SURVEYS AND QUESTIONNAIRES

Surveys and questionnaires are designed to collect and record information from multiple people, groups or organisations in a consistent way. Surveys and questionnaires can be used on their own as data collection tools. They are also an essential part of some more complex data collection and analysis methodologies. They can be used at any time within a project or programme cycle.

Surveys and questionnaires are designed to collect and record information from multiple people, groups or organisations in a consistent way. Surveys and questionnaires can be used on their own as data collection tools. However, they are also an essential part of some more complex data collection and analysis methodologies, such as randomised control trials and tracer studies.

Surveys and questionnaires can be used at any time within a project or programme cycle. They can be used before a project or programme in order to feed into the design process. They can be used to supply baseline information, in which case the survey or questionnaire is usually repeated at a later stage. They can be used during projects or programmes to support ongoing decision-making. And they can be applied at the end of a project or programme, or after it has ended, to assess what has changed.

The two terms – questionnaire and survey – are used inconsistently within monitoring and evaluation (M&E). Technically, a questionnaire is simply a form containing questions, with space for answers to be recorded. It may be a printed form, or one designed to be filled in online. On the other hand, a survey is understood to be a large, formal exercise consisting of:

- an approved sampling methodology designed to ensure the people or groups covered by the survey are representative of a wider population;
- standard data collection methods that ensure information is collected and recorded consistently; and
- analysis methods that allow findings and conclusions to be generated.

In practical terms, however, people working within CSOs often make the distinction based on scale. For example, forms provided to participants after training to establish what has been learned are often called questionnaires, whereas larger-scale exercises designed to generate information across many different communities are usually called surveys.

Questionnaires

A questionnaire is designed to ensure that the same set of questions is asked to many people, groups or organisations. Questionnaires may be administered in many ways.

- An interviewer might ask questions to different people or groups and then record the answers on a questionnaire. Interviews might be conducted face-to-face, or through telephone or Skype. Questionnaires might also be administered through email or social media such as Facebook.
- Questionnaires might be completed through observation. For example, an expert might observe behaviour in a classroom and then record the observations on a questionnaire.
- Questionnaires can be provided to respondents to complete themselves. Sometimes they are handed out to people. At other times they can be placed where people can choose to take them.
- Increasingly, links to questionnaires are placed in electronic documents or on websites.

Questionnaires may contain open-ended or closed questions, or a mixture of both. An open-ended question can be answered in many ways, according to the preferences of the person being interviewed or filling in the form. Closed questions must be recorded in a specific way. Examples of closed questions are those requiring a 'yes/no' answer or tick-box questions (see table below).

Open-ended questions	Closed questions
Which forms of transport do you regularly use to travel outside your village?	In the last three months, which forms of transport have you used to travel outside your village? ☐ animal ☐ bicycle ☐ car ☐ bus
What challenges do you face when attempting to use government health services?	Have you faced any challenges in accessing government health services during the past twelve months? ☐ yes ☐ no ☐ not applicable
How would you describe your ethnicity?	Please tick which of the following best describes your ethnicity. ☐ Asian ☐ Afro-Caribbean ☐ other

The type of question is important because it dictates how information will be analysed. Closed questions are generally better for gathering data that needs to be analysed statistically, whereas open-ended questions are more often analysed through qualitative methods. However, even open-ended questions can be analysed statistically if the answers are later coded or sorted by those administering the questionnaire.

Care needs to be taken when analysing questionnaires statistically. This is for two main reasons. Firstly, if only a few questionnaires are completed there may not be enough responses to make up a statistically significant sample. Secondly, and more importantly, many questionnaires are administered without sampling. Instead, they are completed on a voluntary basis, which means that anyone who wants to fill in the questionnaire can do so. In either event, the key issue is that the people who are interviewed, or who fill in the questionnaire, may not be representative of the wider population.

This has become more of a problem in recent years, with the introduction of online tools such as SurveyMonkey, which allow people to quickly and cheaply design, apply and analyse questionnaires online. Yet the response rate for these online tools is often very small. This means at best there is a possibility of getting biased responses. At worst, if there is a very low response rate, there is a likelihood of bias. In these situations, great care needs to be taken when analysing and reporting findings.

