



GUIDANCE ON MONITORING AND EVALUATION



Clara Hagens, Dominique Morel, Alex Causton and Christina Way

Founded in 1943, Catholic Relief Services supports relief and development activities in more than 100 countries. Without regard to race, creed or nationality, CRS provides emergency relief in the wake of natural and man-made disasters. Through development projects in education, peace and justice, agriculture, microfinance, health, HIV and AIDS, CRS works to uphold human dignity and promote better standards of living for the poor and disadvantaged overseas.

In Asia, CRS works with several thousand partner organizations, focusing on improving community resilience to disasters, including HIV and AIDS, promoting the dignity and empowerment of women, as well as strengthening agricultural livelihoods, community water management, health and education systems.

CRS also works throughout the United States to expand the knowledge and action of Catholics and others interested in issues of international peace and justice. Our programs and resources respond to the U.S. Bishops' call to live in solidarity – as one human family – across borders, over oceans, and through differences in language, culture and economic conditions.

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Developed and written by Clara Hagens

Edited by Alex Causton and Dominique Morel

Based on an original project by Christina Way, then M&E team leader, CRS Pakistan

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Abbreviations

CRS	Catholic Relief Services
FGD	focus group discussions
ICT4D	information, communication and technology for development
IEC	information, education and communication
IR	intermediate result
M&E	monitoring and evaluation
NFI	nonfood item
OFDA	Office of U.S. Foreign Disaster Assistance
PRA	participatory rural appraisal
RRA	rapid rural appraisal
SMILER	simple measurement of indicators for learning and evidence-based reporting
SO	strategic objective
SOW	scope of work
SPSS	Statistical Package for the Social Sciences

Introduction

This handbook provides guidance for designing and implementing a monitoring and evaluation (M&E) system. The guidance supports and complements [CRS' global M&E standards](#).¹ The global standards represent the agency's commitment to high-quality M&E as a key component of program quality, and this handbook provides step-by-step guidance for operationalizing this commitment. Each topic includes its own set of standards, which emphasizes the key messages and quality considerations relevant to the topic. Whereas the global M&E standards are high-level overarching commitments, the standards in this handbook provide practical quality-control considerations specific to individual components of an M&E system.

This handbook is for programming staff at all levels, including M&E staff, field staff, project managers and program officers. It highlights each role in multiple steps. The content of this handbook complements the information provided in [ProPack I](#),² [ProPack II](#)³ and [ProPack III](#).⁴ Staff should have a solid foundation in ProPacks I, II and III in order to maximize the utility of this guidance.

The guidance is intended to be dynamic and to engage staff members in the critical thinking required to design and implement an M&E system. Each project is unique and good M&E practice will vary between contexts. For example, this guidance applies to both emergency and nonemergency contexts but sampling, tool content and frequency of monitoring are all quite different in emergency settings from nonemergency settings. What should remain constant in all contexts are the quality of the M&E system and the quality of the data it collects. Staff members should contact technical M&E technical staff (either in-country or regional staff) for support in implementing or discussing the guidance provided.

Staff should document the development of the M&E system in an M&E binder, or operations manual, as per *ProPack III* guidance. The binder should include monitoring forms, sampling methodologies and data flow charts, for example. Thoroughly documenting the decision-making process provides staff with a ready

¹ Catholic Relief Services, *Monitoring and Evaluation Standards, Version 1.0* (Baltimore: Catholic Relief Services, 2009).

http://www.crsprogramquality.org/storage/pubs/me/me_standards_english_final.pdf.

² Valerie Stetson, Guy Sharrock, and Susan Hahn, *ProPack: The CRS Project Package. Project Design and Proposal Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2004).

<http://www.crsprogramquality.org/publications/2011/1/14/propack-i-english.html>.

³ Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007).

<http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

⁴ Susan Hahn and Guy Sharrock, *ProPack III: The CRS Project Package. A Guide to Creating a SMILER M&E System* (Baltimore: Catholic Relief Services, 2010).

<http://www.crsprogramquality.org/publications/2011/1/17/propack-iii-english.html>.

reference for future M&E decisions and plans, and supports quality-control processes and audits.

Staff members in the initial phases of M&E system design should first read Part I, which covers basic M&E concepts, and then consult Part II for guidance on planning and implementing an M&E system, following each step in chronological order. Staff members who have begun designing or implementing their M&E system should identify the topics that are currently most relevant to their project. It also would be worthwhile for these staff to review each topic to see if there are revisions or changes they can make to their current system to improve M&E quality.

This handbook aims to be a living document to be revised and updated according to feedback received from the field. After reviewing or using this guidance, please send your suggestions or comments to Dominique Morel at dominique.morel@crs.org or Clara Hagens at clara.hagens@crs.org.

Core M&E Standards

Core M&E standards:

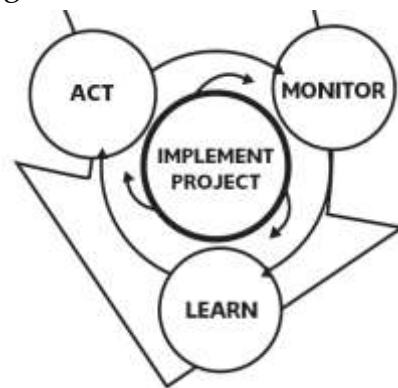
1. M&E systems include “need-to-know” information only.
2. M&E staff collects reliable data.
3. M&E staff transforms data into information and then into knowledge.
4. M&E staff uses and disseminates results.

The following core M&E standards apply to all aspects of M&E and to each M&E activity. These core standards are stated broadly and meant to provide a foundation for the rest of the standards and guidance in this document.

1. M&E systems include “need-to-know” information only

It is important that M&E systems are light and able to provide timely data to meet information needs and inform project decision-making.

➔ *Include in your M&E system only information that you need to know. There is a great deal of information that is nice to know, but including it will only slow down the timeliness of your information system. Information that comes too late is unlikely to contribute to improved project quality.⁵*



Source: Stetson et al., *ProPack II*.

A light and efficient M&E system will allow you to monitor, learn and act throughout project implementation.⁶ An efficient M&E system also allows you to test the assumptions that are built into the project. If project outputs have been achieved but intermediate results (IR) have not, perhaps the planned outputs are not sufficient to achieve the IRs. Similarly, if the IRs have been achieved but the strategic objectives have not, were the IRs most appropriate for these objectives?⁷

For a monitoring system to be responsive, it must produce timely data and results. Logically, timely analyses and results are required for timely decision-making. Monitoring data allow project staff and other stakeholders to make decisions to improve project quality and responsiveness, without having to wait for midterm or final evaluations and potentially miss key opportunities for project improvement.

⁵ Stetson et al., *ProPack II*, 97.

⁶ Stetson et al., *ProPack II*, 200.

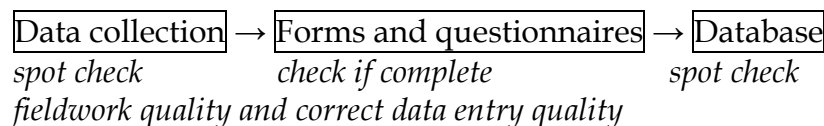
⁷ Stetson et al., *ProPack II*, 179.

Monitoring data can reveal whether a training curriculum or information, education and communication (IEC) materials have been effective in time for these curricula or materials to be revised and improved if needed. Monitoring data also can reveal community concerns and hesitations, which you can address by providing additional outputs (e.g., locks for female-headed households in a tsunami-response project to increase their sense of safety) or skills related to the project objectives.

➔ *Check early and check often to make sure your projects have the intended impact. By first monitoring information from lower levels in the results framework (i.e., outputs), you can be more confident that the IR-level change will be accomplished. Use your monitoring data to identify which levels have been fully achieved and which have been partially achieved.*

2. M&E staff collects reliable data

Key project and management decisions rely on M&E data and results. Collecting unreliable data is likely to lead to poor decisions and decrease project quality. Reliable data begins with the appropriate tools and methodology for data collection, well-trained data collectors and data enterers, and requires several quality checks throughout the data collection and entry processes.



3. M&E staff transforms data into information and then into knowledge

Data, in their raw form, cannot meet project informational needs or allow for learning. Data are unanalyzed materials gathered by an information system. You must analyze and transform data into information specifically formulated to meet M&E plan needs and inform decision-makers. The analysis plan should outline how to transform your project’s data into information. Knowledge, in turn, comes from the absorption, assimilation, understanding and appreciation of information.⁸

➔ *Transform all data collected into information that contributes to knowledge. Data that will not directly meet your informational needs should not be included in your data collection activities or in your M&E plan. Instead, include such data in future operations research or other M&E activities.*

Learning is the process through which individual and agency knowledge is gained and ultimately project quality is improved.

Source: Stetson et al., *ProPack II*.

➔ *Ensure that all project and technical staff provide constructive feedback on the reports and briefs, which convey the information and knowledge gained from the data.*

⁸ Adapted from Stetson et al., *ProPack II*, 99.

4. M&E staff uses and disseminates results

Use the M&E results during regular project meetings and M&E-specific meetings. Use M&E results in a timely manner so that you can identify and address any problems immediately and replicate successes. The use of M&E results can be as simple as dedicating 10 to 15 minutes in each project meeting to discuss the latest monitoring or evaluation findings. Include project staff and managers in the M&E discussions.

- ➔ *After collecting and analyzing the data, it is a mistake to think the M&E activity is completed. Using the results is the final step in the M&E process.*

Disseminate results throughout your organization and to multiple types of stakeholders. Include project staff, technical staff and management staff in your dissemination plans. Each staff position will learn from the results in different ways and contribute differently to their interpretation and to the decisions made based on these results.

- ➔ *Knowledge and information are of no use when kept on the shelf. Be proactive about sharing your results.*
- ➔ *Disseminate results to a variety of stakeholders to contribute to the transparency of your work.*

Tailor the means of dissemination to the type of stakeholder. For example, donors may prefer to receive quarterly or annual reports, though other stakeholders may benefit most from a presentation or discussion. Hold a community meeting to disseminate the results to recipient or participating communities. Remember to include these community meetings in your timeline.

Include not only successes and accomplishments, but also challenges, weaknesses and lessons learned in the results you disseminate. Challenges and weaknesses are also results and you should openly share them with stakeholders to maintain full transparency. Include an analysis of the results and how you intend to address any challenges or problems identified.

Gender and M&E

Standards for gender and M&E:

1. M&E systems include a comparison of data from women and from men.
2. M&E staff collects data from women in culturally appropriate ways.

Effective projects incorporate relevant gender issues and considerations in their design and in all M&E activities. Projects often tailor activities and interventions to meet women's specific needs and, similarly, M&E systems should be designed to draw women's perspectives, to consider gender issues in the local context, and to determine the ways in which interventions impact men and women differently. Gathering information from women on project impact often requires adapting tools and methods of data collection to make sure women's perspectives are heard.

➔ *Gender is a crosscutting issue that you should consider at all stages of project design and implementation, including M&E activities.*

1. M&E systems include a comparison of data from women and men

It is not sufficient to measure and understand project progress and impact at the community level given that projects often progress in different ways for men and women and have different ultimate outcomes. In one community, men may report that a new well in the community is beneficial because it supports livestock and allows for more irrigation, whereas women may report benefits related to reduced time for water collection and improvements in child health. Women and men also may report different types of coping strategies during times of household food shortages. Similarly, project progress may differ for men and women, even within the same activities.

To compare data from women and men, begin by asking the same questions (qualitative and quantitative) and compare their answers. Also, include separate questions about project activities specifically for women or men if relevant.

➔ *Refer to your analysis plan to determine the type of gender analysis needed. Often analysis plans include instructions for comparisons between male and female perspectives on project outcomes, looking specifically at impact on women.*

➔ *Based on women's daily activities and responsibilities, women typically provide different types of information than men. For example, women may be more likely to know how much and what types of food their children consume, and men might be*

more likely to know about local land agreements. Design specific questions for women that will draw upon their knowledge related to the project.

2. M&E staff collects data from women in culturally appropriate ways

When collecting data, be sensitive to the cultural norms of men and women in the same location. In some areas, women join men for community meetings but in other villages women are not able to attend any meetings, even within their own village. Assess the level and type of gender constraints in your target communities. In most contexts, it is preferable to hold separate focus groups for women and for men. Women-only focus groups allow women to voice their opinions and may be more culturally appropriate in many contexts. Female staff should facilitate and take notes for women-only focus groups.

- ➔ *Be sure that female staff is on data collection teams whenever possible. If you do not have female staff, be creative. Is there female partner staff that could work with CRS staff? Are there local female teachers, health workers or students that could assist you with data collection with women at the village level?*

Talk to elders and community leaders so they understand why you are speaking directly and separately to women. If elders and community leaders are comfortable with the situation, you are less likely to have a male acting as a monitor or reporting to the men what the women said during the session.

- ➔ *Be aware if there is a man outside the door listening – this can be just as constraining for women as having a male in the room.*

Some topics may be particularly controversial or emotional in your target communities. These topics may be of particular interest to you, but avoid asking direct questions about them. Questions that evoke overly emotional responses will not only yield unreliable data, they also may jeopardize the future of the data collection exercise. In extreme situations, bringing up controversial topics can quickly sour relations between your organization and communities and, if they are related to gender, place women at risk of harm.

For more information on gender and M&E, refer to:

- The World Bank, Food and Agriculture Organization, and International Fund for Agricultural Development, *Gender in Agriculture Sourcebook, Module 16: Gender Issues in Monitoring and Evaluation* (Washington, DC: The World Bank, 2009).
<http://www.genderinag.org/sites/genderinag.org/files/Gender%20Issues%20in%20Monitoring%20and%20Evaluation%20in%20Agriculture.pdf>.

Project Monitoring

Standards for project monitoring:

1. M&E staff monitors the project and context both formally and informally.
2. M&E systems are designed to engage communities in monitoring.

1. M&E staff monitors the project and context both formally and informally

This handbook integrates guidance on monitoring throughout; however, it merits additional attention here because the importance of informal monitoring is often understated or overlooked in M&E systems and by project staff. Informal monitoring refers to the monitoring of any unanticipated results, both positive and negative, and any changes to the project context by CRS and partner staff during each field visit. These informal monitoring data should be actively incorporated into project decision-making and management. Much of this knowledge may be assumed among project staff, but only through sharing and discussing this knowledge can informal monitoring data inform project decisions and management. Annex A includes an example of a form designed to collect informal monitoring data.

➔ *CRS and partner staff often quickly transform informal monitoring data into knowledge, given the depth of their experience. Share both the data (raw observations or feedback from community members or stakeholders) and the associated knowledge (gained through the interpretation of these data) to allow staff to discuss conclusions and gain new insights by considering multiple sources of data together.*

Informal monitoring data are commonly collected through observations of behaviors and practices, conversations with community members and leaders and other stakeholders, and observations of external factors that signify changes in the project context. For example:

- Behavioral observations may include homecare practices of women with children under 5 years old for a health project. For an agricultural project, staff may choose to observe the proportion of promoted crops planted at the beginning of the agricultural season.
- Conversations with community members and community leaders could focus on project achievements and obstacles, feedback on the implementation of activities, and any suggestions to increase overall project progress and impact.
- Observations of changing context for a health project could include reductions in water quality and availability (given that it may result in increased diarrhea rates). For an agricultural project, it may be important to observe the progress of the plant growth in the field many times during the agricultural

season to better predict the quality of the harvest and ultimately changes in the availability and access to staple foods in local markets.

- ➔ *You may include many of the examples above in formal monitoring tools but the advantage of monitoring informally (in addition to formally) is that informal data can be collected much more frequently, during each field visit.*

Include observation and conversations related to IR-level indicators and change. IR-level change is commonly evaluated during the midterm evaluations but it is essential to monitor (formally and informally) progress toward these IR indicators to make sure the project is on the right track.

Encourage staff to contribute to each M&E event (part of existing project meetings or stand-alone events) with informal monitoring data (and formal monitoring data if they are available). Use the project's monitoring questions to reflect on both the formal and informal monitoring data collected by the team. Refer to the list of suggested monitoring questions provided in [Annex A of Reflection Events](#).

- ➔ *Emphasize to CRS and partner staff that no field trip is complete without an element of informal monitoring! Remind staff how simple and straightforward informal monitoring can be. It can be as easy as a 15-minute discussion with a farmer or a walk through the community's agricultural fields. Properly document all informal monitoring (in monitoring reports) so that it can be shared.*

Informal monitoring alone is not sufficient and should be complemented by formal monitoring. Here formal monitoring refers to data collected through qualitative and quantitative tools to meet ProFrame⁹ information needs. This handbook also offers guidance for developing [quantitative tools](#) and [qualitative tools](#) as well as guidance for [random sampling](#) and [purposeful sampling](#) for monitoring.

2. M&E systems are designed to engage communities in monitoring

Community involvement in monitoring is beneficial for both communities and project quality. Community engagement allows communities to play a more active role in project management, to reflect upon progress and to assess changes in their situation and context. Projects are enriched by gaining additional insight on how communities view progress and identify early signs of change and impact. Community involvement in monitoring also builds the community's capacity to direct their development, increases the community's sense of ownership of the project and builds accountability and transparency.

⁹ The ProFrame® (**Project Framework**) combines the results framework with an older tool known as the Logical Framework or Logframe, which is used by most international development organizations worldwide. The results framework is a snapshot of the higher-level objectives; the ProFrame provides information about outputs and activities, the performance indicators and critical assumptions that have been made about project performance and plans. Refer to *ProPack I* for more information.

➔ *Encourage the community to participate in monitoring, as it provides many benefits to the community in addition to contributing to the monitoring system. Community monitoring often increases the community’s sense of ownership of the project and awareness of key issues that they identified early on in the design process.*

In many cases, communities track indicators of progress and impact that are not included in the ProFrame (and thus not included in official project reports). For example, one community may choose to monitor the number of fruits harvested from local trees before they ripen. In this community, people eat unripe fruit only when they do not have enough of the local staple to eat. Thus, an increase in the number of unripe fruit harvested is a sign of food insecurity. Though the number of unripe fruit taken may not be one of the project’s impact indicators, discussing this information with the community certainly provides insight into a changing food security situation.¹⁰

There is a spectrum of community participation in monitoring (see Figure 1). For current projects, identify where your project falls in this spectrum and determine if there are feasible steps you can take to increase the level of community participation in monitoring. For new projects, determine a feasible starting point given current staff and community capacity.

Figure 1. Spectrum of community participation in monitoring.

<i>Top-down approach</i> ↓	<i>Monitoring participation spectrum</i>			<i>Participatory approach</i> ↑
Communities provide data but do not receive the results	Communities provide data and receive feedback on the results	Communities provide data and participate in interpretation of data and results	Communities participate in the collection of data from community members and interpretation of data and results	Communities participate in the selection of indicators and methods, collect data, and interpret data and results

For ongoing projects, an easy starting point is to involve the community in the interpretation of monitoring results. Hold regular meetings with community members to discuss the monitoring results and interpret these results against the project’s monitoring questions and information needs. Participatory rural appraisal (PRA) tools are designed to maximize community participation and ownership and incorporating PRA tools in your monitoring system is a great step toward increased participation.

¹⁰ Instead of asking communities about the quantity of unripe fruit taken, a formal monitoring tool may include this coping strategy at the household level and ask households if they have harvested any food (fruit, staples or otherwise) during the last two weeks. Collecting these monitoring data through a survey would be statistically reliable but time-consuming, whereas informal monitoring conversations will provide instantaneous information. Moreover, involving the community in indicator selection and tracking provides community members with the means to track their own food security situation.

- ➔ *Train and support communities to fulfill their roles and responsibilities. CRS and partner staff can support communities during regularly scheduled field visits and community meetings.*

The process for establishing community involvement in monitoring also should be participatory. CRS and partner staff should facilitate and support the community to design monitoring questions and indicators, providing input and minimal monitoring theory when necessary. For additional information, refer to [Community Participation in M&E](#).

- ➔ *In facilitating the development of the community monitoring system and tools, emphasize to communities the importance of capturing early signs of change. Communities are likely to have great insights into indicators for early signs of change.*

Community scorecards

A community scorecard is a participatory tool that can be developed by community members to measure change and set thresholds for achievement. Communities begin by selecting the criteria or indicators to be tracked in the scorecard. Each indicator should be tied to a desired quality or change while many indicators can be used to measure the same quality or change. Community members designate the current status (either through voting or consensus) from a scale of 1 to 5, with 5 being the highest or best. The value for each criterion is summed to provide a snapshot of the current status. Using the scorecard regularly can track the course of change for multiple services or situations.

For additional information on scorecards, refer to:

- CARE, *The Scorecard Toolkit: A Generic Guide for Implementing the Scorecard Process to Improve the Quality of Services* (Lilongwe, Malawi: CARE, 2007).
<http://qualityandaccountabilitynetwork.care2share.wikispaces.net/file/detail/CARE+Malawi+Community+Scorecard+Guidelines+2007.pdf>.

For additional information:

- Yvonne Pinto, Lawrence Haddad, David Bonbright, and Johanna Lindstrom, "Special Issue: People-centred M&E: Aligning Incentives So Agriculture Does More to Reduce Hunger." *IDS Bulletin*, 41, no. 6 (2010): iii-ix, 1-134.
<http://www.ids.ac.uk/go/idspublication/people-centred-mande-aligning-incentives-so-agriculture-does-more-to-reduce-hunger>.

Annex A. Field trip report

Why: To provide project and program managers, heads of programming and heads of office regularized and standardized feedback on a project's success and challenges, as updated through regular field visits.

When: Complete after each trip if field visits occur once a week or less frequently. Complete once a week if field visits occur frequently (daily or weekly).

Who: To be completed by most senior project or field officers, preferably electronically; reviewed and commented on by project or program managers who create an action plan for follow-up; then shared with the respective head of programming or head of office for final review and approval.

Sector:		Project number(s):	
Office:		Start and end date of trip(s)	
Communities visited:			
Overall purpose of the trip(s):			

A. Key observations

Key observations should be based on anecdotal evidence (e.g., focus groups), observations or some other monitoring sheet (e.g., classroom observation sheet); supporting documents should be attached.

Reportable outputs/observations (may be predetermined by program manager)	Successes and highlights (to be completed by most senior field officer or program officer)	Challenges and ongoing needs (to be completed by most senior field officer or program officer)	Follow-up actions recommended (who/when) (to be completed by most senior field officer or program officer)

B. Manager's comments

Program manager must insert comments and feedback and share with direct reports. Head of program or office may choose to write additional comments if required

--

Submitted by: FO/PO
(Name/Sig/Date)

Reviewed by: PM
(Name/Sig/Date)

Approved by: HoP/HoO
(Name/Sig/Date)

Returned to: FO/PO
(Name/Sig/Date)

Community Participation in M&E

Standards for community participation in M&E:

1. M&E systems track the changes most important to communities.
2. Communities participate in data collection for monitoring and for evaluation.
3. Communities contribute to the interpretation of M&E data.

Community participation in M&E is widely viewed as an important contribution to high-quality programming. Community participation is the focus of [Sphere](#) common standard 1, which states that the disaster-affected population actively participates in the assessment, design, implementation, monitoring and evaluation of the assistance program.¹¹ Community participation is also the focus of [CRS Global M&E standard 2](#)¹² and referenced in the [support tool](#)¹³ for standards 4, 5 and 6.

CRS Global M&E Standard 2:

CRS and partner staff ensure that M&E plans promote community participation and reflect diversity within communities, particularly gender.

Community participation is associated with increased relevance of programming, transparency, accountability, sustainability and ownership of impact – for both the Sphere Common Standard 1 and the CRS Global M&E Standard 2. Community participation in monitoring specifically is essential for the team to be able to identify and address problems and challenges as they arise in ways that are appropriate for the community and context.

What is community participation in M&E? Though it can take a variety of shapes, community participation refers to increasing the community's voice throughout the M&E cycle of design, collection, analysis and use of data. This guidance describes some good practices associated with community participation in M&E and how they contribute to improved outcomes and program quality.

➔ *Consider what resources or support, if any, the community will need to fulfill their roles in data collection and interpretation. Plan to provide this support at the*

¹¹ The Sphere Project, *The Sphere Handbook* (Rugby, United Kingdom: Practical Action Publishing, 2011). <http://www.sphereproject.org/handbook>.

¹² Catholic Relief Services, *Monitoring and Evaluation Standards, Version 1.0* (Baltimore: Catholic Relief Services, 2009). <http://www.crsprogramquality.org/publications/2011/1/17/monitoring-and-evaluation-standards.html>.

¹³ Catholic Relief Services, *Monitoring and Evaluations Standards Support Tool* (Baltimore: Catholic Relief Services, 2009). <http://www.crsprogramquality.org/publications/2011/1/17/monitoring-and-evaluation-standards-support-tool.html>.

beginning of the project and throughout implementation as needed. The community's support needs should be included in the "planning for M&E support and resources" document presented in ProPack III.¹⁴

1. M&E systems track the changes most important to communities

To increase community participation in M&E design, project teams ask communities to identify the changes that will be most valuable to them as a result of the project and, of these, which changes community members want and are able to monitor themselves. These changes then become indicators, which help the team understand project success through the eyes of the community.

It is often surprising how close the changes selected by the community are to existing project indicators. The stronger the needs assessment was in identifying community priorities and understanding the community's perspective about their current challenges, the closer the changes selected by the community and preexisting project indicators will be to each other.

