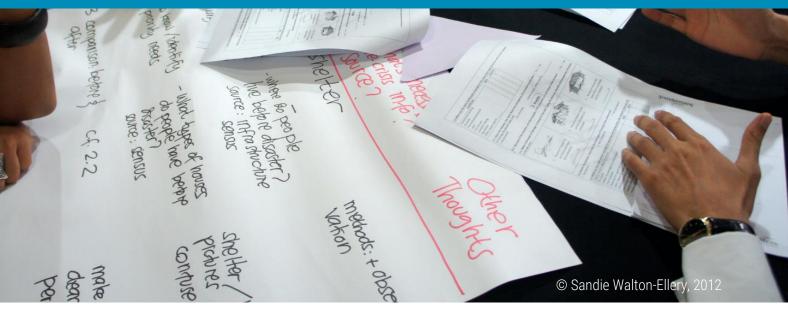
July 2016 Technical Brief



QUESTIONNAIRE DESIGN

How to design a questionnaire for needs assessments in humanitarian emergencies



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Questionnaire Design Checklist

This checklist outlines the essential components of a questionnaire design process. Each of the topics below is discussed in detail in subsequent sections.

PLANNING

- ASSESSMENT OBJECTIVES and INFORMATION NEEDS have been agreed by all stakeholders
- There is a comprehensive and detailed ANALYSIS FRAMEWORK and PLAN
- TESTING, TRAINING and, if necessary, TRANSLATION have been included in the planning

FORMAT AND CONTENT

- Questionnaire format is EASY TO USE
- The questionnaire starts with METADATA and CLASSIFICATION questions
- The FLOW and ORDER of questions are effective
- General questions before specific questions
- Questions are ordered in terms of importance
- Questions on behaviour (what people do) come before questions on attitude (how people feel)
- Spontaneous, open questions before prompted, multiple-choice questions
- Sensitive questions are placed at the end of the questionnaire
- Transition statements are included for each new topic, timeframe, or unit of measurement
- The key informant (KI) or household (HH) questionnaire is in most instances no longer than 50 MINUTES (20 for telephone surveys), focus group discussions (FGDs), and community group discussions (CGDs) no longer than 90 MINUTES
- Clear INSTRUCTIONS are provided on how to ask and answer every question
- Questions and sections are VISUALLY DISTINCT. There is sufficient SPACE for the enumerator to record answers

QUESTION QUALITY

- Key questions have been **TESTED** and **IMPROVED** based on the feedback
- OPEN-ENDED QUESTIONS are only used if really necessary
- The questions are UNDERSTANDABLE
- Questions are stated in a simple, straightforward manner
- Every question has a clear unit of measurement, e.g. change 'how long' into 'how many hours'
- There are no ambiguous terms or timeframes
- The question stem and choices match
- Every question asks about one concept only
- Questions are ANSWERABLE
- Questions have been adapted to the knowledge and language of the respondent
- Skip questions (questions that are included or excluded based on the respondents' answers) are used where necessary and the skip instructions are correct)
- Response categories include 'do not know' and 'no response'
- The response categories are mutually exclusive, as exhaustive as possible, as precise as necessary, and meaningful to respondents
- The denominator is clear in questions asking for percentages or ratios
- Questions are UNBIASED
- Bias through social desirability is minimised, meaning that questions are not presented in a way that might lead a respondent to think one response is preferred over another
- Sensitive questions are carefully introduced and phrased

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Introduction

There is no shortage of questionnaires used during emergencies that are too long, overly complex or unable to generate useful responses. The art of developing an effective questionnaire is the topic of master degrees and doctorates. The guestionnaire is a critical tool in humanitarian response and requires time, resources and a detailed understanding of the context, factors which are all in short supply during an emergency. This technical brief aims to support the design of questionnaires for use in humanitarian emergencies by providing a set of guiding principles and a step-by-step process. If many of the principles detailed are universal to the development of any type of questionnaire, most of the examples used in this brief are related to strategic needs assessments implemented at the community level rather than the household level, e.g. Multi Cluster Initial and Rapid Assessments.

Considering the complexities involved in developing a reliable data collection tool, we emphasize the need to develop the questionnaire and test it during the assessment preparedness phase. Dedicating time and resources during "peace time" goes a long way in avoiding common mistakes in questionnaire design.

The brief starts with an explanation of the main purpose of a questionnaire and the principles that should be followed to reach these objectives. Afterwards, the ten steps of questionnaire development are discussed. The brief concludes with sections on what to keep in mind specifically when designing a questionnaire and individual questions. It focuses on questionnaire design for intervieweradministered (as opposed to self-administered) surveys, as this is the most common approach used in humanitarian emergencies. However, Section two briefly touches upon the impact of different survey modes on questionnaire format and wording.

This brief focusses on *how* to gather the information required; it does not provide recommendations on *what information* should be collected. In addition, the design, roll-out and ultimately the success of an assessment involves much more than designing a questionnaire. It includes deciding the sampling strategy, arranging logistics, data processing, etc. This brief touches on these other components only as far as they are relevant to the design of questionnaires. For more information on the complete assessment process and which information to gather when, see The Good Enough Guide – Humanitarian Needs Assessment (2014) and the MIRA revision July 2015.

I - Purpose and principles

Questionnaires are specialised and structured tools of human interaction. They are meant to make communication more effective and predictable. The main objective of a questionnaire is to translate what actors need to know (their information needs) into a set of questions that respondents are able and willing to answer. More specifically, a questionnaire aims to :

- Ask the right question, in the right way, to the right person.
- Provide a structure to the interview that enables it to proceed smoothly and systematically.
- Systematise responses and the forms on which these are recorded to facilitate data processing and, most importantly, analysis.

To achieve these objectives, four principles are essential in designing a questionnaire:

- Remember the objectives
- Apply a user-centred design
- Minimise the risk of error
- Adhere to ethical standards

Remember the objectives

Keep in mind the assessment objectives at every stage of the assessment process. Problems encountered during questionnaire development often stem from a lack of clarity on the assessment objectives. A questionnaire that fails to translate the objectives clearly is inevitably going to overlook important issues and waste resources and participants' time by asking irrelevant questions. Strict adherence to what the assessment intends to measure, and what it does not, helps keep the questionnaire focused.

Determining the purpose of the information collected is one of the best ways to clarify the specific goals of an assessment. It is all too common to include questions without evaluating their contribution towards the assessment objectives. Irrelevant questions are costly for those conducting the assessment and for those responding to the questionnaire. Therefore, **do not include a question unless the data it provides can be of direct use in addressing the objectives**. The exception to this rule are questions included to establish rapport between the enumerator and respondent, or bridgebuilding questions which reorient the respondent's perspective in preparation for the next section of the questionnaire. Conversely, many assessment teams, after conducting assessments, find that important questions have been excluded. Therefore, when planning the questionnaire design, **carefully consider possible omissions**. But keep in mind that assessment will almost always leave some questions unanswered, which provides a need for further research. The goal should be to include as much necessary and actionable information as possible.

Apply a user-centred design

All questionnaires have four types of user, each with a different role and objective:

- The field teams conduct and record the same survey multiple times. They have limited time and resources. As such, field teams require a short, well-structured questionnaire that is easy to understand and populate.
- The respondents, participating in the research, will be interested in a straightforward survey that allows them to explain their needs, while not taking too much of their time. The respondents to a humanitarian assessment have often been affected by an emergency, might be traumatised and are likely preoccupied with recovering from the impact of the shock. In addition, they will not be directly compensated for their contribution to the assessment process. It is therefore of great importance that the questionnaire is designed in a way that is not intrusive and does not require too much time or effort.
- Information managers and analysts are in charge of processing the data and turning it into actionable information. This group wants a questionnaire which results in accurate and structured data that can be processed efficiently and compared against other information.
- Decision-makers are the "consumers" of the assessment and are seeking as much information as possible to address outstanding information gaps. They require accurate and relevant data to inform strategic and programmatic decisions.

Keep in mind the interests of all users when designing the format and content of a questionnaire. There is often a tendency to focus on the interests and needs of decision-makers, information managers and analysts, as they will be closely involved in initiating, designing and using the assessment. This is a mistake. The quality of the data collected is determined by the successful participation and understanding of the respondents and the field teams. In case of a conflict of interest between the two groups of users, let the interests of the respondents and field teams prevail.

Minimise the risk of error

For a questionnaire to provide usable results, its design should intend to minimise the potential measurement errors¹ that could stand in the way of obtaining valid results. Measurement errors in humanitarian assessments are induced primarily by the following four sources:

- The instrument-induced error: leading questions, questions that can be interpreted in different ways, inappropriate order of questions, etc.
- The enumerator-induced error: inappropriate rewording or skipping questions, recording errors, etc.
- The respondent-induced error: misinterpreting the question, the desire to always respond to a question even if the respondent does not know the answer, failure to recall, erroneous inferences, etc.
- The data collection technique: respondents answer questions on sensitive topics differently in the presence of an enumerator compared to self-administered surveys etc.

The art and science of questionnaire design is especially focused on limiting errors generated by field teams, respondents and faulty instruments.

INSTRUMENT-INDUCED ERROR

- Instrument validity: A questionnaire has low validity if it does not measure what it was set out to measure. This can occur when questions are misunderstood by respondents. A good questionnaire should enable researchers to obtain valid responses by helping to ensure that the respondent understands what information is being sought. To correct for instrument-induced error, triangulate findings between different instruments, e.g. combine findings from direct observation with household questionnaires.
- Reliability: The reliability refers to the consistency and precision of an instrument. A reliable questionnaire generates similar answers when administered repeatedly under the same circumstances. Test the reliability of critical questions by using two different questions measuring the same construct within one

 $^{^1\}rm Error$ occurs when there is a difference between the situation as recorded during the assessment and the true situation. There are different sources of error that occur at different stages of the

assessment, including sampling, measurement and data processing errors.

questionnaire. In a reliable and valid questionnaire, the responses to these questions will be similar. ENUMERATOR-INDUCED ERROR

- Desire to help the respondent: the interview can produce valid responses if the enumerator expresses empathy with the respondent's situation. However, the enumerator may become too sympathetic, and this can affect the conduct of, and results obtained from, the interview.
- Failure to follow instructions in administering the questions: it is often tempting for the enumerator to change the wording of a question or emphasise a certain part. This can affect the respondent's understanding and can bias the reply.
- Reactions to responses: when respondents give answers, the enumerator must be careful not to 'react.' A note of 'surprise' or 'disbelief may easily bias the respondent's subsequent answers. Field teams should respond with a uniform polite interest only.

