



M&E Technical Advisory Notes Series



The M&E Technical Advisory Notes are developed by the FAO Integrated Food Security Support Service (TCSF) to support regional and country's efforts in M&E of Food Security Programmes. These tools are handy guides of a complete M&E toolkit which is indented to complement the E-Learning Course on:

"Assessing Impact of Development Programmes on Food Security"

<http://www.fao.org/spfs/monitoring-evaluation/e-learning/en/>

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Overview of methods for baseline assessments

Including template for TORs

A **baseline assessment** is a study that is conducted at the beginning of a project or a programme, in order to analyze the current food security situation. It gives a picture of the situation before the inception of the programme, and results can then be compared with a follow-up assessment towards the end of the programme, in order to understand the **effects that the programme has had on the target population** (ie. assess impact).

An impact assessment should provide answers to two key questions:

- **What changes** have occurred in the participating population since the beginning of the programme.
- To what extent are these changes **attributable to the programme**.

In order to answer these two questions, the design of the impact assessment should:

- Allow an adequate analysis of the situation **before and after** programme implementation.
- Use a carefully selected **control group** to reflect the situation that would have been observed in programme participants had the programme not been implemented.

This will involve the use of data to answer questions and arrive at conclusions. Therefore, planning for impact assessment - which ideally starts during programme development or early on during the inception phase - also involves deciding upon which **methods and approaches**¹ should be applied in order to get the required information.

This technical note provides an overview of the various methods and approaches that can be used for a baseline (or follow up) assessment, taking into account the stakeholders' **information needs** and the overall programme context.

¹ An impact assessment method is a process that is carried out in a series of steps to obtain and analyze the needed information. An approach is the manner in which different methods can be combined.

1. Quantitative methods

Understanding the “what”, “where” and “when”

Household surveys

The most common way to use a quantitative method for assessing food security is through a **household survey**. Household surveys are extremely useful when data must be collected first-hand for the explicit purpose of the baseline assessment.

Survey questions are used to create pre-determined impact indicators. The same questions are asked before the programme begins (at baseline) and again after it has been implemented (follow-up). Comparison of indicator levels before and after will provide quantitative evidence of change since the beginning of the programme.

Carrying out a household survey requires taking various steps, that are briefly described below:

⇒ Defining the sampling method

Household surveys gather information from a sample of households in order to draw conclusions about the population that the sample represents. Information gathered from the sample can be **generalized to the entire population** of interest when the sampling method is appropriately chosen and properly executed.

Defining the sampling method means determining the:

- *Sampling unit*: in general, for household surveys, the sampling unit is the household. In some cases, it may also be the individual. This depends on the kind of information to be collected.
- *Sample frame*: for a baseline survey, the sampling frame will usually be composed of the population targeted by the project (e.g. all smallholders in a given area) and a control population (e.g. all smallholders in a neighboring area where the project will not be present).
- *Sample size*: this is the number of households that will be interviewed for the survey. The size of the sample will depend on a number of variables that should be well defined prior to the survey.
- *Sampling approach*: how will the households be selected? One may opt for a simple random sampling, a cluster sampling or a stratified sampling. The choice will depend on the resources and time available, and the characteristics of the population of interest.

Once all these elements are clear, the list of households constituting the sample can be drawn. This is where the enumerators will conduct interviews.

⇒ Developing and testing the questionnaire

Surveys are typically administered through a questionnaire, which is made up of standardized, mostly close-ended, questions. Before conducting a quantitative survey, it is necessary to **develop and test the questionnaire** that will be used to gather information.

The typical food security baseline questionnaire is comprised of a few different **categories of information**, each one serving a particular purpose:

- *Identifiers* (e.g. geographic area, household ID number, date of interview)
- *Background Characteristics* (factors by which participants and controls may differ, which could bias the ability to measure impact. e.g. socio-economic status, participation in other projects/programmes, livelihoods, educational level etc.)
- *Indicators for disaggregating data* (e.g. by gender, by level and type of programme participation)
- *Outcome indicators* (measures of what the programme intends to change in order to achieve food security, e.g. farming practices, or wealth levels)
- *Impact indicators* (measures of food security programmes' achievements, e.g. dietary diversity, stunting prevalence)

Once the draft questionnaire has been developed, the questionnaire should be **pre-tested** to ensure that:

- questions are complete and accurate
- response options are relevant and as exhaustive as possible
- respondents comprehend what is being asked of them.