Case study: SurveyMonkey in CDKN

Between 2011 and 2013 the Climate Development Knowledge Network (CDKN) carried out a number of surveys to find out what people thought about its communications products, including its website and newsletter. A questionnaire was developed using SurveyMonkey and was submitted to around 5,000 people. Around 250 people (about 5%) responded to the surveys. Amongst other things, the exercise revealed that satisfaction ratings for the newsletter (80%) were higher than for the website (60%). This information was very useful to CDKN, which then conducted individual interviews with respondents to find out why the website was so much less popular.

However, had CDKN attempted to use the information to draw overall conclusions about the value of its products it would quickly have got into trouble. This is because the 5% of people that filled in the questionnaire were probably amongst CDKN's biggest supporters. Those who were uninterested, or not really involved with CDKN, would have been much less likely to fill in the questionnaire. Therefore the 5% could not be taken as being representative of the rest. Indeed, a statistician looking at the information would probably have argued that if 100% of the respondents were satisfied with the newsletter then the most that could be claimed overall was that *"at least 5% of the people surveyed were satisfied with the newsletter"*.

There is no doubt that questionnaires can be very useful data collection tools, and there are many examples of CSOs using them quickly and cheaply to acquire information from a large number of people or organisations. Some common examples include:

- questionnaires administered after training to establish how far immediate learning needs have been met;
- questionnaires offered to users of services (such as health centres or schools) to assess satisfaction;
- questionnaires sent by International NGOs or large national NGOs to smaller CSOs in order to help establish the effectiveness of partnerships; and
- simple questionnaires designed to assess the habits of households or communities, such as food intake or the division of household tasks.

However, where large populations are involved – such as farmers supported through a regional agriculture programme – it can be dangerous to rely on information generated through questionnaires that have been submitted voluntarily or without a proper sampling methodology. In that case a proper survey would be needed instead.

Surveys

A formal survey is normally used when a large proportion of the information required is quantitative. Most large surveys are based around a form (often called a questionnaire or a script) containing a number of closed questions. Interviewers are then appointed to ask questions exactly as outlined on the form, and record the answers, often by ticking the relevant boxes. This helps to ensure that questions and answers are as consistent as possible. Using closed questions means that analysis can easily be done via computer software.

When using surveys the basic rules of statistical analysis need to be applied. This normally means knowing or estimating a population size, and then using an approved methodology to develop a sample. This sample is then used to represent the wider population. When properly applied, the extent to which survey results reflect results across the wider population can be accurately calculated. (Note that in some situations it is possible to survey an entire population, and a sample is not needed. For example, a census in a country or district normally seeks to survey an entire population.)

Large surveys may be used at any time in a project or programme cycle. However, they are most often used at baseline and endpoint – at the beginning of a project or programme and at the end – to try and assess what change has been brought about through a project or programme.

The main reasons for using a large survey are:

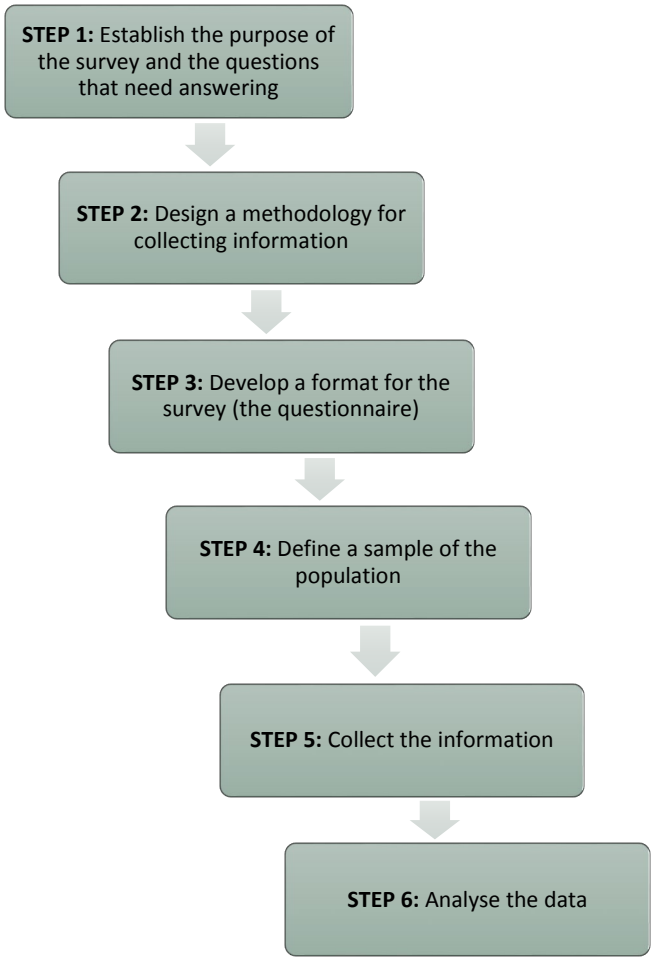
- to provide accurate, precise data on pre-defined questions;
- to acquire a broad view of a whole population;
- to identify major differences and relationships in the characteristics of a population, or to identify how change is affecting populations differently;