RESPONDENT-INDUCED ERROR

- Faulty memory: some respondents may answer a question incorrectly simply because they have a poor memory. Recall errors can partly be avoided by using short and clearly defined reference periods (e.g. the last seven days instead of last week)
- Misunderstanding the purpose of the interview or question: include a clear introduction in the questionnaire, which covers the objectives of the survey, the identity of the enumerator, assessment team and organisation, and what is requested from the respondent. Make sure questions are phrased as clearly as possible.
- Bias: Respondents can show systematic bias in their response to items. A common type is social desirability bias – the tendency for respondents to present themselves favourably or as socially acceptable. The respondents may not wish to be impolite or offend the enumerator, and may endeavour to give 'polite' answers. Another important source of bias arises from the respondents' correct assumption that the allocation of relief will be guided by relative severity, and the incorrect inference that their own exaggerations will improve their chances of increasing support. To mitigate the risk of bias, avoid leading questions and categories, and identify and carefully introduce sensitive questions.

To avoid enumerator- and respondent-induced error, design an unambiguous questionnaire with clear instructions (see Section 'Step 9: Instruct Field Teams'). In addition, provide training on the questionnaire and the possible impact of enumerator and respondent bias.

Adhere to ethical standards

Ensure that the assessment abides by the general ethical standards that apply to all social research:

- All respondents provide informed consent before participating. This means providing sufficient information about the assessment and ensuring that there is no explicit or implicit coercion, so that prospective participants can make an informed and free decision on their possible involvement.
- The information collected is only used for the purposes to which the respondent has agreed (Adams and Brace, 2006).
- Respondents are able to withdraw from the assessment at any time and are not coerced into providing information, particularly information that may be perceived as sensitive or incriminating.
- Participants are guaranteed that their responses will not jeopardise their safety or security (Brace 2013, ESRC 2015).
- Anonymity (identity of the respondent is unknown) or confidentiality (the identity of the respondent is known – or can be known – but the use of this information is restricted to certain individuals) of respondents is respected during data collection, processing and dissemination.

Depending on cultural and historical context, such assurances may not be understood or may not be perceived as credible. **Ensure appropriate local terms and concepts of privacy and respect are used.** In the case of a specialised assessment which requires participation of individuals under 18 years of age, always seek permission from their parents or other caretakers (Oppenheim 2001).

II - Questionnaire Modes

There are a number of ways in which a questionnaire can be administered – from self-administered postal surveys to surveys undertaken by field teams with hand-held devices. In humanitarian crises, assessments are mostly administered through field teams who use a paper version of the questionnaire, a tablet or a smartphone.

Telephone-based surveys are becoming more common, particularly in areas where humanitarian access is limited. Phone-based questions can be very useful for initial scoping, for instance in cases where priority areas for assessment are still to be determined. Mobile text surveys, where respondents are requested to answer short and simple questions via text message, have been piloted in several countries, including the Democratic Republic of Congo (HPN 2014).

Ensure the planned mode is the most appropriate for the context considering the length of the questionnaire, the type and complexity of the questions, the sensitivity of the questions, the number of response options and the resources available.

Length of the questionnaire: Face-to-face surveys are better for administering long questionnaires than telephone-based ones. It is difficult to establish a rapport between enumerator and respondent over the phone. Respondents are therefore more likely to become bored and hang up or provide incomplete answers. Phone-based interviews should be limited to 20 minutes or less.

Type of questions: Open questions generate more information during face-to-face conversations than telephone interviews. This could be because of the need to let the conversation 'flow', which, without body language, means avoiding silences. This leaves little room for respondents to consider an answer or field teams to allow for time to think between questions.

Complexity of questions: It is possible to ask more complex questions in interviewer-administered assessments than in self-administered ones, because respondents can ask interviewers for clarification if anything is unclear. The enumerator can observe the behaviour of the respondent and a question that is clearly misunderstood can be corrected on the spot.

Questionnaires through text message impose considerable limitations. The questionnaire should be extremely short and clear and adapted to the size of the screen of the most commonly used type of mobile phone among the targeted respondent group.

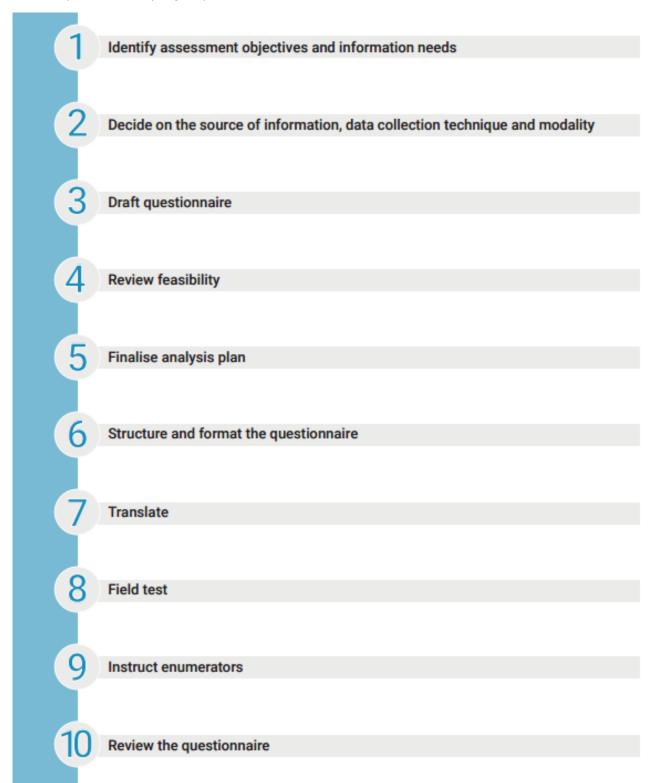
Sensitive questions and bias: Self-administered and phone-based assessments may be perceived to provide more anonymity to the respondent. As a result, respondents could be more likely to disclose sensitive information and social desirability bias might be reduced. However, the available research on this topic is inconclusive.

Number of response options: The list of response options can be as long as necessary in selfadministered surveys, while in face-to-face and phonebased the list should be short enough for respondents to remember. Resources available: If appropriate within the context, use phone or mobile text surveys if resources are tight, as these modes are quicker and considerably cheaper than assessments which include a face-to-face component.

III - Designing a questionnaire

Questionnaire design is the process of designing the format, hierarchy, structure, and questions of the data collection instrument. There are ten steps to composing a questionnaire. These steps apply to the development of all questionnaires, regardless of the questionnaire mode, data collection technique, context or resources available. Since building a reliable instrument is a long process, the importance of preparing and testing data collection instruments during the preparedness phase is critical to successful design.

The 10 steps of developing a questionnaire:



Step 1: Identify objectives and information needs

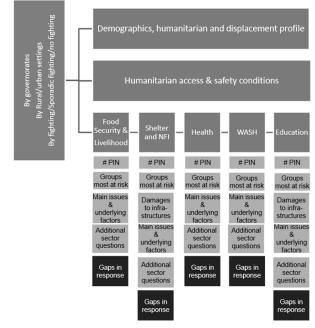
The first step to questionnaire-building is to identify the answers that the questions should generate to fulfil the assessment objectives, not to think up a list of questions. The general objectives of a multi-sector rapid assessment during humanitarian emergencies are to identify:

- Most affected geographic areas and groups
- Priority needs of the affected population
- Approximate numbers of people in need
- Specific recommendations to inform strategic decisions on response planning.

After establishing the objectives, identify the information that needs to be collected to meet the objectives. Establishing information needs at this stage of the questionnaire design involves, at a minimum:

- Identifying the topics of interest, e.g. demographics, movement intention, health, livelihood, markets functionality.
- Designing an analytical framework, which is a structure for organising topics of interest and expected outputs:

Example analytical framework, Syria MSNA, 2014



 Identifying the desired summary metrics for each topic, i.e. how each topic in the analysis plan will be measured and calculated. This could be a percentage, an absolute number or the frequency at which a certain value is being reported: the percentage of water points which have been destroyed, the number of children not attending school or the frequency that health centres are reporting cases of malnutrition in children under five. In addition, outline if and how some topics intersect analytically (e.g. gaps in response, which can be defined as the number of people in need minus the number of people covered).

 Reflecting on the number and types of information needs and differentiate between interesting and important information. Adapt or simplify the framework accordingly.

'Need to have' over 'nice to have'

Collect the minimum data necessary as a golden rule. Avoid the 'nice to have', and rather focus on the 'need to have' information. Assessment teams must always be prepared to ask whether fulfilling a specific information need is really required:

- What decision will be taken with this information? Is it necessary at this phase of the response?
- Is accurate and reliable information available through other avenues, e.g. in secondary data?
- Is this degree of accuracy and detail achievable with the current resources?
- Is the cost and effort necessary to obtain this information justified when compared to the value of the information?

A good rule of thumb is to ensure that the questionnaire is no longer than four pages. See Annex A for more information on how to prioritise information needs.

There are some exceptions to the rule 'only include questions that directly meet the information need'. Consider including the following types of questions :

- Additional questions that make the findings of this assessment comparable to those of another (baseline, other region, other agency) – if comparability is desired and meaningful.
- Multiple measures of the same concept if one question does not adequately capture it or to ensure reliable responses to key questions (see Section 'Minimise the risk of error').
- Questions aimed at building rapport between the respondent and enumerator.

Step 2: Decide on source of information and data collection technique

Step 2 is about asking the right person the right question using the right technique.

Undertake a secondary data review (SDR) to identify which information gaps need to be covered by field data collection. The secondary data review also helps to determine the hypotheses around which the questionnaire is to be designed. For example, if the secondary data review pinpoints a specific marginalised ethnic group, the assessment should plan to include a representative of this group is included as a key informant during primary data collection to ensure that a heterogeneous picture of the needs is captured.

Identify the best field sources for each remaining information need. Sources of information include key informants, community group discussions, households, individual household members, etc. Different sources of information provide different perspectives and types of information. When looking for information on negative coping mechanisms, the household is likely to be the most appropriate source. Key informants such as traders will be able to give information on market functionality and supply chain obstacles. When questions are asked to the wrong respondent, the information is likely to be misleading.