⇒ Enumerators recruitment and training

In order to ensure quality of the data, it is recommended to:

- Hire **professionally trained** and experienced enumerators.
- Conduct **centralized training** for all enumerator teams to ensure standardization in survey administration.
- Incorporate a **field test** of the questionnaires during the training to vet enumerators and to allow them to practice and receive feedback before beginning the survey.

Secondary data

While a properly conducted survey is an extremely powerful tool for assessing impact, it is also one of the most **costly and difficult** methods. In some cases, good quality data may have already been gathered by others for a different purpose (**secondary data**), and can be re-utilized for the baseline assessment. This option should be considered in particular when **limited financial resources or time** are an issue for the programme.

It may indeed be less expensive to hire an experienced assessor or statistician to identify data sources and carry out an appropriate data analysis, rather than conduct a survey to collect primary data. This will most probably involve a re-analysis of raw secondary data in order to construct pertinent food security impact indicators, and to create a baseline or an appropriate control group.

It is common for quantitative impact assessments to make use of a **combination of primary and secondary data**.

2. Qualitative methods

Answering the “why” and “how”

Qualitative methods are effective in understanding the **process that caused the change**. They gather information about the values, opinions, behaviors, and socio-cultural context of particular populations from their own perspective.

The advantage of qualitative methods is that they usually provide a much stronger **context** and the results can more easily be communicated. Drawbacks are that the findings may not easily be generalized to a larger population and they may be **biased** if the assessment is not carried out by skilled facilitators.

Design

The **design** of qualitative impact assessments follows the following key steps:

⇒ Sampling

Qualitative assessments do not normally use probabilistic sampling. Their strength lies in delving deeply and clarifying issues, rather than in covering large numbers of people with a view to develop generalizations.

Purposive sampling is commonly used to **focus the assessment** on the people and issues of interest. Samples are often stratified by different groups of people from different geographic locations, socio-economic groups, or from within households.

Because the probing done through qualitative techniques can be **time consuming**, the size of the sample is very often determined by:

- the heterogeneity of the community (how many different groups need to be interviewed to generate a sufficient level of insight)
- time constraints (of both the assessor and the participants)
- resource constraints (number of moderators and/or facilitators available).

⇒ Structuring the assessment

Similarly to quantitative surveys, the assessment team will have to decide on how to structure the qualitative assessment.

In particular, decisions should be made about:

- the **techniques** that are most appropriate for answering the different questions (see *Annex 1* for a description of various qualitative techniques)
- how to **sequence** the different techniques, e.g. in view of the need to select participants for specific exercises based on the results of another exercise
- the level of **participation** that is required or desirable and how to manage the expectations that people’s participation may bring about.

Once a decision has been made on the most appropriate mix and sequence of techniques, **guidance sheets** need to be prepared to:

- explain in detail the specific purpose of each technique
- describe how the technique is to be carried out
- provide a list of interview or discussion questions
- explain how to document the findings
- outline the required materials, skills, time, etc.

⇒ Planning for survey quality

Principles of **quality control** apply to qualitative assessments as well as to quantitative surveys. A qualitative assessment should not be thought of as an assessment instrument to be carried out rapidly, cheaply, without much preparation, and with inexperienced facilitators. Good qualitative assessments, especially those involving high levels of participation, take **time, skills and resources**.

In order to optimize the quality of the results, it is important to ensure that local elites or other groups **do not manipulate** the assessment to serve their own specific purposes, and that the assessment does not create expectations that could bias the answers.

Rapid Rural Appraisal

A commonly used qualitative assessment method is the **Rapid Rural Appraisal (RRA)**, a method that:

- seeks to gather information from respondents in populations with low levels of literacy
- allows learning about the lives of the poor
- uses simple techniques (wealth ranking, oral histories, role-playing, games, small group discussions, village maps, etc.) to gather information
- is used in circumstances where up-to-date information is needed at short notice and large scale quantitative surveys are not feasible.

