limited possibility of getting solid and trustworthy information with disaggregated data by region, gender, or population groups regarding the access to infrastructures WASH and the population knowledge in hygiene practices.\textsuperscript{24}
- Impossibility to get information from small and isolated communities, e.g., indigenous communities in Colombia.
- Since the beginning of the COVID-19 outbreak, there has been no recent and representative data about ways to obtain drinking water for the population of specific communities.\textsuperscript{25}
- Lower reliability on the data analysis and a rise of the error range because of the reduced quality of the data collected.\textsuperscript{26}
- Impossibility to conduct Focus Group Discussion due to restrictions and community fears.\textsuperscript{27}
- It was noted a lack of knowledge of some WASH actors, mainly at the beginning of the pandemic in terms of hygiene behavior, while performing the assessments without sitting with the community.
- Difficulties to identify the different needs in rural and urban contexts in Colombia.\textsuperscript{28}
- Reduced accountability with communities and donors.\textsuperscript{29}
- Data has not been sourced to show exactly what programming and data collection did not take place due to restrictions. Normal monitoring (using tools such as 3W) could give some idea of those reached in terms of quantity, not the quality of these activities.
- Lack of Community Engagement approach to understanding the needs and hygiene behavior of the communities as it was not possible to gather people in the areas of the program.\textsuperscript{30}
- Lack of experience in collecting data from different sources and in other modalities.\textsuperscript{31}

**Adaptations**

After detailing all the difficulties and challenges that the WASH sector has faced during the COVID-19 crisis, the below section proposes a set of solutions and adaptations that were gathered during interviews with Key Informants to collect data from the population in need in these six selected counties:

- Budget and timeline flexibility (extra cost for PPE, enumerators...) for data collection to ensure a minimum required quality of the information gathered.
- Special permits granted by governments and/or community leaders to travel and/or enter the communities in need.

\textsuperscript{22} Situation Analysis Report Burkina Faso IMMAP September 2020
\textsuperscript{23} Information provided by WASH cluster Burkina Faso, Nigeria, Syria and Colombia during interviews
\textsuperscript{24} Devex, 03/06/2020
\textsuperscript{25} Situation Analysis Report Colombia IMMAP November 2020. Information provided also by WASH cluster Colombia during interview
\textsuperscript{26} Information provided by WASH cluster coordinator and the Information Manager in Colombia.
\textsuperscript{27} Information provided by all the WASH clusters and also from INGO WASH staff from the interviews.
\textsuperscript{28} Information provided by WASH cluster in Colombia during the interview.
\textsuperscript{29} Information provided by WASH cluster in Colombia during interview.
\textsuperscript{30} OCHA & WHO 29/09/2020
\textsuperscript{31} Information provided by OXFAM WASH officers in the field within Syria
- Modification of data collection methodologies: allowing telephone (also suggested by World Bank), WhatsApp, Facebook, and other applications to avoid the in-person whenever it is too challenging.
- Creation of a combined unified WASH sector beneficiaries' database of all the partners to collect information by telephone and avoid duplicity of contacts. An example of this is Colombia, where a joined contact list it was compiled and used as an integrated survey for households via telephone.
- Key Informants interview via telephone and collect the information using KoBo ToolBox (data goes from the field to the office in real-time, if the internet is available) to prepare the reports.
- Classification of the data collected by zones: urban, peri-urban and rural, as the COVID-19 crisis has affected in a different way to each of these regions.
- PREMISE: innovative and alternative collection method without direct contact with the population but through observations and perceptions, allows collecting data and cross information in different ways before it is validated through Artificial Intelligence. Consolidated data is contrasted with the official information. The use of satellite imagery from past and present of the same location makes it possible to observe changes. These changes can later be validated through closed interviews with the beneficiaries via telephone.
- Also, crossing satellite images and meteorological information can help analyze the development of the vector in a settlement.
- Analysis and programming based on market assessments, for example, to help facilitate information about the procurement and selling figures of soaps to understand the hygiene practices in the community.
- Simplification of survey and data collection forms, assuming the consequence of a quality reduction.
- Community approach to data collection: discuss with community leaders what and how data can be collected.
- Utilization of portable laboratories for water quality testing and place some for the use of partners in the main locations in need.
- Coordination with Education and Health Clusters to get contact details of key actors of the education and health institutions in-country. With the contacts, WASH mapping of these key structures through simplified assessment forms and telephone allows collecting basic and general data. This system assumes that the quality is lower than with a WASH expert in place.
- For water quality assessments in areas that are not reachable or have no water quality laboratory available, the data collected was based on the communities perception of water. The physical characteristics (smell, taste, color) instead of the biological data are only available with a tests conduced in laboratories.
- Simplification of assessment forms and checklists. The questionnaires also have become shorter, with condensed questions, sometimes lacking in detail, in order to be more suitable for telephone/line interviews and reduce the duration of in-person contact (direct interview).
- Adhering to the preventive measures against COVID-19 when collecting the data face to face with beneficiaries, providing PPEs WASH staff field team (keeping a stock of PPE's as a
backup) and the participants. Moreover, in these cases, the number of participants in the assessments was reduced to a minimum.

