The cover features a solid yellow background. Four black silhouettes of hands are positioned around the center, each holding a white puzzle piece. The hands are located in the top-left, top-right, bottom-left, and bottom-right corners. The puzzle pieces are arranged in a square pattern, with each hand holding one of the four pieces. The title text is centered in the middle of the cover.

Handbook of  
Participatory Monitoring and  
Evaluation for Projects,  
Programmes or Policies

Given Hapunda, *Editor*

First edition





Handbook of  
**Participatory Monitoring and Evaluation for Projects,  
Programmes or Policies**

*First Edition*

Edited by  
**Given Hapunda**

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Handbook of Participatory Monitoring and Evaluation for Projects, Programmes or Policies

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It has taken over two years to put this book together. It has taken many talented people's time and dedication to bring it out for use. My first appreciation goes to the international cast of authors who within their busy schedules found time to write their chapters. I also thank the local authors for agreeing not only to contribute to the volume but also to support me as the editor. I also acknowledge the role of the people who reviewed and edited the chapters and the publisher for the wonderful assistance regarding the layout and print of this book.

## Dedication

*To my wife and daughter thank you for the support during the development of this book*

## **Preface**

The *Handbook of Participatory Monitoring and Evaluation for Projects, Programmes and Policies* is an exciting contribution to theory, research and practice of locally and internationally funded development projects, programmes and policies; as such, it is one of the primary sources for the field. It has taken over three years to put together this volume. The topic coverage and wide spectrum of authors who have contributed to this volume explains why it has taken this long. Therefore, the publication of this volume is an extraordinary achievement. It is a timely and impressive volume from many of today's leading scholars and practitioners of Participatory Monitoring and Evaluation, a perspective that is much misunderstood and under applied by mainstream practitioners and users of Monitoring and Evaluation. The volume includes a motley of theoretical and practical overviews of the discipline. As such, it serves both to introduce the participatory perspective to scholars, practitioners and students who are unfamiliar with it and to illustrate ways in which participatory thinking and application in Monitoring and Evaluation can inform impact oriented project, programme and policy implementation. It would make a good textbook for instructors in search of material to advance the field of Monitoring and Evaluation and stimulate the thinking of students on how Participatory Monitoring and Evaluation is implemented. Also how it is important for project owners, citizen civic responsibility and result based project management.

**Given Hapunda**

University of Zambia

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## Part chapters

- Background: Are we there yet?
- Introduction and Genesis of Monitoring and Evaluation in Africa

## Part 1

### Introductory Note

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## Chapter 1

### Background: Are We There Yet?

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**Handbook of Participatory Monitoring and Evaluation for Projects, Programmes or Policies**  
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**RIDDERPRINT**

## **Rationale of this Book**

Since the Development Assistance Committee (DAC) of the Organisation of Economic Cooperation and Development Conference in 1987, held in Paris, France which gave donors and beneficiaries an opportunity to discuss evaluation and subsequently, the Abidjan seminar which was held in 1990 in Ivory Coast, which among others discussed evaluation needs and capacities for each country, increased the recognition of monitoring and evaluation (M&E) in Africa. However, it is only in the last decade that utilisation of monitoring and evaluation systems increased. In Africa like in other developing continents, development and utilisation of M&E in decision-making has been slow. In Africa, M&E utilisation has been slowly increasing, a trend predicted to continue especially with political recognition of the importance of M&E to good governance and development (Mofolo, Mkuyana & Skade, 2014). Globally, the international status of M&E has been influenced by the United States of America discourse (Basheka & Byamugisha, 2015). As a result, M&E as a discipline, practice and profession is influenced by the perspective of the USA and other developed countries, which we call etic M&E. M&E influenced by local discourses embedded in local politics and socio-economic cultures also known as emic M&E is lacking.

The development of emic M&E in Africa will largely depend on the development of literature with African M&E discourses, training programmes anchored on African experiences, development of M&E professions in African universities using African materials and supporting development of M&E practitioners with a rich background of local political and socio-economic culture. However, this handbook does not claim that only etic M&E is needed for African M&E practitioners. Domestic and global forces will all contribute to the growth of this discipline. We cannot deny that this discipline is growing, especially with the shift towards more performance-based management of policies, programmes and projects. This growth has also seen the development of M&E associations in almost all African countries.

Despite this increase in the development and utilisation of M&E, some countries and institutions still find themselves with top political leaders and managers who are unaware of the benefits of M&E. The trickle-down effect of this lack of awareness of top leadership, is slow development and appreciation of M&E. Unfortunately, academics who are supposed to be the engine to drive the development of the field equally lack thorough understand of the field (Khan, 1998). Among countries and organisations within Africa utilising M&E, some are only conducting monitoring activities which also masquerade as evaluation. Monitoring is the dominant part of government's and organisation's [especially local non-governmental organisations (NGOs) or civil society organisations (CSOs)], monitoring and evaluation systems (Porter & Goldman, 2013). Monitoring is confused for evaluation. Some governments and organisations with full functional M&E systems tend to be donor-led rather than country or organizational led systems.



Because many African countries and organisations working in Africa are donor-dependent, evaluation of their policies, programmes and or projects is part of the conditions attached to the donor funds. Due to lack of skilled evaluation practitioners and consultants to conduct programme or project evaluations, services are often outsourced from developing countries. Their etic evaluation tends to diffuse local contexts with their outside political and socio-economic lens to understand the worth or value of policies, programmes and projects implemented in Africa. The danger of these etic lenses is that they misrepresent evaluation findings. Connected to this challenge is the problem of practicing M&E as a profession. Africa has a pool of people who call themselves experts without any formal training. Limited number of training institutions that offer M&E in Africa make it difficult to improve the profession. In addition, lack of and sometimes weak M&E associations make it hard to control and monitor the practitioners. The weak prevailing pool of M&E professional practitioners has contributed to sub-standard and half-baked monitoring and evaluation outputs. Yet, as Stufflebeam & Coryn (2014) put it, M&E is a distinct profession and supports all other professionals and in turn, it is supported by many of them arguing, that in fact no professional would excel without M&E. As highlighted earlier, M&E, unlike other disciplines is still young, therefore, it lacks home-grown teaching and learning materials including academics to develop it. This means African universities have no ability and commitment to introduce M&E courses to address the problems of capacities. While some universities in Africa especially in South Africa and West Africa have graduate and postgraduate programmes in M&E, majority have short courses in M&E or nothing at all. This limited participation of universities in advancing the field is also a bottleneck for home-grown evaluation journals.

Efforts to address some of these problems have been made by governments and cooperating partners through the Organisation for Economic Co-operation and Development (OCED) evaluating country programmes (ECPs) and United Nations Children's Fund (UNICEF) Government sector evaluation needs assessments (see OCED, 1999 and UNICEF, 2016).The recommendations from such reviews, which include trainings in M&E, establishment of M&E units, strengthening communication between partners, among other good recommendation are also addressed in this handbook. This handbook is an attempt to contribute to the solution of M&E's challenges faced by African governments, organisations and learning institutions. Although the handbook has a bias to M&E for internationally-driven interventions, its principles apply to all facets of self-led evaluations, including government, organisations (strategies), sector, policy, project and programme evaluation. It is hoped that the principles of this book will allow for optimal utilisation of available resources, sharing of experiences and foster evidence-based reporting.

## Principles Guiding this Book

In developing and shaping up this book, I have been guided by principles arising from participatory monitoring and evaluation (PM&E), whose usefulness has been observed in various studies across the world. In this section, I will discuss this principle briefly.

Participatory monitoring and evaluation has taken over convention monitoring and evaluation for both country and organizational-led M&E systems, yet its principles are not widely applied in the systems currently available. For instance, in Zambia, M&E is coordinated by the M&E Division in the Ministry of National Development and Planning, through which other M&E departments/units of other ministries and stakeholders are included in the process (Ministry of National Development Planning, 2017). The National HIV/AIDS/STI/TB Council of Zambia also runs a multi-sectorial M&E system, which requires coordination of all players to the national response in order to lead to coordinated and expected outcomes.

PM&E is a process through which stakeholders at various levels engage in monitoring or evaluating a particular project, programme or policy, share control over the content, the process and the results of M&E activity and engage in taking or identifying corrective actions (World Bank, 2010). At the center of this definition, is involvement of stakeholders. A stakeholder is anyone who is affected by or can influence the impact of a policy,

programme or project.

Service users, initiative beneficiaries, people living in a project catchment area, staff, volunteers, partner agencies, funding bodies, local and

---

### Focus Box 1: Types of Stakeholders

Stakeholders are divided into two categories – primary and secondary stakeholders. We can also have tertiary stakeholder though. Primary stakeholders are those who are directly affected by the policy, programme or project. That is, those who are benefiting or adversely affected by the programme. Secondary stakeholders are those who have a stake or interest in the policy, programme or project, therefore, influence the direction of the policy, programme or project. Tertiary are those who are indirectly affected by the project. For example, borehole companies may be tertiary in a project that aims to improve water using community-led manual bore-hole drilling instead of automated bore-hole mechanisms.