Participatory Rural Appraisal

Another method commonly used in qualitative assessment is the **Participatory Rural Appraisal (PRA)**, which:

- builds on existing RRA techniques
- facilitates a dialogue that helps the poor learn about themselves
- helps the poor identify new ways to respond to the challenges in their lives and gain new insights that lead to social change or empowerment
- creates a shared understanding of the factors that shape people’s livelihoods.

Participatory Rural Appraisals are generally conducted in groups. A skilled facilitator helps local people in generating a shared understanding of the factors that shape their livelihoods. The facilitator often uses visual diagrams and maps to facilitate a discussion on a given topic. The discussion has to be extremely well moderated: the moderator’s role is essential for ensuring that the information and conclusions that are generated through group discussions are of high quality. In Participatory Rural Appraisal it is essential that recruitment of participants be conducted so that representatives from all relevant groups (e.g. cultural, socio-economic, gender, etc.) in the community are included. If the group reaches a consensus on a particular issue after some discussion, then this consensus will be representative of the views in the community, because outlying views would have been set aside in the process of debate.

3. Approaches using mixed methods

Combining quantitative and qualitative methods

Very often, a good assessment will borrow from more than just one method. In most cases, a combination of quantitative and qualitative methods is the optimal solution, as it will both quantify the impact and explain how this came about. This can be done through a parallel, sequential or iterative approach, as described below:

Parallel approach

In a **parallel approach**, the quantitative and qualitative assessment teams work separately but compare and **combine findings** during the analysis phase.

When using the parallel approach, the qualitative data do not inform the design of the household survey, but provide an **independent alternative source of information**, shedding more light on, for example, the nature and depth of poverty as experienced by different socio-economic groups, the programme context, the factors underpinning participation or non-participation of certain groups, etc.

This approach is the **most practical** one for large-scale food security programmes, where closer forms of interaction between the qualitative and quantitative assessment teams may be difficult to establish and maintain due to logistical and administrative constraints.

Sequential approach

In a **sequential approach**, first a number of qualitative assessment techniques are used to generate a more in-depth understanding of a situation and to identify the issues that need to be further investigated.

The findings of the qualitative assessment are then used as an input in the design of the **quantitative household survey**. This approach is useful in **complex programmes** where diverse and **un-anticipated impacts** are likely. This is particularly so when there is less knowledge about all of the factors, known and unknown, that might lead to impact.

Iterative approach

An **iterative approach** takes the sequential approach one step further. Following the initial qualitative assessment and subsequent quantitative assessment phase, the assessment team **returns to the field** to seek further clarification on unresolved questions and possible contradictions that emerge from comparing findings.

This approach makes the best use of combined methods, but may require **more resources and time** than most programmes can afford.

4. Participatory approach

Ensuring stakeholder’s participation in the assessment

A **participatory approach** is aimed to enhance the participation of local people, agencies, and decision makers in the assessment process, including the design and implementation of the assessment and the analysis of the findings.

In a participatory approach, local stakeholders contribute to the definition of what constitutes “success” and take part in the identification of indicators to measure impact. It gathers local people’s views on **where** impact occurred, **why, how** and to **what extent**

Local people can also provide **clarification on the findings** of a quantitative survey, and may provide an **input in the design** of a quantitative survey in terms of the identification of areas of particular interest.

The level of people’s participation in a participatory assessment may vary from basic sharing of information, consultation and collaboration, to **empowerment**, where local people are actively involved in actual decision-making.

Participatory methods improve the **quality and reliability of the information**, and they help to understand and take into account social and cultural factors that are difficult to measure through a standard survey. Furthermore, involving people in providing evidence or gathering information will result in more **ownership** and a better level of understanding of the findings among stakeholders.