Afterwards, decide on the most appropriate data collection technique for each source of information. Examples of commonly used data collection techniques in humanitarian crises are secondary data review, key informant interviews (KII), direct observation (DO), and community group discussions (CGD). The most appropriate technique is determined by a combination of the preferred source of information, time and resources available (including field teams familiar with the technique), and humanitarian access. In areas inaccessible due to damage to infrastructure and communication channels, direct observation from fly-overs or satellite imagery might for instance be the only data collection technique possible.

Map the different sources of information and data collection technique/tools for each topic of interest, in order to identify triangulation opportunities and start planning for analysis.

Example tool matrix: Kobane, Syria, 2015

Sub-section	Key research areas (key indicators and research questions will be developed)		Data Collection Tools		
			KI	нн	
Demographics	Baseline information	х			
	Population figures		Х		
	Family composition		Х	X	
	Trends	Х			
Affected Population in	Baseline information	Х			
Need of Assistance	Key affected population groups, cross-sector		х	X	
Return Dynamics/	Baseline information	Х			
Population movements	Main obstacles to the return process		х		
	Absorption capacity of neighbourhoods and			X	
	villages				
Registration of	Baseline information	Х			
returnees and IDPs	Returnees		х	X	
	IDPs		х	X	
Humanitarian Access	Baseline information	Х			
	Access to the affected population		Х	X	
	Access of beneficiaries to relief		Х	X	
	Security and physical constraints		х	X	

Develop a separate questionnaire for each information source. The identification of the appropriate source of information determines the number and type of data collection techniques to be used and, by extension, the number of forms or ways of capturing information. Types of forms used during rapid assessments include:

- Key informant interview forms
- Community group discussion form
- Direct observation form
- Debriefing forms (used by field assessment teams to compare and summarise their findings after the field visit, see example Annex B)
- Checklists (exhaustive list of topics to be explored, mostly open-ended questions)
- Self-administered questionnaires
- Fly-over forms (Forms used for capturing observations during a low flight over affected areas)
- Disaster-forms (one to two page questionnaires filled by local authorities immediately after the disaster and sent to the disaster management authorities in charge of analysis)
- Secondary data database (spreadsheet or online platform where excerpts of secondary data are captured and tagged based on pre-defined topic of interest)

Effectively mixing data collection techniques

Using a combination of different data sources through different data collection techniques can provide more comprehensive and accurate results. This is because different information sources fill different information needs as well as because investigating the same question through different techniques is an important way of triangulating information. However, it requires expertise and careful consideration :

 Questions about a same topic of interest but inserted in different forms (e.g. targeting different information sources) should not be identical but seek complementarity. For example, combine the question to local authorities on 'who has been providing food assistance in the neighbourhood during the last 30 days?' with a question for community groups: 'was the food assistance provided in the neighbourhood during the last 30 days sufficient?'.

- With more data collection techniques used simultaneously (i.e. KII, DO and CGDs), more views are gathered on a same subject, and more data is generated. Consequently, more time is required for data processing and analysis.
- In order to quickly synthesise and communicate initial findings, start by processing the assessment team debriefings. Focusing on this 'top line' information first allows the quick detection of priority geographic areas and humanitarian concerns. Afterwards, process other forms to find more detailed information.
- The assessment team debriefs should consist of two parts. First, a debriefing form (see annex B) should be filled out by each team at the end of the field visit. This form is designed to summarise main observations, key findings (severity of conditions, priorities, interventions required, etc.) and conflicting findings, if any. Second, at the end of the day, or end of the assessment, the assessment team jointly discusses the results during analysis sessions.

Step 3: Draft questionnaire(s)

After completing steps 1 and 2, drafting of the questionnaire(s) can start, using the analytical framework as a guide.

Decide on the most appropriate type of questionnaire. The objective and the context of the assessment determine which form to choose. If the purpose is to collect exploratory information, i.e. qualitative information for the purpose of better understanding the situation, or for the generation of hypotheses on a subject, use an open-ended form. To collect confirmatory information, i.e. to test specific hypotheses that have previously been generated by earlier assessments or field visits, use a form with closed-ended questions.

A mixed form will allow the pursuit of both objectives using one form. Start the questionnaire with a highly flexible part – with open-ended questions that will enable the respondent to share their concerns and perspective. The responses are likely to provide dense context for later interpretation and validation. An

 $^{\rm 2}$ The PARK (Profiling and Assessment Resource Kit) is an online database with profiling and assessment exercises. The PARK was

additional component with closed-ended questions provides precise metrics:

Example: Moving from open to closed-ended questions during a key Informant interview

<u>Open</u>: What has happened to this community in the last six months?

Narrative-style response (no response options provided)]

<u>Open:</u> As a result of all that, what is the food (or any other sector of concern) situation like? How are people eating?

Semi-standardised response (response options provided to enumerator to facilitate data processing, but options are not read out to the responded)

<u>Closed</u>: Out of every ten families, would you say how many eat only one meal a day?

Standardised response (respondent is aware of the possible response options)

<u>Closed</u>: Of all the problems that we discussed, which are the three most important ones?

Standardised response (respondent is aware of the possible response options)

<u>Closed</u>: You said currently about XXX people live in this community. Here is a small table with the various sectors that we discussed [passes over table template]. How many do you estimate are in acute need for food (they will die soon without relief)? How many in moderate need? And so on for other sectors. *Standardised response*

For the advantages and disadvantages of using open and closed-ended questions within the questionnaire, please see page Section 'Decide on Types of Questions'.

Review questions already used within the country, region or during similar crises. Visit existing assessment registries, the PARK² or archives used for questionnaires in the country. Keep in mind that an existing questionnaire may not necessarily be a good one: questionnaires too rarely are revised after the assessment based on the experience of field teams, analysts and decision makers. If the question was used in the final report, it is often a good indication of whether it generated useful results. If possible, obtain

initiated by the Joint IDP Profiling Service (JIPS) and is managed jointly with ACAPS. <u>http://www.parkdatabase.org/</u>

permission when using a questionnaire or items developed by someone else.

Make sure each question includes clear instructions to the enumerator or, if the questionnaire is selfadministered, the respondent.

The most important instructions for the respondent and enumerator are remarks on how the question should be answered, such as:

- Select max. 3 options
- Select all options that apply
- Rank 1st, 2nd and 3rd
- Tick only one

Similarly, questions or options that are to be read out loud and those that are only for the enumerator should be clearly distinguished through the use of different font sizes and formats.

Omitting the very basic enumerator instructions has *disastrous effects*, as the gathered data will be incomparable.

Include clear instructions for the enumerator on how to respond if a question is misunderstood or needs clarification. This depends on the chosen enumerator approach (see Section Step 9: Instruct Field Teams).

Once the first draft is ready, check how long it takes to undertake the questionnaire. The longer the questionnaire, the more likely that response rate and accuracy will be low. It is not recommended to field a survey that takes longer than 50 minutes to administer per respondent. If the questionnaire is too long, review questions to exclude information that is *nice to know* but that does not directly contribute to the assessment objectives and the information needs.

Step 4: Review feasibility

In humanitarian crises there is always a significant gap between the information required and what can actually be collected, particularly when there has not been sufficient disaster preparedness. Consider the four parameters related to resources and operational constraints that strongly influence assessment design:

- **Cost**: Is the necessary budget and logistical means (transport, fuel, etc.) available to administer the questionnaires?
- **Speed**: Is it realistic to implement the assessment, cover all selected sites and reach all respondents in the given timeframe?

- Quality: Is the necessary expertise available to conduct the types of interview(s) that are planned, and to process and analyse the data? Are sufficient qualified staff and analysts available? Will they be able to use the technology appropriately? Can they handle sensitive questions or group facilitation?
- **Safety**: Can the safety of field teams and respondents be ensured using these questions?

If the answer to one of those questions is "No" or "Maybe", look at ways to adapt the questionnaire. Adaptation strategies include: increase the budget, hire additional staff, plan for extended trainings, call for specialised support, reduce the sample size, change data collection technique or reduce the questionnaire size. Annex A provides guidance for prioritising questions during emergency assessments, based on UNHCR methodology.

Step 5: Finalise the analysis plan

Steps 1 to 4 feed into the analysis plan. This plan captures how a question contributes to the assessment objectives, how the data should be processed and triangulated, analysis steps that are to be undertaken and how the information will be presented. **During step 5, finalise the plan and ensure its endorsement by relevant actors.**

A good-enough¹ analysis plan covers:

- What is the objective the question is trying to meet?
- What data is required to meet the objective?
- How can this information be collected?
- From what source(s) can the information be collected?
- What specific question(s) will be asked to gather the information?
- What types of analyses, comparisons, processing and triangulation will be required to interpret them?
- How will results be presented in the final report? 'Good enough' does not mean second best: it means acknowledging that, in an emergency, adopting a quick and simple approach to assessments may be the only practical possibility. (ACAPS/ECB 2015)

An analysis plan is also an effective assessment coordination tool. By identifying the detailed assessment outcomes at an early stage, stakeholders can have a common understanding of what the assessment can provide, and clearer expectations. In addition, it forces the assessment team to carefully consider the rationale behind each proposed question.

Example analysis plan

Information needs Main problems in water supply as expressed by the population	Metrics Frequency of problems reported due to access issues Frequency of problems reported due to availability	Data source Local population, relief committees, head of HH, Water Committee, local organisation, NGOs		Question Read question and response options out loud. Is there a serious problem regarding water in this neighbourhood? If yes, I am reading a list of possible problems (<i>Select max five most serious</i> <i>problems</i>)	Sample type of visualisation
Main problems in sanitation as expressed by the population	issues Frequency of problems reported due to access issues Frequency of problems reported due to availability issues	SDR, local population, relief committees, head of HH, Water Committee, local organisation, NGOs	area,	Read question and response options out loud. Is there a serious problem regarding sanitation and hygiene in this neighbourhood? If yes, I am reading a list of possible problems (<i>Select max</i> <i>five most serious problems</i>)	Alain Santation & Hygiene problems in Alappo Kernergh zoms hvater an og konste of faj prins In signization ellerter is general water kallen op Mernergh zoms hvater der bester Kernergh zoms hvater begreich bester Kernergh zoms hvater begreich kallen op Niterengh zoms hvater begreich kallen op Niterengh zoms hvater begreich kallen far mes ant eller op Niterengh zoms hvater begreich kallen far mes ant eller op Niterengh zoms hvater begreich kallen far mes ant eller op Niterengh zoms hvater kallen far mes ant eller op
Ranking of groups the most at risk as reported by the population	Top 3 most vulnerable groups in the WASH sector	Local population, relief committees, head of HH, Water Committee, local organisation, NGOs	Breakdown per area and priority rank	Read question and response options out loud. Regarding the lack of safe water, which group is most at risk? (<i>rank top three: 1=first, 2=second,</i> <i>3=third</i>)	VARSIN Risk to Valuesadate Groups mission miss
Severity of problems	Severity of conditions (lifesaving scale)	Local population, relief committees, head of HH, Water Committee, local organisation, NGOs		Read question and response options out loud. Overall, which of the following statements describes best the general status of water supply? (Circle one right answer)	All Arrays

Step 6: Structure and format

Step 6 is about designing the questionnaire in a way that generates useful responses and motivates both the enumerator and respondent.