Tips for community indicator selection:

- **Use a strong facilitator who has had a solid orientation to the process.** Make sure that the staff who lead these discussions have been well-oriented to the process and importance of community participation in M&E, and that they possess strong facilitation skills.
- **Use familiar concepts and terms in discussions with the community.** For example, instead of referring to "indicators," talk about "changes that will show project success." In many places, people are more comfortable thinking in terms of numbers or directions of change than in percentages. Facilitate the conversation using the terms and concepts that the community chooses.
- **Focus on higher-level change.** Focus on behavior change and impact at the household, community or individual level to determine project success and identify and solve problems during the life of the project. Community monitoring is not a means to help you count outputs delivered in a community; it should aim to understand the community's view on what has changed in the community as a result of the project, for whom, and why.
- **Help the community identify the changes that are most important to them through a series of focus group discussions (FGDs).** The project team can simply ask various groups in the community about the types of changes they hope to see as a result of the project and which changes may be most important to track in order to learn about project success.
- **Hold separate FGDs to reflect the diversity of the community.** At a minimum, hold separate FGDs with men and with women, focusing on the most vulnerable households in the community. To determine which different perspectives and

¹⁴ Susan Hahn and Guy Sharrock, *ProPack III: The CRS Project Package. A Guide to Creating a SMILER M&E System* (Baltimore: Catholic Relief Services, 2010).
<http://www.crsprogramquality.org/publications/2011/1/17/propack-iii-english.html>.

experiences will be most important, refer to the findings from the project needs assessment. For an education project, it may be important to hold separate FGDs with parents, teachers and students or with parents who do and do not send all of their children to school. In a food security project, you could organize FGDs by main livelihood activity or with households or individuals that share certain key vulnerability characteristics. These various FGDs may suggest different indicators that you can integrate into the M&E system. It is more valuable to reflect different perspectives in the M&E system than to seek consensus among groups.

- **Seek confirmation of proposed indicators from the broader community.** After these FGDs, explain the purpose of community monitoring to a larger audience during a community meeting or similar event; share the indicators that were suggested by the FGD for validation; and discuss mechanisms (who and how) for monitoring progress against these indicators. This will ensure that community members are aware of the monitoring process and how they can play a role in it.

Staff should conduct these FGDs once participatory project start-up is complete, so that communities are familiar enough with the project to be able to discuss meaningfully the changes that may occur as a result. If possible, these discussions should be held prior to finalizing the M&E system for the project (i.e., within the first quarter of the project), so that community monitoring can be included in the larger M&E system. The [Good Enough Guide](#)¹⁵ suggests including questions in the FGDs such as, “Imagine the project is finished. How will people benefit?,” “How will it affect your life?,” and “What will you see happening?” It also may be useful to ask FGD participants if they see that some in the community will benefit from the project more than others and if so, who, how and why?

- ➔ *It is important that the project team views community-selected indicators as an integral part of the project’s M&E system. Include the indicators in the M&E plan template along with the community-proposed methods for data collection, analysis and use. When community-identified indicators differ from existing project indicators, highlight them as such.*

¹⁵ Emergency Capacity Building Project, *Impact Measurement and Accountability in Emergencies: The Good Enough Guide* (Oxford, United Kingdom: Oxfam GB, 2007).
<http://www.ecbproject.org/download-pdf/download-pdf>.

Community-based versus donor-driven M&E

Many project teams feel that they are stuck between donor-driven M&E systems and systems that are community based. This is a false division. Though many donors now mandate use of certain predetermined indicators, they do not object when teams include other project-specific indicators to collect all needed information. In other words, it is possible for M&E systems to include both donor-required indicators and indicators identified by the community and other local stakeholders.

Though community-selected indicators cannot usually be specified at the proposal submission stage, they can be added to the M&E plan when it is finalized during the first quarter of the project. Most donors welcome these additions and also will be interested to learn from the community-selected indicators. Include these findings in your reports and document the process of community-based M&E design. It is our role to demonstrate the importance of community participation to any donor who does not yet value it.

2. Communities participate in data collection for monitoring and for evaluation

Community participation in data collection contributes to the ownership of monitoring results and of overall project impact. Providing communities with an opportunity to track the changes they value most, to reflect on why changes have or have not occurred, and to discuss how to address challenges and improve impact with the project team can all contribute to greater ownership and, in turn, reinforce positive behavior change throughout the community.

Community monitoring processes also can contribute to more reliable monitoring results given that communities often know which households or individuals do or do not practice a certain technique or behavior and why. Through discussion, community members can help identify early successes, barriers to change and ideas for addressing any current challenges. In comparison, household monitoring visits by project staff, for example, collect data from only a few households and thus offer a more limited perspective on the overall change.

The use of existing community committees in monitoring

It is often convenient to use existing community committees or structures in the community monitoring process. However, this is appropriate only if the project team is confident, based on input from diverse community members, that the existing committee will be able to represent the various voices and perspectives in the community. In addition, the project team should consider the current responsibilities of these committees and avoid over-burdening their members. If it is not appropriate to use existing committees, talk to a range of community members, especially vulnerable or marginalized groups, about who they would like to collect monitoring data.

Tips for involving community members in data collection:

- Involve the same individuals throughout the monitoring process. This will support more in-depth analysis and interpretation of trends over time.
- Determine the frequency of data collection and analysis based on how fast change is likely to occur. In many cases, quarterly data collection is appropriate (followed by quarterly interpretation of the results) for behavior change. Depending on the type of change, however, ongoing data collection may be necessary. For example, vaccination of newborns may need to be recorded whenever babies are born in the community. On the other hand, agricultural practices may be season-specific. Be flexible and consider the time and effort involved in data collection when helping communities determine what frequency is appropriate for each indicator.
- Ensure the data collection and recording method is appropriate for the specific individuals or groups selected by the community for the task. Some community monitors may be comfortable recording simple data (e.g., numbers of individuals or households) in basic forms or tables. In some cases, an illiterate committee member can be paired with a literate youth for recording purposes; or alternative visual recording methods (using images or pocket charts) can be investigated. A pile-sorting exercise, using beans or stones, or completing a matrix diagram facilitated by project staff also can be appropriate to demonstrate trends and changes in practices observed by community members. See the [Community Based Disaster Preparedness: A How-To Guide](#)¹⁶ for examples of these methods.
- Include all community-selected indicators in community data collection. If more vulnerable households, or men and women focus groups, selected different indicators than those selected by other community members, ask individuals from these groups to collect the data for their indicators and ensure they are involved in the interpretation of the results.

3. Communities contribute to the interpretation of M&E data

Involving community members in the interpretation of M&E data allows the project team to efficiently identify and address any problems that arise, increases the relevance of programming and often helps in identifying lessons learned. We are accountable to meet the priority needs of the people we serve; discussing project results, both successes and challenges, with community members, both those who participated and did not participate in the project, and soliciting their feedback and level of satisfaction is an important step in doing so.

As part of monitoring, regular community involvement in interpretation of results helps project teams to understand why changes are or are not happening and how and why change varies for different groups within the community. Input from

¹⁶ Cassie Dummett, *Community Based Disaster Preparedness: A How-To Guide* (Baltimore: Catholic Relief Services, 2009). <http://www.crsprogramquality.org/publications/2009/11/20/community-based-disaster-preparedness-a-how-to-guide.html>.

members of different community groups, including those who are more vulnerable as well as men and women, will explain quantitative monitoring results from a variety of perspectives. Based on these explanations, the project team and community members can immediately identify ways to improve project activities or address any problems or challenges that have arisen in ways that the community finds to be the most appropriate.

At the time of evaluation, sharing and interpreting results with community members, both those who participated and who did not participate in the project, can further learning about how relevant the project strategies were in meeting community needs. The underlying reasons for success and for difficulties faced provide the in-depth understanding needed to identify strong lessons learned.

Tips for involving the community in interpretation of monitoring and evaluation results:

- Interpret the results with different groups in the community. Hold FGDs with different types of community members (men, women, more vulnerable households or other groups identified through the needs assessment) to share and discuss the project's monitoring results or the results of a baseline, midterm or endline survey or evaluation.
- Determine the frequency of interpretation events based on the frequency of data collection. Data should generally be interpreted as soon as they are available. FGDs to discuss monitoring and evaluation results should be held as soon as the data are available.
- Share the M&E results, not conclusions or assumptions by the team. After sharing the results, facilitate a discussion with the community to discuss progress and identify successes and challenges. The community is likely to be most interested in the results for community-selected indicators. Present the overall results as well as the results specific for males and females and for different communities as relevant. If the data do not require analysis by the project team, it may be most appropriate to assist the community to analyze the data themselves by providing visual displays of results and facilitating participatory discussion. Avoid presenting conclusions that the team may have drawn about the results and why changes have or have not occurred.
- Ask "why" and "why not" probing questions. Asking "why" and "why not" in the discussion will prompt more in-depth explanations. Ask for examples that illustrate typical, best or worst cases as further explanation where feasible.
- Be open about challenges and difficulties. Discuss challenges openly with the community to solicit honest responses (and criticisms) from community members and to demonstrate the team's interest in feedback and learning.
- Include time for community interpretation in evaluation scopes of work. For baseline and evaluations, include the process for community interpretation of results in the scope of work. This will ensure that adequate time and planning are

allocated for a high-quality interpretation process, whether an internal team or external evaluator facilitates it.

Community voices in M&E

Community members who did not directly participate in the project also can provide very useful information on the project and should be included whenever appropriate in M&E processes. During the initial stages of the project, these community members can provide feedback on the appropriateness of the targeting criteria and selection methods. During the midterm and final evaluations, they can provide important information about the overall (intended or unintended) impact of the project in the community, including any potentially negative impacts that project participants may be more reluctant to share. Two focus groups with males and two focus groups with females who did not participate in the project should be sufficient to provide this information.

For more information on community participation in M&E, refer to:

- Emergency Capacity Building Project, *Impact Measurement and Accountability in Emergencies: The Good Enough Guide* (Oxford, United Kingdom: Oxfam GB, 2007). <http://www.ecbproject.org/download-pdf/download-pdf>.
- Cassie Dummett, *Community Based Disaster Preparedness: A How-To Guide* (Baltimore: Catholic Relief Services, 2009). <http://www.crsprogramquality.org/publications/2009/11/20/community-based-disaster-preparedness-a-how-to-guide.html>.
- Catholic Relief Services, *Monitoring and Evaluations Standards Support Tool* (Baltimore: Catholic Relief Services, 2009). <http://www.crsprogramquality.org/publications/2011/1/17/monitoring-and-evaluation-standards-support-tool.html>.
- The Sphere Project, *The Sphere Handbook* (Rugby, United Kingdom: Practical Action Publishing, 2011). <http://www.sphereproject.org/handbook>.

M&E in Emergencies

Standards for M&E in emergencies:

1. Early monitoring systems are simple, use-oriented and flexible to accommodate change in context and activities.
2. Throughout the emergency response, project teams monitor the relevance, effectiveness and quality of the response to increase beneficiary accountability.
3. Project teams aim to create a formal M&E system for the overall response as soon as the situation stabilizes.

An M&E system for an emergency response should remain light and dynamic to avoid placing a heavy burden on staff or detracting from the response itself and to stay responsive to the changing context and the evolving needs of targeted populations. Monitoring during the first phase of an emergency response is often characterized by systematic output-level data collection to strengthen accountability and management quality, and light and purposeful monitoring at the intermediate-results level to check on the quality of the response. Most emergency M&E systems include a real-time evaluation approximately six to eight weeks after a response begins, which provides a more rigorous check of the appropriateness and relevance, effectiveness, connectedness, sustainability, coverage and coordination of the response.

1. Early monitoring systems are simple, use-oriented and flexible to accommodate change in context and activities

The process for establishing a simple, use-oriented and flexible monitoring system during the first phase of a response can be summarized with four steps:

1. Count progress toward outputs;
2. Check the appropriateness and effectiveness of the response;
3. Change the response as needed based on findings; and
4. Communicate progress and results to stakeholders.

These *Four Cs*, when implemented efficiently, provide timely information that is immediately relevant for maintaining a high-quality emergency response. Each step is described below.

Count

Project teams can use simple monitoring forms to count progress toward activities and output-level indicators and determine if targets are being met in a timely manner. These counts should begin when the first outputs are delivered and finish when the output-level components of the project are complete. Accurate and complete output-level data are essential for strong management quality, internal compliance and reporting to donors. The project team should create a simple Excel database to house output-level data. Ideally, all field locations use the same output-level tracking and reporting templates to allow for easy and timely compilation of results. In addition, the data should be made highly accessible (both within each field location and centrally) for easy verification and use by all project staff.

- ➔ *Record output- and activity-level data (depending on the intervention) into a matrix or table on a flipchart or a whiteboard on the office wall. Enter data daily into these tables or matrices to show progress by location and for important comparison groups. The results are then readily available during daily debrief meetings and for reporting.*

To provide accurate results, the project team should ensure that all outputs (e.g., goods and services) are counted by the monitoring system. It is not appropriate to extrapolate output-level results from a sample. Complete and accurate records are necessary for strong management quality, reporting and project accountability.

- ➔ *Put counting systems in place from the very beginning of the response as it becomes much more complicated to reconcile records and information later on.*

Check

The M&E system should enable staff to check on the appropriateness and effectiveness of the response with light monitoring of IR-level indicators, and through collection of data on satisfaction and feedback from the people we serve. IR-level indicators generally focus on the use of the goods and services provided and, together with feedback mechanisms, can provide a clear picture of what has been most and least useful about the response so far.

These checks require a combination of quantitative and qualitative data collection methods and generally utilize postdistribution satisfaction surveys, simple checklists, semistructured key informant interviews, and direct observation. The monitoring tools should ask specific closed-ended questions and include observation to verify knowledge acquisition and the level and type of change in behavior, as well as open-ended questions to generate in-depth feedback that could explain why use or satisfaction is low, for example, and how to improve the response. Project staff can ask these questions in FGDs and household interviews separately to different subgroups, particularly males and females,

where relevant, to capture their perspectives. The focus should be on the perspectives of the most vulnerable groups and households, as they are often the most relevant for project decision-making.

Direct observation plays an important role in verifying behavior change and the quality of the response, such as the adoption of water, sanitation and hygiene (WASH) practices or the quality of shelter materials distributed. Interviewers can collect direct observation data through simple checklists; they can also ask field staff to share any other informal observations or anecdotal information during project team debrief meetings that might indicate changes in the situation and conditions to which the project needs to adapt.

Staff should collect the intermediate results-level monitoring and feedback data soon after outputs are delivered so they can address any problems and make improvements quickly before many resources have been spent. These checks can begin immediately after the pilot distribution of NFI kits or a hygiene promotion activity to determine the quality and appropriateness of the kit's content or the relevance of the hygiene messaging. These checks will be fairly intensive initially (e.g., daily or weekly) until the desired level of quality or effectiveness is obtained; afterward, lighter and less frequent checking is sufficient to verify that the situation has not changed. Refer to Standard 2 on [accountability](#) for information on establishing effective feedback mechanisms.

- *Continue monitoring satisfaction levels and feedback and use of goods and services through the first phase of the response as needs and priorities may change with the evolving context. Adapt monitoring tools as new questions about appropriateness and effectiveness arise, and as the original questions related to quality or initial use may be answered by early monitoring results.*

Whenever appropriate, the project team should consider whether more participatory methods can be used to collect this information. This is particularly useful to solicit participation of less literate or less vocal community members, such as women, and to generate discussion among respondents.

- *Use pile-ranking as a participatory method to determine which NFIs were most and least useful and whether any priority item was missed. Working with actual samples or photos of the NFIs provided can help respondents to quickly recall the quality and utility of items received. A postdistribution pile-ranking exercise tool is included in Annex A.*

Consider how to triangulate between data sources to minimize data collection while ensuring the data provides an adequately accurate picture of satisfaction and use. Use purposeful sampling to collect data from the most relevant subgroups (e.g., young girls immediately expected to apply water handling messages, skilled labor involved in shelter reconstruction, and male and female

members of the poorest households most in need of the assistance provided).¹⁷ A light sample of two to three FGDs or household interviews may be enough if they capture diverse perspectives and yield the same answers. If the initial interviews or FGDs yield different results, additional data collection is needed to verify the data or to understand how and why answers or feedback vary between different subgroups.

→ *If, through purposeful sampling, you determine a high level of use and satisfaction among the most vulnerable groups, it is likely that use and satisfaction is high throughout the target population.*

Change

Response teams should adjust specific activities in the response if the monitoring data indicate that the support provided is not meeting quality standards or is not as effective as it could be in responding to priority community needs, or that new unmet needs have emerged. During daily project debrief meetings, the team should discuss how to address any gaps or areas needing improvement. For example, monitoring data may show that some items in the NFI package are not being used or are being used incorrectly. The project team should determine whether and how the content of the NFI package should be adjusted (e.g., replacing these items with more locally appropriate models or removing them altogether) or whether greater sensitization is needed for more appropriate use of NFIs. It is important to make these decisions in a timely manner to avoid spending resources on support that might not be useful or no longer correspond to priority unmet needs.

In one case, the project team discovered the jerry cans they had distributed were not being used as intended. Upon further inquiry, respondents shared that this was because the community did not understand the purpose of the cans and they thought the cans had a bad smell. In response, the project staff changed to a different jerry can supplier and further reinforced water treatment and storage messages.

Communicate

Good communication about successes and challenges is required for strong donor accountability. Monitoring results (e.g., counts and checks) and any changes to the response should be communicated regularly to stakeholders, including community members, local government and donors. For example, situation reports can be adapted to share with donors and other stakeholders as appropriate. The frequency of these updates varies over time depending on the fluidity of the response; daily situation reports and updates are not unusual in the first few weeks of a response, and weekly updates are common practice for most of the acute emergency phase. These updates should document output

¹⁷ Purposeful sampling refers to the intentional selection of respondents based on key characteristics. For more information, refer to [Purposeful Sampling](#).

counts, initial IR-level checks (whether positive or negative), any change made in response to these and upcoming plans.

Teams should also communicate these results verbally, especially in the case of significant adjustments in the response that may require some form of preapproval from donors or the government. Response teams should justify and document any change to project activities in brief regular updates or reports to donors and other stakeholders. Clearly communicating monitoring results and any required changes can demonstrate flexibility and the ability to meet community needs and implement a high-quality project within a shifting emergency context.

- ➔ *Communicate any significant changes in the response to donors immediately. They are more likely to support flexibility and changes if the reasons have been explained in advance – make sure donors do not hear of proposed changes only after reading the next project report! Whether these changes require a formal project amendment or not, make sure to inform the donor and solicit their concurrence in a timely manner.*

In addition to the *Four Cs*, Table 1 provides an overview of key characteristics of a strong, light monitoring system during the first phase of an emergency response.

Table 1. *Dos and Don'ts* of monitoring during the first phase of the response.

Sampling	<ul style="list-style-type: none"> • <u>Do</u> determine what type and amount of data are good enough to make decisions. This will require triangulation of a small number of interviews and observations that capture perspectives of the most vulnerable. Return at reasonable intervals to verify that the situation has not changed. • <u>Don't</u> use a representative random sample for monitoring data. It is possible to make informed and timely decisions with small amounts of the right type of data in an emergency response.
Data collection	<ul style="list-style-type: none"> • <u>Do</u> include open-ended questions asking community members about their ideas and for general feedback and level of satisfaction. Consider using creative approaches for collecting honest feedback, such as pile-sorting. • <u>Don't</u> limit the tools to closed-ended questions as they can easily miss important feedback and unanticipated results.
Data entry	<ul style="list-style-type: none"> • <u>Do</u> create a large visual table on a whiteboard or flipchart paper where all staff can enter and view activity- and output-level data during debrief meetings. • <u>Do</u> create a simple Excel database to ensure that activity- and output-level monitoring results are immediately available for decision-making and to keep complete records for good management quality and accountability.

Analysis and interpretation	<ul style="list-style-type: none"> • <u>Do</u> analyze data as soon as it is collected. During daily debrief meetings, analyze and interpret the data with the whole team, as needed. Ask field staff to share their observations beyond what they record on monitoring forms, and their experiences and ideas. • <u>Do</u> regularly reflect on any critical assumptions made in designing the response to make sure they are still true. • <u>Do</u> look for changes in context that will influence current needs or project success. • <u>Don't</u> limit the interpretation and discussion to the questions included in the data collection forms, as this may prevent the team from identifying unexpected results.
Use of data	<ul style="list-style-type: none"> • <u>Do</u> analyze and use all available data to make project adjustments as needed during daily project meetings. • <u>Do</u> field-test any changes to confirm that the new activity is an improvement over the previous approach. • <u>Do</u> document any changes made to activities or implementation plans in regular updates to donors.

2. Monitor the relevance, effectiveness and quality of the response to increase accountability to the people we serve

CRS Asia has developed a working definition of accountability:

An organization is accountable when it systematically balances and responds to the needs of all stakeholders when making decisions and ensures that these stakeholders, including the most marginalized and vulnerable people, play an active role in the decision-making processes that affect them. Accountability is reflected in an organization's systems and practices related to leadership and governance, two-way, transparent communication and feedback mechanisms with stakeholders and communities, and participatory program design, monitoring and evaluation.¹⁸

M&E plays a key role in maintaining two-way communication and feedback between project staff and community members, both those who receive and do not receive project support. In addition to monitoring satisfaction with the quality of the services or goods provided during the early response (see [Check](#) section under Standard 1), the M&E system for an emergency response should:

1. Assess satisfaction with the response in all evaluative processes; and
2. Establish a formal feedback mechanism to capture both positive and negative feedback and suggestions from community members.

¹⁸ CRS Asia Regional Strategy 2011–2014. *Adapted from ECB, "Accountability – Key Elements / Core Understanding", November 2010.*

Evaluative processes are generally useful in identifying recommendations for improving the next phase of the response or future responses, whereas feedback mechanisms allow project staff to address immediately any issues raised by the community during the ongoing response, such as cases of inappropriate targeting and selection or staff behavior. Feedback mechanisms often include hotline numbers, help desks, community forums and complaints boxes. A mixture of these methods is usually appropriate given that community members may have different preferences about how to give feedback. It is important that those who do not receive support have access to these methods because these community members are an important source of information about the transparency and effectiveness of a project's targeting criteria and selection process.

- *During ongoing monitoring, ask community members if they know how to give feedback. If some do not know how to give feedback, provide information to them directly and consider community-level measures to increase awareness about the feedback process. Check with community members who did not receive support after establishing feedback mechanisms to ensure that they are also aware of how to give feedback when needed.*

In sensitizing community members to the feedback mechanisms, be sure to include specific instructions for providing feedback, assurance that feedback will remain anonymous, the importance of providing both positive and negative feedback, and the process and timeline by which the project team will respond to the feedback.

- *Respond to community feedback promptly to show that you value it. Discuss the feedback received and possible actions to address problems or complaints during regular community meetings. Responsiveness to community feedback is key to maintaining accountability and will help to sustain use of feedback mechanisms in the future.*

Questions related to accountability should be included in monitoring tools (see Annex B for an example), all learning events (e.g., after-action reviews) and evaluations (midterm, final, and real-time evaluations). Each question presents an opportunity to ask the community, both those who do and do not receive support, about the appropriateness of the project's targeting and coverage, the relevance and effectiveness of the response, the level and type of community participation, and to collect additional overall feedback.

Real-time evaluations

A real-time evaluation provides an opportunity to gather more in-depth information on the appropriateness, relevance, effectiveness, connectedness, sustainability, coverage and coordination of a response. The project team conducts a real-time evaluation six to eight weeks after an emergency response begins to provide an early check once implementation is well under way and systems are generally in place. They then incorporate findings into the current and subsequent phases of the response. Staff collects data for these evaluations primarily through FGDs, which

allow the community, as appropriate, to provide feedback on the response to date. Acting on the recommendations resulting from the evaluation is another way to enhance beneficiary accountability. Refer to the CRS [Guidance on Conducting Real-Time Evaluations in Emergencies](#)¹⁹ for more information.

3. Create a formal M&E system for the overall response as soon as the situation stabilizes

As the emergency situation stabilizes, the M&E system should become more formal and structured. We refer to a formal M&E system as a system complete with an overarching emergency response results framework and ProFrame, M&E plan, and an M&E binder that includes all tools and templates required for data collection, analysis and use throughout the response.²⁰ If you developed the results framework and an initial draft of the overall emergency response program during the early stages of the response, you may need to revise and adjust them at this stage.

→ *Develop a results framework and ProFrame for the overall emergency response strategy from the earliest stages of the response, and use them to inform all donor submissions to ensure consistency in indicators and monitoring requirements.*

The strategic objectives should reflect a high level of change (to be achieved by the end of the overall response program – often one to two years) to remain relevant throughout the initial response and early recovery phase. IRs often reflect specific intervention strategies and will be more time-bound. It is often the case that one or more SOs or IRs may need to be added over time, and others may become irrelevant (i.e., completed). Having a single overarching response strategy will allow the project team to refer to the same results framework and M&E system throughout the response and avoid the confusion associated with having separate M&E systems for different projects and donors.