---

national policy makers or decision-makers are all stakeholders. These stakeholders are involved in varying degrees and direction in M&E processes depending on their interest and level of impact on them. Whatever the level of involvement, in PM&E, the aim is to move stakeholders from being passive to active ones (IFAD, 2002).

For a project, involvement and engagement of stakeholders means deliberately involving and listening to stakeholders' views at different levels of the policy, programme or project from inception to the end. For this to happen, staff must provide and communicate data that can help stakeholders to actively

get involved. There are three different levels of engaging stakeholders in PM&E. Table 1 shows different roles of stakeholders in PM&E.

**Table 1: Roles of Stakeholders in PM&E**

Role of stakeholder	Role of evaluator/nature of evaluation
Active respondent	<ul style="list-style-type: none"> <li>• Evaluators formulate performance questions, design and implement evaluation. Primary stakeholders (especially beneficiaries) act as respondents.</li> <li>• Stakeholders are given freedom to express views and influence the evaluation outcome.</li> <li>• Evaluators encourage involvement.</li> <li>• Evaluator provides feedback and invites comments.</li> </ul>
As consultant	<ul style="list-style-type: none"> <li>• Evaluator formulates performance questions, but involves stakeholders in shaping up the design and implementation.</li> <li>• Stakeholders advises ways of disseminating findings.</li> </ul>
As evaluators	<ul style="list-style-type: none"> <li>• Stakeholders are involved in the design and implementation</li> <li>• Service users are interviewers or researchers but planned by professionals</li> </ul>

*Source:* IFAD, 2002

To conduct PM&E certain steps must be followed. In almost all the steps, reflection and discussion are encouraged in an iterative way. These include:

1. Identifying and engaging stakeholders.
2. Building stakeholders’ capacities for PM&E.
3. Defining and agreeing what to monitor and evaluate.
4. Developing and formulating indicators.
5. Gathering information.
6. Managing and analysing data.
7. Reflecting, sharing and using the results of M&E. (Remember that reflection should start at least at step 3: defining and agreeing what to monitor and evaluate).
8. Learning, document besting practices and adjusting or changing project strategies.

### **Why PM&E?**

Unlike conventional monitoring and evaluation, PM&E promotes and sustain relationships between different stakeholders within and outside the project. Involving stakeholders from the very beginning ensures that the policy, programme or project evolves around people’s needs, and is therefore more responsive and adaptive to their local conditions (Core initiative, 2000). Another reason why PM&E should be embraced is that it increases the likelihood of sustained impact. Recently, one Facebook user

posted a comment that would be perceived as uncomfortable yet an alternative view of the truth; “*always good to give back to the community. Unfortunately, in Africa, as soon as the donors depart, things revert to what they were*”. As you can imagine, his comment was not well received. I think that there is some truth to his observation. Some projects are done for the sole purpose of reporting to the donor, not for the value of the primary stakeholder, hence the Facebook user’s observation. In

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**Focus Box 2: Importance of PM&E**

PM&E offers new ways for strengthening learning and change both at community, project and institution level hence sustained impact

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PM&E, where the process also builds and promotes the stakeholders ownership of the project, impact tends to be sustained because PM&E promotes change in the individual attitudes and community norms because the project development and process require that stakeholders reflect and analyse their own attitudes, beliefs and behaviours.

## **How to involve Stakeholders at different stages of PM&E**

### **Defining the problem**

Involvement of stakeholders begins right at the start of the project; the design stage. Developing a shared-vision of the policy, programme or project generates information needed in the design of project activities, and it provides the basis for developing a participatory monitoring and evaluation system. Project shared-vision meetings enable stakeholders to analyse and share their knowledge, experiences, views, and concerns on different topics related to their physical, economic and social conditions. A consultant or one of the project staff can facilitate a shared-vision meeting. This person helps to guide the process, but ultimately, it is the stakeholders who define and give shape to the issues that come out of the appraisal. By involving the stakeholders in analysing their own situation, and enabling them to take part in deciding the activities that will be implemented, the participating stakeholders will also own the process.

### **Planning**

After defining the problem, M&E facilitators or consultants can help stakeholders generate ways of handling the problems that were identified in defining the problem. The list of problems and suggestions forms the basis for developing an action plan. This means decision-making regarding the project will be done together with stakeholders. Decisions made include but not limited to, setting objectives, planning activities and implementing them, determining the size and location of the project and setting targets and time-frames.

## **Developing and selecting indicators**

A project must describe how it is going to monitor and evaluate its activities. This means, developing indicators that will be monitored and later evaluated, spelling out how this will be done and by whom. Indicator development can be difficult and a lengthy process. To make this process easier, projects need to build capacities of stakeholders before the process begins. In some cases, a set of indicators can be developed by a project and then stakeholders make comments, or different stakeholders develop indicators and a group of stakeholders makes comments until consensus is reached.

## **Data collection**

Data collection during baseline, monitoring and evaluation can be done with stakeholders. Stakeholders need to be familiarised with the tools before data collection. Using stakeholders can bring out data that project staff may have not initially thought were important. Once data has been collected, stakeholders can reflect on the process each day, to improve data quality and scope on subsequent days. This process empowers the stakeholders with skills and processes involved in collecting and managing data.

## **Data analysis**

Participatory data analysis (PDA) involves bringing together different stakeholders, including project staff into data analysis, interpretation and meaning making process. Two forms of data are often analysed, qualitative and quantitative.

### ***Qualitative approach***

In qualitative data analysis, participants are first given a dossier of transcribed interviews and focus group discussions to read, familiarise themselves with the data and make notes based on the project components that were surveyed during the baseline study mid or endline evaluation, two to three days before qualitative data analysis is conducted. Before participatory qualitative data analysis is conducted, the M&E facilitator or consultant presents few concepts on qualitative analysis and how to identify codes and themes. Qualitative data analysis follows the following steps:

**Step 1:** *In-depth reading of specific sections of the transcription* - This step allows the participants to immerse themselves with the data and ask questions about the data and also make additional notes.

**Step 2:** Once the participants are immersed with the data, the next step is to generate codes independently. The generated codes are then discussed to develop collective understandings of recurring ideas.

**Step 3:** Once a comprehensive list of codes is generated, the final codes are each written on a sticky note and participants can start to organise them into themes. A group of themes can be stuck together on a large sheet of paper (Manila paper).

**Step 4:** The process of coding and generating themes usually provides a lot of information about the relationships between codes and how they interact to form a theme. Therefore, the next step is about understanding the relationships between themes, and how the groups of codes inform these relationships. A key is developed to understand the nature of the interaction and relationship between themes using cotton wool strings of different colours as follows:

- *Red* – cause and effect
- *Black* – barrier
- *White* – facilitator
- *Blue* – contradiction/tension
- *Pink* – relationship

**Step 5:** After the interactions are established, through discussion and re-examining themes, a thematic map can be created (as seen in the figure 1 below), and discussed using predetermined discussion and brainstorming questions. Questions such as the following can guide the discussion and brainstorming session:

- What surprised you? Why or why not?
- Based on what you read, what would you conclude is the situation of [topic/indicator] and its consequences?
- What actionable ideas for improving the situation did you see or can you suggest?
- What problems seem more consistently identified and hold a greater challenge?



**Figure 1: Thematic Maps**

### ***Quantitative approach***

Unlike, the qualitative approach, in quantitative PDA, it is advisable for the M&E facilitator or consultant to first run a preliminary test, usually involving descriptive frequency tables, graphs and measures of central tendency (specifically mean, standard deviation and median). Where necessary, raw data can be analysed together with participants, where the preliminary data is deemed limited. The analysed data is then presented as a series of data placemats projected on a large screen in themes according to the project components that are being assessed. For each data placemat presented, the same discussion and brainstorming questions highlighted above can be used to discuss the results.

### **Participatory data dissemination**

During dissemination, different stakeholders can be allowed to present findings. An important point to remember during participatory data dissemination is the responsibility of the project to ensure stakeholders' views are respected. Sometimes participatory methods such as drama can be used to reinforce the dissemination of findings. Dissemination is also considered participatory if the project allows and considers views and feedback from the stakeholders present or preview of the data being presented. In addition, stakeholders can participate in developing a plan for the next round of data collection or development of a phase out/over plan if the project is coming to an end.

### **Methodology**

The following self-explanatory figure (2) describes the process of conducting PM&E. It is important to lean back and reflect at each step, use lessons learnt and adjust the process to maximise impact.