Introduction: Include a clear introduction to the survey which covers:

- The survey objective
- The estimated duration of the interview
- What the respondent can expect from the interview (compensation etc.)
- Expression of approval of relevant authorities
- Information on how the survey results will be used and how the respondent can access the findings
- Requesting informed consent (see Section 'Adhere to Ethical Standards')

Metadata: Start every questionnaire with a set of questions that serves to capture the characteristics of the questionnaire itself such as location name and p-code, type of setting and enumerator code. Many of the questions included in the metadata are similar across contexts. Annex B provides an overview of commonly used questions.

Classification questions: These questions allow for stratification of the sample based on background variables (area of high conflict intensity vs area of low conflict intensity, male/female, different age groups urban/rural, etc.). When only people or locations with certain characteristics are of interest, eligibility questions should be included at this stage. In many nutrition surveys for instance, only households with children under five years of age should be sampled. Even where the sample is defined as being all households, there will often be quota requirements on characteristics such as age or social grouping. Classification guestions are often easy to answer and are therefore a good way to start a questionnaire. They are generally used later at the analysis stage to stratify and compare results. Annex B provides common classification questions.

Organise: Questions should be numbered individually, clearly spaced and visually distinct from one another.

Order: The order of a questionnaire is of key importance: if questions jump from topic to topic, respondents will get confused and either give faulty answers or there will be high dropout rates and less accurate information. This is a particular risk for multisector questionnaires, where different topics, timeframes and units of measurement are merged into one questionnaire. Typically, the order by which conditional questions appear is particularly important for both the enumerator and the respondent, to make logic easy to follow. Some questions influence the response to the subsequent questions and thereby lead to inaccurate responses. Consider a multi-sector questionnaire which includes in-depth questions on access to water and health care. If the question *'what are your top three priority needs?'* is placed at the end of such a questionnaire, respondents are more likely to mention WASH or health-related concerns.

How to structure a questionnaire?

- General questions before specific questions
- Questions ordered in terms of importance, except for those that are sensitive or serve as a conversation starter.
- Questions on behaviour (what people do) come before questions on attitude (how people feel)
- Open questions before prompted, closed or multiple-choice questions
- Sensitive questions are placed towards the end of the questionnaire, not at the beginning
- Use transition statements to introduce new topics, timeframes or units of measurements. In a standardised interview these statements should be included within the questionnaire. In a more conversational interview, field teams are trained to let the questionnaire flow smoothly between different topics.

Flow: Start the questionnaire with very simple and general questions before moving on to specific ones. To foster a better rapport between enumerator and respondent, place non-controversial and common types of questions at the start (i.e. classification questions). Ideally, important questions should appear early in a questionnaire to avoid the possible negative impact of respondent fatigue. However, emotionally loaded questions such as income levels, number of family members killed, injured, or missing should be placed at the middle or the end of the questionnaire, when rapport between enumerator and respondent has been built (Oppenheim 2001, Brace 2004). Also, group questions on related topics together and maintain the chronology of events.

Repeat key questions: The interview is a learning process between enumerator and respondent (and also often verbally involves bystanders). Therefore, it is common that the respondents adapt their understanding of concepts during the course of the interview. By implication the respondent would have answered an early question differently, had they understood its wording in the perspective that subsequent questions are set. It is therefore legitimate, if not always comfortable, to **ask key questions again towards the end of the interview**. They have to be properly framed: "Now that we have exchanged so much information, can you estimate again how many families have returned to this community?"

Visual cues: For interviewer-administered questionnaires, ensure that instructions that are to be read aloud to respondents are different from instructions that are only for the enumerator; for example, set off by *italics*, CAPS, **bold type**, or parentheses. Emphasise crucial words in each question by using a different font.

Space: Space is at a premium in a paper-based questionnaire and should be used wisely. If the questionnaire is too cramped, it will be hard to read and difficult to populate. If space is used too freely the questionnaire will become unwieldy and expensive to print. Researchers have to make sure that the size of the font is large enough to be read in the conditions where the interview may have to be administered – including poorly lit areas. If you highlight some section using colour, consider that the questionnaires will probably be printed in black and white.

Observations: Always leave space in any questionnaire for field team observations, as these can reaffirm or contradict information from a respondent, therefore strengthening the validity and credibility of the data.

Step 7: Translate

Decide at an early stage whether a translation of the tools is required. Translation is costly, time-consuming and, if done inappropriately, can greatly reduce data quality and accuracy. According to Harkness and Schoua-Glusberg (1998:3), three basic situations may be distinguished:

- A common point of departure for translation is what we call a *source language questionnaire* (SLQ) in finalised form. In a *finalised* questionnaire, every component has basically been decided and fixed. In European multi-national and in international projects, the SLQ is often in English and is finalised before translation starts.
- Occasionally, translation begins when the SLQ is still at the drafting stage. The aim here may be to use *advance translating* to refine the draft towards a final version. Advance translation at an early stage

supports the definition of concepts which make sense in all languages.

• For some studies, there may not be a full questionnaire to translate. Instead, topics, dimensions, and perhaps numbers of items may be set out in one language; the questionnaire is then developed in another language on the basis of these. Although elements of 'translation' of concepts are involved in this situation, it is best thought of as foreign language implementation of design specifications. In this situation, a questionnaire in the language of the specifications may never appear or only appear at a later stage to allow designers to discuss its implementation.

Design of the questionnaire in the appropriate language is the preferred option. For situations one and two, a three-stage process is recommended for effective translation:

- A preliminary translation by a person who is fluent in both languages and well-informed about the objective of the study, the intent of each question and humanitarian terminology.
- Once the preliminary translation is complete, it should be translated back to the original language by someone with bilingual and bicultural expertise who has not seen the original language version of the questionnaire. Discrepancies must be examined and the translated questions must be redrafted and back-translated again if necessary. This procedure of translation and back-translation may require several iterations until the translated version is satisfactory. If possible, new translators and evaluators should be used at each iteration.
- Testing for cross-language and cross-cultural equivalence between the translated and original versions. Once the preliminary translation is complete and evaluated, the translated questionnaire is tested for cross-language equivalency by administering both versions to bilingual and bicultural respondents and comparing the two sets of responses. Half of the respondents are given the original language version to complete first while half are given the translated version first. Testing for equivalency in this manner is important because back-translation cannot pick up certain kinds of problems (e.g., poor translation that is hidden by compensation skills of good interpreters). Strong correlation between the responses in the two versions of the questionnaire is indicative of cross-language equivalence.

When limited resources prevent such a carefully planned translation, particularly in instances where

respondents are few but vital to the study, less structured and systematic alternatives can be used. These include simultaneous interpretation provided by bilingual field teams or interpreters. The lack of standardisation in these techniques, however, can easily introduce bias into the data. If the questionnaire is printed in language A (e.g. English), but field teams orally use languages B, C, D, etc. (e.g. local languages), it may be helpful to codify key terms in a multi-language glossary handed out and rehearsed during enumerator training and reviewed during the pre-testing phase

Example: Bangladesh

In Bangladesh, the Joint Needs Assessment (JNA) Project provided an opportunity to engage in postdisaster need assessments preparedness at the country level. This included adapting global assessment tools and good practise to the country context and the disaster profile of Bangladesh and building the capacity of staff from a range of organisations to carry out better assessments. In Bangladesh, the working language of that humanitarian and development organizations is English, so guestionnaires and explanatory materials were first developed in English. Once the tools had been developed there was a need to translate them into Bangla for the field staff responsible for administering the questionnaires and to ensure that concepts were translated and consistently understood.

In spite of the large number of development organisations working in Bangladesh, the translation of humanitarian concepts was challenging. A voluntary working group was formed with individuals representing different organisations involved in the JNA Project and with skills in different sectors. This group of native Bangla speakers translated the questionnaires because they thoroughly understood the concepts and the intent behind the questions. Having a dedicated group work on the translation enabled discussion around the specific choice of wording to make sure the translation was as accurate as possible.

Some key lessons on translation from the Bangladesh experience:

- Professional translators may not understand the concepts being conveyed in a humanitarian assessment – working with humanitarian workers who speak the language is essential.
- Even when assessment preparedness is undertaken, organisations involved have competing priorities and it can be difficult to make

time for important aspects of questionnaire design such as translation and field-testing.

- Ensuring that the questionnaire used for postdisaster needs assessment are coordinated with other surveys and assessments (e.g. MICS, national census) is important in being able to compare information. Look for standard definitions of key concepts in the development sector that already exist in both English and local language from the outset of the questionnaire design process.
- Once key concepts and individual questions have been translated, it is useful to maintain these so that they can be used again without having to duplicate previous efforts. Questionnaires will continue to be changed and adapted over time and for specific emergencies.
- Keep corresponding versions of English and local language questionnaires together with userfriendly file names and the same English headers and footers to ensure that everyone involved in the assessment (local language and English speakers) are all working form the same version of the questionnaire.

Step 8: Field test and adapt

Always, always, always test the questionnaire! In the interest of time, a field test is often omitted in the immediate aftermath of a crisis. However, a pre-test of the assessment can prevent costly errors.

The pre-test serves three functions:

- It tests the suitability of the questionnaire and its elements.
- It tests the competency of the staff members.
- It tests the degree of understanding and cooperation that can be expected from respondents.

Regarding the first function, the pre-test indicates whether:

- Questions do not provide the required results and should be deleted or adapted.
- Multiple-choice options have to be adapted or expanded. This will standardise responses and thereby facilitate data processing.
- The duration of the questionnaire, resulting in more realistic resource planning.

Before spending resources on testing the questionnaire with actual respondents, solve as many problems as possible. Going through the questionnaire with colleagues who have not worked on the project can go a long way in identifying errors. The least structured and often quickest evaluation method is expert review, in which one or more experts critiques the questionnaire. Try to include colleagues with experience in designing questionnaires, nationals of the country where the assessment will take place and/or people with expertise in the topic of interest.