- **Community Tracker Perception (CPT):** The CPT is an approach used by OXFAM (DRC, Burkina Faso and Syria) and ACF (Nigeria) that uses a mobile tool to enable staff to capture, analyze and understand the perceptions of communities during disease outbreaks, as in this case was the COVID-19. Technical field staff listens to and captures the community's perceptions via Survey CTO, previously installed in their mobile telephones/tablets. Perceptions include questions, beliefs, concerns, and feedback concerning views and perspectives that arise in line with the spread of the disease. The perceptions collected are readily made available on the Survey CTO server. A weekly report is provided for analysis. The data collected is linked to contextual information and epidemiological data to prioritize key actions. The findings and data are shared with other actors to triangulate/expand the reach of the collected info.

- **We know from previous experience with data collection that the use of digital tools to capture information can support faster, more accurate data collection in a way that avoids unnecessarily burdening the program staff. By proceeding this way, CPT also provides reports that are rapidly analyzed to produce findings that can, in real-time, directly impact a humanitarian response.**

**Key successes of the WASH Sector:**

Some of the measures put in place by the WASH sector in emergencies have allowed the adaptation of data collection for assessments, evaluations, and monitoring of the programs in these countries. The difficulties and challenges that WASH actors face during the pandemic are plenty, and they have produced enough accessible information to enable them to effectively respond to WASH needs during COVID-19 crisis.

The most notable successes are:

- There has been good coordination with other actors:
  - Other humanitarian sectors such as Education and Health clusters collect primary WASH data of the education and health facilities.
  - Coordination with government and local authorities for entry and travel permission for essential staff regarding data collection.
  - Involving Community leaders in the decision-making process of data collection strategy.

- **Modification of data collection methodology:**
  - Simplification of survey and data collection forms.
  - Use of the telephone, WhatsApp and Facebook, and KoBo surveys.
  - Revision of the classification for the areas of data collection (depending on the influence of the COVID-19).
  - Utilization of satellite imagery.
  - The use of the Community Perception Tracker (CPT).
  - Focus on the organoleptic characteristics of the water instead of the physical and biological.

- **The use of the Artificial Intelligence for data analysis with PREMISE.**
- **Market-based assessment to understand the use of WASH items in the community.**
- **Unification of the WASH sector beneficiaries.**
Lessons learned

a) Data collection, accountability, information strategies and data collection methodology should be included in the proposal phase of each WASH project. It would also be useful to request some flexibility from donors regarding budget and timeline in order to facilitate data collection and reporting in exceptional circumstances such as the current outbreak.

b) To get, from the beginning of a program, pre-approval or special permits to enter in camps and/or communities in need. This must include an improvement in reaching local authorities for information management purposes.

c) Quantifying the pandemic’s impact at the household level would allow assessments of the risks of decreased availability of WASH services with greater precision.

d) More information would be needed from national and regional levels to evaluate the challenges faced by education and health institutions regarding WASH needs (coordination with Education and Health clusters).

e) The use of certain tools and strategies to collect and analyse the perception of the community. It can be used the Community Perception Tracker, prepared by Oxfam and currently also used by Action Contre la Faim (ACH).

f) The use of innovative and alternative collection methods through observations and perceptions. The collected data must be contrasted with the official information. PREMISE for example, allows for cross-referencing all this information in different ways and then validating it using Artificial Intelligence.

g) The analysis of past and present satellite images to observe changes in the area: new settlements, increase of vector transmission environment, quantitative and qualitative changes in WASH superstructures, etc. These changes can be validated through closed interviews with the beneficiaries by telephone.

h) Classification of the data collected by zones: urban, peri-urban and rural to allow for separate analysis of regional variation in the impacts of the crisis.

i) Simplifications of surveys and data collection forms if the surveyor is not in the field to collect the information. Questionnaires with very synthetic questions and suitable for telephone/line interviews.

j) The use of a community approach for data collection, discuss with community leaders what and how the data can be collected in advance.

k) To place portable laboratories for WASH cluster partners to be used in those locations where there is a humanitarian response.

l) Analysis and programming based on market assessments, e.g., to obtain statistics on the procurement and selling of soap to understand the hygiene practices in the community.

m) Improve information flow between the WASH humanitarian sector and ministries and national agencies and standardize the information needed from these governmental sources.

n) Invest time in training interviewers and the pilot phase of the survey.
CONCLUSION AND RECOMMENDATIONS

CONCLUSIONS

• Particularly in the initial phase of the COVID-19 outbreak, the quality of the information/data collected by WASH actors was lower than before the outbreak. However, as the pandemic progressed, the quality and quantity of information also improved thanks to the adaptation of measures put in place by WASH actors.