- to produce 'hard data' to prove that certain problems exist, or to justify a particular strategy to donors, governments or other decision-makers;
- to establish clear baseline information which can be used for evaluating impact later on; and
- to measure changes in a population over time.

In each case the underlying purpose is the same – to provide data that will stand up to internal and external scrutiny, and will convince decision-makers (including the organisation conducting the survey) of the accuracy of the data. This is very different from designing and running a simple online questionnaire.

How it works

The diagram below shows some generic steps used when designing and implementing large surveys. These are then outlined in more detail.



STEP ONE

The first step is to clearly establish the **purpose of the survey** and the broad **questions** that need to be answered. This should help identify the specific questions that will be used during the survey. It is important at this stage to spend a lot of time ensuring the questions are properly phrased so that they are as clear as possible and are free from bias.

It is also important at this stage to check that there are sufficient resources to run the survey. This means ensuring there is an adequate budget, and the required manpower and technical knowledge is in place.

It is not always necessary to design a survey from a blank sheet of paper. Many surveys can be accessed freely from the internet. Some different types of surveys have been developed over the years in response to particular challenges. For example, Knowledge, Attitude and Practice (KAP) surveys were originally developed for use in HIV&AIDS programmes; whereas many types of livelihoods programmes use surveys based on the Household Economy Approach (HEA). In these cases it is often better to adapt an existing survey that has already been 'proven' rather than risk repeating the mistakes of the past.

STEP TWO

The next step is to **design a methodology for collecting information.** Most large surveys are based around interviews. However, observation or direct measurement techniques are sometimes used as well. For example, some surveys might involve weighing children in selected households, or observing which households own different forms of cooking utensils.

STEP THREE

The third step is to **develop a format for the survey**. This is the actual questionnaire, form or script that will be used to record information or responses. This needs to be defined carefully to ensure that, as far as possible, information is recorded by different interviewers in the same way, and to the same standards. Large surveys are generally quite expensive to design and administer, and survey design can be quite a difficult area. Expertise should therefore be brought in where needed.

STEP FOUR

If it is not possible to cover all relevant stakeholders with the survey then a proper **sample** needs to be developed. Sometimes, a sample may just be a proportion of the population affected by a project or programme. Usually, however, a sample will need to be broken down according to different groups. For example, if a population covered by a programme contains 75% of one ethnic group and 25% of another then the sample should contain the same proportions. This means having a fairly accurate knowledge of the characteristics of a population before developing the sample.

STEP FIVE

The next step is to **collect the information**, using the methods decided in step two. For many large surveys this step will involve training enumerators – people paid to administer surveys – to collect information, and appointing supervisors to oversee the work and ensure methods are used appropriately.

In most cases it is considered good practice to pilot a survey. This means trying the questions out on a few

people to see how they respond. The pilot may reveal biases or ambiguities in the questions, or other problems that were unforeseen. If so, the methods or questions need to be adjusted before the full-scale survey can be implemented.