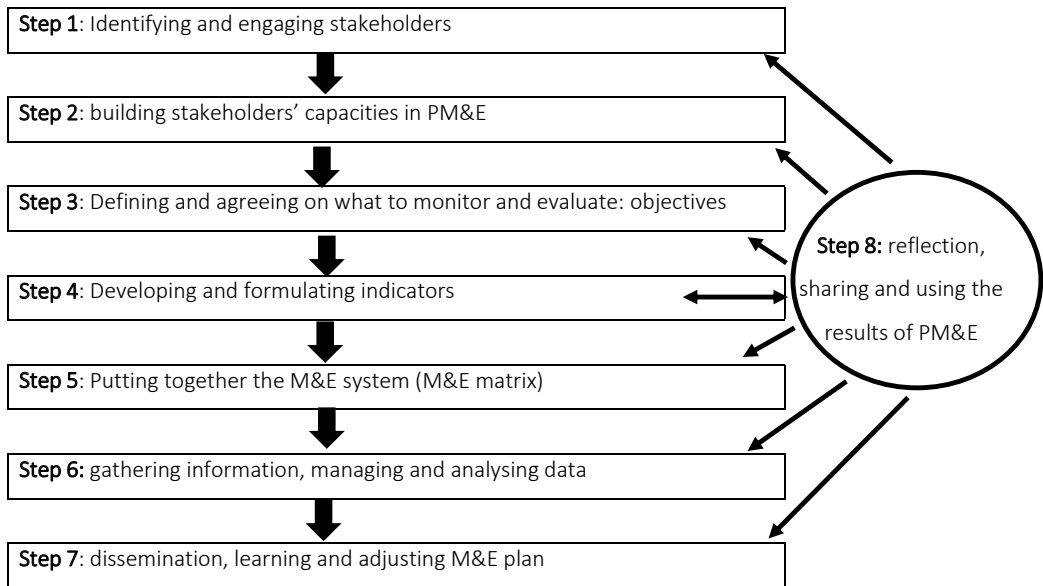


Figure 2: Steps in conducting PM&E (Adapted from Pali et al., 2005)

This book is rich in examples of conducting participatory monitoring and evaluation that have been tried and tested in Sub-Saharan African settings and found to contribute significantly to improving outcomes of monitoring and evaluation.

### Overview of the Book

The background and introduction, and history of monitoring and evaluation forms the **first part** of this book. In the background chapter (chapter 1), a rationale for the book is provided. It summarises the theoretical and conceptual issues guiding the process of conducting PM&E. This information provides the reader with a brief overview of the book. The second chapter of this part provides the introduction and history of monitoring and evaluation. This chapter by *Mangoma, Mahlangu and Chikobvu* provides an introductory and historical background chapter of this part of the handbook. Apart from defining M&E, the authors provides a historical trend of the development and utilisation of M&E in Africa. This chapter ends with a discussion on the state of monitoring and evaluation, and issues related to capacity building. The **second part** of the book discusses the foundation of M&E. The importance of defining objectives of projects through participatory methods (shared vision), developing theory of change that will guide how change will be realised in projects and how to manage projects so that they have impact are discussed in chapter three. This chapter by *Mwango and Hapunda* serves as not only the opening chapter of this part, but also the



project planning chapter of the handbook. Chapter four discusses the importance of establishing a basis for comparisons and critical elements of M&E. This chapter by *Hapunda* forms the backbone for this handbook. This chapter is central because all other chapters feed into this one. Specifically, this chapter discusses how to develop baseline surveys and how different elements that form M&E are developed and applied.

**Part three** reviews and discusses methodological issues found in M&E. This part has four chapters. Chapter five by *Nakazwe-Chanda and Chanda* discusses different designs that can be used in conducting monitoring and evaluation. It discusses methods that can be used in conducting tested interventions and when testing the efficacy of a new intervention that has not yet been proved. Designs such as randomised controlled trails are argued to be best-suited to testing new interventions. The author also argues for designs such as pre-test/post-test control-group design that can be used for well-established interventions. Chapter six by *Mwale* discusses different methods of data collection used in M&E. It zeros-in on core methods that are often used in M&E. The Chapter approaches the topic with a practitioner's mind. Therefore, it discusses how each method can be used in the M&E context. Chapter seven by *Kaliba-Hapunda and Hapunda* discusses ethical issues, principals and politics that should be considered when conducting M&E. The authors argues that M&E is not devoid of ethical issues and dilemmas that are often found in research, as such M&E practitioners should follow ethical issues when conducting M&E. The authors contends that applying ethical principles begins with clarification of responsibilities and competences in M&E. Valuing and respecting the welfare of humans and animal participants in M&E is key to upholding ethical issues and responsibilities. This part ends with chapter eight on data analysis. *Chansa-Kabali* in this chapter discusses key descriptive and inferential statistics that are often used in M&E. She focusses on statistical tests that can demonstrate differences between baseline and endline of data collection. The chapter also discusses how evaluation should consider the voice behind reported numbers. The chapter ends with a discussion on how to conduct qualitative data analysis.

**Part four** is about disseminating and reflecting on M&E data. The first chapter in this part, is chapter nine discussing communicating M&E data. This chapter is backed by a case study of a Graphogame intervention. In this chapter, *Folotiya-Jere* discusses the importance of communicating M&E findings and packing this information for different audiences. The chapter describes different methods of communicating data. Chapter ten, is a report on a pre-school feeding intervention in South Africa. *Nyathela* reports results using an experimental design with baseline data on how a sorghum feeding problem improved nutritional status of pre-scholars. The chapter ends with recommendations. Chapter eleven by *Sichimba* links to the two previous chapters by focusing on reflecting on data, documenting lessons learnt

and best practices. Specifically, this chapter discusses the importance of reflecting on data and document lessons learnt in projects, programmes or policies in order to improve decision-making in the second round of implementation and data collection. The author also describes step by step the processes of documenting lessons learnt and best practices.

**Part five** contains the last two chapters of this handbook. This part is about applying M&E for action and impact-based management. Chapter twelve by *Mooya and Hapunda* discusses the need for M&E data to be translated for action. The authors specifically bring out the gap between M&E and knowledge translation for advocacy and policy. The authors also describe a step by step process of developing an advocacy strategy plan and policy brief from M&E data. Chapter thirteen by *Tandeo* discusses governance and M&E. The author argues the role of M&E in promoting good governance tenants such as accountability, transparency and public administration practices. The last Chapter of this is about developing an M&E system that can help not only track progress and assess impact but enable organisations learn and improve decision-making and implementation. Although this chapter by *Hapunda* has been placed at the end, in practice M&E systems are developed at the inception of a project before implementation of M&E activities. This chapter provides a step by step process of developing a system. An example of a system has been added in the Appendix to guide students develop one.

## **Conclusion**

Historically, M&E has been deeply-rooted with concepts, principles of practice, trainings and practitioners coming from the developed countries, especially the USA. M&E has slowly been developing through international development grants, though most of the systems of M&E are still not country or organization-led. This handbook aims to bridge the gap that exists between local and foreign-rooted M&E concepts, principles and practices with the goal of giving students, trainers and practitioners a guide to use. As much as possible, this handbook has attempted to explain, describe concepts and steps of applying each components of M&E using participatory methods. The hallmark of this handbook is an example of an M&E system that has been developed as an example to guide students, trainers and practitioners. This handbook hopes to contribute to the development of M&E in Africa, yet, this handbook is not a holy grail of the concepts and practice of M&E, but rather a contribution to the discipline that has been dominated by literature developed in the developed countries but lacks the cultural and political understanding of the developing countries' context.

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## Chapter 2

### Introduction to Monitoring and Evaluation in Africa

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## **Introduction**

*'When decision makers want to use evidence from M&E systems to assist in making choices, there is a demand for M&E' (Porter et al., 2013:1).*

This chapter focuses on the genesis of monitoring and evaluation (M&E) in Africa, from the 1980s to the present time, focusing on both the positive aspects and identification of gaps within this space. The initial phase of M&E in Africa was donor-driven and then later it also became a product of emerging endogenous demand from African governments for evidence. In this regard, M&E was and still is “viewed as a key element in the transformation of the public sector to be efficient, effective and responsive to citizens and parliament (Porter *et al.*, 2013).

## **What is Monitoring & Evaluation?**

Conceptually, M&E is widely used in African discourses unlike international literature where evaluation or programme evaluation is used. In its ordinary usage, monitoring means observing the progress of an intervention and is continuous. According to Porter *et al.*, (2013) monitoring helps managers and policy-makers to understand what the money invested is producing and whether plans are being followed. Evaluation is an activity that judges the worth (Scriven, 2007), and builds on monitoring although it can also feed into monitoring itself. Evaluation assesses the value or worth of a programme (Farell *et al.*, 2002), and it relates to a set of research questions and methods geared to reviewing processes, activities and strategies for the purpose of improving them in order to achieve better results (Kahan & Goodstadt, 2005). There is a clear link between M&E, good governance and sound development. M&E can help countries in Africa to meet the development and governance challenges they experience (World Bank, 2001). M&E allows to track programme processes and to account for invested funds (accountability function). At the same time, M&E provides crucial information for decision making (management function), and to identify best practices as well as to detect gaps and weaknesses in implemented programmes and it enables the organisation to address these (learning function).

## **M&E using participatory methods**

Monitoring and evaluation using participatory methods differs from conventional M&E, which involves outside experts coming in countries to measure performance of programmes, projects and policies using predefined indicators using standardised procedures and tools (Dillon, 2013). Participatory monitoring & evaluation (PM&E) is a process through which primary stakeholders at various levels engage,

in monitoring or evaluating a particular project, programme or policy, share control over the content, the process and the results of the M&E activity, and engage in taking or identifying corrective action (World Bank, 2010). PM&E involves primary stakeholders as active participants, and offers new ways of assessing and learning from changes that are more inclusive, and it reflects the perspectives and aspirations of those most directly affected (World Bank, 2010).