Tools and techniques for qualitative assessments

Overview of commonly used techniques in qualitative impact assessments

VISUAL TECHNIQUES

Diagrams

Flow/causal Diagrams

They are the graphical result of a causal mapping exercise. The purpose of the exercise is to create a diagram that can be discussed and shared with others showing the perceptions and beliefs of an individual or a group about the causes and consequences of a given situation. E.g. problem trees used in programme design show how one problem leads to another. Objective trees show how a set of means lead to a given end.

Venn Diagrams

Used to illustrate the extent to which individuals, organisations, projects or services interact with each other or overlap. The diagram will also show the links between different types of groups in a clear, graphic format. Can also be used to summarize the roles that different groups play and how their importance varies.

Systems Diagrams

Visual tools that help create understanding about how complex systems work. Systems diagrams are similar to causal diagrams but are more complex. They show how a change in one factor has an impact elsewhere and may eventually feed back to affect itself. E.g. a systems diagram may show how childhood malnutrition leads to poor cognitive development, which in later life will affect the person’s ability to make a living and thus possibly will feed back into malnutrition among the next generation.

Pie charts

Charts in the shape of a pie, which are split into segments that show the relative contributions of different shares of a whole (e.g. the proportion of female headed and male headed households in a community). It gives an immediate visual idea of the relative size of each share.

Histograms

Representations of a frequency distribution by means of rectangles whose widths represent class intervals and whose areas are proportional to the corresponding frequencies.

<p>Ranking</p>	<p>Preference Ranking</p> <p>Technique to make an individual's or group's underlying preferences visible through drawing items and ranking them in accordance to their importance as perceived by the individual or group. The discussion that takes place about why a given item (e.g. the kind of assistance to be provided by a programme) is given a specific ranking reveals the underlying criteria for the priority setting of different groups (e.g. different priorities among men and women).</p>	<p>Pair Wise Ranking</p> <p>Structured method for ranking a small list of items in priority order. It can help to determine the main preferences, priorities, needs, constraints or problems of a person or a group on a certain subject and to make consensus decisions.</p>	<p>Direct Matrix Ranking</p> <p>A form of preference ranking but whereby an item is scored for more than one preference criteria at the same time. The sums of different scores for each item are then compared and form the basis for the final ranking of the item in question.</p>	<p>Ranking by Voting</p> <p>An exercise that facilitates priority setting and decision making among larger groups of people, e.g. to make a decision about which community project(s) will be implemented first.</p>	<p>Wealth Ranking</p> <p>Tool that helps to investigate perceptions of wealth differences and inequalities in a community and to identify and understand local indicators and criteria of wealth and well-being.</p>
<p>Timelines</p>	<p>Historical and Future mapping</p> <p>For understanding the history of a community, historical timelines can be developed as a visual tool for discussion of the past and a means of identifying and discussing key events that shaped the present.</p> <p>A similar exercise can be carried out to envision a desired or expected future and outline the paths that may lead to this future.</p>		<p>Time Trends chart</p> <p>Visual tool to show local perspectives about changes in for example natural resources, ecology, etc. over time.</p>		<p>Oral Histories</p> <p>Collections of stories told by a member of the community and used to collect information which is not documented in formal records.</p>
<p>Mapping</p>	<p>Mobility Mapping</p> <p>This technique creates a visual representation of people's movements within and outside their community. Through a discussion, issues and problems are identified related to socially differentiated mobility and access to resources such as capital, land, water, health services, education services, information, etc.</p>	<p>Social Mapping</p> <p>A map drawn by the residents that shows the social structures and institutions found in an area.</p> <p>It helps to learn about social and economic differences between the households.</p>		<p>Transect Walks</p> <p>Activity that involves walking in a community along a predetermined path, taking notes and asking questions as one goes.</p>	
<p>Calendars</p>	<p>Development of calendars is a participatory technique used to explore changes and events throughout a year, e.g. seasonal calendars related to workload, diseases, rainfall, farming, festivities throughout the year.</p>				
<p>Ethno-Classification</p>	<p>Proverbs</p> <p>Used to attribute qualities or reveal perceptions, e.g. about men, women, youth, etc. as a means of analyzing the messages they convey in terms of the identities of these groups in the community.</p>		<p>Stories</p> <p>Dialogue technique that uses stories to draw out important themes and issues for a community, moving from personalised experience to generalised knowledge.</p>		

GROUP AND TEAM DYNAMICS TECHNIQUES

Focus group discussions

Group of interacting individuals having some common interest or characteristics, brought together by a moderator who uses the group and its interaction as a way to gain information about a specific issue.