Afterwards, test the questionnaire with three to ten respondents, under conditions similar to those of the assessment. One of the main objectives of the test is to find out if respondents answer the question in the intended way. To get an understanding of thought processes, ask respondents to think out loud, describing in words how they are thinking. If that is too difficult, introduce verbal probing through questions such as 'how did you arrive at that answer?', 'Was it easy or hard to answer?', 'You were laughing when I asked you this question, why?' This can either take place after every question, so people still remember it well, or once the survey is done to avoid disrupting the natural flow of the questionnaire.

Items to monitor during the field test

- If 'skip questions'³ work
- How long it takes to administer each question
- When respondents ask for clarification of a question and why
- The cause of Do Not Know (DNK) or Not Applicable (N/A) answers.
- The consistency of the data
- Which questions are considered sensitive and/or difficult to answer
- The translation and understanding of the respondents

The output of this type of field test consists of both

- Respondent answers to the questions and their thought processes.
- Field team's assessments of how the questions worked, including all aspects of the questionnaire and additional materials.
- The duration of the questionnaire, resulting in more realistic resource planning.

A pre-test turns into a pilot test if it not only reviews the draft questionnaire, but also the entire fieldwork plan, including supervision methods, data entry and written materials such as enumerator manuals. While this is often not feasible in the first phases of a humanitarian crisis, this approach is recommended once resources, particularly time, are available (Willis 1999, Harris 2014).

Findings from the field test are incorporated into the final questionnaire and changes to the enumerator manual are introduced if necessary. If the questionnaire has been translated, the support of a translator will be needed at this stage.

Step 9: Instruct field teams

One of the objectives of a questionnaire is to systematise responses. This is relevant for quantitative and qualitative studies alike, as it allows for comparison of results between different (groups of) respondents. A systematised assessment means that all respondents are exposed to a similar questionnaire experience. In that way, variations in answers are a reflection of a differing situation, instead of a difference in how the question was asked or understood.

However, communication is inherently unpredictable and despite a questionnaire's best efforts, meanings are negotiated in every interview. The interview is a learning process for both enumerator and respondent. Questionnaires are therefore an instrument of compromise between striving for predictability and replicability, and the realities of communication between individuals. The chosen interview approach affects how this compromise works in practice:

Standardised interviewing. All members of the field teams administer the guestionnaire in exactly the same way, using standardised wording. When a respondent does not understand a question or has follow-up questions, only neutral probing is allowed: for instance, rereading the question or using phrases such as 'let me repeat the question, is that a yes or a no, the definition of this word is whatever it means to you'. Standardised interviewing is fast and, if done well, reduces enumerator-induced effects. However, if the questions or response options are unclear, it could result in inaccurate answers. In addition, it makes it much more difficult for the enumerator to establish a relationship with the respondent and is inappropriate when dealing with a crisis-affected, and likely traumatised, population.

³ An example of a skip question is: Have you harvested wheat this season? If yes, go to question 2. If no, go to question 3. Question 2: how much MT wheat have you harvested this season? The purpose

of a skip question is to suit the interview to the specific situation of the respondent and avoid inappropriate and irrelevant questions.

The standardised approach requires a simple, clear questionnaire, which has been thoroughly pre-tested and, if possible, an enumerator manual. This approach is recommended when :

- There is a high risk of enumerator-induced effects, for instance in a politically charged setting, or if capacity is limited.
- The interview should be as quick as possible.

Conversational interviewing. Within this type of interview, the enumerator and respondent work together to assure the question is understood as intended. The goal is to standardise the *meaning* of the question, not the *wording*. Conversational interviewing increases accuracy, as it is more likely that respondents answer questions as intended. However, the process is lengthier, and requires highly trained, capable field staff and sufficient resources. It is recommended when:

- There is limited time, knowledge, or capacity to develop questions that are likely to be understood in the same way by all respondents.
- The questionnaire includes a number of complex and/or sensitive questions.
- Field staff have the ability to understand the concepts and intentions motivating the question, and to find ways to translate them into an alternative formulation that makes sense to the respondent.

Train assessment staff. Whatever approach chosen, the field teams should be trained and monitored to uniformly administer the questionnaire.

Even if the questionnaire is well designed, there is no guarantee that field teams will stick to the correct interpretation of the questions. **Comprehensive training in the use of the questionnaire is pivotal**. During the training, review and explain each question, provide clear instructions on how to conduct the interviews, explain bias and how to mitigate its influence.

A basic training lasts at least two days and includes modules on:

- Humanitarian principles and the importance of impartiality in data collection
- Assessment objectives
- Sampling and non-sampling source of biases in field assessments
- Data collection technique(s)
- Role and responsibilities of the team leader and the enumerator, including job descriptions and interviewing approach

- Rationale of each question and the enumerator manual (if available)
- Practising data collection and using the questionnaire, including pre-testing and possibly field testing
- Recording of the data
- Selection of information sources (e.g. how to select a household) and instructions if the team cannot reach the location or find the respondents
- Logistics and work plan
- The sampling plan and pre-identified sites to visit for each team

Develop and circulate accompanying documentation (enumerator manual), which includes the key training takeaways (e.g. definitions, guiding principles) as well as information on assessment logistics, such as contact details of relevant staff members, maps, instructions in case of incident, etc.

Include all assessment staff in the training: All staff need to participate in the training, including data entry, administrative staff and analysts. This is important to ensure staff get to know each other and are aware of the instructions that were given to others. Assessment staff can, as a result, support each other during field work and participate in daily debriefings or joint analysis sessions.

At least two days should be reserved for the training. This must be increased if there has been no preparedness or if insufficiently qualified staff are available. This will save considerable time when processing data at the end.

Employ trainers who have been involved in the methodology and questionnaire design. For data collection exercises using large field teams, ensure all trainers deliver consistent messages to the field teams and check that these messages have been consistently understood by the participants.

Step 10: Review the questionnaire

After the data has been collected and analysed, the process of questionnaire design is not yet complete. As a final step, it is key to conduct a final comprehensive review of the questionnaire in order to identify lessons learned for future assessments.

Review the questionnaire, enumerator debriefing forms and analysis results to assess the effectiveness of each question. Ideally, the review is done in a group setting involving different stakeholders, including enumerator team leaders, translators and analysts, in order to obtain different perspectives. Identify if and how each question could be improved based on enumerator feedback and the quality of the data produced.

Document and share the lessons learned among all assessment stakeholders to incorporate into future questionnaire design. Share with the appropriate coordination mechanisms, existing assessment registries and/or country-based archives.

IV- Designing good questions

When designing a question, consider the following characteristics of the question:

- The level of measurement
- The type of question open or closed?
- The wording of a question

Decide the level of measurement

Most of the primary data collected in emergency needs assessments is qualitative information describing the conditions of the affected population (e.g. the main health issues from the perspective of the people themselves, or their priority needs). Sometimes quantitative information is also collected (e.g. the number of IDPs in a particular area or the number of schools that are functioning). In general, the more "quantitative" the information sought, the more effort is required for that information to be accurate. Deciding on the level of measurement is about choosing whether the information generated will be quantitative or qualitative, which in turn defines the type of statistical operations permissible.

The four levels of measurement:

- Nominal: there are no values attached to the different response options. Used mostly for qualitative information. Example: *What is your gender: male/female*
- Ordinal: the order of values is important but the difference between these is not known. Used mostly for qualitative data. Example: *What are you top three needs? (rank 1, 2, 3).*
- Interval: the order of values and the exact difference between these is known (such as 50 degrees Celsius and 60 degrees Celsius). There is no "true zero" (there is no point at which "no temperature" exists). Example: How long does it

take to reach the closest market by foot? (in minutes)

• Ratio: the order of the values and exact difference between these is known. There is a "true zero" (such as weight, length, currency). Example: *How much did you spend on food over the last 7 days?* (*in national currency*)

Nominal and ordinal categories are qualitative in nature and only limited statistical manipulation can be performed on findings of this type.

Permissible statistics by level of measurement

Calculations	Nominal	Ordinal	Interval	Ratio
Frequency distribution, mode	Yes	Yes	Yes	Yes
Median and percentile	No	Yes	Yes	Yes
Add or subtract	No	No	Yes	Yes
Mean, standard deviation	No	No	Yes	Yes
Multiply or divide	No	No	No	Yes
Ratio, coefficient of variation	No	No	No	Yes

Decide on types of questions

In general, there are two types of questions, openended or closed-ended. Open-ended questions are those with no predetermined set of responses. Questions with a closed format usually take the form of a multiple-choice question.

All questions start as open-ended. Categories are defined after, during the testing of the questionnaire or through expert judgement.

Pros and cons of different types of questions

	Closed-ended	Open-ended
Advantages	 Easier and quicker to answer, code and analyse Easier to compare answers across respondents Response choices clarify question for responder and respondent 	 Respondents are able to express all perceptions and ideas Questionnaire is less likely to influence the responses Can provide unexpected insights into the situation Respondents have the opportunity to qualify and clarify responses
Disadvantages	 Can introduce bias, by forcing the responder to choose between given alternatives Respondents can feel constrained/ frustrated Discourages responses that were not envisaged at the design stage Respondents are unable to qualify the chosen response Can introduce response bias Design requires indepth contextual knowledge Difficult to determine if question was well understood based on responses 	 More difficult to answer, recode and analyse Coding responses is
Only	use open-ended questio	ns when really required.

Only use open-ended questions when really required. Open-ended questions are more resource-intensive than their closed-ended counterparts, as more time is spent answering the question, taking notes, and processing and analysing the results. This often results in a lot of information that is collected but never analysed because of time limitations. Therefore, in emergencies, closed-ended questions or open-ended questions with pre-coded responses should be the default option.

Designing closed-ended questions

The following type of closed-ended questions are often used in multi-sector rapid needs assessments:

Categorical question: Answers are mutually exclusive categories, and each respondent falls exactly into one of the available categories.

Example: How old is the respondent (*tick only one*)?

~19
19-65
>65

Multiple choice: The question provides a finite number of options. It can be decided to limit the number of possible response options to facilitate comparability between respondents and to avoid 'shopping lists'.

Example: What are the most important sources of information for people staying here (*tick max. 3*)?

