

Quality Data Collection for Decision Making: Case Study Kamwenge District in Uganda

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Background

Water For People carries out annual data collection across all Everyone Forever districts in 9 countries. In Uganda, the Everyone Forever district, Kamwenge, has 15 ever-growing sub-counties and 613 villages. Surveys are carried out in all public institutions, which include all health centers and public schools, a sample of water points and their service providers, and household questionnaires focusing on water and sanitation. Random samples are taken from at least every sub-county and every parish within the district to ensure we have a good overview of the whole district and not just in the sub-counties where Water For People works directly. Data collection is done primarily with mobile phones using the Akvo Flow (Flow) application where the questionnaires are designed and uploaded onto the phones.

Preparing for Data Collection

1. Review of questionnaires with the district

Prior to data collection, each department in the district reviews the questionnaires developed by Water For People and provides input. These departments include the District Water Department, the Health Department and the Education Department. District partners can add questions not included in the survey, but some key questions will not be edited since they are crucial to scoring process. This process ensures quality data collection because partners can advise on the different technologies and relevant context for enumerators. It also helps ensure utilization of the data across the district since a lot of resources are invested in this process.

2. Training and review of questionnaires with enumerators

Once inputs and comments from the district are included, enumerators are recruited. Officials and staff from various district departments are included in the recruitment and training process to ensure that a better data plan can be drawn up and executed. For example, the District Water Officer will review the water point survey, and the health assistant or a community worker will review the household survey with enumerators.

After two days of reviewing and translating questionnaires into the local language with an average of 35 enumerators, they are taken through a rigorous written and practical testing process to ensure they have captured the most important elements of the data collection process. In the written test, they are assessed on the ability to identify the correct technology types for both sanitation and water, listen to instructions, and identify the questionnaires they are supposed to do. In the timed practical tests, they are assessed on their ability to use a smart phone, identify and use the application, and answer and submit a questionnaire, including how fast they can do it. After the testing process, an average of 26 enumerators are selected depending on the data to be collected. More people are trained to act as guides or substitutes in

case some enumerators do not show up or replace those who are not be able to use the phones or pass the test.

The third day of training is with the final group of successful enumerators and includes a run through of the previous days, further practice with the phones, and pretests. Team leaders are chosen from the final group of enumerators, and then they pick which questionnaires they are interested in administering. An example data collection plan, including the number of questionnaires per enumerator, is shown in Table 1.

Table 1: Sample Data Collection Plan

Sample Data Collection Plan				
Survey	Sample of questionnaires	Number of days	Number of questionnaires per person	Number of enumerators
Schools	161	5	6	5
Clinics	27	3	4	2
Water Point	549	8	7	10
Household	1080	8	15	9
Total	1817		32	26

3. Data collection

Immediately after training, data collection starts with the nearest sub-county so that any mistakes can easily be corrected without incurring much cost. The questionnaires are reviewed daily, especially during the first two days, with a debrief meeting held in the morning to correct any mistakes. We also get an idea of what the data looks like and how long the process takes.

Following the meetings in the first two days of data collection, the enumerators and their team leaders are ready to move on their own. The teams are divided with each enumerator assigned a list of sources or villages. Water For People provides transport to the household team from Kamwenge town to the various sub-counties. However, they find their own transport within the sub-counties for better efficiency.

We always ensure to have a break during the data collection exercise to allow time for review of the data and give the enumerators time to rest and rejuvenate. This has proved helpful because any unfinished work is completed, and the enumerators are better equipped for the next phase of data collection. This also helps with quality control where we ensure that all the data has been submitted, any questionnaires that had problems are working well, and all questionnaires are showing up on the dashboard.

4. Data cleaning

Data cleaning is a continuous process that takes place daily and more rigorously during the break. After data collection, data cleaning is repeated, and errors are addressed to ensure quality of data.

Data cleaners fill out a data change sheet that explains any changes in the figures and justifies why these changes have been made. This acts as an accountability mechanism so that data

cleaners cannot manipulate the data. Data is then scored according to the Water For People scoring matrix in the monitoring framework.

Lessons Learnt

The Water For People Uganda team has implemented this process of data collection in Kamwenge for 6 years. It has evolved over time because of the lessons we have learnt, some of which are detailed below.

Advertisements

Advertisements are run on the local radio station and put up at the district office at least one week before the data collection exercise is scheduled to start to raise awareness among the survey respondents. This has proved helpful for the enumerators who must go to the field.