In addition, tips for developing a strong emergency response results framework include:

- Consult *The Sphere Handbook*²¹ to identify relevant wording for the SOs and IRs and refer to Sphere indicators and guidance sheets when developing the specific indicators for your M&E system. The inclusion of relevant Sphere standards and indicators will help to define key elements of quality in the results framework;

¹⁹ Loretta Ishida and Pauline Wilson, *Guidance on Conducting Real-Time Evaluations in Emergencies* (Baltimore: CRS, 2010).

https://global.crs.org/communities/EmergencyResponse/Emergency%20Community%20Documents/crs_rte_guidance_april2010.docx.

²⁰ For more information on creating a complete M&E binder, refer to *ProPack III: The CRS Project Package. A Guide to Creating a SMILER M&E System* (Baltimore: Catholic Relief Services, 2010) <http://www.crsprogramquality.org/publications/2011/1/17/propack-iii-english.html> and [Appendix II](#) of this handbook.

²¹ The Sphere Project, *The Sphere Handbook* (Rugby, United Kingdom: Practical Action Publishing, 2011). <http://www.sphereproject.org/handbook>.

- Create one SO per intervention area or sector, focusing on medium-term change that reflects a return to the preemergency situation or a situation that meets Sphere standards for that sector. Focus the IRs on proposed intervention strategies in each sector or subsectors to create a results framework with clear logic. Because intervention strategies are often different in the emergency relief and early recovery phases, it may be appropriate to have different IRs for different phases of the response;
- Reflect accountability in the results framework with a crosscutting IR for accountability, an IR dedicated to accountability or the integration of accountability-related indicators at the output- and IR-levels; and
- Include all donor-required indicators and any others that are necessary for determining the quality and impact of the response. Given the importance of the Office of U.S. Foreign Disaster Assistance (OFDA) emergency response funding, consider using relevant OFDA-mandated indicators in your emergency response ProFrame if OFDA funding is being sought or may become available in the future. Refer to the latest OFDA guidance to make sure that any updated indicators are used. Note that the OFDA indicators would be in addition to, and not instead of, higher-level impact indicators identified by the project team.

For more information on M&E in emergencies, refer to:

- [Guidance on Conducting Real-Time Evaluations in Emergencies](#)²²
- [M&E in Emergencies: Tips and Tools](#)²³
- [The Sphere Handbook](#)²⁴
- [Impact Measurement and Accountability in Emergencies: The Good Enough Guide](#)²⁵
- [USAID/OFDA Guidelines for Proposals](#)²⁶

²² Ishida and Wilson, *Guidance on Conducting Real-Time Evaluations in Emergencies*.

²³ Loretta Ishida and Pauline Wilson, *M&E in Emergencies: Tips and Tools* (Baltimore: CRS, 2010). <https://global.crs.org/worldwide/ESA/PQ/Regional%20Project%20Review%20Guidance%20and%20tools/MandE%20in%20Emergencies%20Resource%20Pack.pdf>.

²⁴ The Sphere Project, *The Sphere Handbook* (Rugby, United Kingdom: Practical Action Publishing, 2011). <http://www.sphereproject.org/handbook>.

²⁵ Emergency Capacity Building Project, *Impact Measurement and Accountability in Emergencies: The Good Enough Guide* (Oxford, United Kingdom: Oxfam GB, 2007). <http://www.ecbproject.org/download-pdf/download-pdf>.

²⁶ "USAID/OFDA Guidelines for Proposals," US Agency for International Development Disaster Assistance website. http://transition.usaid.gov/our_work/humanitarian_assistance/disaster_assistance/resources.

Annex A. Example of a postdistribution pile-ranking exercise

Why:	To determine the usefulness of nonfood items provided during an emergency response and to collect any suggestions for improving nonfood items provided.
When:	Conduct this pile-ranking exercise ideally two to three days following distribution of nonfood items.
Who:	Field staff should use this monitoring tool.
How:	This pile-ranking exercise requires stones or other small items. Conduct it in a group setting, ideally with men and women separately. Following each distribution, include a total of two to three groups of men and two to three groups of women, each in different locations.
Use:	Enter the data into a simple spreadsheet and post it visibly in the office for use during daily debrief meetings.

A1	Location														
A2	Respondent sex	Both Male and Female													
A3	Are you neutral, satisfied or dissatisfied with the package you received? (Circle only one.)	Neutral													
	Please explain your answer. Why are you Satisfied or Neutral or Dissatisfied? According to community (both male and female) most of the thing they have used and still are using which they think is the basic needs and full filling their requirements but some of the items they are not using due to below mentioned concerns (against each item)														
A4	<p>Pile 1 List items most useful:</p> <table border="1"> <tr> <td style="text-align: center;">Females</td> </tr> <tr> <td>Towel Soap ORS Nail Clipper Laundry Soap Plastic sheet</td> </tr> <tr> <td style="text-align: center;">Male</td> </tr> <tr> <td>All the material was OK and usable and the good things was that we received the material on time</td> </tr> </table>	Females	Towel Soap ORS Nail Clipper Laundry Soap Plastic sheet	Male	All the material was OK and usable and the good things was that we received the material on time	<p>Pile 2 List items less useful:</p> <table border="1"> <tr> <td style="text-align: center;">Females</td> </tr> <tr> <td>Equates Woven mat</td> </tr> <tr> <td style="text-align: center;">Male</td> </tr> <tr> <td style="text-align: center;">Nil</td> </tr> </table>	Females	Equates Woven mat	Male	Nil	<p>Pile 3 List items not used yet:</p> <table border="1"> <tr> <td style="text-align: center;">Females</td> </tr> <tr> <td>Plastic Buckets Jerry Canes Mosquito nets</td> </tr> <tr> <td style="text-align: center;">Male</td> </tr> <tr> <td style="text-align: center;">Nil</td> </tr> </table>	Females	Plastic Buckets Jerry Canes Mosquito nets	Male	Nil
Females															
Towel Soap ORS Nail Clipper Laundry Soap Plastic sheet															
Male															
All the material was OK and usable and the good things was that we received the material on time															
Females															
Equates Woven mat															
Male															
Nil															
Females															
Plastic Buckets Jerry Canes Mosquito nets															
Male															
Nil															

A5	Please explain why you identified items in pile 3 as “not used yet.”	<p style="text-align: center;">Females</p> <p>Bucket and Jerry cane: The water become hot and smelly in plastic bucket and jerry cans due to extreme hot weather in the area.</p> <p>Mosquito net: The community is not use too for this item as most of the communities have local mechanism to save themselves from mosquito (using local handmade fan which is running through donkey to fly the mosquito and give them air throughout the night.</p> <hr/> <p style="text-align: center;">Male No comments</p>
A6	If you were going to replace any item in the kit received with another item of equivalent value, which item would you remove? Which would you add?	<p>Remove:</p> <ul style="list-style-type: none"> • Bucket • Jerry cane • Mosquito net <p>Add:</p> <ul style="list-style-type: none"> • Kitchen utensils • Sleeper/Shoes • Cloth/dress • Laundry soap

Source: Adapted from a 2010 Catholic Relief Services Pakistan flood monitoring tool with mock data provided.

Annex B. Distribution monitoring form with accountability questions

Why:	To collect feedback from beneficiaries on the distribution process and the items provided, and to determine the level of accountability in the overall response.
When:	Conduct during each distribution.
Who:	Field staff should use this monitoring form.
How:	Use this form to interview 10 beneficiaries during each distribution. Starting one hour after the distribution begins, interview every tenth person until you have completed 10 interviews.
Use:	Enter the data into simple a spreadsheet and post it visibly in the office for use during daily debrief meetings.

Instructions: Tell the respondent who you are, and that you would like to ask them some questions for their feedback about the distribution process. Try to identify a semiprivate space to talk in order to avoid crowding during the ongoing distribution. If the respondent does not want to participate, ask the next person who exits. At the end of the interview, thank them for their time.

A. General Information		
A1	Date:	
A2	Name of interviewer:	
A3	Distribution Site Name:	
A4	Name of Village:	
A5	Name of UC:	
A6	The person interviewed is:	___ elder Male ___ young Male ___ Female

B. Distribution Process

B.1 Do you think this is an appropriate location for distribution? Why or why not? (Probe to see if distance from home is appropriate, the area is safe, and other information as relevant.)

B.2 Has everyone who needed assistance from the place where you are staying been able to access this location today? (e.g., elders, young boys or other intended participants). Please explain.

B.3 Was the distribution scheduled at a convenient time? Please explain why or why not.

B.4 When you were called for the distribution, what information were you provided? (Ask open question then probe as needed)

- the number and types of items you would receive?
- the day, time, and location to pick up the items?
- any other information? (What?)

B.5 Did you need any other information that we didn't tell you when we called you for the distribution?

B.6 How long did you wait today before receiving your items? Do you feel this was an appropriate time?

B.7 How will you carry your materials that you received today? Did you plan for this in advance?

C. Content of Distribution

C.1 Did you receive everything you expected today? If no, please explain.

C.2 Have you received any of these materials before? (If yes, what and from whom?)

C.3 From the items you received today, which one do you think will be most useful for you? Why?

C.4 Do you know how to use all the items? If not, which items don't you know how to use?

C.5 Was there anything you need very badly that we didn't provide? If yes, what?

D. Other: These are all the questions I have. Is there anything else you'd like to tell me?

E. Accountability

D1.	Were you aware of the selection criteria? Yes ____ No ____ If yes, did the selection criteria help us reach the right people? If no, is assistance reaching the right people?	Yes No explain Explain: _____
D2.	On a scale of 1 to 5, with 1 being not happy at all to 5 being extremely happy, how happy are you with the information we provided to you and the way we involved you in this project?	1 not happy at all 2 partly okay 3 okay 4 happy 5 extremely happy
D3.	What one improvement do you want us to make on informing and involving you in this project?	
D4	On a scale of 1 to 5, with 1 being not happy at all to 5 being extremely happy, how happy are you with how you were treated by CRS staff?	1 not happy at all 2 partly okay 3 okay 4 happy 5 extremely happy
D5	On a scale of 1 to 5, with 1 being not happy at all to 5 being extremely happy, how happy are you with how you were treated by partner staff?	1 not happy at all 2 partly okay 3 okay 4 happy 5 extremely happy

Source: Adapted from a 2010 Catholic Relief Services Pakistan flood monitoring tool.

Creating an M&E Plan

Standards for creating an M&E plan:

1. Finalize M&E plans within the first quarter of the project.
2. An M&E plan's level of complexity is appropriate for the scale and time frame of the project.
3. M&E plans include an appropriate balance of qualitative and quantitative data.

1. Finalize M&E plans within the first quarter of the project

The first step in creating a high-quality M&E system is to ensure that you are collecting the appropriate data to meet the information needs of your project's various stakeholders. Your M&E plan should clearly reflect these information needs. Annex A presents a template for summarizing your project's M&E plan. Refer to *ProPack I*²⁷ Chapter IV and *ProPack II*²⁸ Chapters IV, VI and VII for guidance on developing a ProFrame and an M&E plan. Annex B provides further guidance and tips for completing an M&E plan.

- ➔ *The ProFrame provides the foundation for the M&E plan. Ensure that your ProFrame clearly states your objectives and anticipated results and has been reviewed and finalized by relevant CRS and partner staff prior to beginning your M&E plan.*
- ➔ *To review the quality and appropriateness of your M&E Plan, refer to Appendix II – [Step 1](#) of the CRS Asia monitoring system review tool.*

You should aim to finalize the M&E plan early within the program cycle, by the end of the first quarter at the latest. For some programs, it is feasible to finalize the M&E plan prior to the start of the program. For other programs, it is feasible to finalize the M&E plan within the first quarter of the program. Specify an appropriate deadline to finalize the M&E plan for your project and communicate this date to all relevant CRS and partner staff. Ask these staff to participate in a review session or workshop on the M&E plan and allow sufficient time to revise the M&E plan prior to this date.

- ➔ *Avoid an extended cycle of revisions and drafts of the M&E plan. Some projects have continued past midterm with their M&E plans still in draft form or incomplete and have ultimately not collected required monitoring data throughout the life of the program. It is important to consolidate feedback and finalize the*

²⁷ Valerie Stetson, Guy Sharrock, and Susan Hahn, *ProPack: The CRS Project Package. Project Design and Proposal Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2004). <http://www.crsprogramquality.org/publications/2011/1/14/propack-i-english.html>.

²⁸ Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007). <http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

M&E plan within the project's first quarter (at the latest) to ensure that correct data are collected throughout the project.

Create an M&E binder (or operating manual) to house all relevant M&E documents for your project, including the results framework, ProFrame, M&E plan template, monitoring, evaluation and reporting formats and tools, and schedules for analysis and reflection events and for reporting. Refer to the monitoring system review tool in Appendix II for a [checklist](#) of simple measurement of indicators for learning and evidence-based reporting (SMILER) M&E binder components according to *ProPack III* guidance. Use this binder as a reference through the life of the program and be sure to add any new or revised documents or tools as they are developed.

- ➔ *Include a narrative for each M&E form in your M&E binder, which provides in-depth instructions on how to use that monitoring form. These instructions will serve as a reference for M&E staff and the data collection team and complement their training and orientation on the tools.*

2. An M&E plan's level of complexity is appropriate for the scale and time frame of the project

The M&E plan should be as simple as possible while meeting the project's information needs; the level of complexity of the M&E plan will vary depending on the level of complexity and time frame of the project. Some one-year projects have M&E plans that require extensive data collection and too great a portion of time and resources are spent on M&E. Though no strict rule applies, shorter and less complex projects (including many emergency response projects) should have lighter M&E systems, meaning fewer indicators and less complex and time-consuming methodologies. Conversely, multiyear or multisectoral projects may require more resources dedicated to M&E, including full midterm and final surveys, for example.

- ➔ *For short-term projects or emergency projects, consider using mainly qualitative data to monitor the projects at IR and SO levels, in addition to quantitative activity-level and output-level tracking. Limit or exclude indicators that require household surveys if it will not be feasible to conduct a baseline and final household-level survey during the project's time frame.*

The level of complexity of the indicators for the project also should be appropriate for the complexity of the project. Avoid some complex indicators (e.g., mortality or morbidity rates and anthropometrics) that require large samples or extensive human resources, especially for short-term and emergency projects.

3. M&E plans include an appropriate balance of qualitative and quantitative data

Ensure that your M&E plan includes elements of both qualitative and quantitative data. M&E plans without qualitative data will provide numbers and figures without a sense of context or an adequate explanation of “why” or “why not.” Conversely, M&E plans without quantitative data included provide information about the context and community thoughts and perceptions, but the information is very difficult to generalize outside of the surveyed communities or perhaps outside of the surveyed households. Many objective statements have both qualitative and quantitative components. For example, you can measure household use of improved hygiene practices quantitatively to provide the percentage of household practices with the defined behaviors and qualitatively to understand why households do and do not practice different behaviors.

- ➔ *Be sure that indicators in your M&E plan that require quantitative data (such as percentages, averages or sums) will be collected with quantitative tools and that qualitative data will be collected with qualitative tools. Relying on qualitative methods, such as focus groups, to provide quantitative data is a common mistake.*

Annex A. M&E plan template

M&E Plan Template								
ProFrame element	Indicator (with definition of terms as needed)	Data collection				Means of analysis		Use of information
		Method	Frequency of collection	Person who will collect data	Respondents (who to talk to)	Type of analysis	Comparison groups	for communication and decision-making
SO 1								
SO 2								
IR 1.1								
IR 1.2								
IR 2.1								
OUTPUT 1.1.1								
OUTPUT 1.1.2								
OUTPUT 1.2.1								
OUTPUT 2.1.1								
Key assumptions								
Crosscutting elements*								

* As appropriate

Annex B. M&E plan template guidance and tips

Guidance	Example
<p>ProFrame element: Enter all SOs, IR, outputs, critical assumptions and crosscutting themes for the project.</p> <p><i>Note: Different terms are used by different donors. Use the terms that are most familiar to the donor.</i></p>	<p>IR 1.2 – Targeted community members adopt promoted agricultural behaviors.</p>
<p>Indicator (with definition): State full indicator (including targets and timeline) for each ProFrame element. Include definitions for any words or concepts in the indicator that may not be understood the same way by everyone.</p> <p><i>Note: Many concepts may be clear to CRS and partner staff but may be understood differently by others and in different contexts. Common examples include “appropriate” and “sufficient,” but also terms such as “capacity,” “preparedness,” or “livelihood security.” For emergency responses, you will need to define what “Sphere compliant” means in your particular context.</i></p>	<p>60 percent of targeted households adopt one or more promoted agricultural behaviors by midterm.</p> <p>“Adopting” refers to utilizing during the previous or current agricultural season.</p> <p>“Promoted agricultural behaviors” include improved seed varieties, inter-cropping and using improved fertilizer.</p>
<p>Data collection – method(s): Identify the method(s) for collecting data against the indicator (e.g., household surveys, focus group discussions and observations). For SO- and IR-level indicators, different methods for monitoring and for evaluation will usually be selected. Include both formal and informal monitoring methods in the table.</p> <p><i>Note: IRs, for example, may be measured with a household survey at baseline, midterm, and final as well as monitored throughout the life of the project using a combination of observations and informal discussions with project participants and community leaders.</i></p>	<p>Household survey, direct observation of planted fields and key informant interviews.</p>
<p>Data collection – frequency of collection: Determine how often the collection should take place.</p> <p><i>Note: Each method may have a different frequency of collection. Be sure to consider seasonal factors when determining the timing and frequency of collection. Data collection should be frequent enough to capture change, but not more. If data are collected more often, they will not show results and this will result in a waste of time and resources. Consider how often the indicator will change. Relate the timing and frequency of data collection to project milestones (from your detailed implementation plan) related to this objective statement.</i></p>	<p>Household survey – baseline, midterm, and final.</p> <p>Direct observation – monthly, during agricultural season only.</p> <p>Key informant interviews – quarterly, during agricultural season only.</p>
<p>Data collection – who will collect the data: List the one person who has primary responsibility for actual collection of data.</p>	<p>Agricultural field officer.</p>
<p>Data collection – respondent (who to talk to): Identify the type of respondents or groups who will give the most reliable data for the specific indicator. Be as specific as you can (e.g. female or male project participants, landless or landowning farmers, all or only target households).</p>	<p>Male farmers in targeted communities.</p>

<p>Means of analysis – type of analysis: Identify the most appropriate type of analysis for the indicator (e.g. summary tables, review of data, qualitative matrices).</p> <ul style="list-style-type: none"> • <u>Databases</u> are used for quantitative data and present summary tables (e.g., the cumulative numbers or percentages stated in the indicator). Excel and SPSS are commonly used databases. • <u>Review of data</u> is appropriate for qualitative data. If the data are limited in scope and scale, the review can be limited to reading through notes and field observations. • <u>Qualitative matrices</u> are used to organize more extensive qualitative data and when comparison groups are included in analysis. Post a matrix on the wall and enter the data for staff to review and discuss. <p>If a particular indicator requires multiple types of data collection, include the type of data analysis for each method. Be sure to record these means of analysis in the project's analysis plan (refer to Creating an Analysis Plan).</p> <p><i>Note: in all cases, results highlighted in the analysis should be discussed and interpreted with project staff at the first available opportunity.</i></p>	<p>Household survey – Excel database to produce summary tables.</p> <p>Observation – systematically review (share and discuss) observations of field staff during weekly debrief meetings.</p> <p>Focus group discussions – enter data into qualitative data matrix on wall.</p>
<p>Means of analysis – comparison groups: Determine whether you will need to compare the data from different groups in order to understand differences in experience or impact. Refer to Creating an Analysis Plan for more information.</p>	<p>Farmers in communities targeted by Partner A and by Partner B.</p> <p>Poor versus better-off farmers</p>
<p>Use of information – decision-making and reporting: Think ahead about how the information will be used in project decision-making and communication. Specify which reports will use the data and the meetings or events in which the data will be discussed or used. Indicate the frequency of the meetings and reports as applicable.</p> <p><i>Note: The data should not be collected and analyzed more often than they will be used for decision-making or communication and reporting.</i></p>	<p>Quarterly reports</p> <p>Monthly project meetings</p>

For additional information on developing M&E plans, refer to:

- Stetson, Sharrock, and Hahn, *ProPack I*, 97–148.
- Stetson, et al., *ProPack II*, 83–130.

Creating an Analysis Plan

Standards for creating an analysis plan:

1. M&E systems include analysis plans for monitoring and for evaluation.
2. Analysis plans remain dynamic throughout the life of the project.

1. M&E systems include analysis plans for monitoring and for evaluation

Analysis plans help to organize the analysis process and provide a good reference when developing tools and methodologies to ensure the data collected will meet all project information needs. Analysis plans frame the project's major monitoring or evaluation questions (similar to "learning-to-action" discussions as referenced in *ProPack III*),²⁹ and may include learning questions or critical assumptions related to the project's underlying theory or theories of change, as appropriate. Analysis plans also outline the steps required to calculate and interpret M&E results.

➔ *Analysis plans record which groups (if any) to compare during data analysis and provide any calculations required to create these groups and compare the corresponding data.*

CRS and partner staff should work together with relevant stakeholders to create the analysis plans, in particular to develop the monitoring and evaluation questions, discuss the methods, and determine how theories of change and assumption will be checked or tested.

Create analysis plans for monitoring and for evaluation separately given that the monitoring and evaluation questions and the process for analyzing the two types of data will be quite different. Refer to [Annex A](#) for key components of an analysis plan.

➔ *House both monitoring and evaluation analysis plans in your M&E binder so you can easily locate them during tool development and analysis.*

²⁹ Susan Hahn and Guy Sharrock, *ProPack III: The CRS Project Package. A Guide to Creating a SMILER M&E System* (Baltimore: Catholic Relief Services, 2010).
<http://www.crsprogramquality.org/publications/2011/1/17/propack-iii-english.html>.

2. Analysis plans remain dynamic throughout the life of the project

Analysis plans are dynamic and should be updated and altered throughout the life of the project. Many aspects of the analysis plan (such as those directly related to ProFrame information needs) will remain constant, but following initial analyses or as the context or project stage changes, include any new analyses or comparison groups that may become relevant. Refine and update project theories of change and critical assumptions (also housed in the analysis plan) as learning occurs (both through monitoring and through evaluation). You also can update and expand analysis plans during the analysis process, including new monitoring or evaluation questions as they arise. Initial findings will often spark new ideas for groups to be compared with existing data; however, be sure that these new ideas fall into the “need-to-know” category before proceeding with additional analysis. Record any new ideas in the analysis plan to serve as a reference for future work.

- ➔ *Update the monitoring questions in your analysis plans to focus on higher-level change as initial changes (at the activity and output levels) begin to occur. Keep track of the project’s current stage of implementation and change and begin to monitor the next level of change early to make sure the project stays on the right track. This is especially important for IR-level change – monitor early and often!*
- ➔ *Update the evaluation questions in your analysis plans just prior to evaluation events. If the midterm evaluation plan was created at the time of project design, revise the plan just before the midterm to incorporate any changes in context and information gained from project monitoring data. Similarly, adapt analysis plans for final evaluations based on both monitoring and midterm evaluation findings.*

Annex A. Key components of an analysis plan

Analysis plans should include the following key components:

1. Monitoring and evaluation questions

Common monitoring questions include, but are not limited to the following:³⁰

- Level of project progress against planned achievements
- The effectiveness of targeting
- Early signs of intended change (at all levels of the ProFrame)
- Early signs of unintended change
- Changes in the context at the household and community levels
- Problems and successes in implementation of project activities

Common evaluation questions can include the following:

- Appropriateness of project strategies and interventions
- Efficiency of implementation
- Effectiveness of the activities
- Impact of the project (intended and unintended, positive and negative)
- Sustainability of the project's impact

Refer to [Annex A of Reflection Events](#) for examples of monitoring questions.

For more information on developing evaluation questions, refer to [Planning and Conducting an Evaluation](#).

2. Cross-tabulations

List any cross-tabulations required for analysis that have not already been specified in the M&E plan. This is important for both impact results and for tracking project progress and outputs. It is also helpful to create the tables to house these results at this time.

→ *Save the syntax for calculations in the analysis plan so you can quickly rerun the calculations with new data or alter them slightly and run again.*

³⁰ Monitoring questions are similar to the “learning-to-action” discussion referenced in *ProPack III*.

3. Comparison groups

List all comparison groups required for the project's information needs. Common comparison groups include male-headed versus female-headed households, different wealth groups (based on household asset ownership), different geographic regions and households with different primary livelihood strategies.

→ *Comparison will often require additional calculations to create the comparison groups (e.g., wealth groups and levels of livelihood security). Record these calculations in your analysis plan.*

For both qualitative and quantitative data, make sure that your sampling strategies support these comparisons. The sample size for quantitative data must be designed to support comparisons between groups (or "strata" as they are referred to in random sampling) if statistical comparison is required. You must collect qualitative data from the appropriate groups or individuals to represent adequately the intended comparisons.

→ *Ensure that qualitative data will allow for necessary comparisons. Make a note of what perspectives the qualitative data should represent.*

4. Theories of change, critical assumptions, and learning questions

State how the project's theories of change will be tested or checked through the monitoring and evaluation data. Theories of change are suggested relationships between occurrences or factors, such as types of households and levels of food security that are key to achieving the project's higher-level impact. You may test theories of change through IR- and SO-level ProFrame indicators, monitoring whether activities and outputs result in intended change in behavior and whether these in turn lead to the higher-level outcomes aimed for. You also should monitor the project's critical assumptions, identified in the ProFrame, to ensure that the intended change can occur in the project context.