- Television
- Newspaper
- ☐ Mobile phone (calls or SMS)
- Community/religious leaders
- Local government leaders
- NGO workers
- Radio
- Sign boards
- Internet
- Word of mouth (friends, family, neighbours)
- Other, specify _____

Filter question: A filter question is asked to ensure that the respondent will be able to answer the next question.

Example: Is there a problem in your community in relation to food NOW?

Yes

No [Go to question X]

If yes, what is the main problem (tick only one)?

- Not enough food
- Low quality food
- ☐ No cooking facilities
- No cooking utensils
- No cooking fuel
- Other, specify_

Ranking question: Within the question, the respondent is requested to rank different options by order of importance or preference. These questions provide a useful insight into priorities as perceived by the assessed population.

Example: What are your top 3 priority needs right now? (*Rank* 1st, 2nd, 3rd)



Field teams can be trained to group responses into category, e.g. a response category "water" could be used for any responses that relate to drinking water. So when asked, "what is your main priority?" all responses that relate to drinking water are included together under the one category ("tube well is broken", "water source is contaminated", "takes too long to collect water", "water tastes bad", etc.).

Itemised rating scale: An itemised rating scale has a number or a brief description associated with each response category. The respondent has to select the category that best describes the situation, or their feeling or reaction to the question, for instance a response ranging from *strongly agree* to *strongly disagree*. In general, it is considered that between five and nine categories are appropriate. However, this will depend on the level of discrimination needed between categories.

There are two commonly used itemised rating scales, the Likert scale and differential scale.

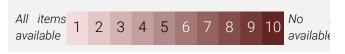
Likert scales are used to assess an individual's perception or feelings. Respondents may be offered a choice of five to nine pre-coded responses, with the neutral point being neither agree nor disagree.

Example: People are able to raise concerns and grievances related to aid provision (*tick only one*):

- Strongly agree
 Agree
 Neutral
 Disagree
- Strongly disagree

Differential scales ask a person to rate a statement or situation according to an up to ten-point rating scale that has two bi-polar adjectives at each end. The following is an example of a differential scale question:

Example: To what extent are food items available on the market (*circle only one*)?



Designing open-ended questions

Open-ended questions can take several different forms, from fill-in-the-blank questions (*What are the top three unmet humanitarian needs of IDPs living in this location?*) to questions that supplement a list of closedended questions (*Is there anything else you would like people to know about the way the flood has affected your community that we have not yet asked about?*).

In addition, open questions can be used to clarify, elaborate or amplify a previous answer (*why are you not able to access a health facility if necessary?*)

Respondents often provide only short answers to openended questions. If the objective of the assessment is to gather large amounts of qualitative data, train the field staff to prompt respondents to elaborate.

Open-ended questions with pre-coded responses: To facilitate and speed up data processing while maintaining the benefits of open questions, questions with pre-coded answers can be introduced. The field staff ask the question as if it is an open question, while the questionnaire provides pre-coded options, which the numerator matches to the response. This is referred to as field coding. The field teams need to be well-trained and experienced to be able to select the correct response option.

This type of question is normally accompanied by a large 'do not read these options out-loud' warning. However, the field teams will often be tempted to share some options as an example. When reading out several, but not all options, there is a substantial risk that the respondents chose one of the mentioned options over others. Hence, the questions should be simple and unambiguous. If absolutely necessary, example answers could be included in the question to steer the respondent in the right direction.

In closed questions, the question wording and response options determine the direction of the response. For open-ended questions, the main data collection instrument is the assessor, and not the "questionnaire".

However, without the response options, it is more difficult for the field teams to understand and transmit the rationale of a question. Hence, **the training must ensure that the field teams understand the intent of the question and the concepts involved.**

Question wording

Obtaining accurate answers from respondents depends strongly on the researcher's ability to write a question that respondents understand, can answer and limits respondent bias.

MAKE QUESTIONS UNDERSTANDABLE

Keep it simple: To capture valid responses, both the enumerator and the respondents should be able to easily understand the questions. Try to keep the question under 25 words and the language as simple as possible. Please note that what is considered simple differs by language and should therefore be adapted to the language of the questionnaire.

Example: Complex vs simplified terms				
Proximity	► Closeness			
Leisure time	► Free time			
Priority	 Most important 			
Employment	► Work			

Example : Double negative questions

DON'T: Isn't it true that specific vulnerable groups have not been identified yet?

DO: Have specific vulnerable groups been identified?

Use font styles such as **bold**, *italics*, etc. to highlight important words and phrases, making it easier for the enumerator and respondent to understand the core of a question.

Use clear transition statements: The order of questions can cause misunderstanding when the respondent is unsure if the parameters of a question apply to a subsequent question.

For instance: if the question, 'how much money has your household spent on rent in the last week' is directly followed by 'how safe do you feel in your house'?, it is likely that the respondent will try to answer the second question for all household members rather than just themselves.

A statement such as 'I will now ask you some questions about how you, yourself, personally experience the current situation', can avoid misinterpretation. **Design questions that are interpreted in the same way by all respondents**: There are many examples of misunderstanding of what seem to be everyday words. A review of lessons learned from assessments in the Syria crisis for instance found that the definitions of household, orphan and child marriage as used within Syrian communities differ from definitions used by international organisations (SNAP 05/09/2013).

The following adjectives have highly variable meanings and can be understood differently: clear, most, numerous, substantial, minority, large, significant, many, considerable and several. While it is not always possible to avoid these terms, always consider whether it is possible to choose alternatives. Alternative adjectives that generally have a more common understanding are: lots, almost all, virtually all, nearly all, a majority, a consensus, approximately half, a small number, not very many, almost none, hardly any, a couple, and a few (Bradburn, Sudman, Wansink, 2004)

Change terms without a clear unit of measurement into numbers or percentages:

Into
How many
hours/days/weeks/etc.
How many times in the last 7
,
days/30 days/etc.

Time periods can also cause confusion. 'The past week' will mean 'since Sunday' for some, while others will interpret it as 'during the last 7 days' so make sure your questionnaire is specific.

Instead of	Ask
In the past week	In the past 7 days
In the past month	► In the past 30 days
In the past year	In the last 12 months
	or in the calendar year 2014

Make sure the question stem and the answer choices match each other: Consider the next example:

Example:

DON'T: How likely is it that you will buy a mosquito net in the next 30 days? Extremely interested, interested, slightly interested, not at all interested.

DO: How likely is it that you will buy a mosquito net in the next 30 days? Very unlikely, likely, very likely.

Ask one question at a time: In many questionnaires, respondents are requested to answer two questions at the same time. This confuses not only the respondent, but also challenges analysts, who will have to interpret one answer to two questions.

Example:

DON'T: What is the status of sanitation facilities and of the water supply utilised in this location/district?

DO:

What is the status of the main sanitation facilities utilised in this location/district? What is the status of the main water supply in this location/district?

Watch out for the words 'and' and 'or', which could indicate that a question includes multiple concepts.

Limit the number of difficult questions: The following type of questions are generally regarded as difficult:

- Open-ended questions
- Recall questions (the further back into the past respondents are asked to recall, the more difficult they will find it and thus the less accurate the information).
- Questions that requires respondents to rate items on a scale
- A question requesting an explanation of a particular choice, e.g. "why did you choose to settle in this camp instead of other camps in the region"?
- Sensitive questions about sexuality, drug usage, personal hygiene, alcohol usage, violence, safety, etc.

MAKE QUESTIONS ANSWERABLE

Adapt question to the expertise of the respondent: Respondents should be asked questions that they can answer truthfully. Hence, questionnaires are to be adapted to the preferred language and specific vocabulary of the respondent, taking into account his/her educational level and experience.

The abbreviation 'NGO' or terms such as 'coping mechanism', 'vulnerability', 'in need' are appropriate when surveying humanitarian workers. However, these concepts should be clearly explained when included in a questionnaire for key informants or households. An assessment with a large number of 'do not know' or no responses is an indication that questions are too complex and ill-adapted to the context. Facilitate recall of information: Avoid using long and vague reference periods such as 'last year', or 'before the crisis'. Instead use time periods that are easy to recall and will be interpreted similarly by all respondents. Examples of such time periods are: 'during the same time last year', 'during the rainy season'. Use context-specific events such as national holidays, school holidays, elections and the crop calendar to help respondents recall the period.

The appropriate length of the timeframe depends on the subject. For recurrent acts, such as buying goods, walking to school or fetching water, limit the recall period to a few days.

Example:

DON'T: During the past month, how many days have you consumed cereals such as bread and rice?

DO: During the past seven days, how many days have you consumed cereals such as bread and rice?

For more important events, including hospital visits or security incidents, it is more likely that the respondent will be able to speak to a long recall period.

Example: Four months ago, Typhoon X struck. How many times have you, yourself, visited a health centre since? (Oppenheim 2001)

Only ask for percentages if the denominator is clear.

Example:

DON'T: On average, what percentage of your time do you spend fetching water?

DO: How many hours a day, on average, do you spend fetching the water required to meet household needs?

To be able to answer the first question, respondents need to know what is meant with 'your time' (all hours that household members are awake?) and calculate the percentage. Only few respondents will be able to accurately do both.

However, there are some situations where asking for percentages is desirable. It is, for instance, much easier for respondents to provide an estimate in percentages instead of an actual number. A question to key informants along the lines of 'According to your best estimate, what percentage of the population in this village is in need of food support as a result of the earthquake?' can provide useful information about the magnitude of a crisis in the immediate aftermath. Starting with a base of ten helps respondents with estimating percentages:

Example: "For every ten children of school-going age in your community, how many do you think are currently going to school?"

Funnel, funnel, funnel: Screen possible respondents to make sure each question can apply to all people exposed to the questionnaire. If not, use skip logic to avoid asking questions that cannot be answered by the respondent.

Example:

DON'T: How would you compare your current crop harvest to last harvest (significantly increased, increased, same, decreased, significantly decreased)

DO: Have you harvested crops this year and during last season? If no, skip following question. If yes: How would you compare your current crop harvest to last harvest (significantly increased, increased, same, decreased, significantly decreased)

Include 'Others' and 'Do not know': The purpose of using defined responses is to organise the answers so that they can be analysed; it is not to lead the respondents. To capture answers that were not envisaged during the questionnaire design, include an 'Others, please specify_____' category. It is particularly important that recording these responses (not just checking the box "other") is stressed to the field teams during training.

During the data processing stage, recode these answers to create common categories and see if patterns emerge. Sometimes, even after field testing, there will be unexpected responses that come up multiple times and require attention.