The stakeholders involved in a participatory M&E include: the end users of project goods and services, including both men and women at the community level; intermediary organisations, including NGOs; private sector businesses involved in the project; and government staff at all levels (Rietberben-McCracken *et al.*, 1998). The process of M&E using participatory methods has to be pre-planned prior to project implementation, engaging the relevant stakeholders in all processes, including data gathering, analysing data, in sharing information and defining actions to be taken. (Phillip, 2008). It is a process which values local people as a key resource involved in programmes, projects, or policies as active participants instead of just sources of information. It focuses on building stakeholder capacity in analysing and problem solving (Dillon, 2013).

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**Focus Box 1: Participatory Monitoring and Evaluation**

PM&E is a process which values local people as a key resource involved in programmes, projects, or policies as active participants instead of just sources of information.

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The commonly used methods include participatory rural appraisal, beneficiary assessment, and other methods. The recommended corrective actions are more likely to be implemented in a participatory M&E process compared to conventional M&E. Participatory methods are also useful to strengthen trust and ownership, to build accountability and transparency, and to widen the knowledge base in M&E; provided the stakeholders' inputs are genuinely taken into account. There are challenges in undertaking participatory methods of M&E. In some instances, participatory methods are perceived as a waste of time because the process of engaging stakeholders takes longer, compared to conventional and non-participatory methods. The use of participatory methods in M&E has been incorrectly viewed as affecting some sectors and not others. As result, its application has mainly been undertaken in the non-governmental organisations (NGOs). Part of this can be explained by the growing expectation from donors attaching conditions to funds, expecting NGOs to show the impact of their work and relevance, and to demonstrate results, effectiveness and accountability (Porter *et al.*, 2013). The project beneficiaries and host governments in Africa are also putting pressure on the NGOs and other members of the civil society to adopt and implement participatory M&E methods, and this has advanced the application of the methods

in the NGO sector. Advances are coming through in other sectors, but more efforts need to be invested in improving application of participatory methods across all sectors, particularly in public services.

### Background of M&E in the International or Global Space

Globally, the international status of M&E as a field remains theoretically and methodologically influenced by the American tradition. According to Basheka *et al.*, (2015) “the United States (US) is regarded as the motherland of the field in terms of its trends, number of authors and their academic and professional influence, degree of professionalisation, focus of academic programmes, legislation and institutionalisation of evaluation, development of models and approaches for evaluation, evaluation capacity building initiatives, evaluation standards and guiding principles, number and attendees of evaluation conferences and workshops, publications and their impact factor, guides and evaluation handbooks”. As the M&E field was developing in the USA, it was also spreading to other countries including the African continent. Table 1 below gives a summary of key developments in the field of M&E in the USA, UK and in Africa. It is not an exhaustive list but it shows some of the key background milestones in the development of M&E internationally and in Africa.

**Table 1: Evolution of M&E in Africa**

Timeline	M&E Developments
1980-1990s	<ul style="list-style-type: none"> <li>• Emergence of Programme Evaluation in the NPO sector Africa</li> <li>• The Donor Community as catalyst</li> <li>• First wave of evaluation</li> <li>• The “first generation of evaluators”: 1988- 2000</li> </ul>
1990s – 2000s	<ul style="list-style-type: none"> <li>• Second wave of programme evaluation</li> <li>• International private donor funding (M&amp;E requirements)</li> <li>• Local and corporate sector M&amp;E requirements</li> <li>• The Establishment of Monitoring and Evaluation Associations in Africa including the African Evaluation Association (AfrEA)</li> <li>• The rise of the M&amp;E Consultancy</li> <li>• Building Indigenous M&amp;E capacity</li> <li>• Formal academic training courses</li> <li>• African Evaluation Association formed in 1998 (AfrEA)</li> <li>• First AfrEA conference takes place in 1999</li> </ul>
Post 2000	<ul style="list-style-type: none"> <li>• M&amp;E Units, staff and reporting within African governments</li> <li>• Building Indigenous M&amp;E capacity</li> <li>• Formal academic training courses</li> <li>• Transition from traditional M&amp;E to a results-based M&amp;E Framework</li> <li>• Second AfrEA Conference held in 2002</li> </ul>



- Third AfrEA Conference held in 2004
- Fourth AfrEA Conference held in 2007
- Fifth AfrEA Conference held in 2009
- Launching of the Centres for Learning on Evaluation and Results (CLEAR)
- Sixth AfrEA Conference held in 2014

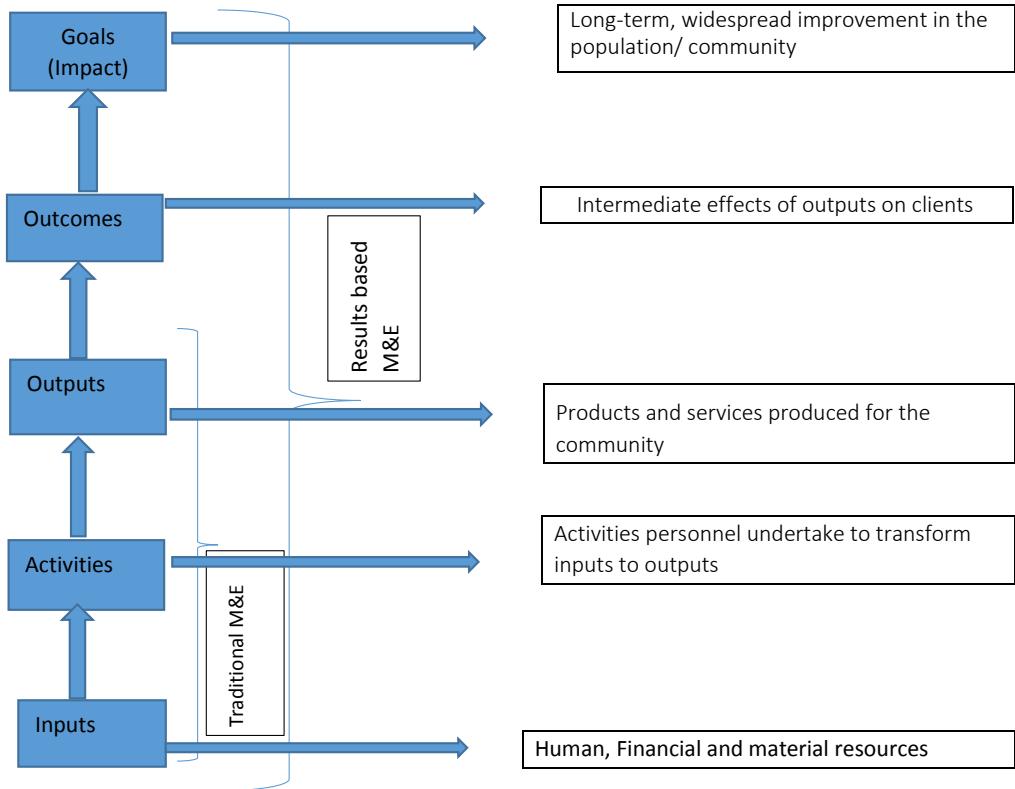
The evolution of Monitoring and Evaluation (M&E) has to a large extent, been influenced by donor demands that have stimulated the development of M&E practice. In Africa, the development of M&E started to build momentum in the 1990s (Louw, 1998; Potter, 1999). M&E has been a relatively late entrant into Africa (Naidoo, 2010). The entry of M&E into Africa has been largely through donor programmes, but this has been accompanied by an import of theories and methodologies that are largely northern in origin. In the past years there has been exponential growth in terms of M&E in Africa. According to Basheka *et al.*, (2015), 'since the early 1990s, monitoring and evaluation has seen a steep climb within Africa in terms of practice, profession and academic study'. In most of the countries in Africa, there has been an increased demand for the evaluation of policies, projects, programmes and interventions. In Africa, some of the governments have created central M&E units in order to ensure that M&E becomes an integral part of operations within the public sector. Porter *et al.*, (2013), document and analyse the M&E Units that were set up by the governments in Benin, Ghana, Kenya, Senegal, South Africa and Uganda. Their paper shows that these six case countries demonstrate that M&E structures and systems, and their demands on governments are in a process of development and are not yet coherent. This shows that there is still room for improving government-driven M&E systems.

### **From Traditional M&E to Results Based Monitoring & Evaluation Frameworks**

The genesis of M&E in Africa has seen an evolution from the traditional M&E model to the results-based M&E (RBM&E) framework that has become a buzz word from all key stakeholders, from both the Non-profit Organisations (NPOs) and government sectors demanding evidence beyond monitoring to output, outcome and impact results indicators.

RBM&E is a public management tool that can be used by policy-makers and decision-makers to track progress and demonstrate the impact of the programme to the community. RBM&E differs from traditional implementation-focused M&E as it goes beyond the emphasis on inputs and outputs to outcomes and impacts (Kusek & Rist, 2004; UNDP, 2009; NDOH M&E Unit, 2004). Figure 1 depicts the conceptual relationship between traditional M&E and RBM&E. In summary, traditional approach to monitoring and evaluation focuses on monitoring how well a project, programme or policy is being

implemented and it often assesses compliance with work plans and budget, whereas RBM&E combines measurement of outcomes with assessment of outcomes and impacts.