Operations research projects typically include learning questions that frame the M&E plan and analysis. Learning questions are larger questions, often about the method of project implementation, the context for participating households and communities, and individual perspective or behaviors.

→ *Monitoring theories of change, critical assumptions, and learning questions is likely to require synthesizing multiple indicators or results. Include multiple perspectives held by different stakeholders in the interpretation.*

5. Special reporting requirements

List any special reporting requirements that donors and other stakeholders may have requested. These might include different outputs, indicators, or comparisons not included in the ProFrame.

Developing Quantitative Tools

Standards for developing quantitative tools:

1. Quantitative tools include only “need-to-know” information.
2. Quantitative tools include only quantitative questions.
3. Field-test quantitative tools and revise as needed prior to use.

1. Quantitative tools include only “need-to-know” information

Review the project monitoring and evaluation plan to identify your quantitative information needs for either monitoring or evaluation tools. We consider the information needs stated in the M&E plan “need-to-know” information, meaning they are required to monitor and evaluate the project. Additional information that may be of interest but is not stated in the M&E plan is considered “nice to know.” Nice-to-know information is likely to be of interest, but is not essential to understand the progress or impact of the project. Collecting nice-to-know information risks taking away staff time and other resources that should focus on high-quality project implementation, including high-quality M&E for the project. By building the questions directly from the indicators in your M&E plan, the questionnaire will stay as short as possible and the data collection process will be more efficient.

➔ *In the M&E plan, state whether to collect the quantitative data at the household level, the community level, or from another source. In general, ask for information common to all members of a community (e.g., number of different types of households, main hazard risks and last flood events) in a community-level survey. For information that varies for different households (e.g., livelihood strategies, monthly income and dietary diversity) use household-level surveys.*

Review your analysis plan to determine which comparison groups are required for analysis. For example, you may compare households based on socioeconomic status, geographic location, and flood-affected or drought-affected status. The analysis plan should state what information is required to create these comparison groups. Include survey questions to collect the comparison group data.

Once you have completed your draft questionnaire, **recheck the questionnaire** against the M&E plan to make sure that 1) the questionnaire includes all M&E information needs stated in the M&E plan and 2) the questionnaire does not include additional information that is only nice to know.

Refer to [Annex A](#) for guidance on developing and formatting the questionnaire. Though monitoring questionnaires are often simpler and shorter than evaluation tools due to lighter monitoring information requirements, monitoring tools should

still follow the guidance for tool development (Annex A) and for questionnaire development provided below.

2. Quantitative tools include only quantitative questions

Quantitative data refer to numerical responses or responses that can be coded, such as “yes/no” questions. In contrast, qualitative data are longer responses or discussions. Quantitative tools should include questions that generate quantitative data only. Questions that generate quantitative numerical data include “minutes to reach nearest water source” and “number of meals eaten yesterday,” for example. Questions with coded responses allow respondents to reply with words or phrases and are not limited to numerical responses. However, the coded responses for the question quickly categorize the respondent’s answer into one response in a list of common responses provided. Refer to Annex B for guidance on developing quantitative questions and to Annex C for common problems and solutions in question development.

- ✓ *Include any open-ended questions required by the M&E plan in qualitative data tools.*

State the units used in each question so that respondents provide comparable data (e.g., meters vs. kilometers). Code responses whenever possible to ease the data analysis process. Questions can be coded as “yes,” “no” or “don’t know.” Questions also can be coded by offering a multiple-choice selection of a range of common or expected responses. Coded responses may include ranges if you anticipate that these ranges will be adequate for data analysis. For example, you may ask, “how far is the nearest drinking water source from your household?” Coded responses may include “less than 1 km,” “1 to 3 km” and “5 km or more.”

- ➔ *Refer to qualitative data to inform the coded responses. Create the list of possible responses based on recent focus group discussions or other qualitative exercises in which communities have provided feedback on related issues. If you have not had an opportunity to conduct qualitative exercises or do not have recent qualitative data available, refer to field staff or other persons on your team who are most knowledgeable about a particular sector within your target communities.*
- ➔ *Include both correct and incorrect options for knowledge-related questions. It is important to understand the community’s level of awareness and common misconceptions. Again, utilize the qualitative data to draft both correct and incorrect options for these questions.*
- ➔ *Always include an option of “other” in the list of coded responses and provide adequate space for enumerators to record the specific answers given by respondents.*

3. Field-test quantitative tools and revise as needed prior to use

Field-test the questionnaire as part of the larger training for the quantitative data collection team (refer to [training and field-testing](#)). The review during training and the field test are opportunities to gain additional insights from the data collection team based on their experience and to determine whether the questions will generate the intended types of answers from respondents. Based on the discussion and feedback from the field test, make any required revisions to finalize the questionnaire.

Annex A. Guidance for developing and formatting the questionnaire

Begin by including a standard introduction at the top of the questionnaire for enumerators to read to each interviewee prior to conducting the survey. Standard introductions commonly include the objective(s) of the study and basic information about your organization, a statement that any information collected will remain anonymous and that participating in the survey does not guarantee participation in any projects in the future.

Include a unique questionnaire identification code at the top of each questionnaire. Develop a system for questionnaire identification based on location and any other relevant information. Keep a record of the questionnaire codes by geographic area or by specific type of household, for example. This information will be helpful during data analysis. Also, include a place for enumerators to record their names.

- **Number each question** with a unique number so that you can refer to questions by number during training. This will also help with data entry and data analysis.
- **Review the order** of themes (e.g., agriculture, education and water) and the order of questions within each theme. Cover each theme fully before moving on to the next theme.
- **Build in skips** to maintain the logical flow of the questions during each interview. Skips ensure that respondents do not have to answer questions that do not apply to them. For example, if a respondent answers “no” to the question, “do you have access to a latrine?,” build in a skip so that this respondent will not be asked the follow-up question, “how many people are currently using this latrine?” Refer to the example given below.

D11.	Do you treat your drinking water?	1. No → <i>skip to D13</i> 2. Yes 3. Don't know
D12.	What are all of the methods you use to treat your drinking water? <i>Circle all that apply.</i>	1. Boiling 2. Filtering 3. Treating with chlorine 4. Other (specify) _____
D13.	What is your main water source? <i>Circle only one response.</i>	1. Canal 2. Spring 3. Well 4. Other (<i>specify</i>) _____

Annex B. Tips for developing quantitative questions

- **Refer to previous surveys** from the same sector to see how questions were phrased and the lists of coded responses provided. If possible, discuss with staff who participated in the survey which questions worked well and which did not. It is important to build on past experience and avoid repeating the same mistakes.
- **Refer to international guidance** for developing survey questions. Many sectors, including health, nutrition, education and agriculture, have extensive guidance on developing internationally recognized indicators and survey questions. Refer to the Food and Nutrition Technical Assistance III Project (FANTA) for guidance.³¹
- **Make questions specific** so all respondents will understand them in the same way. Include details and ask that the enumerators read the questions *word for word* during data collection.
- **Note that some indicators may require multiple questions.** For example, you need to first ask, “did you attend a health center in the last six months?” before asking, “how many times did you attend a health center in the last six months?”
- **Ensure that the questions are culturally appropriate** by getting input from experienced staff with a good understanding of the local context.
- **Limit questions to one piece of information.** If questions include multiple pieces of information (such as “do you limit your number of meals and the number of items in your diet during the hungry season”), it will be difficult to interpret the responses. Ask these questions separately.
- **Use appropriate language** that will be understood by respondents. Develop or translate the questionnaire into the language in which you will conduct it. There should be no translation in the field. Work with field staff to determine which words and terms will be best understood by targeted communities or households. Wording of the question should be simple and clear and not open to multiple interpretations. If you translate the questionnaire after it is developed, thoroughly review the quality of the translation or translate the questionnaire back into the original language and compare this retranslation with the original draft to identify any gaps or discrepancies.
- Ensure that questions are **neutral, not biased**, and that they are not leading participants toward a particular answer. Think about any assumption that the question might contain.

³¹ The FANTA project provides technical assistance related to food and nutrition and is supported by the U.S. Agency for International Development. www.fantaproject.org.

- **Avoid emotionally charged or overly personal questions** that may draw out a heated response or make the respondent feel uncomfortable. Either can jeopardize the remainder of data collection with this respondent.
- **Ask questions about the respondent’s own knowledge, attitude and practice.** Do not ask respondents about other people’s practices as these data would not be reliable and would potentially be subject to bias.
- **Specify whether the enumerator should read the list of possible responses** or if the respondent should provide the answer without a list to choose from. Include this information just after the question itself. It is rare that the enumerator should read the list before the participant has a chance to respond. Consider the type of information you would like to collect when deciding whether to read the list or not.
- **Specify whether the enumerator should record one or multiple answers.** Following questions that could solicit multiple responses, provide a note to the enumerator stating either “circle only one answer” or “circle all that apply.” If you are hoping for multiple answers, include a note to the enumerator to prompt the respondent by saying “any others?” or “anything else?” so respondents will know to provide multiple answers.
- **For additional tips and guidance, refer to *ProPack II*.**³²

³² Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007), 113.
<http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

Annex C. Developing quantitative questions— common problems and solutions

Question examples	Issue	Improved question
1. Do children use the latrine and water tank at school? __ Y __ N	This question includes multiple pieces of information. If a respondent answers “yes,” it is not clear if the children use the latrine only, use the water tank only, or if they use both the latrine and the water tank at school.	OPTION 1: Do children use the latrine at school? __ Yes __ No Do children use the water tank at school? __ Yes __ No OPTION 2: Which of the following facilities do the children use at school: (check all that apply): __ latrine __ water tank __ other (specify) _____
2. How far do you live from school? How far is your nearest water source from your home?	These questions do not specify what type of information the respondent should provide. Some respondents may answer “15 minutes” whereas others may answer “5 km.” These two answers would not be comparable during data analysis. Specify which unit of time and distance the enumerator will record on the questionnaire. Records each response in the same unit. Include a simple calculation table if the calculation is at all complicated, to reduce error (e.g., minutes to hours).	How much time does it take you to reach the nearest water source? _____ minutes How many kilometers away is the nearest water source from your home? _____ km.
3. Are you following DEO guidance on forming PTAs? Is the teacher using TLM correctly?	Abbreviations can be confusing, so write out the words whenever possible. If respondents do not have a good understanding of DEO (District Education Office) guidance or TLM (teaching learning materials), they may have trouble answering this question. These questions can be broken up into multiple questions about DEO guidance or TLM practices.	Were elections called when forming parent teacher associations? __ Yes __ No Which materials did the teachers or students use during the lesson? <i>Check all that apply.</i> __ flashcards __ posters __ pocket board __ other (specify) _____
5. What percentage of your average monthly income is from remittances?	It is not likely that respondents (at the household level or at the community level) will be familiar with the concept of percentages. Instead, include multiple questions which will allow you to calculate percentages during data analysis.	What was your household income last month (in rupees)? _____ rupees What was the amount of remittances that your household received last month (in rupees)? _____ rupees

Developing Qualitative Tools

Standards for qualitative tool development:

1. Qualitative tools include only “need-to-know” information.
2. Qualitative tools include only qualitative questions.
3. Field-test qualitative tools and revise as needed prior to use.

1. Qualitative tools include only “need-to-know” information

Review the project monitoring and evaluation plan to identify your qualitative information needs for either monitoring or evaluation tools. The information needs stated in the M&E plan are considered “need-to-know” information, meaning they are required to monitor and evaluate the project. Additional information that may be of interest but is not in the M&E plan is considered “nice to know.” Nice-to-know information is likely to be of interest but is not essential to understand the progress or impact of the project. Collecting nice-to-know information risks taking away staff time and other resources that should be focused on high-quality project implementation, including high-quality M&E for the project. Building the questions directly from the indicators in your M&E plan will ensure that the qualitative tools stay as short as possible and the data collection process will be more efficient.

- ➔ *Include any indicator in the M&E plan that requires results stated as percentages in quantitative data tools.*
- ➔ *In the M&E plan, state whether the qualitative data should be collected through focus groups, key informant interviews or other tools.*

Review your analysis plan to determine which comparison groups are required for analysis. For example, you may compare households based on socioeconomic status, geographic location, and flood-affected or drought-affected status. The analysis plan should state which types of participants are required to provide the necessary information.

- ➔ *Once you have completed your draft discussion tool, recheck the tool against the M&E plan to make sure that the tool 1) includes all M&E information needs and 2) does not include additional information (that is only nice to know).*

2. Qualitative tools include only qualitative questions

Qualitative data are open-ended, narrative data that provide detailed descriptions of contexts and challenges, events, types of people or households, and observed behaviors. Qualitative data can include direct quotations from individuals about their perspectives, experiences, behaviors and observations. In contrast, quantitative data are numerical responses or responses that can be coded, such as “yes/no” questions.

- ➔ *Begin each qualitative activity with an explanation of the purpose of the exercise and an explanation of the type of answers and discussions that you would like from the participant(s). Emphasize to the participant(s) that there are no right or wrong answers, that you are very interested in their opinions and experiences, and that you hope for many details and examples in the discussions and answers.*
- ➔ *Refer to previous qualitative tools that address the same subjects, if available, before developing your tool. Ask staff who worked with the previous tools which questions worked well and which questions did not work well, to determine which questions are appropriate for your tool.*

Each question should be open ended. Open-ended questions do not suggest possible answers (such as yes or no), but give the respondent(s) an opportunity to answer in his or her own words. Open-ended questions often begin with “how,” “what” or “why.”

- ➔ *Sometimes a yes or no question (closed-ended question) is necessary to begin a discussion of a new topic. In this case, follow up with a probing question (discussed below) to generate qualitative data, including more discussion or explanation.*

Each question should be followed by one or more probing questions to solicit richer discussion and explanation. Probing questions encourage respondents to think more critically about their responses, explain a context or idea further, and to provide specific examples of what they are discussing.

- ➔ *Some questions may require different probing questions based on the respondent’s initial answer. For example, include “if so, why?” and “if not, why not?” after questions that could generate positive or negative answers, and allow the interviewer or facilitator to choose the appropriate probing question.*

Some tools include a short discussion guide under each question that lists a few possible or anticipated responses (e.g., negative coping strategies, influence of socioeconomic status on water access); however, this is not required. These discussion guides help the facilitator or interviewer recall which types of responses or discussions the question was designed to capture and to encourage him or her to continue using probing techniques around these key issues. However, including a

few key points in a discussion guide should not limit the discussion to these responses.

- ➔ *Order the questions in the tool according to a logical train of thought. Cover one topic fully before moving on to the next. Build the next question on the type of discussions and topics that each question will generate.*

Refer to Annex A for guidance on developing and formatting questions for qualitative tools. Though monitoring tools are often simpler and shorter than evaluation tools due to lighter monitoring information requirements, monitoring tools should still follow the guidance for question development (Annex A).

3. Field-test qualitative tools and revise as needed prior to use

Field-test the tool as part of the larger training for the qualitative data collection team (refer to [training and field-testing](#)). The tool review during the training and the field test are opportunities to gain additional insights from the data collection team based on their experience and to determine whether the questions will generate the intended types of answers from respondents. Based on the discussion and feedback from the field test, make any required revisions to finalize the tool.

Annex A. Developing qualitative questions—common problems and solutions

Question examples	Problem	Improved question or method
Has this project had a positive impact on your community?	This is phrased as a closed-ended (yes or no) question. Each question should be followed by a probing question.	Has this project had a positive impact on your community? If so, how? <i>Please be specific.</i>
Has your household food consumption changed since the beginning of this project? If so, why? If not, why not? <i>Please provide specific examples.</i>	This question assumes that respondents are aware of when the project began. If possible, refer to seasonal events (e.g., since before the harvest, since after the harvest, since this time last year) in collecting comparison or change data. Determine which comparison is most relevant for your analysis.	Has your household food consumption changed since this time last year? If so, why? If not, why not? <i>Please provide specific examples.</i>
How many livestock does your household own?	This question asks individual-level information in a group setting. The answer is likely to vary a lot between households so it is better to ask at an individual level. This question is closed ended and not designed to generate rich discussion data. It asks for quantitative data in a qualitative tool. This question should be moved to a quantitative tool (collected according to appropriate quantitative methods).	<i>Move question to a quantitative tool.</i>
How has the lack of water contributed to the loss of livestock in your community this year?	This is a leading question that assumes 1) there is a lack of water in the community, 2) there has been a loss of livestock and 3) the lack of water has contributed to the loss of livestock. If you anticipate that these are indeed key topics and issues in a community, ask questions that give the respondents an opportunity to bring up these topics and to explain the situation as they see it (prior to hearing your conclusions).	<ol style="list-style-type: none"> 1. What is the current water situation in your community? <i>Please explain.</i> <ol style="list-style-type: none"> a. In what ways has the water situation affected your community? <i>Please provide specific examples.</i> b. In what ways has the water situation affected households in your community? <i>Please provide specific examples.</i> 2. Has livestock ownership in your community changed since this time last year? If so, how has it changed? Why has it changed? <ol style="list-style-type: none"> a. What has contributed to these changes in your community? <i>Please provide specific examples.</i>

Random Sampling

Standards for random sampling:

1. Use random sampling when collecting quantitative data.
2. Use the standard sampling equation to determine a sample size sufficient for generalizing results to represent the target population.

1. Use random sampling when collecting quantitative data

Random sampling, also known as probability sampling, is statistically representative of a survey population.³³ In other words, an appropriate random sample allows us to survey a number of households and to generalize our findings to describe the larger target population, including those households that have not been surveyed. By definition, in a random sample every unit (within the target population) has an equal chance of being selected. By ensuring this equal chance of selection, you are able to generalize the results of the survey to the larger population.

- ➔ *Avoid any bias that is introduced into the sampling process (meaning that there is even a slight difference in chances of selection), as it will question the ability of the results to represent the larger target population.*

Determine your sampling unit. Your sampling unit is your unit of comparison. What or who will your data represent? Common sampling units include households, women of reproductive age and children under age 5.

- *Think ahead to your results. Refer to the indicators in your M&E plan to identify the sampling unit you need to represent. If your sampling unit is a household, you cannot state, "16 percent of women of reproductive age reported receiving antenatal care during their last pregnancy." Conversely, if your sampling unit is women of reproductive age, you cannot state, "82 percent of households reported that their main drinking water source is within 5 km of their home."*

Identify the population that the sample will represent. Surveys need to limit their scope to a certain area and often to specific households, or individuals, within that area. You can determine the population by a combination of geographic boundaries and household demographic characteristics or other inclusion and exclusion criteria. Provide clear inclusion or exclusion criteria to define your sample population. Ensure that all sampling units that fit these criteria will be represented by your data.

³³ This guidance sheet provides the necessary steps and tips to ensure proper sampling, hence reliable and representative data; however, it does not provide all the technical details or statistical justification regarding random sampling.

- ➔ *Consult your analysis plan when determining your sample population. Will your data represent a district, a country or a community? What types of households or individuals will your sample represent within this area? For example, are you interested in representing the situation of project participants only or that of all residents (participants and nonparticipants) in a certain geographic area?*

Select the number of sampling units required by your sample size (refer to Standard 2 below). There are two options for selecting units (such as households), whether within clusters or within the overall sample population.

- ➔ *If you cluster your sample (discussed in Standard 2 below), refer to Annex A for guidance on selecting clusters prior to selecting individual units.*

If you have a complete list of all sampling units, follow the instructions in Annex B for systematic random sampling. The list of sampling units must be up to date and include all sampling units within your sample population. For example, your sampling frame could be a list of all households in a given district or it could be all women of reproductive age within designated districts.

- ➔ *Make sure your list includes all potentially marginalized households, individuals or units that may be excluded from certain government or community lists.*

If you have any doubt that your list is complete or up to date, proceed with the “spin the pen” sampling method provided in Annex C.

2. Use the standard sampling equation to determine a sample size sufficient for generalizing results to represent the target population

In determining an appropriate sample size (i.e., the number of units to be surveyed), consider the sampling methodology (i.e., how sampling units, such as households, will be selected) and the analysis plan for the data collected. Discuss these considerations with a technical M&E staff person and your head of office or head of programming, as these will ultimately shape the framework for your survey and your results.

Calculate the sample size based on the confidence level and level of standard error (also known as the confidence interval) appropriate for your survey and whether you will cluster or stratify your sample. Each of these terms is defined and explained below. Given the possible variations, Table 1 presents sample size calculations.³⁴

³⁴ The sampling equation presented in this guidance is most appropriate for generating percentages and means for key indicators among target populations. For additional statistical rigor in comparison of baseline and endline data, projects can follow the sampling equation that allows for power analysis. To sample for power analysis, teams will need reliable estimates of baseline figures and intended change for key indicators.

- What confidence level is acceptable given your information needs? It is customary to use a 95 percent confidence level.³⁵
- What level of standard error is acceptable for the survey? Common levels of standard error are +/-6 percent and +/-7 percent. Aim for the minimal level of error that is feasible given time or logistical constraints and project survey resources.³⁶
 - ➔ *Monitoring data generally use a higher level of error and a smaller sample size. The higher level of error is appropriate for monitoring surveys because they are conducted repeatedly and must produce quick results to feed into ongoing project management and decision-making.*
 - ➔ *Interpret survey results based on the confidence level and the level of standard error selected. If the survey results stated that 55 percent of households were displaced by the flood, with a level of standard error of +/-6 percent and a confidence level of 95 percent, this means that you can be 95 percent confident that the actual proportion of displaced households was between 49 percent and 61 percent (within +/-6 percentage points of 55 percent).*
- **Will you cluster your sample?** Clustering a sample refers to first selecting clusters (such as communities or schools) and then selecting the actual units (households or schoolchildren) from within these clusters. Clustering a sample usually reduces the time required for fieldwork and travel time, but requires an increased sample size to account for the error it introduces. It is advisable to cluster your sample if:
 - You do not have a complete list of all sampling units in your sample population (e.g., a complete list of all households in your targeted districts).
 - Conducting fieldwork within a few smaller geographic areas would save considerable time and resources.
- **Will you stratify your sample?** Stratified samples allow for statistical comparisons between key subgroups. Stratification requires an increased sample size so that each subgroup can be adequately represented. Common comparisons are between socioeconomic groups, districts or states, flood-affected and drought-affected areas, project participants and nonparticipants, and men and women. Are any comparisons between subgroups required by your analysis plan?

³⁵ The confidence level refers to the probability that the actual value in the population falls within the standard error (+/-) of the survey result, according to the “STEPS Statistics Glossary,” University of Glasgow website. <http://www.stats.gla.ac.uk/steps/glossary/alphabet.html>.

³⁶ The level of standard error is the magnitude of error associated with the survey results, according to the “STEPS Statistics Glossary.” <http://www.stats.gla.ac.uk/steps/glossary/sampling.html>.

- ➔ Remember – there is no magic 10-percent sampling rule. It is important to note that the sample size is not related to the size of the population being sampled. A frequent mistake is to conduct surveys among 10 percent of a given population; in fact, it is likely that 10 percent of the population is either too many or too few households. With too many households, the survey is using excessive resources and time; with too few households, the sample will not adequately represent the population.
- ➔ Account for nonresponse. Due to challenges in data collection, it is common practice to increase the sample size by 10 percent to account for nonresponse. Nonresponse may be due to difficulty in locating all the selected units (e.g., individuals or households), to unwillingness of a unit to respond, or to data collection errors.

Table 1. Sample size calculations.

Level of standard error	Confidence level	Sample size ³⁷	Clustered sample (no stratification)	Stratification (no clustering)	Stratification (with clustering)
				Sample per strata	Sample per strata
7%	95%	216	432	162	281
8%		165	330	124	215
9%		130	260	98	169

- ➔ If the number of sampling units (e.g., households) is less than the calculated sample size, include all units.
- ➔ Document the confidence level and the level of standard error used in the methodology section of your report so you can interpret the results within these boundaries.

For further information on sampling, refer to:

- Calogero Carletto, *Constructing Samples for Characterizing Household Food Security and for Monitoring and Evaluation Food Security Interventions: Theoretical Concerns and Practical Guidelines* (Washington, DC: International Food Policy Research Institute, 1999). <http://www.ifpri.org/themes/mp18/techguid/tg08.pdf>.
- “The Survey Sample Calculator,” Creative Research Systems website, <http://www.surveysystem.com/sscalc.htm>.

³⁷ The sampling equation used to create the base sample is presented at <http://www.surveysystem.com/sample-size-formula.htm>. The sample assumes maximum variation in the sample population (p=0.5) and adds 10 percent to account for nonresponse.

Annex A. Clustering your sample

If you cluster your sample, first determine the number of clusters you will select. The number of clusters (e.g., communities, villages, administrative units, groups) should be decided based on the variability between clusters and the variability within clusters. Aim to capture the greatest degree of variability within your sample.