• It is essential to coordinate with local authorities before conducting data collection exercises. Government and WHO recommendations should be respected, but tailored for each of the communities assessed. COVID-19 and its perceptions may differ from community to community and should be considered as well as discussed with local leadership/authorities. Infrastructure should be evaluated based on its specific context.

Coordination at the country and regional level to obtain permits for traveling and/or entering a community in need reduces the time to collect the information.

• Coordination with other sectors is highly valuable for integrated assessments (health and education facilities), as it improves the quality of the information gathered and reduces the number of staff and resources needed to collect data.

• Systematically tracking the perception of people in need of humanitarian support brings a better understanding of possible existing fear, challenges, and needs regarding the pandemic.

• The use of new technologies for data collection and analysis increased the quality and quantity of the information gathered and reduced double counting.

• It is important to unify the beneficiary contact lists through the WASH national cluster. This enhances the follow-up of the activities and the needs of the communities, without incurring duplicated efforts.

• In all WASH responses in the six countries, the cost of the data collection has increased, therefore it is necessary to increase the budget line for it in all the projects during the COVID-19 crisis.

• In those countries where portable water quality testing kits in the field were available, there is increasingly accurate data concerning water quality.

• It is possible to obtain an overview the hygiene behavior and the use of hygiene items in a community through a market-based assessment.

RECOMMENDATIONS

a) What should be done to sustain these wins in the future?

- Put in place preventative measures and social distancing during data collection until the perception of fear to the COVID-19 is reduced.

- Have available water quality testing kits at cluster level in each ongoing humanitarian response.

- Create integrated contact details of WASH beneficiaries from each of the WASH cluster partners at the cluster level.

- Seek to obtain special permits for humanitarian actors at the government and regional level for traveling and access to areas with people in need as soon as possible.
- Expand the utilization of community perception during pandemics. This approach requires some patience as the environment needs to be checked so that the surveyor can create trust with the community and people. This would allow people to feel free to respond to questions openly and honestly, instead of replying in a way they think is the preferred response.

- Increase the collection and utilization of satellite imagery to gather information without being in the field. Improve capacity of WASH actors to analyze this type of data.

- Simplify survey forms (questionnaire, checklist...) for locations with minimal access and resources to allow non-WASH experts to conduct surveys. This can also help for phone interviews when the connection is not very reliable.

- Assess education and health centers' WASH needs in coordination with the Education and Health cluster and stakeholders.

- Invest more in data collection; in this way, the training for the surveyors is better, and the data collected will have more quality.

b) How should we avoid these challenges in the future?

- Increase the budget line dedicated to data collection and request/provide it with greater flexibility.

- Arrange travel permits in advance for emergencies with national and regional authorities. It would be good to have special agreements with the authorities for scenarios with different emergencies.

- The WASH national cluster should ensure at least one water quality testing kit with a humanitarian response in each location. These kits should be available for any WASH actor.

- Follow up on the community's perception even when there is a crisis in course, as the trust and confidence in the surveyor of the perceptions need to be built and kept over time. Also, this approach not only improves data collection during an epidemic but also in other humanitarian responses.

- WASH cluster could create a database with data availability and contact of the satellite imagery providers.

- Special agreements between Global WASH cluster and providers of satellite imagery to get the images when and where is needed.

- Better knowledge of preparing proposals in uncertainty humanitarian crisis and more flexibility of donors in these cases.

- Improving the information flow between WASH humanitarian sector and the ministries and national agencies and standardizing the information needed from these governmental sources.
The outbreak of disease caused by the virus known as Severe Acute Respiratory Syndrome (SARS-CoV-2) or COVID-19 started in China in December 2019. The virus quickly spread across the world, with the WHO Director-General declaring it as a pandemic on March 11th, 2020.

The virus’ impact has been felt most acutely by countries facing humanitarian crises due to conflict and natural disasters. As humanitarian access to vulnerable communities has been restricted to basic movements only, monitoring and assessments have been interrupted.

To overcome these constraints and provide the wider humanitarian community with timely and comprehensive information on the spread of the COVID-19 pandemic, iMMAPI initiated the COVID-19 Situational Analysis project with the support of the USAID Bureau of Humanitarian Assistance (USAID BHA), aiming to provide timely solutions to the growing global needs for assessment and analysis among humanitarian stakeholders.