Similarly, adding a 'Do not know' option is crucial to ensure respondents or field teams are not forced to provide a response. Even the most appropriate questionnaires will not be able to solicit responses for all questions from all respondents. Hence, assessments that do not generate any 'Do not know' responses should be as carefully scrutinised as those with a significant number of these responses.

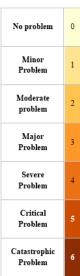
Soften questions with phrases such as *approximately*, *your best estimate, as best as you remember* to make them more answerable for respondents.

Use categories that make sense: The options provided in closed questions require just as much consideration as the actual question. When designing multiple choice questions, ensure that:

- The option list includes all possible answers.
- Categories on the list are mutually exclusive.
- Numeric categories are as broad and detailed as needed.

Ensure all scales:

- Are adapted to the local context. In areas with high school attendance rate, a scale can for instance be mirrored to the school grading system to facilitate understanding.
- Include categories that clearly discriminate between different settings and are mutually exclusive.
- Are of reasonable length shorter is usually better. However, ensure the scale is of sufficient length to clearly discriminate between different settings. If all responses to the question for instance fall within the highest bracket of a three-point scale, a more detailed scale is required to generate useful data.



• Are appropriately defined and labelled to help respondents distinguish between levels.

Scales can be unipolar, the presence or absences of an attribute, or bipolar, with two complete opposite attributes. Consider the use of bipolar scales to capture the full range of possible response, unless what is going to be measured does not have a clear opposite.

Example:

How satisfied were you with the food aid that you have received?

DON'T: Unipolar scale from Not at all satisfied to Very satisfied

DO: Bipolar scale from Very dissatisfied to very satisfied

MINIMISE BIAS

Avoid leading questions and loaded terms: To limit the impact of bias on responses, avoid questions that use leading or judgmental/loaded wording. Leading questions are worded in a way that suggest what the

answer should be or indicate the researcher's own views.

Example of loaded words include *democratic, regime, opposition, free, healthy, natural, regular, modern, etc.* Words and phrases that are more or less neutral in one context or to one group of people may be highly loaded in another context or to another group. Leading questions often sneak in when formulating probes and follow-up questions.

Example:

DON'T: Why do your children not go to school more often?

DO: What are the reasons that the school-aged children in this household are not able to regularly attend school?

The categories offered can also have an effect on responses. Respondents will often adapt their answers to adjust for their sense of how much they engage in the activity relative to 'what is normal.' In the following example, households might be hesitant to report anything below ten times a week:

Example:

How many times per week do you wash your hands with soap AND water (tick only one)?

<10 times
10 to 25 times
>25 times

In many cultures, hygiene-related questions are considered sensitive. It is likely that several respondents will inflate the number of times to better suit the categories or perceived social norm.

Identify and carefully introduce sensitive questions: When confronted with sensitive topics, some respondents will adapt their response to avoid embarrassment or repercussions from third parties. There are questions that are undoubtedly sensitive. Asking households about the frequency of domestic violence within the house, or child abuse, is unlikely to generate truthful responses. However, there are also questions that might not seem sensitive to the researcher, which the respondent considers sensitive, and vice versa. Whether or not a question is sensitive can be identified during the testing phase, by including a question such as 'Do you think that the following questions might make people feel uncomfortable and falsely report or exaggerate their answers?'.

List of topics considered sensitive:

- Private information, including information on income or unique identifiers such as refugee registration numbers.
- Information on breastfeeding and menstruation.
- Illegal behaviour, such as human rights violations, illicit sources of income and participation in armed groups, including information on pressure to be involved in such activities.
- Socially stigmatising behaviour. During the Ebola outbreak in 2014/2015 in West Africa, asking about Ebola survivors in a household was perceived as highly sensitive as Ebola survivors and their families were often stigmatised.
- Information that can endanger the respondent. In conflict settings, questions on the behaviour of warring parties can for instance result in repercussions for the respondent.

(Tourangeau and Yan 2007, Kreuter, Presser, Tourangeau, 2008)

Collecting sensitive information is one of the most challenging tasks in humanitarian assessments, but there are several ways in which sensitive topics can be included:

Disguise the question. Including 'taking children out of school to work' in a long list of possible coping mechanisms can for instance provide information on the prevalence of child labour.

Collect data on an aggregate level: Sensitive individual protection-related issues are often discussed on a community level instead of on a household level, for instance through community group discussions. Asking a community group the question *'have there been instances of violence or abuse against girls or women within this village?'* is more likely to capture information on gender-based violence than a similar household-level question will.

Assuring confidentiality, emphasising the importance of accuracy and reducing or eliminating the role of the enumerator (e.g. through web surveys) are other strategies to facilitate sensitive data collection.

Many questions are loaded with prestige and some people will claim to earn, wash or eat more than they actually do. There are several ways to mitigate this bias: Train the field teams to frequently state that there are no wrong answers and to encourage requests for clarification. Social desirability also occurs when respondents are reluctant to admit that they do not understand the question or know the answer. Starting questions with sentences such as 'as you know...', 'many respondents have stated that...', increases this risk and these constructions should be avoided.

Be clever with the question phrasing: There are several ways in which the question can be phrased to increase the response rate of sensitive questions or reduce misreporting:

- Phrase the question in a way that a less desirable answer is equally possible. Instead of asking 'have you been to the clinic for the recommended prematernal check-ups?', it is less loaded to ask 'have you been able to visit the clinic for pre-maternal check-ups?'
- Make undesirable behaviour permissible by implying that it is normal: 'A lot of people sell their food aid if they have other urgent expenditures. How often have you sold your food aid in the last 6 months?'
- Assume behaviour and ask frequency: Instead of asking 'have you bought sugar from the cash grant that you have received', ask 'For how much money have you bought sugar from the cash grant that you have received in the last 14 days?'

These questions are all leading. Balance the need for information on sensitive topics with the negative impact of asking questions which are likely to generate biased responses.

Inquiring about recent undesirable behaviour is more threatening than asking about past behaviour. Therefore, ask first about a long time period ('*have you ever...?*') before asking about current behaviour ('*in the last seven days have you...?*).

For desirable behaviour it works the other way around. Providing a recent timeframe, *'have you vaccinated your children in the last 30 days?"* instead of *'have you ever vaccinated your children?'* is more likely to generate the intended results.

The following pages provide two tools and a checklist to support the implementation of steps and principles mentioned here.

Annex A: Prioritising questions in emergencies

Often, the initial list of information needs is generally a long list of difficult, unrealistic questions which are not necessary useful for operational decision-making. A technical review of those questions is necessary to gauge their utility and "answerability".

Two criteria are essential when selecting questions for assessments :

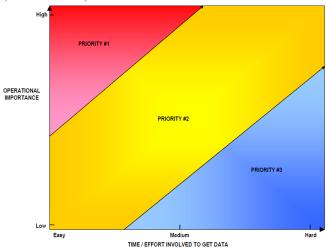
- The operational importance of the information
- The time and effort required to get the information

The following section outlines a process to move from a wish list to a realistic set of information needs. Afterwards, some useful criteria that can be used to prioritise information needs are discussed.

There are six steps to the prioritisation of information needs:

- 1. **Identify information needs:** Gather and compile all information needs developed in steps one and two of designing a questionnaire.
- 2. **Agree on prioritisation criteria:** Call a meeting with all stakeholders. During the discussion:
 - Discuss the key criteria for determining whether a piece of information is operationally important and relevant. Ensure all participants agree on the final criteria.
 - Agree on what makes an information need difficult to address within the specific context. This includes enumerator capacity, accessibility to relevant geographic areas, etc. Ensure all participants agree on the final list.
- 3. Compare information needs with prioritisation criteria: Pair participants and randomly distribute the questions/information needs collated during step 1. Ask each group to place the information need in the following prioritisation matrix, respecting the criteria agreed during step 2. Ask groups to justify why questions are operationally important and how they will be used for decision-making.

Prioritisation graphs for questions in emergencies (UNHCR 2010)



- 4. Adapt information needs: Ask groups to reformulate information needs which are not well phrased. Discard or adapt information needs that are not in line with the agreed unit of analysis: when a community level assessment has been agreed, household questions should be discarded, adapted or proposed for future assessments.
- Confirm prioritisation: In plenary, discuss and validate the position of each information need. Ensure all participants are able to comment on the classification – different organisations or sectors use information for different purposes and a question that is irrelevant for some can be essential for others.
- 6. Update analysis plan: Once a new set of questions has been identified and agreed by all, the analysis plan can be updated.

Remember:

- The criteria decided in step 2 are key for the selection of the final list of questions.
- Everybody needs to agree on the final list and on the usefulness of a certain question.
- The list is elicited for field data collection only: if it is identified that information can be gathered through other avenues, such as secondary data, it can be discussed with the group if it is possible to keep these information needs.

Example prioritisation criteria

The list of criteria below is based on five different UNHCR/MIRA workshops and is particularly relevant for prioritising information needs during rapid, multi-sectoral assessments in the immediate aftermath/escalation of a crisis.

OPERATIONAL IMPORTANCE OF THE INFORMATION

The following criteria help to define if the question is relevant or appropriate to the type of exercise:

Relevance and appropriateness to the activities planned and at this phase of the emergency

- Information is relevant to the agreed and defined objectives of the needs assessment.
- Information allows for comparison and prioritisation between affected groups, sectors and areas.
- Information helps to understand the impact of the crisis and the identification of foreseeable risks.
- Information is required to design targeted interventions and prioritise the first groups of beneficiaries.
- Information is relevant for fundraising, advocacy and resource allocation.

Relevance to multiple end-users

- Information is relevant for more than one sector.
- Information is not available through other avenues.
- Information relates to sectors where there currently is no capacity to assess or respond.

Representativeness of the affected population

- The information generated concerns a sizable proportion of the population (measuring conditions that affect only a small minority of the population is more appropriate at a later stage of the crisis).
- Information reflects the diversity of the impact and the needs of the affected population (e.g. gender, age, minorities, groups, different locations, etc.).
- Information enables the affected population to voice their concerns, for instance, by allowing respondents to identify and/or prioritise needs.