- If you anticipate that units within clusters (e.g., households within communities) are relatively similar and that there is greater degree of variability between clusters, you should opt for more clusters to capture the variation. In this case, with a sample of 432 units, you could select 31 clusters (communities), and 14 units (households) within each cluster.
- If you anticipate a greater degree of variability within clusters and the clusters themselves are relatively similar to one another, select fewer clusters and more units within each cluster. For example, you could select 14 clusters and 31 units within each cluster. *Note that both options result in a sample of 432 units.*
 - ➔ *If you have reliable population data for each cluster, follow [guidelines](#)³⁸ for probability proportional to size cluster sampling. This is an important step to keep the data fully representative of the survey population.*
 - ➔ *If you do not have reliable population data for each cluster, simply select the desired number of clusters randomly.*

³⁸ World Health Organization. “Steps in Applying Probability Proportional to Size.” Presentation at Training Workshop on TB Disease Prevalence Surveys. Geneva, Switzerland. August 2008.
http://www.who.int/tb/advisory_bodies/impact_measurement_taskforce/meetings/prevalence_survey/psws_probability_prop_size_bierrenbach.pdf.

Annex B. Selecting sample units with a complete list of units

If you have a complete list of units (e.g., the list of all households or of all mothers of children under age 5 living in the area targeted for survey):

- Enter all sampling units into one column of an Excel spreadsheet so each unit has a unique row number.
- Sum the total number of units.
- Calculate the sampling interval, X , by dividing the total population by the sample size.
 - For example, if you have 14,330 households and you need a sample size of 648, this would be $14,330 \div 648 = 22.1$. You could round up to 23. Therefore, $X=23$.
- Determine your random start, Y , by typing the following into an Excel worksheet cell: `=RAND()*14,330` (based on the number of units in the example above). Excel will give you a random number between 1 and 14,330 (for instance, $Y = 441$)
- Select the unit (or household) that corresponds to Y (the random number presented) as your first sample unit.
- Select the next unit (or household) by adding the sampling interval, X , to the random start, Y ($23 + 441 = 464$). The unit that corresponds to the number $X + Y$ (464) will be your second selected unit. Repeat this until you reach the end (487, 510, 533, and so on).
- Once you have reached the end of the list of units, restart from the top of the list until you have selected all units required [14,241; 14,264; 14,287; 14,310; 3 (14,333 - 14,330 = 3); 26, 49, and so on.].

Annex C. Selecting sample units without a complete list of units

If you do not have a complete list of units, the teams will need to select the units (e.g., households) to survey once they arrive in the clusters (e.g., villages).

➔ *Provide additional training on this selection method to ensure that all teams carry it out in the same way to preserve the random nature of sample selection.*

Team supervisors should be responsible for the selection process, but enumerators may participate as well. To begin sampling households in a given village:

- Find the center of the village. Work with the village leaders to define the geographic boundaries and identify the center point. If you think there may be poorer or marginalized households living at the edge of the village that you would like to include in your survey, ask the leaders to include these areas within the village boundaries for this exercise.
- Stand at the center of the village. Spin a pen in the air and let it fall to the ground to determine a random direction.
- Walk to the edge of the village following the direction of the pen and count the number of households that you find along this line.
- Randomly select one of these households to start. For instance, if you counted seven households along this line, randomly select one of these seven households – this will be the first household to survey. One method to select the first household randomly is to write the number of each household along this line (one through seven in this example) on a separate piece of paper. Fold each piece of paper so the corresponding household number cannot be seen and ask a team member, or village leader, to randomly select one of the pieces of paper. The number on the selected piece of paper will be the first household included in the survey.
- To select the next household to survey, look to your right when facing out of the door of the first household. The first household in your line of vision will be the next household to survey. Continue selecting households in this way until you have reached your sample size.
- If, following this method, you reach the edge of the village prior to completing your sample, return to the center of the village and repeat the selection process. Begin by spinning the pen to select another direction randomly and continue all steps as indicated above.

➔ *It is often more time-efficient for enumerators to begin collecting data while the supervisor is still continuing the household selection process. If appropriate, the supervisor can mark the selected households so that enumerators can head straight to the next household for data collection. Common methods for marking households include placing a colored piece of paper under a rock near the door or making a chalk mark on the same rock. Do not mark houses if there is any chance that this would be culturally inappropriate or would decrease the likelihood that households would be willing to participate.*

Purposeful Sampling

Standards for purposeful sampling:

1. Use purposeful sampling when collecting qualitative data.
2. Include two to three groups or individuals to represent each perspective or comparison group.

1. Use purposeful sampling when collecting qualitative data

Purposeful sampling is appropriate for qualitative data collection, such as focus group discussions or semistructured interviews. Purposeful, also known as nonrandom, sampling is the selection of participants based on their knowledge, perspective or other characteristics of interest (e.g., females or males, young or old, very poor or better off).

- ➔ *Remember that you cannot generalize qualitative data generated from purposeful sampling to represent larger populations. You should use data from purposeful sampling to understand more about the context or situation of the respondents only.*
- ➔ *Review the information needs and required comparisons stated in your analysis plan to determine which type of purposeful sampling is best suited for your survey.*

Common types of purposeful sampling

Best- and worst-case sampling compares communities or individuals who are considered best or worst cases based on designated characteristics. For example, best- and worst-case sampling could look at participating households that are most vulnerable and least vulnerable in a given community to characterize vulnerability in the community and identify target groups for future interventions. Another example would be to compare communities that had the highest and lowest rates of completion for a given project. Here, you would use best- and worst-case sampling to highlight the factors contributing to these various rates of completion. Best- and worst-case sampling is not useful to understand typical cases or the common context.

Typical case sampling provides greater understanding of the general scenario by studying typical cases, meaning those that are average or not markedly better or worse than others, according to the characteristics that are of interest. It is important to resist the temptation to select best-case communities and call them typical; this would create a bias in the data and misrepresent the project.

Critical-case sampling selects a sample of individuals, households or communities with particular characteristics, based on the idea that they are critical to understanding a context or situation. Interviews with community leaders or focus groups with widows are examples of critical-case samples. They are useful to understand particular perspectives of key stakeholders or of members of vulnerable groups.

Quota sampling is designed to interview or include participants with particular characteristics in proportion in the sample population equal to their proportion in the community. For example, if an estimated 30 percent of households in a community are female-headed, quota sampling would stipulate that 30 percent of respondents must be from female-headed households and 70 percent from male-headed households.

- ➔ *Avoid convenience samples. A convenience sample includes individuals who are readily available to participate in the study. There is a high degree of bias involved in this method. For example, choosing a sample of communities that is close to a main road may be convenient, but it is likely to show markedly different results than a sample of communities that is several hours away from the main road.*
- ➔ *Inform communities in advance if they will participate in the survey. It is important to give adequate warning so that household members can plan to be available on a certain day (and at a given time if you can be that specific). If you do not inform communities in advance, many individuals may be in the fields working when the interview teams arrive, for example. This leaves the teams to interview only individuals who are not in the fields because they do not own land, have access to land or have access to the required agricultural inputs and may bias the sample.*

2. Include two to three groups or individuals to represent each perspective or comparison group

You will need two to three focus group discussions to represent a particular perspective. The number of interviews or discussions required depends on the level of representation and types of comparisons you desire from the data. Here, we use the example of focus group discussions. The same guidance applies when using semistructured interviews, direct observation or other qualitative data collection tools.

- ➔ *Review the information needs and required comparisons stated in your analysis plan to determine the overall number of groups or individuals needed.*
- If you plan to simply represent the survey population as a whole, conduct two or three focus group discussions.
- If you plan to compare the perspective of communities where a particular intervention was highly successful with the perspective of communities where the same intervention was much less successful, plan to conduct two (or three)

focus group discussions in the more successful communities and two (or three) focus group discussions in the less successful communities.

- If you plan to compare the perspectives of men and women regarding the current obstacles for education for girls in the community, hold two or three focus groups with women and two or three focus groups with men. Men and women are likely to have varying viewpoints on this topic and to collect data from only one or the other would not represent the full range of current obstacles.

➔ *It is important to disaggregate the groups based on the characteristics that are likely to influence their opinions or perspectives on the key issues or topics to be discussed. If socioeconomic status could potentially influence participants' perspectives on the availability of water in the community or the barriers to the education of girls in the community, then hold separate focus groups with participants from higher and lower socioeconomic backgrounds. If you do not separate these groups, the data would not show which obstacles were specific to which socioeconomic group. Consider which characteristics or factors (e.g., gender, age, socioeconomic status, type of livelihood), if any, are relevant for your discussion topics when deciding whether or how to disaggregate the participants.*

Consider which participants should represent a certain perspective or are most likely to give reliable information. For example, if you are interested in understanding more about care-seeking practices for children under age 5, conduct focus group discussions with, or interview, mothers and caretakers of children under age 5. If you are interested in local agricultural practices, hold the discussions or interviews with persons involved in agriculture.

Determine the appropriate method for selecting focus group or interview participants. Common methods include asking community leaders to help select participants and asking individuals with the desired characteristic (e.g., mothers or caretakers of children under age 5) to help identify additional participants. It is important that the method chosen does not only yield participants from the same family or social group (unless your methodology specifies it).

Ensure the exercise does not exclude marginalized groups. Consult your team to determine which groups are likely to be marginalized in your target areas. Ensure that members of these groups are included in the discussions or interviews or, if more appropriate, hold separate discussions or interviews with members of the marginalized groups only. Explain the reasons you would like to include the perspective of these groups to community leaders so that they will not feel threatened by their participation and possibly assist in locating these households.

➔ *Include a description of your selection methodology in your report. Be specific about how and why you choose sites and participants. Include any possible biases in your selection method in the limitations section of the report. Be honest and remember that many surveys encounter one type of limitation or another.*

Training and Field Testing

Standards for training and field testing:

1. Train the data collection team on survey objectives and tools prior to each data collection exercise.
2. Data collection teams field-test the tool(s) prior to use.

1. Train the data collection team on survey objectives and tools prior to each data collection exercise

Training is required prior to any data collection exercise. Even staff with extensive experience in data collection should be trained on the specific objectives, tools and protocol for each exercise. The following guidance is applicable for both qualitative and quantitative surveys and for monitoring and evaluation activities. If your survey includes both qualitative and quantitative components and a data collection team for each, combine the initial stages of the training – objectives and overview of the survey and principles of data collection. Then separate the group to allow the qualitative data collection team to focus on qualitative data collection techniques and tools, and the quantitative data collection team to focus on the quantitative techniques and tools.

- ➔ *Include data enterers in the training if possible. It is important for data enterers to understand the objectives of the survey and to be very familiar with the questionnaires and tools used in the survey. This will help to reduce errors and increase time efficiency during the data entry process.*

Each data collection team should have a supervisor. Supervisors have extra responsibilities in addition to data collection (in some surveys, supervisors do not themselves collect data). See Annex A for details on the roles and responsibilities of supervisors.

- ➔ *If you have not identified supervisors prior to the training, select them midway through the training. Select training participants who have exhibited a good level of attention to detail, dedication to the exercise, and a strong understanding of the methodology and tools to be supervisors.*
- ➔ *Hold an additional training session (one to two hours) for supervisors to discuss their roles and responsibilities.*

Depending on the level of experience of the data collection team(s), the length and complexity of the survey tools, and whether translation is required, the training

could last two to four days. Refer to Annex B for topics to cover in the training. Annex C provides principles for data collection.

2. Data collection teams field-test the tool(s) prior to use

All members of the data collection team should have an opportunity, as part of the training process, to field-test the tools. The field test will provide the team with additional practical experience in data collection. As a result, data collectors are likely to be more at ease during actual surveys and discussions, making respondents and participants more at ease as well. Field testing is not only a critical component of the data collection team's training; it also is essential to verify whether any question is unclear, ambiguous or otherwise not likely to yield desired information, and whether all data collectors and supervisors can adequately perform their roles.

Field-test each tool in a community that will not be included in the data collection exercise but that is fairly similar to the targeted communities. If possible, pick a community that is nearby to avoid extended travel time. Quantitative team members should each conduct at least two interviews and qualitative team members should each have a chance to practice their roles (whether facilitator or notetaker) at least once during the field test.

Following the field test, hold a discussion to solicit feedback from team members about how the tools worked overall and any suggestions they may have to revise or alter specific questions. Make final revisions to the tools based on this discussion.

➔ *Print the questionnaires and tools for the survey after making these final revisions.*

Annex A. Roles and responsibilities of supervisors

Supervisors often participate in the actual data collection along with the other team members, but they also have additional responsibilities related to the quality and management of the data collection and fieldwork. It is common for supervisors to conduct fewer interviews per day so they have adequate time for additional responsibilities.

Supervisors are responsible for:

- **Meeting with community leaders** to explain the purpose of the survey.
- **Selecting households** based on the specified criteria and common methodology discussed during the training. Enumerators will assist with this as well, but the supervisors are ultimately responsible for ensuring that the selection follows the established protocol.
- **Reviewing the data** (quantitative questionnaires or qualitative notes) once the data collection is complete. Supervisors should review these data while still in the field at the end of each day so the team members have an opportunity to fill in any gaps or clarify any points before leaving the community. The supervisor should read the data to check for completeness and clarity.
- **Reinforcing the quality of data collection.** After reviewing the data collected each day, the supervisor may be aware of quality issues or concerns related to particular team members or that are found more commonly in the data. The supervisor should discuss these concerns with the team members and provide suggestions for maintaining and improving quality as needed.
- **Communicating with project staff** or other relevant staff members on a regular basis regarding the team's progress and any obstacles encountered.

Annex B. Training topics

- Overview of the project or related interventions. Briefly present the results framework and ProFrame so participants understand how the project components fit together and how progress will be measured.
- Objectives of the data collection exercise (e.g., to collect baseline data to better understand a specific context or problem through operations research or to measure progress with a midterm or final survey).
- Key principles for collecting high-quality data (quality refers not to qualitative data but to collecting reliable and accurate data with minimal error). Refer to Annex A for principles of data collection.
 - ➔ *At this point, divide the training into separate groups – one for the qualitative data collection team and one for the quantitative data collection team (if applicable for your survey). This will allow each group to focus on the different tools and methodologies for qualitative and quantitative data collection.*
- Provide an overview of data collection techniques specific to each group (i.e., qualitative techniques to the qualitative team and quantitative techniques to the quantitative team).
- Review all questionnaires and tools included in the survey, question by question. Discuss the possible coded responses for quantitative tools and discuss the key issues and types of discussions sought by qualitative questions.
 - ➔ *Conduct the tool review in the language in which the data will be collected in the field. Use this as an opportunity to check the quality of the translation of the tools. The team may have suggestions for different words or phrases to better preserve the meaning of the questions. Revise the translated tools based on this feedback.*
- Give team members an opportunity to practice using the tools with each other. For a quantitative questionnaire, team members can take turns reading the questionnaire to each other. For a qualitative tool, the team can hold a mock focus group discussion in which each team member can practice the role of the facilitator and notetaker for a different question.
 - ➔ *Ask the team members to make the practice test challenging! As mock respondents, they can provide misaligned responses for the quantitative tools and act a bit unruly in the focus group discussions, challenging other team members' skills to bring them back on track.*
 - ➔ *Create field manuals that include the principles of data collection, an overview of the protocol for data collection once in the field, and guidance for each question. Print a copy for each team member to take to the field.*

- Discuss the method for selecting households or participants. Both qualitative and quantitative exercises will require selection or identification of participants upon arrival in communities. For quantitative surveys, this may require random selection of households or schoolchildren, for example. For qualitative surveys, this may require identifying participants based on key characteristics and ensuring that the exercise does not exclude marginalized groups.
 - ➔ *Ensure that this selection method will be consistent across teams to maintain comparability of the data collected.*
- Field-test the tools to provide field experience for the data collectors and to identify any necessary revisions in the tools. Hold a debrief session following the field test.
- Present the protocol for fieldwork including the number of surveys and discussions to complete in a day and the number of days required for the fieldwork. Create teams and designate roles (e.g., for the enumerator, supervisor, facilitator or notetaker) based on the team member's ability shown during the training and the field-testing.³⁹
- Once you have identified the supervisors (one for each data collection team), hold another half-day training specifically for the supervisors to discuss their additional roles and responsibilities during data collection. The additional roles for supervisors are included in Annex A.

³⁹ It is important to determine the logistics plan and the team composition prior to the training to ensure that you have the correct number of enumerators. The number of enumerators will be determined by the number of communities selected and the survey timeline.

Annex C: Principles of data collection

To be successful, both qualitative and quantitative data collectors must behave in a way that encourages the respondent to talk freely and openly about the survey topic. Whether a respondent agrees to the interview and how openly he or she responds to the questions depends primarily on the interviewer's behavior and the communication established.

To motivate a respondent to speak freely, an interviewer should:

- Show warmth, responsiveness and a general interest in the respondent.
- Accept all responses without showing personal reactions, judgments or biases either verbally or nonverbally.

A successful interviewer is one who creates a comfortable interviewing atmosphere, is naturally observant of the reactions of others, and can adapt according to these reactions. In the interviewing situation, interviewers must be careful to avoid giving any cues, either verbal or nonverbal, that might affect a respondent's answers.

Interviewer's style. Style refers to the way the interviewer speaks, acts or presents him or herself. Interviewers should keep their style as neutral as possible, avoiding the extremes of being either too formal or too relaxed.

Nonverbal cues. Facial expressions may indicate an attitude or a judgment without the interviewer actually saying anything. Maintain a neutral facial expression during the interview. A frown, a shake of the head or a nod can all indicate positive or negative reactions to the respondent and may bias the data.

Verbal cues. Avoid verbal cues. Expressions of opinions or attitudes on the part of the interviewer are the most direct kind of influence on a respondent. Something the interviewer says or the tone or manner can be biasing.

➔ *Avoiding biasing comments and gestures does not mean the interview has to be stiff or awkward. The interviewer must find the right balance of being nonjudgmental while still showing concern, friendliness and warmth.*

Interviewer expectations. Interviewers must avoid assuming or guessing answers to questions based on what they have already heard or observed in the interview or based on the ideas included in qualitative discussion guides. Interviewers must not allow observations of a respondent's behavior, economic status or living situation to influence their job as reporters. Unless specifically stated in the question, interviewers should not record their observations.

Collecting Qualitative Data

Standards for collecting qualitative data:

1. M&E staff chooses appropriate qualitative method(s) to meet information needs.
2. M&E staff triangulates qualitative data to reduce bias.
3. M&E staff collects in-depth qualitative data.

1. M&E staff chooses appropriate qualitative method(s) to meet information needs

There are many common methods to generate qualitative data. These methods include focus groups discussions, semistructured interviews, key informant interviews, social mapping, seasonal calendars, Venn diagrams and several other rapid and participatory rural appraisal (RRA/PRA) tools. Selecting methods inappropriate for your M&E activity is likely to produce unclear data or result in more questions than the data answered.

Qualitative methods often differ for evaluation and for monitoring. Evaluation methods are more rigorous and likely to include focus groups and any other tools that are directly comparable with baseline data. Qualitative monitoring data are collected more frequently and through both more and less structured methods. Monitoring often includes multiple qualitative methods to capture formal monitoring data (linked to ProFrame indicators) and informal data to monitor changes in the context and gain immediate feedback on project activities. For monitoring, create tools that focus on the implementation of specific project activities and early indicators of change at the household and community levels, or that allow respondents to provide their perspective on changes in the overall community context (which may affect future project activities or impact).

➔ *Ideally, collect qualitative data through focus group and other qualitative methods prior to any quantitative data collection exercise, so you can develop or refine quantitative questions and tools based on qualitative findings.*

Participatory rural appraisal (PRA) tools refer to a series of qualitative tools that emphasize local participation and knowledge and facilitate a community-led process for identifying problems or constraints and formulating action plans.⁴⁰

⁴⁰ For further guidance, refer to *Rapid Rural Response Appraisal and Participatory Rural Appraisal (RRA/PRA): A Manual for CRS Field Workers and Partners* (Baltimore, MD: Catholic Relief Services, 1999). <http://www.crsprogramquality.org/publications/2011/1/17/rapid-rural-appraisal-and-participatory-rural-appraisal.html>.

PRA tools include the following:

- Semistructured interviews follow a fairly open framework that guides the interviewer to cover certain topics but leaves room for additional topics or questions that may arise.⁴¹ Semistructured interviews are particularly useful for information monitoring as they allow iterative questions to be developed based on the interviewees' feedback and interests.
- Participatory mapping uses spatial analysis to gather information about a range of issues and concerns.⁴²
- Direct observation allows staff to record behaviors, practices, infrastructure and landmarks. For example, staff can observe which crops households planted in fields, the quality of housing structures and the education techniques used in a classroom. Transect walks are a great tool for direct observation of a village's context and layout.⁴³
- Venn diagrams map social relationships both within the community and with other communities and organizations.⁴⁴
- Calendars record seasonal issues and changes throughout the year related to agriculture, food security and health.⁴⁵
- Wealth ranking provides greater understanding of the distribution of wealth and resources.⁴⁶
- Historical profiles provide a chronology of events of interest and are particularly useful to identify a community's vulnerability to risks.⁴⁷

Focus group discussions are a common qualitative tool used to solicit a group's perspective regarding a series of topics or issues during both monitoring and evaluation activities. Focus group discussions are not simply question-and-answer sessions. The aim is for participants to discuss the questions amongst themselves with guidance from a facilitator. The facilitator asks open-ended questions to the group and follows up with probing questions to solicit additional details and depth regarding certain topics. The notetaker records the discussion and all comments in a clear and concise manner easy for review by other team members.⁴⁸

➔ *Focus group discussions should have between 8 and 12 participants so that each person has a chance to participate. Conduct focus groups among groups of individuals with similar characteristics.*

⁴¹ Freudenberger, *RRA/PRA Manual*, Vol. 1, 74–76.

⁴² Freudenberger, *RRA/PRA Manual*, Vol. 1, 77–81.

⁴³ Freudenberger, *RRA/PRA Manual*, Vol. 1, 82–84.

⁴⁴ Freudenberger, *RRA/PRA Manual*, Vol. 1, 85–87.

⁴⁵ Freudenberger, *RRA/PRA Manual*, Vol. 1, 88–91.

⁴⁶ Freudenberger, *RRA/PRA Manual*, Vol. 1, 92–93.

⁴⁷ Freudenberger, *RRA/PRA Manual*, Vol. 1, 94.

⁴⁸ For a further description of qualitative data, refer to *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007), 107. <http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

Key informant interviews use open-ended questions similar to that for focus group discussions, but collect data from individual respondents. You can use key informant interviews to complement focus group discussions by generating information from potentially marginalized or excluded individuals who may not feel comfortable voicing their opinions in a larger group. Additional questions can be included in key informant interviews that ask respondents about their individual situation or the situation of their household.

Qualitative methods have multiple purposes. However, it is important to remember not to generalize qualitative data to describe larger populations. The following list includes common purposes and uses of qualitative data:

- Assess programmatic impact (intended and unintended) among multiple groups.
- Monitor (both formally and informally) progress of program at the activity-, output- and IR-levels.
- Increase understanding of a given context, problem or current levels, causes, and seasonal factors related to household or community vulnerability.
- Increase understanding of quantitative survey results, for instance by probing about why mothers do not adopt a certain practice (e.g., related to child health) in spite of adequate knowledge about it.
- Inform quantitative tools and questions by determining the appropriate questions and possible responses for key issues and themes (e.g., common coping strategies during times of food shortage).
- Clarify concepts or themes (e.g., community capacity for disaster prevention) by identifying the community's perception and definition of such concepts.
- Inform the development of information, education and communication (IEC) materials and behavior change communication messages.
- Understand problems related to current programmatic interventions and identify possible solutions.

2. M&E staff triangulates qualitative data to reduce bias

Triangulation is a key principle of qualitative data collection that involves collecting data from multiple sources, sometimes using multiple tools, to identify and reduce bias. If you do not triangulate qualitative data, you run the risk of biasing or distorting the data collected, resulting in incorrect or incomplete information.⁴⁹ By collecting data from multiple sources or with multiple tools, you can identify and address discrepancies or inconsistencies in the data. Triangulation often leads to additional questions or clarifications, which you can answer through follow-up interviews, discussions or exercises.

➔ *A mistake common for M&E systems is to rely solely on either observation data or participant responses. Observation data alone do not provide an explanation of*

⁴⁹ Freudenberger, RRA/PRA Manual, Vol. 1, 17-26.

practices or behaviors and often require large assumptions on the part of the M&E team. Focus group data (an example of participant responses) may not capture important practices that participants do not see as relevant and may record instead what participants think data collection teams want to hear.

To triangulate qualitative data, first determine whether the methods selected will provide sufficient data to allow for comparison and identification of any bias. Include additional methods if you decide they are necessary for triangulation. Next, determine whether you have included an adequate number of respondents or groups to triangulate your data within each method. Triangulation relies largely on data analysis and the ability of the data analysis team to identify unreliable data and inconsistencies.

Focus group discussions often generate social norms and the data often do not capture the true variation of opinions and values that exist in a community. For this reason, it is advisable also to include key informant interviews or household surveys to triangulate focus group data.

For evaluation and formal monitoring efforts, conduct two or three qualitative exercises (e.g., discussions and interviews) to fully represent each perspective of interest in the survey. Refer to [Purposeful Sampling](#) for site selection for evaluation and formal monitoring. For informal monitoring, sampling procedures are less rigorous. Staff should collect informal monitoring data during routine field visits and need to consider the types of communities and contexts represented (or not represented) by the data and the potential for bias if no sampling procedure was followed.