**Figure 1: Conceptual relationship between traditional and Results Based M&E** (Adapted from Kusek & Rist, 2004).

A comparison of traditional and result-based monitoring and evaluation is presented in Table 2. The results-based monitoring and evaluation is participatory, and it enables knowledge sharing from the specialist or experts to the implementers and this brings ownership. RBM&E seems to be more dynamic and is likely to bring about the required impact in the long run, unlike the traditional monitoring and evaluation.

**Table 2: A Comparison of Traditional M&E and Results-Based M&E**

Traditional M&E	Results -Based M&E (RBM&E)
<p><b>Inputs → activities → outputs</b></p> <ul style="list-style-type: none"> <li>• Focuses on accountability and to determine continuity of funding.</li> </ul>	<p><b>Inputs → activities → outputs → outcomes → impact</b></p> <ul style="list-style-type: none"> <li>• Is a combination of traditional with assessment of outcomes and impacts.</li> <li>• It allows an organization to modify and make adjustments to theory and change the implementation processes.</li> <li>• It is a management tool that measures how well the organisation is performing and emphasises assessing how outcomes are being achieved over time.</li> </ul>
<ul style="list-style-type: none"> <li>• Reports the status of results enabling a reactive action.</li> </ul>	<ul style="list-style-type: none"> <li>• Reports results that produce adjustments that enable pro-active action.</li> <li>• It empowers both experts and local people to initiate, control and take corrective action to substantially improve performance and achieve results.</li> </ul>
<ul style="list-style-type: none"> <li>• Focuses on external experts to plan and conduct the M&amp;E.</li> <li>• It often involves highly technical and specialised methods, which may: not be fully conducive for implementation on the ground, due to lack of knowledge or understanding of M&amp;E among non-specialist implementers.</li> <li>• Not participatory or inclusive enough and implementers are not seen as integral part of the process.</li> </ul>	<ul style="list-style-type: none"> <li>• It is participatory and inclusive of external experts community members, implementers, facilitators and any other relevant actors in the organisation.</li> </ul>
<ul style="list-style-type: none"> <li>• Usually has predetermined indicators of success, principally cost and production outputs.</li> </ul>	<ul style="list-style-type: none"> <li>• People define their own indicators of success to ensure ownership and guide development initiatives as well as resolving key bottlenecks to implementation in order to improve the chances of achieving the desired results</li> </ul>
<ul style="list-style-type: none"> <li>• Evaluation focuses on scientific objectivity, distancing of evaluators from other participants; uniform complex procedures;</li> </ul>	<ul style="list-style-type: none"> <li>• Self-evaluation; simple methods adapted to local context; open immediate sharing of results through local involvement in evaluation process.</li> </ul>

<p>delayed &amp; limited access to results.</p>	
<ul style="list-style-type: none"> <li>Evaluation is normally done mid-term and completion; sometimes ex-post (long after the project/programme)</li> </ul>	<ul style="list-style-type: none"> <li>Frequent small evaluations to enable adaptive management of programme implementation</li> </ul>

There has been a shift in recent years in terms of the practice of M&E from the traditional M&E framework to a results-oriented framework. The diagram below shows the different levels of the results-based M&E model and we will use the example of loveLife, an NGO in South Africa to briefly explain the shift and show benefits of using a results-oriented M&E model.

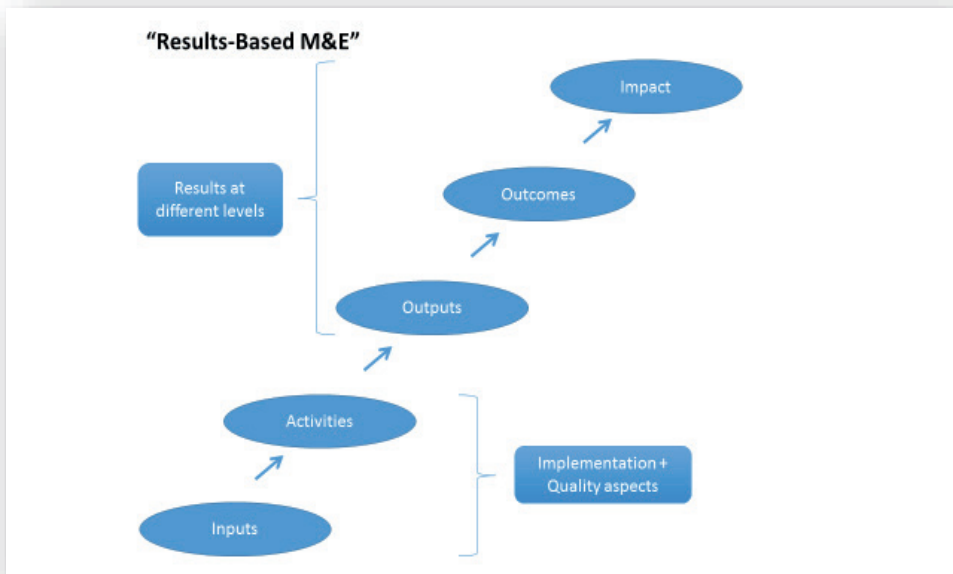


Figure 2: Results Based M&E Framework

### loveLife: Adapting the Results-Based M&E Framework

The New loveLife Trust is a South African Youth Leadership Development organisation aimed at strengthening youth leadership in communities and promoting youth service amongst young South Africans. The organisation was launched in late 1999 as a joint initiative of leading South African non-

governmental organisations, private foundations and the South African government. loveLife was established to cut new HIV infections and teenage pregnancies among young people between 15-24 of age in half, within five years. At the time, HIV prevalence among young women as tracked through antenatal clinical surveys had jumped from 0,7% in 1990 to 22,8% in 1998, and it was estimated that 55-60% of all HIV infections were happening among young women, before they reached 25 (loveLife, 2009). Although there are few reliable estimates of youth incidences from the exact time that loveLife started, not allowing for a clear baseline, the South African National HIV Incidence, Prevalence and Behaviour Survey 2012, which was able to analyse trends between previous surveys conducted in 2002, 2005, and 2008, presented convincing evidence that HIV incidence declined steadily over the three inter-survey periods among the youth aged between 15–24 years, 2.8% in 2002–2005, 2.3% in 2005–2008, and 1.5% in 2008–2012. The decline in incidence was more noticeable among young females aged between 15–24 years, from 5.3% in 2002–2005 to 2.1% in the period 2008–2012. This change was statistically significant at 60% reduction in HIV incidence (Shisana *et al.*, 2014).

Combining a national multimedia campaign with sustained outreach in marginalised communities, structural support to health, sports and recreation, education and social development, and service provision through a clinical network and national call centre, loveLife interacts with about 79% of South African youth through multi-media platforms each year (HSRC, 2008). loveLife programmes specifically target 12-19 year-olds, and measures its impact in terms of HIV infections averted in the 15-24-year-old age category.

In recent years, it has become increasingly important for the organisations to demonstrate outcomes and impact of their work. The request for an increasing focus on results is both externally (to meet donor requirements) and internally-driven (for programme management, programme review and design). From its inception loveLife M&E systems were firmly grounded in the traditional M&E systems where there was a heavy leaning on tracking activities and few evaluations. With a growing number of both international, corporate and government funders, loveLife's M&E system had to be responsive to the demands of all funders for evidence to show that the programmes were making a difference in the life of the young people participating in these programmes. No longer were the funders interested in numbers of young people attending or participating in loveLife programmes but the output, outcome and impact results of these programmes. Funders were interested in knowing the benefits and real difference these programmes were making. Against this background, loveLife streamlined Results-Based M&E Systems into programme operations. These systems sought to access systematically, whether programmes were leading

to the expected results, such as, for example, changes in attitudes and behaviour of participants (see Focus Box 2).