TIME/EFFORT INVOLVED IN OBTAINING THE DATA

The following factors impact the time or effort required to generate the required information:

Information volume and accessibility

- Existence of a data source: if there is no source that provides reliable and accurate information, do not waste time looking for it.
- Willingness of respondents to provide the information, particularly with information perceived as sensitive.
- The most appropriate data collection method for the information needed and the timeframe available to analyse it. Community group discussions are harder to interpret and take longer to collect and analyse, compared with key informant interviews or direct observation.
- Unit of analysis: household data generates more data than household interviews.
- Accessibility to the area (security, logistics).

"Shelf life" of the data

- How dynamic is the context, speed, rate, direction and scope of change?
- Fluidity of the topic measured.

Stakeholder coordination

- The degree to which stakeholders understand and agree on the rationale and objectives behind the assessment.
- The degree to which stakeholders understand that a coordinated assessment will not result in the sum of all the rapid assessments forms for each cluster.

Validity and quality of the data

- Qualifications and experience of available assessment teams.
- The degree to which the data collection instrument has a clear and chronological structure and has been field tested before the coordinated assessment:

Annex B. Debriefing form

This form can be adapted and used to debrief assessment teams collecting data during a multi-sectoral assessment. A separate form should be used for every site visited, and populated as soon as possible after data collection.

		ſī
Background data		ľ
Name of debriefer		
Date debrief		
Location debrief		
Enumerator name/code		-

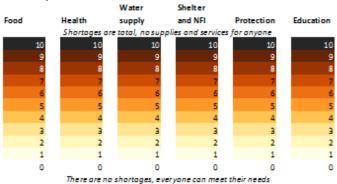
Main obstacles encountered during field data collection

(e.g. logistics, security, questionnaire, willingness of population to participate)

Assessment location data	
Governorate	
District	
Subdistrict	
Village/ location	
Type of settlement	e.g. rural, urban, camp, non-camps, etc.
Type of group assessed	Only if assessment is at the group level
GPS coordinates	If possible
Date of data collection	

Humanitarian access : What is the impact of each of the following parameters on humanitarian access in the affected area?	Not applicable	Very low impact	Low impact	Moderate impact	High impact	Very high impact	Impossible access
Humanitarian access to the affected p	opulat	ion					
Movement and travel restrictions for relief agencies, personnel or goods							
Interference in the implementation of humanitarian activities by powerful groups or persons							
Violence against relief agencies' personnel, facilities and assets							
Access of beneficiaries to relief							
Restrictions on affected population							
's access to services and assistance							
Denial of the existence of							
humanitarian needs or the entitlement to humanitarian assistance							
Security and physical constraints							
Ongoing insecurity/hostilities affecting humanitarian assistance							
Obstacles related to terrain, climate, lack of infrastructure Presence of mines and explosives							
Fresence of mines and explosives							

Availability of basic needs and services



Sector (e	e.g. health	1)	Confiden	ce level	1	2 <mark>3</mark>	4	5 6
Nber in normal situation		Nber of people requiring assistance			Nber of people requiring immediate assistance			
0	1	2	3	4	5	6		7
					Code	underly	ying	factor 🖟
Top 3 priority		1 st						
problems and underlying	2 nd							
factors		3 rd						
Top 3 coping mechanisms of the population	1 st							
	2 nd							
		3 rd						
Top 3 affected groups most at risk and in need of assistance	1 st							
	2 nd							
	3 rd							
Top 3 priority interventions required		1 st						
		2 nd						
		3 rd						

Multi sec	tor (male	e/female) Confiden	ce level	1 2	2 3	4	5	6
Nber in	normal	Nber of people requiring			Nber of people requiring				
situation		assistance			immediate assistance				
0	1	2	3	4	5	6		-	7
Тор З	sectors	1 st							
requiring priority assistance		2 nd							
	<u> </u>	3 rd							
Top 3 affected groups most at sk and in need of		1 st							
		2 nd							
assistance	sistance	3 rd							
Top 3 vulnerable groups most at sk and in need of	1 st								
		2 nd							
assistance		3 rd							

Annex C: Metadata and classification questions

Include the following information to capture the characteristics of the site and community. The information in **bold** should be included in all questionnaires, even if multiple forms are used per site.

- Date of the interview
- Enumerator ID: the first part of this ID should be the assessment ID, followed by the ID number of the enumerator
- Questionnaire number
- Settlement/site location (use p-codes)
 - Admin level 1
 - Admin level 2
 - Admin level 3
 - Name of site (city, village, or camp)
 - Coordinates location
- Contact details community leader
- Key informants number, name and sex

KI ID	Name	Contact details	Position	Sector(s) c involvement	of

Classification questions include :

- Setting type: rural or urban
- Settlement type: city, village, camp, community
- Settlement accessibility (truck, 4X4, motorbike, foot, helicopter)
- Security situation: Area of low, medium or high conflict intensity
- Population present in the settlement:
 - IDPs: # people (SADD if possible), place of origin, date of arrival
 - Refugees and asylum seekers: # people (SADD if possible), place of origin, date of arrival
 - Others of concern: # people (SADD if possible), place of origin, date of arrival
 - Host community (# people, SADD if possible)
- Observations

References

Altermatt, 2013. *Questionnaire & Survey Design* <u>http://vault.hanover.edu/~altermattw/courses/220/r</u> <u>eadings/Questionnaire_Design.pdf.</u>

Bidhan A, 2010. Questionnaire Design Workshop in Research Methodology Organised by Centre for Post-Graduate Studies Nepal Engineering College.

Bowling, 2005. Mode of Questionnaire Administration Can Have Serious Effects on Data Quality. *Journal of Public Health*.

http://jpubhealth.oxfordjournals.org/content/27/3/2 81.full

Brace 2013. *Questionnaire Design: How to Plan, Structure and Write Survey Material for Effective Market Research,* Kogan Page.

Bradburn, Sudman, Wansink, 2004. Asking Questions, the Definitive Guide to Questionnaire Design for Market Research, Political Polls, and Social and Health Questionnaires, Revised Edition, Jossey-Bass.

Burgess, 2001. A General Introduction to the Design of Questionnaires for Survey Research, TOP 2, University of Leeds.

Burns, Bush, 2006. *Marketing Research. Designing Data Collection Forms* New Jersey, USA: Prentice Hall

CDC, 2003. *Questionnaire Design*, Reproductive Health Epidemiology Series Module 4.

Chinas, 2014. A Short Guide to Questionnaire Design for Business Situdents.

Conrad, F.G. and M.F. Schober, 1999. *Conversational Interviewing and Data Quality*. Federal Committee on Statistical Methodology Conference.

Data Star, 2010. Getting the Right Answers: 10 Tips toBetterQuestionnaireDesign,http://www.surveystar.com/startips/jan2010.pdf

Eiselen, Uys, Potgieter, 2005. Analysing Survey Data Using SPSS13: A Workbook. University of Johannesburg.

ESRC, 2015. ESRC Framework for Research Ethics.

http://www.esrc.ac.uk/files/funding/guidance-forapplicants/esrc-framework-for-research-ethics-2015/.

Holyk, 2008 Encyclopedia of Survey Research Methods Questionnaire Design, Lavrakas Book http://www.sagepub.com/bachmanfrccj3e/study/m aterials/reference/33458_ref7.2.pdf.

EPIET, 2006. *Questionnaire Design Introductory Course* Lazareto, Menorca.

Fairfax County Department of Systems Management for Human Service, 2012. *Survey Questionnaire Design*, www.fairfaxcounty.gov/aboutfairfax.

Gendall, 2011. *Questionnaire Design Training,* <u>http://owll.massey.ac.nz/pdf/questionnaire-</u> <u>design.pdf.</u>

Glewwe, 2003. An Overview of Questionnaire Design for Household Surveys in Developing Countries, University of Minnesota St. Paul, Minnesota.

Harkness, J.A. and A. Schoua-Glusberg, 1998. *Questionnaires in Translation. Cross-Cultural Survey Equivalence.* J. A. Harkness. Mannheim, ZUMA.

Harris D. F., 2014. The Complete Guide to Writing Questionnaire, How to Get Better Information for Better Decisions I&M Press.

Krosnick, Presser, 2010. Handbook of Survey Research Questions and Questionnaire Design, https://pprg.stanford.edu/wpcontent/uploads/2010-Handbook-of-Survey-Research.pdf.

Kreuter, Presser, Tourangeau, 2008. Social Desirability Bias in CATI, IVR and Web Surveys.

Kitchenham, Pfieeger, 2002. Principles of Survey Research Part 4: Questionnaire Evaluation, *Software Engineering Notes*, vol. 27 no. 3.

Lambin, 2007. *Questionnaire Design Procedure* Market-Driven Management: Supplementary web resource material, Palgrave Macmillan.

Local Government Data Unit, 2009. A Guide to... ...Questionnaire Design, Wales.

Malhotra, Peterson, 2006. *Questionnaire Design and Scale Development in Basic Marketing Research: A*

Decision Making Approach (2nd ed.). Upper Saddle River, NJ: Prentice Hall. Georgia Institute of Technology.

Mumford, 2005. 10 steps towards designing a questionnaire, *Intelligent Insight*.

OCHA IASC CAIM Berlin, 2014. Questionnaire Design Training.

Oppenheim, 2001. *Questionnaire Design, Interviewing and Attitude Measurement*, Continuum.

Rattray, Jones, 2007. Essential Elements of Questionnaire Design and Development, Journal of Clinical Nursing, 16, 234–243.

Sininscalco, Auriat, 2005. *Quantitative Research Methods in Educational Planning, Questionnaire Design,* UNESCO, International Institute for Educational Planning.

Tourangeau and Yan 2007. Sensitive Questions in Surveys.

http://www.learnlab.org/research/wiki/images/a/a8 /Tourangeau_SensitiveQuestions.pdf.

Turner, D.W., III 2010. Qualitative Interview Design: A Practical Guide for Novice Investigators. *The Qualitative Report*, vol. 15 no. 3, 754-760. http://www.nova.edu/ssss/QR/QR15-3/qid.pdf.

UNICEF, 2004. Designing the Questionnaire, Multiple Indicator Cluster Survey.

Wai-Ching Leung, 2001. How to Design a Questionnaire, Studentbmj.com.

Walonick, 2004. Designing and Using Questionnaires, Excerpts from: *Survival Statistics*, StatPac.

WFP VAM, 2007 Questionnaire Design as Related to Analysis, Intermediate Training in Quantitative Analysis, Bangkok.

Willis, 1999. Cognitive Interviewing, A "How To" Guide.

Wright, Enos M. Enos, 2001. Linacre Adventures in *Questionnaire Design Poetics, Posters, and Provocations,* MESA.