➔ *Be sure to include vulnerable or marginalized groups (households or individuals) in your sample. If you are following the procedures for purposeful sampling, include vulnerable or marginalized households (or individuals) as comparison groups. If you are informally monitoring, seek out vulnerable or marginalized households for discussions, interviews or direct observations.*

Once you select your sites, inform the communities ahead of time so community leaders and community members can plan to be available on the planned day and time. There is a risk of bias in the data if you do not inform communities in advance. For example, without warning, all adult members from poor households might be away working in distant fields when the data collection team arrives, leaving the team to collect data only from more wealthy households who rely on hired labor to tend their land or whose lands lie closer to the village. Consult field staff and community leaders to identify persons with desired characteristics to participate in qualitative exercises.

3. M&E staff collects in-depth qualitative data

The quality and depth of the data collected depends largely on the skills of the data collection team and the appropriateness of the data collection tool. For individual interviews and other informal methods, only one staff member is required to both facilitate and record the exercise. However, you will need a team of two members, one facilitator and one notetaker, for many of the more structured qualitative exercises such as focus group discussions and many PRA methods. The facilitator asks each of the questions and guides the discussion while the notetaker writes down exactly what the participants said (word for word). Include both facilitators and notetakers in an extensive training session to ensure high-quality data are collected (refer to [Training and Field Testing](#)). Annex A includes tips for facilitators and notetakers.

- ➔ *If you choose to record the discussion or interview on a tape recorder, one staff member should still take backup notes in case the machine malfunctions. The notetaker also can record the reactions or expressions of participant(s) during the discussion. Consider the cultural appropriateness of introducing a tape recorder into an interview or discussion.*
- ➔ *Conduct female-only discussions or focus groups (led by female facilitators and recorders) if this will increase the participation by women and if culturally appropriate. Refer to [Gender and M&E](#) for more information on gender considerations.*

The objective of qualitative methods is to learn about participant's situations, perspectives and preoccupations. Phrase the questions in qualitative tools in such a way to generate discussion and in-depth data, not "yes" or "no" answers. Follow up each question with probing questions, such as "why?" or "why not?," "any other examples?" or "could you be more specific?" For more information, refer to [Developing Qualitative Tools](#).

Tips for conducting qualitative exercises

- ✓ Plan to hold the exercise in a neutral location.
- ✓ The exercise should last no more than two hours (much less for informal methods and interviews). Estimate the time required based on the number and depth of the questions you include. Reduce the number of questions if you find the exercise will take too long.
- ✓ Explain the objectives of the exercise to the participants and make sure the exercise does not raise participants' expectations that they will receive anything for their participation.
- ✓ At the close of the exercise, thank the participants for their time and input.
- ✓ Annex B includes common problems and their solutions.

For focus group discussions, PRA tools or other team monitoring exercises, hold a debrief session with the data collection team at the end of each day. The debrief session can be fairly short and informal but should give the team members an opportunity to discuss the data collected that day and any problems encountered during data collection. Document the debrief sessions as they may contribute to lessons learned or the final analysis process.

Start by asking the team what went well today and what did not go well. Next, ask team members if they have any initial ideas for analyzing or interpreting the data. These debrief sessions do not replace a formal analysis process. However, the analysis of qualitative data is an ongoing process and initial qualitative results may lead to refining questions and adding additional questions. If the team finds that the tools and questions are not yielding the intended discussions or responses, the team (with input from an M&E technical person) may opt to rephrase the question. In addition, if the data collected lead to additional questions to answer to the project's information needs, you can revise the tool to include additional questions.

➔ *Debrief sessions are an opportunity to triangulate data. If you find conflicting results from different methods or from different respondents (using the same method), the team will need to probe further or possibly include new questions to clarify the results.*

During the debrief session, the team should discuss any problems encountered during the data collection process. Note any problems mentioned and consider how these problems could have influenced the data collected. Also note how these problems were addressed or how they could be solved in the future. Make sure that an M&E technical person has reviewed and approved any suggested changes to the tools or the protocol.

For more informal monitoring, record findings from all qualitative methods (including direct observation) in field monitoring reports and discuss with the rest of the team at regular times, for example during weekly field staff meetings or monthly project reviews. In emergency contexts, these meetings may be held on a daily basis. Refer to [Reflection Events](#) for more information.

For more information on collecting qualitative data, refer to:

- United States Agency for International Development, *Performance Monitoring and Evaluation TIPS. Conducting Focus Group Interviews* (Washington, DC: USAID, 2011). http://pdf.usaid.gov/pdf_docs/pnadw110.pdf.
- Karen S. Freudenberger, *Rapid Rural Response Appraisal and Participatory Rural Appraisal (RRA/PRA): A Manual for CRS Field Workers and Partners* (Baltimore, MD: Catholic Relief Services, 1999). <http://www.crsprogramquality.org/publications/2011/1/17/rapid-rural-appraisal-and-participatory-rural-appraisal.html>.

Annex A. Tips for the facilitator and notetaker

Tips for the facilitator:

- ➔ Read the questions exactly as they are stated in the tool. Many questions also include follow-up questions. Once participants have given their initial answers and thoughts, ask follow-up questions such as “why is that important to you?” or “are there any other reasons for this?”
- ➔ Guide the discussion back on track if it starts to take another course. If the discussion starts to veer off track, be patient and do not interrupt any participants.
- ➔ If there is more than one participant, draw out each participant by asking individuals to respond if they have been quiet throughout the discussion. Make sure that certain individuals do not dominate the conversation.
- ➔ Keep a neutral facial expression throughout the interview or discussion and do not react to any comments or statements.
- ➔ Allow pauses after each question and comment to allow participants to provide additional feedback and for the recorder to write all that has been said.

Tips for the notetaker:

- ➔ Record the notes in the language in which the qualitative exercise is conducted. The notes should be translated at a later time.
- ➔ Write the number of each question that is asked and the discussion that follows, and note when the facilitator asks a follow-up question in the notes. Use a new line and a bullet point to indicate when a new participant speaks.
- ➔ At the end of the discussion for each question, write an arrow to highlight the consensus reached by the group or write “no consensus.”
- ➔ Once the discussion is finished, take extra time to expand the notes and add any additional information while it is still fresh in your mind. Other team members should be able to understand all information in the notes even if they did not participate in the discussion.

Annex B. Collecting qualitative data—common problems and solutions

Problem	Solution
<p>Participants are not engaging in discussion and instead are providing one-word answers.</p>	<p>Remind participants that the purpose of the exercise is to discuss these topics and that you hope to hear from everyone in the group. Also, mention that there are no right or wrong answers and you simply want to know about their experiences and perspectives.</p> <p>If this does not result in more of a discussion, discuss the possible reasons for the reluctance to participate with other team members. Could this be due to social or political dynamics in the group or community?</p>
<p>One or two participants are dominating the discussion.</p>	<p>Rely on good facilitation skills to draw out contributions by other participants. Listen to the dominating member’s contribution, thank them for their input, and then directly call on other participants. It also may help to make eye contact with the quieter members as a way to encourage them to contribute.</p>
<p>An elder or village leader is dominating the discussion. Due to social norms, younger participants or those from a different caste cannot contradict the elder, even if they disagree.</p>	<p>Ask younger participants to answer the questions first, and then allow the elder to share his opinion. Try to facilitate dialogue about the differences as much as possible.</p> <p>In certain cultural contexts, it is appropriate to hold age-specific discussions so that young persons feel more free to discuss the issues.</p> <p>It may be appropriate to hold a focus group discussion with community leaders or elders prior, and in addition, to the planned exercise with other community members. This provides the community leaders with a chance to voice their opinions. Do not replace the planned discussion with that of the community leaders. Again, analyze these data in context and consider the perspective of the community leaders in the interpretation of the data.</p>
<p>Participants begin discussing topics that are not related to the questions or the purpose of the exercise.</p>	<p>Wait for a break in the discussion and make a comment that shows you understand and appreciate the points they are making. Then quickly repeat your last question to try and guide the conversation back to the planned topics.</p>

<p>Many people are gathering around to watch the discussion and listen to responses.</p>	<p>Pick a location that is somewhat private. Request that people leave if this is socially appropriate.</p>
<p>There is a lack of female staff (or of any staff) to collect qualitative data.</p>	<p>Ensure that at least two women are included in the qualitative training. If possible, include three women in case one woman cannot ultimately participate. Assign an adequate number of staff to qualitative data collection so that you are able to follow your data collection schedule. Include all staff in the qualitative training.</p>
<p>The answers did not appear to be accurate.</p>	<p>Cross-check your results with other exercises (this is why we include two or three exercises for each perspective) or field staff. If you still doubt the validity of the results, do not use any of the data collected in this particular exercise. Consider what could have contributed to the biased, inaccurate results. How can this be avoided in the future? Hold another discussion to replace the lost data.</p>

Developing a Quantitative Database

Standards for developing a quantitative database:

1. The software used is appropriate to the project's needs and resources.
2. Project databases make data accessible for timely and efficient decision-making.

A quantitative database transforms data into information. With raw data, it is not easy to make project decisions, to review trends or to meet the information needs of various project stakeholders. The database should systematically transform data into information that meets the needs stated in your M&E plan.

1. The software used is appropriate to the project's needs and resources

The common types of quantitative database software used are Microsoft Excel, Microsoft Access, and the Statistical Package for Social Science (SPSS). Annex A provides a summary of the advantages and disadvantages for each software program. Prior to selecting the software, first consider whether you require a monitoring or an evaluation database based on the type of data you are collecting and the frequency of collection. See below for more information about monitoring and evaluation databases. Annex B provides additional descriptions of monitoring and evaluation databases.

➔ *Do not merge monitoring and evaluation data in one database. Instead, create separate monitoring and evaluation databases for the same project. Monitoring and evaluation databases have quite distinct functions and setups. Merging the databases will create an overly complex database and yield little benefit. You can combine monitoring and evaluation data (taken from each database) in a separate database if needed for analysis.*

Monitoring database

A monitoring database captures data collected in your monitoring and track outputs, activities and progress of the project. A monitoring database will house repeated data entry (e.g., for different months or locations) in different columns or different sheets (in Excel). It should create a summary sheet that automatically updates and sums the current progress toward targets (e.g., from different months or locations). The summary sheet should present, for each activity or output indicator, the number completed during this reporting period, the cumulative number completed to date, the overall target number, and the percentage of target completed to date.

Consider using Excel or Access for monitoring databases. Each of these software programs includes a simple function to create summary sheets for use in monthly or quarterly reporting.

Evaluation database

An evaluation database should store all information included in the evaluation's quantitative questionnaires and should be designed for one data entry event. Baseline and evaluation data should be housed in separate databases; they can be linked later if necessary. Consider using SPSS for your evaluation databases. SPSS allows for both simple and complex analyses.

- ➔ *Databases can be converted between Excel, Access and SPSS, with only minor readjustments required. For example, you can decide to enter data in Excel and conduct the analysis in SPSS.*

A range of information, communication and technology for development (ICT4D) options, including [iForm Builder](#)⁵⁰ and [Frontline SMS](#),⁵¹ are now commonly used to support teams during data collection and analysis. When used for data collection, these and other ICT4D options will automatically create and populate a database. Consult your ICT technical support person to explore different ICT options that may be appropriate for your project.

2. Project databases make data accessible for timely and efficient decision-making

The database should be user-friendly for both data enterers and data analysts by ensuring that the data entry and analysis processes are as simple and straightforward as possible. To be user-friendly for data enterers, the database should have clear labels and numbers for each variable. This will minimize data entry error and ultimately reduce the amount of time required for data entry and cleaning. The database design also should be as simple as possible to conduct the necessary calculations and analysis. Refer to Annex C for guidance on creating the database.

- ➔ *Make sure you determine how to utilize your data and to transform your data into information prior to developing your database. Refer to your M&E plan. Without a clear plan for data use, it is likely that your database will be overly complex. Complex databases are less likely to be used.*
- ➔ *Provide in-depth training and practice sessions for data enterers prior to the start of the data entry process. The practice sessions are a good opportunity to conduct a final*

⁵⁰ "iForm Builder," Zerion Software, Inc. <http://www.iformbuilder.com/>.

⁵¹ "FrontLine SMS," FrontLine SMS initiative. <http://www.frontlinesms.com/>.

review of the database and catch any remaining gaps or errors in its format. Refer to [Data Entry and Cleaning](#) for more information on training data enterers.

- ➔ *Results must be timely for M&E information to feed into project management and learning. Ensure that the database allows for an efficient data entry, cleaning and analysis process and, by design, will not result in bottlenecks due to complexity or structural error.*

Include instructions for using the database in your M&E operations manual, explaining all variables, functions and calculations in such a way that new staff can easily understand and utilize the database. Also, document the data entry and cleaning process so that it may be externally validated.

- ➔ *Prepare for an audit at the outset of your project by documenting all processes and systems. Not only will this help you to prepare for an audit (if an audit should occur), but project staff will benefit throughout the life of the project by being able to reference clear instructions and records of initial decisions and plans that were made.*

Additional guidance for monitoring databases:

1. Check with other staff in your country program to see if there are well-functioning and efficient monitoring databases currently in use. If the structure of this database is appropriate for your program, use the database format as a starting point.
2. Design monitoring databases to create summary sheets or to allow staff to run simple calculations to produce these summaries. Depending on your monitoring plan, the data may be summarized in multiple ways including by month, region and type of community.
3. Revisit your monitoring database at the project midterm (or after multiple data entry sessions) to determine if there are any ways to simplify the database or make it more user-friendly. To guide this review, refer to questions in Appendix II under [Step 6](#) of the monitoring system review tool.

For more information on developing quantitative databases, refer to:

- Rodolfo Siles, *Project Management Information Systems: Guidelines for Planning, Implementing, and Managing a DME Project Information System* (Washington, DC: CARE, 2004).
http://www.careclimatechange.org/files/toolkit/CARE_DME_Project.pdf.

Annex A. Advantages and disadvantages of software programs

Software program	Advantages	Disadvantages	Recommended use
Microsoft Excel	<ul style="list-style-type: none"> • The software is readily available. Most staff have Excel on their computers. • Staff are more likely to be familiar with the basic functions of Excel than with the other software programs. 	<ul style="list-style-type: none"> • Few staff are familiar with the Excel functions for more complex analyses (e.g., comparisons between groups). • Excel allows for more error in data entry or while analyzing and using data. 	Monitoring databases
Microsoft Access	<ul style="list-style-type: none"> • The software is readily available. Many staff have Access on their computers. • Access can be set up to print regular summary reports. • Access can create a data mask so that the data entry page mirrors the forms or questionnaires and only approved options can be entered for each variable. This can reduce data entry error. 	<ul style="list-style-type: none"> • Programming for Access is relatively complex. • Fewer staff have expertise in creating and maintaining databases than with Excel. 	Monitoring databases
SPSS	<ul style="list-style-type: none"> • SPSS is capable of higher-level analyses. • Data analysis in SPSS is user-friendly. 	<ul style="list-style-type: none"> • SPSS must be purchased separately and thus requires additional funds. • SPSS allows for more error in data entry. • Few staff have expertise in creating databases and analyzing data in SPSS. 	Evaluation databases

Annex B. Summary of monitoring and evaluation databases

	Monitoring databases	Evaluation databases
Description	A monitoring database tracks project activities and outputs completed and progress toward objectives and houses project management information.	An evaluation database is useful for analyzing assessment or evaluation data and can track progress toward the project's strategic objectives and intermediate results.
Frequency of use	Often used on a monthly basis or more frequently. In an emergency response, information may be needed on a daily or weekly basis.	Based on the frequency of assessments and evaluations. Often used at project baseline, midterm and end.
Common source(s) of data	<ul style="list-style-type: none"> • Monthly activity report. • Project records. • Field monitoring reports. 	<ul style="list-style-type: none"> • Household surveys (baseline, midterm, final). • Community-level surveys (baseline, midterm, final).
Type of analysis	Sums, frequencies, percentages and mean values. For example: <ul style="list-style-type: none"> • Number of community-wide meetings held. • Percentage of communities that have elected committees. • Number of trainings conducted. • Average (or mean) number of attendees at the community meetings. 	Frequencies, percentages, mean values, statistical significance tests and comparisons between subgroups. For example: <ul style="list-style-type: none"> • Comparison between the average number of meals per day for female-headed households and male-headed households. • Comparison of sources of loans (in percentages) for households in the lowest, middle and highest socioeconomic groups.
Technical considerations	Can require minimal technical expertise or advanced technical skills to set up and use the database, depending on the complexity of the system.	Generally requires advanced analysis skills to use the database.

Annex C. Guidance for database creation

You can apply these guidelines and the following examples to SPSS, Excel or Access.

1. Create a variable for each question or response

The structure of the question will determine if each question requires one variable or multiple variables in the database. Create a single variable for questions that allow for only one answer. “Yes” or “no” questions require only a single variable in the database. Similarly, you would create one variable for question A5 below.

A5.	How far is the nearest drinking water source from your home (in minutes)?	___ minutes
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You would enter the number of minutes in this variable. You could name this variable “A5” or “watmin.” If you are using SPSS, you may choose to use “A5” in the *name* column and “watmin” in the *label* column.

➔ *Use a standard approach in naming your variables that can be easily understood by team members who work with the database.*

If there are multiple responses allowed for a question, as in question B16 below, create one variable for each possible response. For question B16, create a total of five variables: one for each possible option (“canal,” “spring,” “well” and “other”) and a variable to enter the “other” information specified.

B16.	Where do people in your community collect water (<i>circle all that apply</i>)?	<ol style="list-style-type: none"> 1. Canal 2. Spring 3. Well 4. Other (<i>specify</i>) _____
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➔ *Each of the first four variables essentially becomes a “yes/no” variable, with “yes” recorded for each option selected by the respondent. “Yes” should be recorded as “2” and “no” should be recorded as “1.” Each of these is a numeric variable.*

➔ *The variable used to record the specific “other” information will be a “string variable,” that is a variable that contains letters instead of numbers. String variables are not coded and can house any information provided by the respondent.*

In SPSS, numerical variables only allow for numerical data to be entered. Create *string variables* if you want to include letters or words in a particular variable.

“Other” data allows us to learn more about community perceptions, knowledge and behaviors. The response “other” does not directly provide us with information. The specific response provided by the respondent and written in by the enumerator provides us with this information and is therefore particularly important.

→ Always include an additional “other” variable (a string variable in SPSS) in the database to capture these responses. The specific responses entered after “other” can be used in analysis and for designing future coded responses for quantitative questionnaires.

1. Record the coded responses in the database

Many of the questions in the questionnaire are likely to have coded responses (e.g., 1 = canal, 2 = spring, 3 = well, 4 = other or 1 = no, 2 = yes). The data enterers will enter the number corresponding to each response (e.g., “2” for “spring” or “2” for “yes”). For data analysis, it will be useful to have the description for each code included in the database. In SPSS, enter the code for each response in the *value* column. In Excel, include a list of coded responses on a separate sheet to use in data analysis.

2. Account for nonresponse or missing data

It is important to differentiate between a nil response and missing data. Nil is a zero (0) value. Missing data are data that were not recorded in the questionnaire. Missing data may occur if each question does not apply to every respondent (due to skip rules), if respondents chose not to answer a question, or due to human error during data collection.

It is standard practice to designate “999” to represent missing data. Data enterers can input “999” to indicate that questions or data were not included in the questionnaire. If you are using SPSS, enter “999” in the *missing* column so that SPSS will not include these values in calculating valid responses. With an appropriate database design, the person(s) analyzing the data will be able to identify which respondents reported that it took “0 minutes” to reach the nearest drinking water source and which respondents did not answer this question.

By creating a value (e.g., “999”) for missing data, data enterers will enter information into each column of the database for each case. This will help to keep data enterers from losing track of where they are in the database (and entering data into the wrong column) and help the person(s) analyzing the data to easily differentiate between “0” values and missing data.

In questions D5 and D6 and the corresponding database provided below, you can easily identify which households have missing data and which have nil values.

D5.	Does your household have access to a latrine?	1 = yes 2 = no → <i>if no, skip to D7</i> 3 = don't know
D6.	How many people have access to the latrine?	— persons

Household ID	D5. Latrine	D6. LatNumUse
201	1	5
202	1	999
203	0	999

Data Entry and Cleaning

Standards for data entry and cleaning:

1. M&E staff minimizes and checks for data entry error.
2. Data entry is time-efficient to ensure timely availability of information.

1. M&E staff minimizes and checks for data entry error

The data entry process is the transfer of the data from the questionnaires to the database. Ideally, the database will accurately reflect all of the data captured in the questionnaires. Any difference between the data recorded in the questionnaires and data in the database is considered data entry error. To minimize data entry error, conduct a thorough training of the data entry team, supervise the data entry process and conduct spot checks, and, lastly, clean the data once entered.

Train the data entry team, enterers and supervisors on the survey objectives, the layout of the questionnaire, and on the database and the protocol for data entry. The data enterers should be comfortable with the questionnaire layout and any skip rules included, and they should be aware of any potential errors in data collection.

- ➔ *If possible, include the data entry team in the training given to the data collectors on the survey tools. If this is not possible, conduct a separate training for the data entry team to ensure they are familiar with the tools used and the objectives of the survey.*

Assemble the team

Determine the number of data enterers needed based on the volume of data and the timeline for completing data entry. Select data enterers who have a background in data entry and are comfortable using the data entry program you have selected. Identify a supervisor, perhaps one of the data enterers with additional experience, to oversee the data entry process. The supervisor will enter data like the rest of the team but also is responsible for checking the work of others and for backing up the data each day.

Train the data enterers on the structure of the database and the protocol for data entry. Go through the entire database during this portion of the training.

- ➔ *Give the data enterers an opportunity to enter at least two test questionnaires (possibly those completed during the field test) during the data entry training and to raise any questions based on these trials.*

The data entry protocol includes the procedure for spot-checking (see below) and quality control measures. Thoroughly document these procedures to support quality control and audits (should they occur). Train the data enterers to recheck their data frequently.

Supervision and spot checks are important steps in the data entry process for reducing error. The supervisor should spot check approximately 1 in every 10 questionnaires entered. He or she should randomly select the questionnaires to spot check and closely compare the data in each questionnaire with that entered in the database. The supervisor should discuss any problem encountered with all data enterers, in case multiple enterers are making similar mistakes.

- *The data enterers should raise any questions with the supervisor so they can be addressed immediately. The supervisor should coordinate with the project manager or M&E advisor to address systematic problems in data collection or data entry. If data collection is still occurring, the project manager or M&E advisor should discuss the systematic or common data collection errors with the teams in the field.*
- *The data enterers should initial each questionnaire after it has been entered (or initial their specific section once it has been entered).*

Ask that data enterers save the data after completing each questionnaire (or section). The supervisor should back up the data at the end of each day with external memory and record the identification numbers of the questionnaires that have been entered. Create different file names for the database on each computer so they will not copy over each other during the backup.

Data cleaning ensures that data is accurate before conducting an analysis. Unclean data can ultimately distort your results. Data cleaning aims to identify mistakes made during data collection or data entry. The mistakes made during data entry can be corrected at this stage. Data cleaning involves running preliminary analyses and cross-checking any unexpected results against the data in the questionnaires. Annex A includes key steps in data cleaning.

- ➔ *Either the data entry supervisor or the data analyst, depending on the level of experience of the data entry supervisor, can conduct data cleaning. Data cleaning requires a sharp eye and experience with common data entry errors, as well as a solid understanding of the survey population and context.*
- ➔ *Document the data cleaning procedure to inform external quality checks or audits. Documenting the data cleaning method and schedule also will help to reduce duplication of efforts by other staff involved in the process.*
- ➔ *Record all recommendations for the next survey based on common problems with data collection or data entry found during cleaning.*

Conduct periodic reviews of the data collection process to make sure that no common error is continuing unnoticed. Review incoming questionnaires for completeness and clarity and address any recurring problems with the data collection team. For guidance, refer to Appendix II under [Step 5](#) of the monitoring system review tool.

2. Data entry is time-efficient to ensure timely availability of information

Data entry should be timely and efficient so the analysis and results can quickly feed into project management and decision-making. Structure the data entry process to be most time-efficient. You can structure the data entry process in one of two ways: data enterers can each enter the entire questionnaire or they can enter only a section of the questionnaire. With a shorter questionnaire, it is easier and more time-efficient for data enterers to complete a full questionnaire before moving on to the next one.

With a long, complex survey, it may be preferable to assign each data enterer a section of the questionnaire. This method allows data enterers to become more familiar with the data they enter and may ultimately reduce data entry error. If you proceed with this method, make sure the data enterers input each questionnaire's identification number into their appropriate section of the database each time they input data. The data can be linked later through these identification numbers.

- ➔ *Create a coherent filing system for the entered questionnaires. You can file the questionnaires by identification number or place them into numbered folders by cluster. You will need to access individual questionnaires during data cleaning and an organized filing system will save time and frustration.*

Annex A. Steps for data cleaning

1. Check the questionnaire identification numbers entered in the database to make sure each case has an identification number and no identification number has been repeated in the database. If any identification number is missing, go back to the paper questionnaires to find the correct number and enter this into the database. If any identification number is repeated, check to see if these cases are duplicates and delete one of the duplicated cases. If these cases are not duplicates, check for the correct identification numbers in the paper questionnaires.
 - *Refer to the paper questionnaires as often as needed during the data cleaning process. Every issue raised during data entry should be checked against the paper questionnaires whenever possible.*
2. Run the frequencies and means of numerical variables. Is there anything that is unexpected? Are there any outliers that are greatly above or greatly below the average value? Check any questionable data against the questionnaires and correct any errors in data entry.
3. Look for missing data and check to make sure these are not a result of data entry error.