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**Focus Box 2: Results-Based M&E**

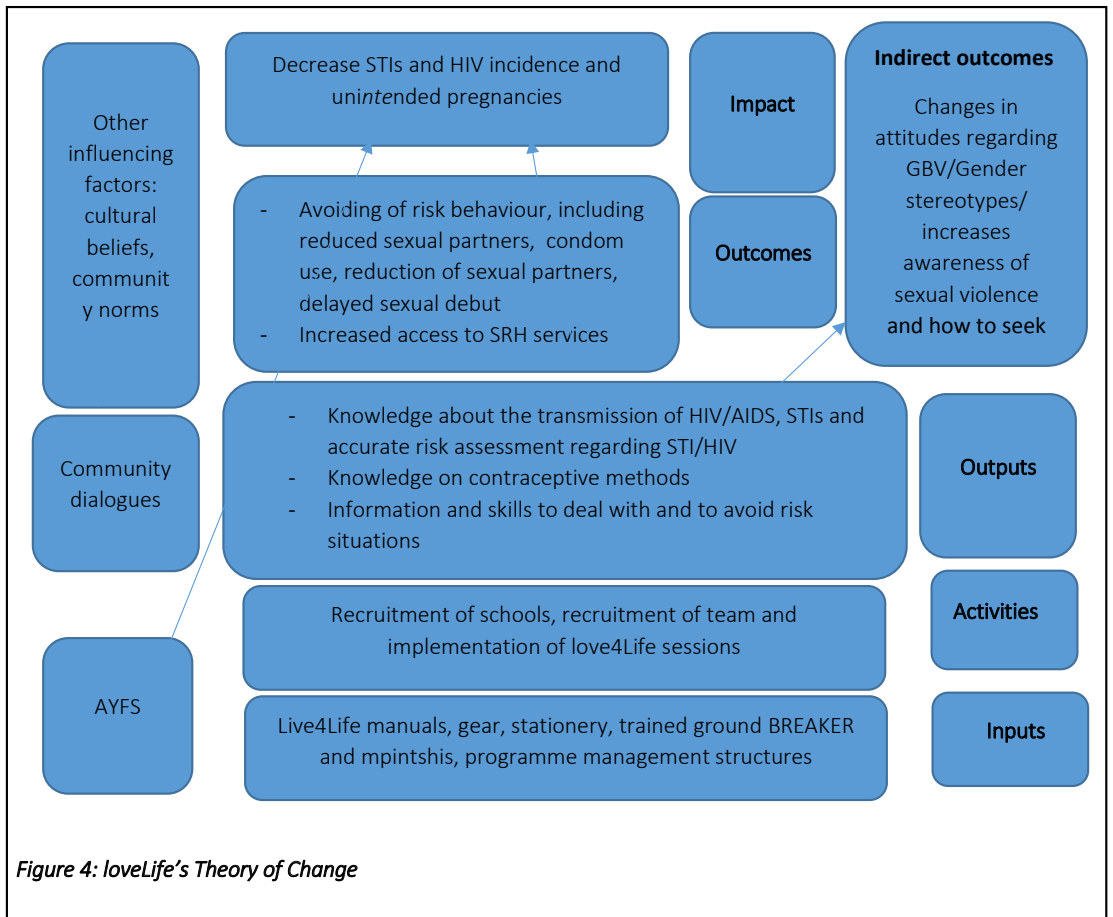
Results are those changes that can be attributed to activities implemented in the framework of the programme. It is important to note that the mere fact that a (positive) change occurred, it is not good enough to describe it as a result of the project, even if the change was intended. The observed change can only be called a result of the project if a causal or at least a plausible link can be established.

Results-based M&E assesses if a) the programme is implemented as intended (including an assessment of activities implemented and quality of the activities) and b) if programme activities lead to the expected results (immediate, intermediate and long-term). In this sense, Results-Based M&E aims at establishing clear links between projects activities and expected changes in programme participants and/or communities.

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This process meant developing a Theory of Change (TOC) for each loveLife programme which meant defining each programme from input level to impact level and showing the various levels of change. To illustrate this, we present a TOC for one of loveLife's programmes called love4Life (see figure 4). love4life is a modular programme on healthy sexuality which addresses the knowledge, skills, and attitudes of young people on Sexual and Reproductive Health and Rights (SRHR). Besides building SRHR and HIV/AIDS knowledge and skills in young people, the programme content also addresses root causes of HIV infection: gender inequality, gender-based violence, human rights violations, marginalisation of key populations and discrimination.

The programme is mainly implemented in schools and supports the life orientation curriculum of the South African Department of Basic Education (DBE) and the implementation of the National Strategic Plan (NSP) for HIV and AIDS, TB and STIs.



**Figure 4: loveLife's Theory of Change**

The transition from the traditional M&E to the results-based M&E Framework is fast gaining momentum across various organisations in Africa, as there is more demand for evidence, accountability and governance. The loveLife example again shows that M&E in Africa and globally is a dynamic field that is changing and bringing in new discourses. Across various organisations and governments, there is a demand for results-oriented monitoring and asking deeper questions on the effectiveness and impact of programmes.

## **Way Forward: Acknowledging the Gaps**

Despite the growth of M&E in Africa there are gaps that still exist that need to be addressed. In this section a number of gaps will be discussed that include lack of proper documentation, need for capacity building, and dissemination of African M&E discourse just to mention a few.

### **M&E Discourse aegis**

Despite various works being done on M&E in Africa, Naidoo (2010) notes that “in the written form, the discourse tends to be dominated by the West, giving the impression that there is little M&E in Africa.” He further argues that this is not a true reflection, and says that there is evidence as shown by the number and quality of contributions made at the various conferences, seminars and training sessions held under the guidance, for example, of the African Evaluation Association (AFrEA). For Naidoo (2010), the number of papers delivered on developmental issues by various countries, indicates that an M&E discourse is present on the continent, albeit uneven. We then need to find ways to ensure that M&E discourses from the African continent become evident on the global space and that they are also widely and easily available to the African audience as well.

### **State of M&E as a discipline in Africa**

A focus on the academic offering in Africa on M&E shows that gaps do exist in this area. Basheka *et al.*, (2015) reviewed the state of the M&E discipline in Africa and reported that the “discipline within African universities is replete with a myriad of challenges...the overall resources allocated to run this programme are disappointingly meagre as a result, its teaching in most universities is faced with problems such as lack of adequate space, inadequate staffing, poor remuneration.” There are some universities that have not mainstreamed M&E as one of the disciplines in their curricula. Monitoring and Evaluation education in Africa faces the locus challenge as most of the programmes offered at African universities are from varying disciplines and schools that are not specifically M&E-oriented and thereby showing M&E as a ‘homeless’ discipline claimed by several departments in most universities (Basheka *et al.*, 2015).

### **Building capacity for M&E in Africa**

Given the growing demand for M&E in Africa, there is wide recognition of the need to develop and improve supply for M&E in Africa. Capacity gaps on M&E have been a subject of discussion of many M&E conferences across Africa. The development of capacity for M&E in Africa would require building the skills, tools, technologies and institutional framework for M&E (World Bank, 2001). Ensuring that there are skilled



people, with the right tools and accessible technologies and institutional frameworks that are applicable in the African context, it is important that the capacity gaps are tailored to address the local conditions which vary from one country to the other, while also providing space to share experiences and strategies across countries.

## Conclusion

The M&E status in Africa suggests a positive trend as far as evaluation is concerned. Across Africa, there is now a vibrant community of evaluators and several projects to be evaluated. In general terms, the future of M&E in Africa lies in the ability of the continent and its actors to harness existing internal synergies, while simultaneously exploiting opportunities provided by the global arena. Mackay (2006) reminds us that the experience of African countries in evaluation is relevant not only to poor countries but also to other regions. Khan (1998) listed the key challenges facing Evaluation Capacity Building work in Africa, including: (1) sensitisation of top political leadership to the benefits of evaluation; (2) identification of the most viable institutional framework of evaluation; (3) introduction of a cost-effective method of evaluation; (4) linking evaluation to governance reform and bringing NGOs and beneficiaries into the evaluation process; and (5) introduction of innovative feedback mechanisms and establishing linkages, both nationally and internationally, to ensure maximum access to and utilisation of evaluation of information. These have to be overcome if the field is to post a bright future and institutionalise participatory M&E in Africa.

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## Part Chapters

- Project Shared Vision, Theory of Change and Managing for Impact
- Basis for Comparisons and Elements of Monitoring and Evaluation

## Part 2

### Foundations for Monitoring and Evaluation

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## Chapter 3

### Project Shared Vision, Theory of Change and Managing for Impact

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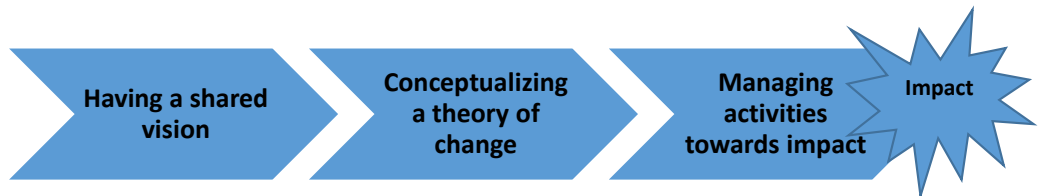


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## Introduction

*All men dream; but not equally. Those who dream by night in the dusky recesses of their mind, wake up in the day to find that is was vanity; but the dreamer of the day are dangerous men, for they may act their dreams which open eyes to make it possible – T.E. Lawrence*

The quotation above sums up the content of this chapter within the context of developmental projects. Hence, this chapter discusses how developmental organisations can have a shared vision of the future they aspire to achieve. Having a shared vision of what a programme, project or policy is meant to achieve and how it can make significant positive impact is important. However, an aspired vision is just a dream. Deliberate planning and execution of planned activities to realise the vision is the cornerstone. Therefore, this chapter will also discuss how to develop a theory of change - well planned events that are expected to lead to a particular desired outcome. These planned events are sequenced in such a way that they can lead to the realisation of the project's vision. The chapter will end by discussing how projects can manage for impact, after all, any project aims to achieve maximum impact. To achieve the desired impact a project goes through a rather not easy and straightforward path to impact. Figure 1 below is a pathway to impact.