Involvement of District Officials

Involving the district in the review and data collection process has helped ensure that the data collected will be utilized. District partners can use the results to lobby for funds toward specific areas such as public institutions. It also holds the district accountable to the community to implement their objectives during the year.

Rubbish in=Rubbish out

Training, Training, Training should be emphasized. Successful data collection relies heavily on training because if the enumerators don't understand their role and responsibilities from the beginning then the whole exercise will be majorly flawed. It is imperative that sufficient time and resources are allocated to training and that the questionnaires are reviewed as many times as possible. Translating the questionnaires during the training allows for better consistency across all questionnaires.

Do the tests

Testing enumerators is important to help gauge whether they have picked up on what they are supposed to do and guide additional training needs. Tests with the mobile phones are crucial because using the phones in a group setting versus alone in the field are different experiences.

Take the break

Previously we collected data continuously throughout the whole data collection exercise, but this did not provide enough time to review the questionnaires. We have now started taking a break in the middle of the data collection exercise to allow for good reviews and avoid any further errors. In addition, the enumerators are able to rejuvenate and catch up on any questionnaires that were not clear.

Team leaders

Grouping the enumerator teams with team leaders makes it easier for the teams to communicate, coordinate, share experiences, and, hence, hit their targets. Previous experience has also shown that enumerators were excited about the change and worked more effectively.

Dissemination

Data is disseminated both at district and sub-county levels. At the district level, the results for the whole district are shared with the key officials of the water, health, and education departments. The main issues are highlighted, hard and soft copies are shared, and each data set is tailored to suit the needs of the department.

At the sub-county level, we hold meetings at each sub-county office with key technical people such as the Sub-County Chief, Health Assistants, Community Development Officers, Parish Chiefs, and Hand Pump Mechanics. These meetings are held at the sub-county level because most of the program implementation work done is in the sub-counties. During the meeting, the sub-county officials draw up an action plan to address the issues from the data presented. Table 2 contains a sample action plan from the Kabambiro Sub-county.

Table 2: Kabambiro Sub-County Action Plan

Kabambiro Sub-county Action Plan					
Issue	Solution	By who	By when	Follow-up	Target
Non-functional water point sources in communities	<ul style="list-style-type: none"> Meet the Water User Committee (WUC) Talk to the users about fees Remind the WUC of their duties 	Health Assistant, Local Council 1 (LC 1), Users, Parish Chiefs	15th Sept 2018 (ongoing)	Sub-county Chief	Kabatangare spring, Iremera, Kitakama, Rugarama PS BH, Nyakasharara
Dried up water point sources	<ul style="list-style-type: none"> Meeting users around the source to talk about the catchment Cutting trees around the catchment Remove gardens 20m around the source 	Parish Chief, Sub-county Chief, Health Assistant, Community Development Officer (CDO)	1st week Oct 2018	Sub-county Chief, LC 3	Kabatangare spring, Kitakama SW, Mukabingo SW, Prunali Spring
Poor water quality	<ul style="list-style-type: none"> Fence off the sources Enforce the by-laws Promote ecosan (construct 2 demos) 	Parish Chief, CDO, Health Assistant, Sub-county Chief	2nd Week Oct 2018	Sub-county Chief, LC 3	Nyamashewga-Iremera DBH Iremera SW (Kebisingo III)
		Joint Effort To Save the Environment (JESE)	Dec 2018 (ongoing)	Sub-county Chief	Kagorogoro, Bwera, Kengoma 1,2,3, Rushango 1
Non-functional water point sources in schools	<ul style="list-style-type: none"> Meeting head teachers to repair rain water tanks 	Head Teachers	17th Sept	Sub-County Chief	Galilya PS, Mirambi K PS

The actions drawn at sub-county level are presented at the District Water and Sanitation Coordination Committee meetings which are chaired by the Chief Administrative officer (CAO). The fact that the CAO follows up on these plans ensures that the actions that the technical teams set out to do are implemented. This therefore contributes to the goal of reaching Everyone Forever across the whole district.

Conclusion

The process of collecting quality data is time and capital intensive, however, if done correctly, it is worth it. Good data helps make good decisions and, hence, proper use of the allocated of the resources invested. Bad data on the other hand leads to bad decisions and wasted resources and efforts.