Data Analysis and Interpretation

Standards for data analysis and interpretation:

1. M&E staff analyzes all data collected.
2. M&E staff interprets data within its level of representation.
3. M&E staff interprets qualitative and quantitative results together.

1. M&E staff analyzes all data collected

All data collected should be included in the analysis. By building the data collection tools (both for monitoring and for evaluation) directly from the M&E plan, you ensure that 1) no additional data will be collected that is not required for analysis and 2) all required data will be collected.

- ➔ *Refer to your analysis plan often during analysis (refer to [Creating an Analysis Plan](#)). You may revise or expand your analysis plan based on preliminary findings. Discuss any proposed changes to the analysis plan with the project manager, M&E staff and any other relevant stakeholders.*

If you collected both quantitative and qualitative data, analyze each type of data separately and then interpret the results together. Annex A includes key steps for analyzing quantitative data and Annex B includes key steps for analyzing qualitative data.

- ➔ *The analysis process should be efficient and organized to produce timely results and feed into programmatic decision-making. Ensure that there is adequate capacity (either internal staff or external technical assistance) in place well in advance. Refer to [Reflection Events](#) to plan for reflection on both project progress and the M&E system itself.*

2. M&E staff interprets data within its level of representation

Each sampling methodology has a certain level of representation and the data collected should be interpreted within the boundaries of this representation. Random sampling methods (discussed in [Random Sampling](#)), used for quantitative data collection, allow data to represent the larger population from which the sample was selected. Conversely, purposeful sampling methods (discussed in [Purposeful Sampling](#)), used for qualitative data collection, collect data that cannot be generalized to a larger population but that can be used to better understand the specific context or situation of the participants.

- ➔ *Generalizing either quantitative or qualitative data outside its level of representation is likely to result in incorrect conclusions or assumptions.*

For quantitative data, consider the population for which the sample was designed to represent. If your analysis plan includes comparisons between subgroups, refer to your sampling methodology to ensure that the sample was designed to include stratification (statistical comparison of subgroups within the data). If your sample was not designed to include stratification, any comparisons between subgroups within the data are not considered statistically sound and can be viewed as suggested differences only. Also consider the level of standard error used in determining the sample size when interpreting quantitative results.

- ➔ *The level of standard error determines the range in which the actual value in the population falls. For example, when using a 7 percent standard error, a value of 48 percent (e.g., of households that report boiling their water before drinking) from the sample data actually means that the value in the population is between 41 percent and 55 percent.*

For qualitative data, interpret the data as only representing the contexts or characteristics of the participants in each qualitative exercise. Refer to the purposeful sampling methodology used to determine which types of comparisons the data will allow. For example, if you collected data from males and from females (with other characteristics staying relatively similar) then the data will allow for a gender comparison.

- ➔ *Qualitative data can only represent the types of individuals, households and communities that participated in the data collection activity. Refer to your analysis plan, which should provide the specific perspectives or insights needed from qualitative data.*

Recognize any limitations or biases in the data collection methods when interpreting the results. Note these limitations or possible biases in the monitoring or evaluation report.

- ➔ *Limitations are nothing to hide! The majority of data collection exercises experience one type of limitation or another due to logistics constraints or other factors. The best approach is to be up front about limitations and to consider these limitations when interpreting the data.*

3. M&E staff interprets qualitative and quantitative results together

After you analyze qualitative and quantitative data separately, interpret the results together. When interpreted together, qualitative and quantitative results will complement each other and enhance your understanding of both the prevalence and reasoning behind the practices, knowledge and attitudes of the surveyed population.

Annex A. Steps for analyzing quantitative data

1. **Run descriptive statistics.** Descriptive statistics include frequencies, percentages, median and mean values.

Frequencies and percentages

For noncoded responses (e.g., value in local currency for monthly income or minutes to nearest water source):

- What were the maximum and minimum values? Any values that do not seem feasible should be cross-checked with the data included in the questionnaires (refer to [Data Entry and Cleaning](#)).
- What is the spread of these responses? Are the responses clustered in any way? What does this tell us about the target population?

For coded responses (e.g., 1 = less than 15 minutes, 2 = 15 to 30 minutes, 3 = 30 minutes or more):

- What were the most common responses to questions with coded responses? What were the least common responses?
- Was the frequency of any of these responses unexpected?
- What proportion of respondents cited “other” for these questions? What were the other responses they provided in addition to the coded list?

➔ *If many of the responses included in the “other” data have the same meaning (aside from slight variations in wording), create additional responses or categories with these data and include them in your results.*

Missing data

If 30 percent or more of the questionnaires do not have a response for one of the questions, then the information for that question may give you a false understanding of the situation.

- If there is a high proportion of missing data, do you still have enough data to accurately represent the situation? Consider not including results for indicators with a high proportion of missing data.
- What could explain this high percentage of missing data? Consider any problems encountered during fieldwork as well.
- In future surveys, could questions be asked in a different way to reduce missing data?

Mean and median values

- What were the mean values, or average values, for the survey population?
- Also determine the median value (i.e., the value in the middle of the range).

- Are the mean and median values quite different? If so, this suggests that there are clusters of values within the spread of data. What are possible reasons for this?

2. Run inferential statistics. Inferential statistics include comparisons between subgroups and tests for statistical significance in results.

Statistically significant results are “probably true” or, in other words, the difference(s) found between subgroups in the data actually reflect the differences existing in the overall population and were not due to chance.

➔ *Run a chi-squared test to determine if values are statistically significant between subgroups.*

The results of chi-squared tests are given in p-values. A p-value of less than 0.05 is statistically significant and means that you can be 95 percent confident that this difference exists in the surveyed population.

Compare key subgroups. Common subgroups include wealth groups, as well as male-headed and female-headed households.

- Create the variables required by your analysis plan. For example, you may need to sum the amounts received from different sources of income to calculate the total monthly household income in order to create wealth groups. Indicate that these variables are “created” in their names (e.g., including “c” for “created” in “c_income”).
- Run frequencies and percentages for each subgroup. What could account for differences in minimum and maximum values or percentages between groups? What could account for similarities? Are the percentages statistically significant?
- Identify mean values for each subgroup. Again, look for significant differences between groups.

When calculating means, the characteristics used to identify your subgroups (e.g., low-wealth group, female-headed households) are considered *independent variables* and the variables you would like to compare (e.g., monthly income, minutes to nearest drinking water source) are considered *dependent variables*.

➔ *If comparisons between subgroups were not statistically significant (e.g., chi-squared tests had p-values of more than 0.05), state that the results were not statistically significant in your report, to inform your readers that you ran significance tests. This way you will not receive requests for significance values.*

3. **Revisit your analysis plan.** Have these initial results raised additional questions? Can you answer these questions with your existing quantitative data? If so, run additional frequencies, comparisons or tests to answer these questions. It is likely that the initial quantitative results also have raised questions that cannot be answered by further quantitative analyses and instead require analysis of qualitative data.
4. **Produce a summary report of your quantitative findings,** including data analysis tables and any initial interpretation from the team. Combine this summary report with your qualitative findings (if available). Once you have finished the quantitative analysis, proceed with the qualitative analysis.

For additional information on quantitative data analysis, refer to:

- Ellen Taylor-Powell, *Analyzing Quantitative Data* (Madison: University of Wisconsin-Extension, 1996). <http://learningstore.uwex.edu/assets/pdfs/G3658-6.pdf>.
- Jennifer Leahy, *Using Excel for Analyzing Survey Questionnaires* (Madison: University of Wisconsin-Extension, 2004). <http://learningstore.uwex.edu/assets/pdfs/G3658-14.pdf>.

Annex B. Steps for analysis of qualitative data

Qualitative data analysis will provide more in-depth understanding of the key study questions and of your quantitative findings. Analyze qualitative data with field staff, data collectors and relevant stakeholders to include their interpretation in the results. If feasible, conduct a portion of the qualitative data analysis with community members to include their interpretation and perspective.

➔ *Follow these steps for qualitative monitoring data, which are often generated more frequently and must be analyzed more quickly than evaluation data, but feel free to condense steps when necessary to shorten the analysis process.*

1. Translate all qualitative data. Translate each set of qualitative notes, or data, into the language in which the analysis will be conducted and in which the report will ultimately be written (if the survey was conducted in a different language than the analysis).
2. Create a matrix of the qualitative data that shows the various responses to each question by location similar to the matrix provided below. Also record the various characteristics of each data source (e.g., focus group or key informant) in the matrix so you can compare subgroups. Place the questions in the column headings and the data source location/description in the row headings and record the data in the corresponding squares.

Type of focus group / location	How does the current level of water availability compare to this time last year?	How can you tell that the water situation is different?
Female focus group / Tacama Village		
Male focus group / Olindia Village		
Female key informant / Tacama Village		
Male key informant / Olindia Village		

Create the matrix in either Microsoft Word or Excel. Copy all relevant qualitative data into the corresponding matrix cell. Share these matrices with all persons involved in the data analysis.

➔ *Do not paraphrase the data in the matrix; use the respondents' actual words. Once you have analyzed the data and pulled out all relevant themes, you may then paraphrase or summarize the results.*

3. Read through all of the data presented in the matrix. What phrases or key ideas are repeated in more than one data source? What phrases or ideas are unique to a particular subgroup? Once you have identified common phrases or ideas, code the data to determine how often and by which groups these ideas were cited. Highlight or circle these ideas where they are mentioned in your matrix.

Create a separate table in which you can record the number of times that key ideas were cited. Create a row for each theme or idea as shown in the example below. Also record the characteristics of each group that cited each idea.

Key themes / ideas	Location	Characteristics
Water availability is less than last year	Tacama Village	Female focus group Male focus group Female key informant interview
Water availability is more than last year	Olindia Village	Female focus group Male focus group Female key informant interview
There is more waiting time at the pump	Tacama Village	Female focus group
We have more water to give to our livestock	Olindia Village	Male focus group

- ➔ *Different groups may refer to similar ideas with slightly different terms or words. Be sure to search through the data and connect these various terms and ideas.*
- ➔ *If you have a large amount of data, use Excel or another program to house the qualitative data. Use the "COUNTIF" function in Excel to identify where certain ideas or themes are mentioned.⁵²*

With qualitative data, you can make statements such as "7 of 10 focus groups stated that improved hygiene practices were among their community's top priorities." Refrain from referring to percentages when analyzing qualitative data. With qualitative data, each group or interview is a unit and the number of units (focus group discussions) is often too small to support percentage statements.

- ➔ *It is often best to refer directly to quotes from the data during interpretation. Include direct quotes in your report as well.*

4. **Comparisons of subgroups.** Does your analysis plan require any comparisons between subgroups? If so, did subgroups cite similar or different ideas for key questions? What would account for these differences?

⁵² For more information, refer to *Using Excel for Analyzing Survey Questionnaires* (Madison: University of Wisconsin-Extension, 2004). <http://learningstore.uwex.edu/assets/pdfs/G3658-14.pdf>.

5. **Additional analyses.** Based on your initial quantitative data analysis, what additional questions have arisen? Which of these can be answered by further analysis of your qualitative data? Read through the data again with these questions in mind.
6. **Discuss the findings with the analysis team.** Record all ideas and interpretation provided by the analysis team. Produce a summary qualitative report that can serve as a reference during the discussions. Include quantitative data and findings in the summary (as applicable). Refer to [Reflection Events](#) for questions to guide these discussions.

For additional information on qualitative data analysis, refer to:

- Ellen Taylor-Powell and Marcus Renner, *Analyzing Qualitative Data* (Madison: University of Wisconsin-Extension, 2003).
<http://learningstore.uwex.edu/assets/pdfs/G3658-12.pdf>.

Annex C. Steps for interpreting data

- 1. Review the summary report(s)** with field staff and data collectors and other key stakeholders. Hold a workshop or meeting and allow adequate time to interpret these results. Refer to [Reflection Events](#) when planning these workshops and meetings.
 - What is the significance of these findings? What are some possible explanations for these results?
 - In what ways are these results positive or negative given the project objectives?⁵³

➔ *In these discussions, you may again raise additional analysis questions or necessary clarifications. Return to the analysis phase if current data can answer these questions. If the data cannot answer these questions, make sure to include these questions in future data-collection activities.*
- 2. Develop a series of recommendations and a corresponding timeline** to address these recommendations.
 - How will you alter current activities based on these results? How will you incorporate these results into future project design?

➔ *Reflect on the data collection exercise. After analysis, you will often have more insight into the successes and limitations of the data collection exercise. What did you learn from the data collection exercise itself? What were the successes and limitations of the survey design and methodology? What would you recommend changing for future surveys? M&E staff persons should record all lessons learned and recommendations to incorporate into future survey designs.*

For additional information on interpreting data analysis and results, refer to:

- Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007): 240–241.
<http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

⁵³ Adapted from Stetson et al., *ProPack II*, 241.

Reflection Events

Standards for reflection events:

1. M&E systems include a plan for reflection events.
2. M&E staff and stakeholders reflect regularly on project progress.
3. M&E staff and stakeholders reflect on the appropriateness of the M&E system.

1. M&E systems include a plan for reflection events

Scheduling reflection events allows CRS and project staff to better plan for data use and is a step toward the integration of data use and reflection with the M&E system in the minds of staff. Each project should plan for reflection events; however, the type of events and their frequency should be tailored to the project's needs.

Two topics should be included in the plan: project progress and M&E system effectiveness. Within each topic, there should be multiple types of events included at different frequencies and with different groups.

- ➔ *You may discuss these two topics together or separately; however, the effectiveness of the M&E system does not need to be discussed as often as project progress. Instead, discuss the effectiveness of the M&E system at key junctures, such as following an evaluation, after a significant amount of monitoring data have been collected, or if gaps in monitoring data have been identified while reviewing project progress.*

Reflection events can be included as part of regular meetings or workshops. However, if appropriate meetings or workshops are not scheduled at the time necessary for reflection on the project or with the appropriate group of people, schedule stand-alone events. These events can occur as often as monthly but should definitely coincide with report deadlines (since a critical amount of data will presumably have been collected and analyzed for these reports) or any opportunity to reorient planned interventions (during the life of the project or ahead of new funding cycles).

- ➔ *The frequency of reflection events will depend on the nature and timeline of the project. Generally, reflection events should occur more often for shorter projects. Short-term emergency projects, for example, may set aside time for reflection on project progress during daily meetings while longer-term projects may hold quarterly reflection events.*

2. M&E staff and stakeholders reflect regularly on project progress

A series of key reflection questions should guide the use of M&E results to inform project decisions. Though these questions will vary for each project, Annex A provides a list of common reflection questions to guide data use during quarterly project meetings or other use events. Engage CRS and partner staff, as well as other key stakeholders, to reflect on project progress.

➔ *Also reflect on the project's critical assumptions. Are the critical assumptions still holding true? If not, what project activities can you alter to account for these changes?*

3. M&E staff and stakeholders reflect on the appropriateness of the M&E system

In addition to the more frequent review and discussion of the data results, set aside time to reflect on the appropriateness of the M&E system. It is not necessary to reflect on the system's appropriateness during every data use event. Instead, identify key junctures when sufficient data collection activities occur and when decisions related to M&E need to be made. For many projects, a quarterly reflection on the appropriateness of the M&E system is adequate.

Include and engage CRS and partner project staff and managers, key stakeholders and M&E staff in this reflection process. Annex B includes a list of M&E system review questions. Plan to adjust your M&E system (as feasible) based on any weakness identified in this review.

If you have established data use and reflection events, refer to the questions in Appendix II under [Step 8](#) of the monitoring system review tool to check the quality and appropriateness of these events.

Annex A. Common project progress reflection questions

Examples of monitoring data questions:

- What have been the problems, if any, with project implementation? What have been the successes, if any, with project implementation? What are the reasons for these problems and successes?
- What has been the project's progress so far (considering multiple levels of indicators in the ProFrame)? Has progress varied among different groups? Consider different geographic areas, households of different socioeconomic status, and male and female participants.
- Are project activities reaching the target groups? Consider who is participating in meetings, attending trainings and receiving inputs or goods. Discuss the effectiveness of the targeting with nonparticipants as well to receive an additional perspective.
- What feedback have we received from community members? Has this varied for different community groups, such as men and women or project participants and non-participants? How can this feedback be addressed?
- What has changed or is changing in the broader context for these communities and households? Consider change in relation to the project's critical assumptions. How should the project tailor its future activities or interventions to account for these changes in context?
- Have any unintended positive or negative changes occurred due to the project? If so, why and who has experienced this change?

Annex B. M&E system reflection questions

- Do you have all of the information and results required to make project-related decisions and track project progress? If not, how can you adjust the M&E system to meet all information needs?
- Is the M&E system currently collecting data that you are not using? If so, what can be removed or simplified so that no data are collected that are not used?
- Are you able to track the progress and impact separately for key comparison groups (communities, households, men and women) as required? If not, how can you build this into the M&E system?
- Does your M&E system provide a useful balance of qualitative and quantitative data? If the results are too numbers-focused and do not provide enough contextual information or explanation, how can you collect more qualitative data? If the results do not provide enough numbers to meet your information and reporting needs, how can you collect more quantitative data?

Planning and Conducting an Evaluation

Standards for planning and conducting an evaluation:

1. Evaluations use specific evaluation questions to address each of the standard evaluation criteria.
2. CRS project team members, partner staff, community members and other stakeholders participate in analysis and interpretation of evaluation results.
3. CRS project teams and partner staff document and use evaluation findings to improve the quality of programming.

There is a growing emphasis among international organizations to improve the quality of evaluations and use them better to improve our work. The CRS Global M&E Standard 6 states that “CRS and partner staff jointly design, implement evaluations that assess relevance, efficiency, effectiveness, impact and sustainability; and use evaluation findings to improve programs.”⁵⁴ The guidance provided here is designed to help project teams better meet CRS’ Global Evaluation standards and applies to both emergency and nonemergency programming.

1. Evaluations use specific evaluation questions to address each of the standard evaluation criteria

The five evaluation criteria, referenced in the CRS Global standard on evaluation, are relevance, effectiveness, efficiency, impact and sustainability. The Organization for Economic Cooperation and Development (OECD) created these criteria in 1991 as part of general evaluation principles.⁵⁵ Together these five criteria are widely viewed as the cornerstones for high-quality evaluations of development programming, particularly for midterm and final evaluations. Additional information is available on these criteria in *ProPack II*.⁵⁶

Each of the criteria covers multiple concepts and ideas that the evaluation needs to address. The evaluation team should develop project-specific evaluation questions under each of the criteria to ensure that all of the important concepts are covered. These evaluation questions are then used to design the evaluation methodology,

⁵⁴ Catholic Relief Services, *Monitoring and Evaluation Standards, Version 1.0* (Baltimore: Catholic Relief Services, 2009).

http://www.crsprogramquality.org/storage/pubs/me/me_standards_english_final.pdf.

⁵⁵ Development Assistance Committee, *Principles for Evaluation of Development Assistance* (Paris: Organization for Economic Cooperation and Development, 1991).

<http://www.oecd.org/dac/evaluationofdevelopmentprogrammes/50584880.pdf>.

⁵⁶ Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007): 219.

<http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

draft the data collection tools and structure the analysis of the findings. Examples of these evaluations questions are included in Table 1. Note that these examples are generic and should be made more specific to better fit the project's context.

Table 1. Evaluation criteria and key words and concepts.

Criteria	Examples of evaluation questions
Relevance	<ul style="list-style-type: none"> • Did the initial needs assessment identify priority community needs? Did the assessment differentiate between needs for men and women and for more vulnerable and less vulnerable households? If so, how? If not, why not? • Is the project design appropriate for meeting the community priority needs? Consider the project's objectives, activities and timing. Why or why not? • Did the targeting strategy allow the project to meet the greatest need in the community (i.e., the most vulnerable households or individuals)? Why or why not? • Was community participation sufficient throughout the needs assessment, design, implementation, and monitoring and evaluation of the project? Why or why not? If not, how can participation be increased during the remainder of the project (for midterm evaluations) or in a future project (for final evaluations)? • Has the project met the specific needs and priorities of women? Why or why not?
Effectiveness	<ul style="list-style-type: none"> • Did the project achieve its planned outputs (as per the detailed implementation plan) on the planned timeline? Why or why not? • Did the M&E system provide the right information at the right time to allow for timely project management and decision-making? Why or why not? • Has working in partnership increased the effectiveness and quality of the project? Why or why not? • Has the project been effective in building partner capacity? If so, how has partner capacity been built? If not, why not? If not, how can this be improved for next time?
Efficiency	<ul style="list-style-type: none"> • Are the project's staffing and management structures efficient? Why or why not? • Did the project staff have the right capacity to implement a high-quality project? Why or why not? • What was the cost per project participant? Is this reasonable given project impact? Why or why not?
Impact	<ul style="list-style-type: none"> • Has the project achieved its planned impact (refer to ProFrame indicators to determine planned impact)? Why or why not? • Did impact vary for different targeted areas, households or individuals (e.g., men and women)? If so, how and why?

	<ul style="list-style-type: none"> • Was there any unintended impact from the project, either positive or negative? • What impact was most valuable to participating communities? Why?
Sustainability	<ul style="list-style-type: none"> • What is the likelihood that the community will be able to sustain the impact of the project? How do you know? • What has the project done to support community structures or groups to be able to continue to address community needs and sustain project impact? Is this sufficient?

➔ *How do you use the ProFrame in the evaluation? The “impact” evaluation criterion asks that the project team measure progress against all of the SO-level indicators and IR-level indicators included in the ProFrame. In addition, under the “impact” criterion, the project team should determine if there has been any unanticipated impact from the project, either positive or negative.*

Evaluation questions are important for midterm evaluations, final evaluations and real-time evaluations of emergency responses. In addition, develop questions for midterm reviews,⁵⁷ although they would be called “review questions” in this context. For a midterm evaluation or review, the questions should include a focus on how to improve the particular activity or process for the remainder of the project. For final evaluations, the questions should encourage project teams to think about how to improve an activity or element for similar projects in the future.

Real-time evaluations of emergency responses

A real-time evaluation is a light evaluation conducted early – approximately six to eight weeks after a response begins. The purpose of this evaluation is to reflect on the progress and quality of the response and to produce a set of actionable recommendations to improve the ongoing response. Due to its nature and timing, slightly different criteria are used in a real-time evaluation. The standard criteria are relevance, effectiveness, coordination, coverage and sustainability/connectedness. Additionally, real-time evaluations may look at the early impact of the response. For more information, refer to the [CRS guidance on conducting real-time evaluations](#).⁵⁸ The final evaluation of an emergency response would use the standard evaluation criteria.

⁵⁷ A midterm review is a learning event conducted in the middle of the project with the objective to improve project impact and quality. A review differs from an evaluation in that it may cover only some of the standard evaluation criteria or use only light qualitative methods to understand project impact to date.

⁵⁸ Loretta Ishida and Pauline Wilson, *Guidance on Conducting Real-Time Evaluations in Emergencies* (Baltimore: CRS, 2010).
https://global.crs.org/communities/EmergencyResponse/Emergency%20Community%20Documents/crs_rte_guidance_april2010.docx.

Without tailored evaluation questions that reflect the context and focus of the program, the evaluation is likely to produce generic results and be void of relevant lessons learned and useful recommendations for future programs. Tips for developing high-quality evaluation questions include:

- Engage the project field team and partner staff in developing evaluation questions that reflect the project context;
 - Review the monitoring data collected to see if the findings raise any additional questions to be answered by the evaluation;
 - Refer to the ProFrame or M&E plan to make sure that all of the SO-level and IR-level indicators will be covered by the evaluation. In addition, ensure that the evaluation addresses any crosscutting themes included in the M&E plan;
 - Refer to donor guidance to ensure that the evaluation meets donor-required indicators and general information needs;
 - Draw upon the project’s analysis plan, if available, to develop the questions. The analysis plan should include draft evaluation questions; and
 - Review other evaluation reports for similar projects for ideas about how to phrase questions. However, it is not advisable to simply copy questions from other evaluations as they will rarely be a good fit “as is” for your project.
- ➔ Remember that evaluation questions are generally too complex to use in data collection tools. Instead, use your evaluation questions to outline your tools and determine which specific question or set of questions will be appropriate to generate the data you will need for analysis.

Annex A provides evaluation planning tables and presents eight steps for good evaluation planning. Step 1 is to create specific evaluation questions for your program under each of the standard evaluation criteria. These tables provide guidance on how to use questions to structure the evaluation methodology and data collection tools and should be the basis for evaluation planning.

- ➔ *It is often appropriate to consult community members who did not participate in the project during midterm and final evaluations to solicit their input on the appropriateness of targeting and the overall impact, positive and negative, of the project. Consider which evaluation questions should take input from these community members into account and include them as respondents where needed in the evaluation planning tables (Annex A).*

2. CRS project team members, partner staff, community members and other stakeholders participate in analysis and interpretation of evaluation results

Participatory analysis and interpretation are necessary for contextualizing results, in-depth analysis, and engaging project and partner staff and community members with evaluation findings. Additionally, participatory analysis is often an effective means for building staff capacity in evaluation concepts and processes. Project teams often are able to identify key recommendations and lessons learned as part of participatory analysis and interpretation sessions, which represents a good step to utilization-focused evaluations.