**Figure 1: Pathway to impact**

### Project's Shared Vision

Vision connotes imagining the future. Kotter (1995) defines vision as something that helps clarify the direction in which to proceed. Vision articulates a view of a realistic, credible and attractive future for the programme, project or policy, a condition that is better in some important way than now exists (Bennis & Nanus, 1997). Because programmes, projects or policies are driven by a pool of staff within an organisation, vision is not a preserve of a project leader, but all entities that contribute to its realisation. Hence, there is need for a shared vision in a project by all its stakeholders.

Moving towards a shared vision is largely dependent on leadership management style. How leaders construct a project's vision determines expected project outcomes. Therefore, developing and communicating a project's vision and the impact of this on a project's success is important, but not as important as having a shared vision with the project's stakeholders. It is no wonder that one criterion of

good project phasing out includes stakeholders' clear understanding of what the project intended impact is and how it is intended to be measured. This taps into the extent to which a project has a shared vision. Christenson & Walker (2004) argue that one of the most significant contributions that any leader can make to an organization or project, is that of creating and clearly communicating a shared vision. While there are many other factors that are at play in any project, such as developing a good theory or model of change, and diligently executing the planned strategies, communication and maintenance of a strong project vision many be key to creating successful project outcomes (Christenson & Walker, 2004). As indicated in the Focus Box 1, attaining dream requires passion, strength and patience because a dreams is just a dream until you actualise it. A shared vision is not easily attained because of different individual perceptions and aspirations of the future. Stakeholder "buy-in" is key to attain a shared vision. The means making the whole process of shared visioning participatory. At the point of conducting a stakeholder analysis, consideration should be devoted to address stakeholder influence on project vision. Therefore, to have an effective project vision, project leaders must understand culture and power dynamics of any stakeholder (see Figure 2 below).

**Focus Box 1: Importance of Vision in Projects**

Every great dream begins with a dreamer. Always remember, you have within you the strength, the patience and the passion to reach the stars to change the world – Harriet Tubman

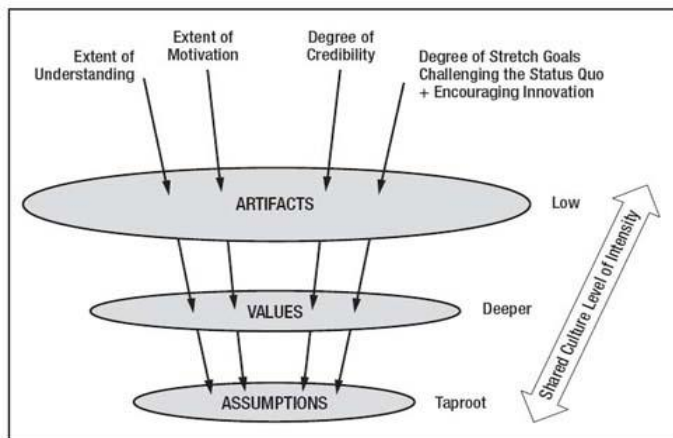


Figure 2: Project vision effective model – (Source: Christenson & Walker, 2004)

According to the project vision effectiveness model, understanding, motivation, credibility and challenge can move the emotional attachment people feel. These constructs can make project visions from being seen as superficial documents or as cultural artifacts to a vision that reverberates truth that taps into the very core depth of culture and subculture influence on project dreams and visions.

### Importance of Shared Vision

Project leaders do not work in isolation of other stakeholders. To ensure continuity of the vision, especially in development projects, stakeholders must be able to carry on with the vision after the project has been phased out or over. This is based on the premise that a project may not effectively perform unless it ensures alignment of goals and commits to its project goals. Christenson & Walker (2004) argue that because projects are tightly coupled, this situation requires all team members and stakeholders to be able to make sense of the project goals, so that they can be prepared to support goals and internalise these as being aligned to their own. In addition,

because much of the interaction between project teams, stakeholders and sub-systems are loosely coupled, there is need to have a clear

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#### Focus Box 2: No Shared Vision, Weak Project Impact

Hold fast to dreams for if dreams die, life is a broken-winged bird that cannot fly –Langston Hughes

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understanding of the cause and effect loop that exists so that adverse actions (died dreams as shown in Focus Box 2) by one group can be traced in the minds of that group, and the trickledown effect it may have on others connected to the project and the project process. According to Weick (2001), shared vision requires project participants and stakeholders to undertake a sense-making exercise and a dream realised or visioning exercise, focusing on what the end point should be and to create a common understanding of the desired future.

### Role of Project Managers in Project Visioning

Our ability to create new and better organisations and project is limited only by our imagination and collective will (Bushe, 1998). Therefore, project managers should facilitate a culture of positive imagination and collective will in project

teams, stakeholders and sub-systems. Project leaders will be judged about their success by how much effort they have made to have a common and shared idea

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#### Focus Box 3: Visioning and Project Success

If one advances confidently in the direction of ones dreams; and endeavors to live the life which one has imagined, one will meet with a success unexpected in common hours – Henry David Thoreau

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among members of the project team. This includes what difference they are trying to make to primary and secondary stakeholders through the project. To create a common and shared idea of the future, project leaders must use and see language as an active agent in the creation of meaning. Bushe (1998) argues that as we talk to each other, we are constructing the world we see and think about, and when we change how we talk we are changing that world. From this perspective, dreams and visions of the future that are encoded in popular words or images, are a powerful force for shaping developmental programmes, projects and policies because we see what we believe (see Focus Box 3). Therefore, to have a shared vision, project leaders must consider the following characteristics of good project visioning according to Christenson & Walker (2004):

1. *It must be understood* - It must capture the core purpose, preferred future state and essence of the project objectives;
2. *It must be motivational* - It must make a convincing case for following the project vision concept that can be internalized by project stakeholders and that provides a compelling value proposition;
3. *It must be credible* - It must be consistent with stakeholder cultures or sub-cultures to appeal to the assumptions and values level so that the vision statement artifact resonates with them;
4. *It must be demanding and challenging* - It should be proactive to facilitate teams to work smarter and more effectively, perhaps identifying stretch goals.

### **Visioning tools: Not just Fancy Words but Practical Tools**

Projects can rely on discussion methods for groups such as dream-realised or story-boarding to create a common and shared vision of the future with project stakeholders. In this chapter, only the methods known as dreams-realised or visioning will be discussed. For use of story-boarding see Andersson, Öberg & Eriksson (2011) on how they can be used in projects.

According to IFAD (2002), the purpose of dream-realised or visioning is to have a focused discussion around people's dreams or shared vision for the future of a project or other activities. In projects and indeed monitoring and evaluation, this method is used to identify project indicators, understanding if primary stakeholders feel that their well-being is increasing or not, and helping project stakeholders reflect on the relevance of the activities of the project based on people's vision of the future. For instance, in a project of empowering women, a project starts by asking women what ideal empowered women and their immediate surrounding environment should look like. The women themselves can then sketch or complete a sketch showing their ideal future. From the sketch, the project can then develop indicators reflecting aspirations of the project beneficiaries for whose values the project exists. The project will then track the

indicators using simple visioning tools, to see how the project is meeting the aspirations of the women (see Figure 3 below).

**Procedure for Developing Project Visions**

**Step 1:** Start by asking people how they want things to be in the future individually or in groups. The future time for which dreams are to be discussed will need to be clarified beforehand, but a period of two to five years is good enough for dreams to be realised but also to be more than simply dealing with immediacy survival (IFAD, 2002). There are two ways of asking people to describe their ideal future: (i) Personal reflection of about 15 minutes, (ii) Sharing in subgroups or directly in plenary sessions until a single common future is created from the individual reflection (90 minutes). There is often one guiding question in either personal or group reflection of a shared vision of the future: “What are the characteristics of the ideal situation we wish to achieve in here in 7 years?” Or ask stakeholders to complete the following sentence; “I know that my vision for this situation has been achieved when I see...”

**Step 2:** Dreams can be written down or presented with symbols. Make your dreams specific with clear but realistic time frame for achievement.

**Step 3:** Once articulated, the dreams can become indicators that will be monitored as they are being realised, are changing or becoming more elusive.

**Step 4:** Conduct a strength, weakness, opportunities and threats (SWOT) analysis in order to determine the likelihood of the dreams being realised given the identified weakness and threats. After the SWOT has been exhaustively identified, action points must be listed and turned into sub-activities that can propel attainment of project outcomes e.g. link with NGOs for possible assistance in women empowerment programmes.