The final step is to **analyse the data**. This often involves transferring data from written forms to an electronic format (although increasingly nowadays questionnaires are being administered through electronic devices which enables this step to be missed out). Data from closed questions can usually be transferred directly from a survey to a database or spreadsheet. Data from open-ended questions may need to be coded first.

Sometimes analysis is a relatively straightforward task. Often, however, detailed statistical analysis requires the use of specialist computer software. Once data has been analysed then findings should be written up and disseminated as appropriate. It is considered good practice at this point to provide feedback to those involved in providing the information, although, sadly, this step is often missed out.

It is also important at the end of the process to ensure that data is properly stored so that it can be retrieved later if required. Many CSOs have experienced problems following-up on baseline surveys because all or part of the raw data could not be located.

Strengths and weaknesses of surveys

There are many circumstances in which large surveys can be a useful way of collecting and analysing information. Some of the main strengths of large surveys are as follows (see Appleton and Booth 2001).

- They can generate information about large populations through using approved sampling methodologies. Once the size of a population and the sample size are known it is possible to calculate exactly the margin of error of any statistical findings.
- Because questions are asked and findings recorded in the same way, it is possible to aggregate findings across many different geographic locations or different groups of people. It is also possible to compare findings between different locations and groups, thereby allowing for disaggregation. If using a survey within a tracer study or longitudinal study it is possible to compare findings on the same groups of people across different points in time.
- The findings of surveys are often verifiable. This means that (in theory) anyone else with a small degree of training could repeat the exercise and come up with the same findings. Survey interviews usually require less skill than is required when conducting semi-structured interviews or focus-group discussions.
- Survey findings may be more transparent than some other forms of data collection. Raw data can be presented along with the findings, which enables other people to review the data and come to their own conclusions.
- If consistent questions and methodologies are used then the findings of large surveys can be compared to similar surveys carried out in other geographic locations or other sectors of work.

However, before applying a large survey it is also important to understand any limitations or weaknesses. As with almost all data collection tools and methodologies, some of these are associated with the methodology itself, whilst others relate to how it is applied.

- If there are biases in the way questions are asked or information recorded then findings will not be accurate. This is true of all methodologies to some extent, but surveys tend to generate statistical data that is often quoted as if the findings have been mathematically proven. The findings of a survey can only ever be reliable if the raw data is accurate.
- Many surveys are based around closed questions, and require respondents to indicate answers in pre-determined categories. If those developing a survey do not fully understand a situation then these categories may be the wrong ones.
- Closed questions do not always allow for respondents to provide information on why or how something happens. Often the focus is on hard, quantitative findings rather than issues such as beliefs and motives. Similarly, surveys do not usually enable the probing of answers.
- Analysis is often carried out by outsiders or experts. This means that communities are only involved in the collection of data, not the analysis. Although there are methods for making surveys more participatory, many surveys are still seen as 'extractive' (i.e. information is extracted from communities rather than being jointly generated, discussed and used).
- Large surveys are time-consuming and expensive to plan and implement. Any findings need to be valuable enough to justify the time and expense.

Further reading and resources

Information on sampling can be found in the M&E Universe paper on sampling. Other papers in the M&E Universe cover three methodologies that make extensive use of surveys – randomised control trials, quasi-experimental approaches and tracer studies.

Sampling
Randomised control trials
Quasi-experimental approaches
Tracer studies

There is a section on surveys and questionnaires in annex D (pp 12-14) of the *IFAD Guide to M&E*. This is available freely from various internet locations. The INTRAC book '*Sharpening the Development Process; A practical guide to monitoring and evaluation'* also contains some basic information on survey design on pages 87-90.

References

- Appleton, S. and Booth, D. (2001). *Combining Participatory and Survey-based Approaches to Poverty Monitoring and Analysis*. ODI and University of Nottingham, June 2001.

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INTRAC is a not-for-profit organisation that builds the skills and knowledge of civil society organisations to be more effective in addressing poverty and inequality. Since 1992 INTRAC has provided specialist support in monitoring and evaluation, working with people to develop their own M&E approaches and tools, based on their needs. We encourage appropriate and practical M&E, based on understanding what works in different contexts.