In a focus group discussion, people, in general from similar backgrounds or experiences (e.g., mothers, young married men, birth attendants/mid-wives, etc.), are brought together to discuss a specific topic of interest to the investigator. Homogeneous samples are preferred because mixing age and gender groups may inhibit some people, e.g. women and youth, from expressing their views.

Role play

A dramatization technique to help people to open their minds and to stimulate discussion about the situation and choices that other people might face.

Community workshop

Used to present the main findings and conclusions of an assessment to the community at large and to provide an opportunity for discussion of the main findings of the appraisal.

COMPLEMENTARY TECHNIQUES

Secondary data review

This involves review of information that was collected in the course of another study or as part of a publicly available set of data. It may be in the form of official statistics or other informal sources that have not been generated by the researcher.

Semi structured interview with key informants

Guided conversations with key informants where broad questions are asked which do not constrain the conversation, and in which new questions are allowed to arise as a result of the discussion.

This type of information gathering is different from questionnaires and surveys which use very structured questions that are not deviated from. A semi-structured interview is therefore a relatively informal, relaxed discussion around a predetermined topic and based on a set of open-ended questions.

Case studies

A technique to illustrate and delve deeper into the findings of a survey using concrete cases. They are a useful way of listening to the poorest and most marginalized in the community who are sometimes excluded from community meetings. It is also an excellent opportunity for observing the surroundings and the way the interviewed people live.

Participant observation

A technique whereby a researcher participates in the daily life of those he or she is observing, often over a longer period of time, with the purpose of collecting data on the subject that he or she is studying in a more profound way than could be achieved with, for example, a questionnaire.

Direct and indirect observations

These are techniques whereby a researcher observes a given study group as they go about their normal activities and takes notes on what takes place. The observation is direct when the researcher is present or indirect when other means of observing are used like for example a video camera. The researcher should always be aware that people may act differently when they know that they are being observed.

Template for Terms of References of a Baseline Assessment

[Title and code of project/programme]

1. Project/Programme details

[Executing agency]

[Main implementing agencies]

[Donor]

[Duration]

[Budget]

2. Context

[Project/programme structure]

[Institutional arrangements]

[Description of project/programme area(s)]

[List of other food security surveys conducted recently in the project area and/or on target population]

[Targeting criteria: how are participants selected?]

3. Main objectives and expected impact

[Describe the medium and long-term objectives of the project/programme as defined in the logframe]

[Provide details on the expected impact: participants population, geographical zones, food security dimensions, changes expected, targets, etc.]

4. Approach

[Briefly list the methods that will be applied (quantitative and/or qualitative and provide justification)]

[In case of mixed methods, describe the approach, ie. how these will complement each other (sequence)]

5. Scope and methodology *[repeat this part for each part of the assessment in case of a mixed approach]*

a. Desk review

[How will the desk review be conducted and by whom]

b. Sampling

[Describe and justify the sampling methodology]

[Describe the sampling frame and locations where the assessment will take place]

c. Indicators

[List all the quantitative/qualitative indicators that will be estimated through the assessment. This will help keeping the focus of the assessment by reminding the assessors about the information needs]

d. Field work

[List the techniques that will be applied to collect data for the various indicators]

[Define the level of participation that will be sought by the facilitators]

e. Analysis and reporting

[Who will be responsible for the analysis?]

[Which software and methods will be used]

[What are the main questions that the report should answer?]

[How long should be the report?]

f. Timeframe

[Provide a calendar for all the activities of the assessment]

6. Budget

[Provide a detailed budget estimated for the entire assessment, from the desk review to reporting]

7. Staff requirements

[Who is needed and which qualifications are needed to conduct the assessment]

[Describe the selection process if recruitment is envisaged]

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