- ➔ *Participatory analysis includes project and partner staff, community members or other stakeholders in determining the evaluation findings based on the data. This is particularly important for qualitative data.*
- ➔ *In participatory interpretation, participants consider the project context and use their local knowledge to identify lessons learned, best practices and recommendations based on the evaluation findings. For greater clarity on these terms, refer to Table 2.*

Separate sessions are held for staff (both project and partner staff) and for community members. The sessions differ in content and structure for each group.

- With project and partner staff, the session is often a half- to one-day meeting led by a project team member. The purpose of this session is to share the data and findings with staff and allow time for interpretation and discussion about what, if anything, the project team should do differently based on these results. This session with staff may include participatory analysis of focus group discussion (FGD) data. For more information on analysis of FGD data, refer to [Data Analysis and Interpretation](#).
 - The analysis session with communities is often a short meeting (one to two hours) in which staff share the main findings with the community and ask for the community to explain and interpret why different changes did or did not occur. This session is often very effective when staff is able to share specific quantitative or qualitative findings with the community and then allow time for open-ended discussion. It is important to present the findings in a very accessible way during these meetings; the team should consider using visual or other creative presentation methods.
- ➔ *Refer to the initial stakeholder analysis for your project to determine which other stakeholders should participate in the analysis session(s).*

Table 2. Comparison of best practices, lessons learned and recommendations.

Best practices ⁵⁹	Lessons learned	Recommendations
<ul style="list-style-type: none"> • An intervention, approach or process that is proven to contribute to the best outcome in program quality and impact. • Identified through the rigorous evaluation of promising practices. • Can be applied in similar settings and contexts. 	<ul style="list-style-type: none"> • Based on observations and experiences during project implementation; related to project success, challenge or failure. • Identifies why a success or failure occurred. • Generally applicable in similar contexts. • Has not been evaluated or proven. • Can lead to identification of promising practices. 	<ul style="list-style-type: none"> • A specific change recommended for an ongoing project. • Not broadly applicable in other contexts. • What to do differently based on evaluation results.

3. CRS project teams and partner staff document and use evaluation findings to improve the quality of programming

An important principle of utilization-focused M&E is to use evaluation findings to improve the quality of the current program and related future programming. To ensure that evaluations contribute to increased program quality, clearly document evaluation findings and circulate broadly with CRS and among other stakeholders, as appropriate. Include evaluations methods, findings, recommendations and lessons learned in the evaluation reports. The reports should directly answer the evaluation questions and convince the reader with findings, quotes and numbers, and further interpretation and explanation as needed. It is important to document challenges and even failures in the evaluation report. Only an honest reflection by the project team will make a good contribution to learning and program quality within the country program, within the region, and across CRS globally.

➔ *Evaluations conducted during the life of the project, both midterm evaluations and real-time evaluations, should provide actionable recommendations to improve the quality of the project in the time remaining. Incorporate final evaluation findings into the strategy design for subsequent programming.*

⁵⁹ The definitions for best practices and lessons learned are based on *HIV and AIDS Best Practices Fact Sheet* (Baltimore: Catholic Relief Services, 2007).
http://crs.org/publications/showpdf.cfm?pdf_id=205.

To contribute to greater learning, the evaluation reports must be easily accessible to project teams during project design and strategy discussions. Circulate the evaluation reports within the country program, the region and post on the CRS Global SharePoint site. Post the evaluation report on the country program page on the CRS Global site and post to the ALNAP evaluation database,⁶⁰ as appropriate. Consult your M&E team members or regional technical advisor for assistance in uploading the report to both locations.

The [ALNAP Evaluative Reports Database](#) is a growing resource with examples of evaluations across sectors and regions. Posting both midterm and final evaluations to ALNAP will allow other organizations to learn from the evaluation findings and contribute to a larger body of organizational knowledge.

- ➔ *When posting the report to the CRS Global SharePoint site, be sure to tag the report with the word “evaluation” so that others can easily locate your report with a key word search. In addition, tag the report with key words related to your sector and type of intervention.*

Posting and sharing the evaluation report is, however, not likely to be sufficient for engaging a range of stakeholders with the evaluation findings. To communicate the evaluation results with other project teams the country program, it is good practice to hold a learning event. A learning event can be as simple as a two-hour session for sharing key results and discussion with the team. Learning events also can be more extensive depending on the scope of the evaluation and the strategic learning needs of the team. Remember to invite different project teams to the learning event as some of the findings are likely to be useful to staff in other sectors.

- ➔ *For larger and more strategic learning events, consider inviting staff from other CRS country programs and other organizations to participate.*

To make the evaluation findings more accessible, identify creative ways to communicate findings and increase interest in reading the evaluation report. Consider circulating a one-page document with key findings that would be useful for different audiences or developing a short narrated presentation to circulate as an audio-visual complement to the report. The [ALNAP Evaluative Reports Database](#) and the internal [CRS Asia Regional Program Quality site](#)⁶¹ include examples of such communication pieces.

⁶⁰ “Evaluative Reports Database,” Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP), <http://www.alnap.org/resources/evaluativereports.aspx>.

⁶¹ “CRS Asia Regional Program Quality,” Catholic Relief Services, <https://global.crs.org/worldwide/ESA/PQ/default.aspx>.

For additional information, refer to:

- [ProPack II](#) Chapter VII “Project Evaluation and Close-out.
- Overseas Development Institute (ODI), *Evaluating Humanitarian Action Using the OECD-DAC Criteria: An ALNAP Guide for Humanitarian Agencies* (ODI: London, 2006). http://www.alnap.org/pool/files/eha_2006.pdf.
- Loretta Ishida and Pauline Wilson, *Guidance on Conducting Real-Time Evaluations in Emergencies* (Baltimore: CRS, 2010).
https://global.crs.org/communities/EmergencyResponse/Emergency%20Community%20Documents/crs_rte_guidance_april2010.docx.
- Della E. McMillan and Alice Willard, *Preparing for an Evaluation: Guidelines and Tools for Pre-Evaluation Planning* (Baltimore: Catholic Relief Services, 2007).
http://www.crsprogramquality.org/storage/pubs/me/MEmodule_preparing.pdf.

Annex A. Eight steps for evaluation planning

Step 1: Create specific evaluation questions for your program under each of the five standard evaluation criteria: relevance, effectiveness, efficiency, impact and sustainability.⁶² Enter these questions in the first column of Table 1 below.

- Make the questions specific, including the “who,” “what,” “where” and “when,” as applicable.
- Under impact, include questions about whether the project achieved the impact stated in the indicators in your M&E plan.
- If your project has an analysis plan, include any evaluation questions from the plan. *Note: questions in the analysis plan are generally considered to be drafts and can be revised as needed.*
- Key concepts and issues associated with each evaluation criterion are presented after each of the criteria in Table 1. More information on the evaluation criteria is available in *ProPack II*.⁶³
- There is no set required number of evaluation questions. Generally, programs have three to five questions under each of the criteria. Add or delete rows based on the number of questions needed.

Step 2: Identify the appropriate tools and respondents for each evaluation question. Include these in Table 1.

- Determine which tools will give the most reliable data or information for the question. Common evaluation tools include household surveys, key informant interviews with community or government stakeholders, focus group discussions with participating and nonparticipating community members, observations, staff interviews with CRS and partner staff and review of project records or meeting notes.
- For household surveys, focus group discussions, key informant interviews and staff interviews, specify who the respondent group will be (e.g., project participants, nonparticipating community members, CRS staff or partner staff). This will help in outlining the tools in Table 2.

⁶² Note that evaluations for emergency response projects generally use different criteria: relevance/appropriateness, effectiveness, connectedness/sustainability, coverage and coordination. For more information on evaluations for emergency responses, refer to *M&E in Emergencies: Tips and Tools* (Baltimore: CRS, 2010). <https://global.crs.org/worldwide/ESA/PQ/Regional%20Project%20Review%20Guidance%20and%20tools/MandE%20in%20Emergencies%20Resource%20Pack.pdf>.

⁶³ Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007), 219. <http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

- There is no fixed number of tools or respondents required. Consider when it is appropriate to triangulate information from different methods or different perspectives with the same method for a given evaluation question. Add and delete columns for tools as needed.

Step 3: Create an outline for the tools in Table 2. Enter each tool in Table 1 in the first column of Table 2. Copy the evaluation questions that the tool will be used to answer in the next column.

- List separately the tools to be used with different respondents (e.g., FGDs with community members who participated and community members who did not participate in the project).
- Refer to the M&E plan. Make sure the list of tools reflects all of the methods included in the M&E plan. Include any missing tools and list the indicators that each tool will answer in the second column.

Step 4. Specify any comparison groups needed for each tool in Table 2.

- Determine whether there are any relevant comparison groups needed for surveys, focus groups, key informant or semistructured interviews or observation tools. Refer to your M&E plan and analysis plan. You may need comparison groups where the context is very different within the project area or where different groups have had different experiences or perspectives during the project. Include triangulation as appropriate.

Step 5. Determine the sampling strategy and selection methodology for each tool. Enter this in Table 2.

- Use random sampling for quantitative tools and purposive sampling for qualitative tools. Refer to [Random Sampling](#) and [Purposeful Sampling](#). Include all information relevant for the sample – clustering, stratification, level of error and number needed for random sample, and perspectives and number needed for purposive sample. *Note: The number needed will be the number of respondents for random sampling. The number needed for purposive sampling will be the number of groups or interviews.*

Step 6. Create draft tools from the outline of information needs included in Table 2.

- Refer to [Developing Quantitative Tools](#) and [Developing Qualitative Tools](#) to develop tools to answer your evaluation questions. Note the evaluation questions themselves are generally too complex to include in the data collection tools. Allow enough time for feedback on the tools from M&E and project team members. Revise the tools during training or field

testing if needed.

Step 7. Determine staff needs for data collection.

- Determine the number of staff needed for data collection. Make sure that female staff are adequately represented on the team to collect data from female community members.

Step 8. Develop a timeline for the evaluation.

- Make the timeline as specific as possible. Include finalizing the data collection tools, training the data collection, field-testing the tools, data collection, analysis, a staff reflection workshop and report writing.

Table 1. Evaluation questions, tools and respondents.

Evaluation questions	Tools	Respondent 1	Respondent 2	Respondent 3
Relevance (<i>relevance of objectives to community, needs assessment, gender strategy, community participation, targeting criteria and selection methods, timeliness</i>)				
Effectiveness (<i>met planned outputs on time, M&E system, incorporation of learning from midterm, enhancing partner capacity</i>)				
Efficiency (<i>cost per project participant, ratio of programming to administration costs, staffing structure, human resources, coordination</i>)				

Impact (achievement of SO and IR impact indicators, positive and negative impact, planned and unplanned, differential impact on different communities, households, individuals)				
Sustainability (capacity of community organizations and committees, value in community of continuing behaviors, other proxies of sustainability)				

Table 2. Tool outline and methodology.

Evaluation tool	Information needs: Questions, topics and indicators to be included	Who: Respondents or comparison groups	How: Number and strategy for random sample; number and perspectives needed for purposive sample	Notes: For selection of respondents, etc.

Appendix I: CRS Monitoring and Evaluation Standards

M&E standards define the key elements of project design, monitoring and evaluation and an organizational environment in which M&E can improve program quality and positively impact the people we serve. These standards reflect key characteristics of high-quality programs and agency culture that promote better learning and strengthen accountability to stakeholders.

Agency-wide M&E systems inform decisions at the field level regarding the progress and success of projects and programs, and inform agency-level investment decisions on agency direction, policies and operations. These are critical elements of a “high-performing, dynamic learning organization.”

CRS M&E standards	
Project performance	
Design	<ol style="list-style-type: none"> 1. CRS and partner staff jointly develop project proposals that include measurable objectives and an M&E plan, tailored to the project scope and stakeholders’ needs, to communicate progress and results. 2. CRS and partner staff ensure that M&E plans promote community participation and reflect diversity within communities, particularly gender. 3. CRS and partner staff budget sufficiently for M&E in all project proposals.
Monitoring	<ol style="list-style-type: none"> 4. CRS and partner staff jointly set up and implement monitoring systems that generate qualitative and quantitative data that are timely, reliable and useful. 5. CRS and partner staff use monitoring system information for: <ul style="list-style-type: none"> • Tracking progress against targets; • Assessing outcomes of interventions, including those that are unanticipated; • Making decisions; and • Producing evidence-based reports.
Evaluation	<ol style="list-style-type: none"> 6. CRS and partner staff jointly <ul style="list-style-type: none"> • Design and implement evaluations that assess relevance, efficiency, effectiveness, impact and sustainability, and • Use evaluations findings to improve program effectiveness.
Organizational performance	
Human resources	<ol style="list-style-type: none"> 7. Country programs, regional offices, and headquarters units have qualified staff with defined M&E responsibilities.
Agency learning and networking	<ol style="list-style-type: none"> 8. Country programs, regional offices, and headquarters units contribute to agency and industry learning by sharing evidence-based reports and publications, exchanging M&E tools and techniques, and engaging in dialogue and critical reflections

Source: Catholic Relief Services. *Monitoring and Evaluation Standards, Version 1.0*. Baltimore: Catholic Relief Services, 2009.

http://www.crsprogramquality.org/storage/pubs/me/me_standards_english_final.pdf.

Appendix II: CRS Asia Monitoring System Review Tool

Introduction

This tool provides guidance for a thorough review of your project's monitoring plan. This tool begins with a review of your existing monitoring plan and walks through the key steps of operationalizing your plan including tool development, developing a monitoring database, and use of the monitoring data. The review tool should generate discussion among project team members and culminate in an action plan for revisions or address any gaps in the current monitoring plan. This review tool is organized into eight main questions as follows:

1. Does your project have an M&E plan?
2. Does your project have an M&E binder?
3. Have you developed all monitoring forms?
4. Are staff and partners trained on using the monitoring forms?
5. Have you conducted a quality check of the monitoring data?
6. Have you created a monitoring database?
7. Are staff and partners trained on data entry and analysis?
8. Are monitoring data regularly used during M&E meetings or other events?

If you answered “no” to any of the questions above, the project team should work to complete the step(s). This review tool was not designed to be used in isolation and refers to *ProPack I*⁶⁴ and *ProPack II*⁶⁵ and this handbook for further guidance at each review stage.

If you answered “yes” to any of the eight questions above, the review tool provides subquestions to help the project team assess the quality of the current plan or component. These quality-related questions serve as a checklist; address each question by developing an action plan for revision if the answer is not yet “yes.” If it is difficult to answer any of these questions, set aside time during your next critical

⁶⁴ Valerie Stetson, Guy Sharrock, and Susan Hahn, *ProPack: The CRS Project Package. Project Design and Proposal Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2004). <http://www.crsprogramquality.org/publications/2011/1/14/propack-i-english.html>.

⁶⁵ Valerie Stetson, et al., *ProPack II: The CRS Project Package. Project Management and Implementation Guidance for CRS Project and Program Managers* (Baltimore: Catholic Relief Services, 2007). <http://www.crsprogramquality.org/publications/2011/1/14/propack-ii-english.html>.

reflection session to discuss these questions and come to a consensus as to whether you need to make any revisions for your monitoring plan.

This is an internal review tool. Engage your project team members in this process and call upon M&E team members for specific technical questions or to refine your action plan. Where you identify gaps in your monitoring plan or areas where you need to improve quality, develop an action plan (refer to template in Annex A) that outlines:

- The specific next step(s),
- The person(s) responsible, and
- The intended timeline for completion.

Step 1: Does your project have an M&E plan?

- ➡ If no, refer to *ProPack I*,⁶⁶ *ProPack II*⁶⁷ and [Creating an M&E Plan](#) when developing the M&E plan.
- ➡ If yes, consider the following questions to review the quality of your M&E plan.

Yes	No	Review questions
		Do your indicators provide information that is useful for decision-making and tracking progress?
		Have each of your indicators been fully defined (e.g., citing specific changes in knowledge or behavior where appropriate?)
		Are the intensity and the frequency of monitoring activities appropriate for the scale of your project?
		Is the sample size and methodology appropriate for your project? Refer to Random Sampling and Purposeful Sampling .
		Is there a good balance of qualitative and quantitative data included in your monitoring plan?
		Are data systematically analyzed and used after they are collected?
		Do your monitoring data vary seasonally? If so, has this been taken into account by your monitoring plan?
		Does your plan include any comparisons between different groups (e.g., women, more vulnerable groups)?

- ➔ If you answered “no” (or “not yet!”) to any of the questions above, develop an action plan to revise your M&E plan.

If you have conducted a recent evaluation for your project, what were the evaluation recommendations, if any, for revising the monitoring plan? Did the evaluation find that important information is currently not being captured by the monitoring plan? Or that any information currently being collected is not required for monitoring your project?

⁶⁶ Stetson, Sharrock, and Hahn, *ProPack I*, 97–148.

⁶⁷ Stetson et al., *ProPack II*, 83–130.

Step 2: Does your project have an M&E binder?

⇒ If no, create an M&E binder to house all of your M&E documents and templates.

⇒ If yes, make sure your M&E binder includes the following:

Getting organized

- Table of contents
- Purpose statement
- Stakeholder analysis
- M&E working group

Setting up

- Results framework
- ProFrame
- M&E plan
- Indicator performance tracking table
- Detailed implementation plan (including M&E) or M&E calendar

Designing forms and reports

- Data flow maps
- Data gathering form, report formats, and instructions
- Focus on community M&E
- Data management
- Communications and reporting maps
- Learning-to-action discussions⁶⁸ or analysis plan
- Capacities and resources
- Reports and evaluations

For guidance on completing any of these M&E components, refer to this handbook and to *ProPack I*,⁶⁹ *ProPack II*⁷⁰ and *ProPack III*.⁷¹

Make your M&E binder user-friendly by including a table of contents and organizing all items in a sequential order, with each component clearly labeled.

⁶⁸ Susan Hahn and Guy Sharrock, *ProPack III: The CRS Project Package. A Guide to Creating a SMILER M&E System* (Baltimore: Catholic Relief Services, 2010).

<http://www.crsprogramquality.org/publications/2011/1/17/propack-iii-english.html>.

⁶⁹ Stetson, Sharrock, and Hahn, *ProPack I*, 97–148.

⁷⁰ Stetson et al., *ProPack II*, 83–130.

⁷¹ Hahn and Sharrock, *ProPack III*.

Step 3: Have you developed all monitoring forms?

⇒ If no, refer to [Developing Quantitative Tools](#) and [Developing Qualitative Tools](#) when developing monitoring forms.

⇒ If yes, consider the following questions to review the quality of your monitoring forms.

Yes	No	Review questions
		Do your monitoring forms capture all of the monitoring indicators from your ProFrame?
		Do your monitoring forms capture data that will allow for comparisons between specific groups, such as women or other key vulnerable groups?
		Do your monitoring forms include additional information not required by the ProFrame? <ul style="list-style-type: none"> • If no, consider what additional information is required for monitoring the programmatic context, implementation and early indicators of desired change in the target population. • If yes, consider if this information is required for monitoring the project. Remove all monitoring information that is not required.
		Do your monitoring forms collect both qualitative and quantitative information? <ul style="list-style-type: none"> • If so, are the questions for each separated to avoid confusing questions that mix both types of data? • Do your monitoring forms allow you to link quantitative and qualitative data so the results support each other?
		Do monitoring forms have clear instructions specifying purpose, frequency and tips for completion to improve the quality of data collected?

→ If you answered “no” (or “not yet!”) to any of the above questions, develop an action plan to revise your monitoring forms.

File your completed monitoring forms in an organized manner so that staff and partners can easily find them to review both the content and quality of completed forms.

Step 4: Are staff and partners trained on using monitoring forms?

⇒ If no, plan a training session to orient staff and partners on the rationale behind the tools and questions and on the use of each tool. Be sure to include an opportunity to field-test the tools, both for staff and partner experience and to identify any weaknesses in the tools or confusing questions that should be addressed before they are finalized. Refer to [Training and Field Testing](#).

⇒ If yes, consider the following questions to review the quality of the staff and partner training.

Yes	No	Review questions
		Have staff and partners been trained on any new or revised forms that were not included in the initial training (if applicable)?
		Have staff and partners been trained on reporting formats?
		Have you revised your monitoring forms to incorporate feedback from the staff and partner training and field testing?
		Have you revised your monitoring forms since they were first used to incorporate feedback after use?

➔ If you answered “no” (or “not yet!”) to any of the questions above, develop an action plan to provide further training for staff and partners.

Step 5. Have you conducted a quality check of the monitoring data?

⇒ If no, thoroughly review the data collection process and a selection of completed monitoring forms to identify any gaps in data quality.

⇒ If yes, consider the following questions to review your quality check.

Yes	No	Review questions
		Are there any common mistakes by data collectors? <ul style="list-style-type: none">• If yes, how can these problems be addressed?
		Are there questions included that often yield unclear data or data that were not directly related to the question? <ul style="list-style-type: none">• If yes, how can these questions be rephrased?
		Are there questions that were often left blank? <ul style="list-style-type: none">• If yes, is this due to lack of responses by participants or error by data collectors?

→ If you answered “no” (or “not yet!”) to any of the questions above, develop an action plan to conduct a quality check of your monitoring data.

Step 6. Have you created a database for your monitoring data?

- ⇒ If no, create a database for your monitoring data following the guidance provided in [Developing a Quantitative Database](#).
- ⇒ If yes, consider the following questions to review your database.

Yes	No	Review questions
		Does your database allow you to record and track just the main ideas from the qualitative monitoring data collected? <ul style="list-style-type: none"> • Only the main ideas or points from qualitative data need to be entered into a database. Store the completed monitoring forms in a central location where they can easily be referred to during analysis or if any additional questions arise.
		Does your database allow you to summarize and track your data based on the summaries appropriate for your project (e.g., by month, geographic location or partner)?
		Is the process of data entry and analysis providing timely results and summaries? <ul style="list-style-type: none"> • If no, how can you ensure the results are available for timely use by revising the database format?

- ➔ If you answered “no” (or “not yet!”) to any of the above questions, develop an action plan to revise your database.

Step 7. Are staff and partners trained on data entry and analysis?

➡ If no, train designated staff and partners on the data entry process and (either the same or different) staff members and partners on the analysis required for the monitoring data.

➡ If yes, consider the following questions to review the data entry and analysis processes.

Yes	No	Review questions
		Does the time required for entry and analysis allow for timely results and summaries? <ul style="list-style-type: none"> • If not, how can you ensure the results are available for timely use by retraining the data entry or by retraining those that conduct the analysis?
		Do you receive quantitative monitoring results in adequate time for meetings or other critical reflection events? <ul style="list-style-type: none"> • If not, how can the time required for writing reports be shortened?
		Are quantitative monitoring results presented in a way that allows for comparison between key groups or geographical areas as needed?
		Have CRS and partner staff received adequate support to conduct participatory analysis of qualitative data?

➔ If you answered “no” (or “not yet!”) to any of the above questions, develop an action plan providing staff and partners with additional training.

Step 8. Are monitoring data used regularly during M&E meetings or other events?

⇒ If no, develop a schedule for M&E meetings (reflection or other use events) with relevant staff, partners and stakeholders who will use the monitoring results. These can be separate meetings, workshops or time allocated specifically to M&E within other meetings or events. Refer to [Reflection Events](#) when planning and structuring these sessions.

⇒ If yes, consider the following questions to review the appropriateness of your M&E meetings and other related events.

Yes	No	Review questions
		Do these events occur frequently enough to allow for timely review of the monitoring data? And for timely programmatic decisions? <ul style="list-style-type: none"> • If not, schedule these meetings and events more frequently.
		Is enough time allocated for M&E during each event to cover all relevant information?
		Does your monitoring system provide enough information to identify progress and challenges related to your project? <ul style="list-style-type: none"> • If not, adjust your monitoring plan to provide more contextual data (qualitative and quantitative) and rely more on staff and partner observations and informal monitoring.
		Do you use all monitoring data collected during these reflection events? <ul style="list-style-type: none"> • If not, consider collecting these data less frequently or removing them from the data collection forms if appropriate.
		Are all of your information needs met during each meeting and use event to make programmatic decisions and monitoring progress? <ul style="list-style-type: none"> • If not, revise your monitoring plan and forms to include the necessary additional information.
		Do your monitoring data present enough contextual information to explain the quantitative data collected?
		Do your monitoring data present enough quantitative data to track progress of the project?
		Are quantitative and qualitative monitoring data interpreted together to answer the project's monitoring questions? <ul style="list-style-type: none"> • Refer to Creating an Analysis Plan for more information on monitoring questions.
		Do reflection and M&E events focus on what is going well and why? <ul style="list-style-type: none"> • If not, include more of a focus on the project's achievements and successes. Acknowledge hard work and accomplishments. Take time to understand why the project has been successful and in which contexts or among which groups it has been more successful.

→ If you answered "no" (or "not yet!") to any of the questions above, develop an action plan for future use and reflection events.

Annex A. Action plan template

Project name: _____

Date review completed: _____

List of review participants:

1. What is going well and why?

2. What is challenging (i.e., gaps and weaknesses) and why?

3. Action plan for revisions and next steps

Action to be taken	Person(s) responsible	Anticipated date of completion
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

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