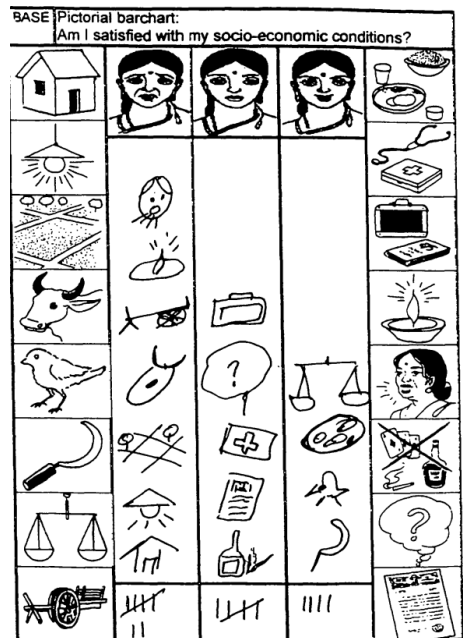


Figure 3: Project visioning Sketch - Source Noponen, (1997)

**Step 5:** The stakeholders need to meet at agreed project milestone moments such as mid-year progress review or annual participatory review to discuss observed change(s). IFAD (2002) argues that the progression or regression of the indicator or dream need to be properly

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**Focus Box 4: Strength, Weakness, Opportunities and Threats (SWOT)**

**Strengths** – things within control of the organization/project that are likely to work well in the project or situation. Things that people and their social capital are able to use to strengthen their empowerment

**Weakness** – things within control organization that are likely to detract the project from obtaining or maintaining outcomes and maximum impact

**Opportunities** - external factors outside control of organization that the project can take advantage of to attain its project outcomes. Used to overcome weakness

**Threats** - external factors outside control of the organization that constrain or threaten the range of opportunities to attain project outcomes

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recorded in order to facilitate discussion and assessment of progress. A frequency distribution of satisfaction in key project areas can be pictorialised using sad, neutral and happy faces and symbols to represent variables such as food, land assets, animal assets, shelter, etc., stacked under each satisfaction rating or face as shown in Figure 3 above.

### Theory of Change

A shared dream should be translated into a theory/model of change. “Having a dream does not actualise the dream, systematic actions do,” hence the need for a theory of change. A theory of change is best developed from shared dreams or imagination of the future so that it resonates with what the project hopes to see and believe can be attained. By asking people about their aspired future and then developing indicators out of their envisioned future we conservatively create theories with practical consideration of how this will lead to change.

### Defining Theory and Model of Change

A theory or model of change describes how and why development initiatives work. To be specific, theory of change (ToC) describes a set of assumptions that explain both min-steps that lead to a long-term goal and connections between these activities and outcomes of an intervention or programme (Anderson, 2004). It can also be seen as a blue-print, road-map and pathway to outcomes or plan of action to achieve desired results. Literature does not describe models of change, rather uses model of change to imply theory of change or uses the two words interchangeably. These two are different. A model of change is an established system or procedure through empirical evidence that leads to desired outcomes and has been set as the best practical example to follow or imitate in other projects or situations. The community-led

total sanitation methodology is an example of a model that can be applied anywhere to eliminate open defecation.

### **Why Theory/Model of Change**

A theory of change or model of change helps identify the factors that will impact your programme, project or policy and enable you to anticipate the data and resources you need in order to achieve success. All development funders look for clarity in defining the problem, the plan to address the problem, reasons behind a proposed approach and an outline of how anticipated achievements will be measured. A theory and model of change help you do just that (Kellogg Foundation, 2002). According to Stein & Valters (2012), at project level, a theory of change:

- *Is basis for strategic planning* - ToC helps organisations practically map the change process and its expected outcomes and facilitates project implementation.
- *Strengthen shared vision* - Developing a common understanding of work and surfacing any differences.
- Strengthens the clarity, focus and effectiveness of programmes
- Provides a framework for monitoring, evaluation and learning -ToCs articulate expected processes and outcomes that can be reviewed over time. This allows organisations to assess their contribution to change and to revise their ToCs.
- Uses a theory of change to communicate work clearly to others and as a reporting framework.

### **Theory of Change Levels**

When thinking about social change in international development, there are a number of potential levels of change that should be considered from conceptualisation to implementation stage. Stein & Valters (2012) argue that though interconnected, defining levels at which a ToC approach is meant to function is crucial for the clarity and practicality of a given ToC and its associated interventions. The authors also observed that one way of understanding the concept of levels in ToC is to look at the actors and targets of the intended change process. The four levels of change include individuals, relationships, culture and structure/systems (Shapiro, 2006; Lederach & Thapa, 2012). These levels are described in Table 1 below.

**Table 1: Four Levels of Change**

<p><b><u>Individual: personal transformation:</u></b></p> <ul style="list-style-type: none"> <li>• Help individuals grow and develop greater self-awareness.</li> <li>• Education to broaden knowledge base.</li> <li>• Training to broaden competency base.</li> <li>• Attention to mental and spiritual health and growth.</li> <li>• Make explicit and examine assumptions, mindsets, mental model.</li> <li>• Transformations not only in ‘what’ one knows, but ‘how’ one knows (epistemology).</li> </ul>	<p><b><u>Relationships: transforming relationships:</u></b></p> <ul style="list-style-type: none"> <li>• Reconciliation/Conflict/ transformation, building trust.</li> <li>• Promoting respect and recognition.</li> <li>• Increasing knowledge and awareness of interdependence.</li> <li>• Changing patterns of dysfunctional relations.</li> </ul>
<p><b><u>Culture: transforming collective patterns of thinking and acting:</u></b></p> <ul style="list-style-type: none"> <li>• Changing the ‘rules’ and values that sustain patterns of exclusion.</li> <li>• Exploring and transforming taken-for-granted collective habits of thinking and behavior.</li> <li>• Promoting more inclusive participatory.</li> <li>• Culture of ‘civic engagement.’</li> <li>• Transforming patterns of overly simplistic and distorted discourse.</li> </ul>	<p><b><u>Structures/systems: transforming structures, processes and mechanisms:</u></b></p> <ul style="list-style-type: none"> <li>• Lobbying for more just policies, greater transparency and accountability, institutional rearrangements.</li> <li>• Just and equitable allocation of resources and services.</li> <li>• Reforming processes.</li> </ul>

Identifying dimensions of change such as these can help organisations and stakeholders clarify and develop the kind of change they hope to achieve (Stein & Valters, 2012).

**Developing a Theory of Change**

According to the Kellogg Foundation (2004), a good theory of change starts by clearly and succinctly explaining the problem(s) or issues the organisations plan to address. A need assessment and shared vision description should help clarify this problem. A theory of change will then be built upon this statement. To demonstrate the process of developing a theory of change, a hypothetical example of a problem statement will be used (see Focus Box 5 below).

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**Focus Box 5: Problem Statement Example**

There is an increasing number of women not participating in socioeconomic development in Chongwe due to lack of empowerment to some extent driving by human rights abuse. Given the important role of women in building families and local economies, lack of participation for women in socioeconomic issues has negatively affected family fabrics and local economies. To strengthen family bonds, increase women incomes and those of local communities, women must be empowered to competitively participate in socioeconomic activities.

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The next step is to identify needs and assets of the community or location that are related to the problem (See Focus Box 6). What needs or assets led you to address this problem? If a need assessment was conducted, then data should be used to make a strong case. The Kellogg Foundation (2002) argues that documenting community needs and assets also helps your evaluation plan later on and it can be used as a baseline providing indicators that measure progress made by your programme over time.

Once needs and assets have been identified, the next step is to identify what you expect to achieve in the near and long term (see Focus Box 7). This stage answers what are your desired results, which you should by now know through the

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**Focus Box 6: Documented Needs/ Assets Hypothetical Example**

Reports state that 88% of productive women are not participating in socioeconomic development. 21% percent of these have been deserted by their productive partners who are economically able to support them and a further 51% have been prevented by their spouse to earn an income or participate in any economic activities. In addition, 23% are reported to be in physically abusive relationships. Last year's need assessment identified lack of women empowerment economically and on human rights as the number 1 needy issue. Therefore, ZOZI –A – ZOZI is researching ways to address the needs of women in Chongwe.

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outputs of a shared vision exercise. These in a theory of change are disaggregated according to outputs, outcomes and impact. Outcomes depending on the complexity of the project can further be divided into immediate, intermediate and long-term outcomes.

With the desired results in mind, the next step is to identify factors (proactive and or risks) that could influence change in your project. This stage answers questions; what are the potential barriers and/or

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**Focus Box 7: Desired Results Example:**

Increased access to capital, increased social capital, increased education opportunities, increased awareness of human rights among women in chongwe. Create a sustainable community empowerment programme based on empower one and that one will empower three more. The project anticipate 50% increase in women empowerment with ability to meet all social amenities and a self-reliant woman hence reduced levels of human rights abuse among them.

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support that might impact the change you hope for? Are there policies or other factors that could affect your project?

The next thing is to identify general successful strategies or best practices that can help your project achieve the kind of results your project promises (see Focus Box 8). Remember you are dealing with strategies not activities. Strategies are broad concepts or approaches to achieve the project objectives while activities are actions that are undertaken within these strategies. For example, 'building the capacity of the community members' is a strategy your project has adopted. While "training community members

in human rights based approach” is an activity; look for strategies based on empirical evidence and are practical to implement. Literature review can help you came up with strategies anchored on best practices.

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**Focus Box 8: Influential Factors, Strategies & Assumptions**

There is documented need for free night school. In the Chongwe annual report, 80% of women said they cannot afford to go to school even when they wanted because day time they are involved in household chores and they have no money. In addition, report showed that cultural beliefs on the role of a woman could thwart participation in economics activities more so that policies to support their participation are weak. However, the local tradition leader is keen to seeing women empowered and actively participating in socioeconomic activities.

**Strategies**

Build capacities of women, increase awareness on human rights, create opportunities for social and financial capital, demystify cultural practices that hinder women participation and enhance civic responsibilities.

**Assumptions**

There is proven evidence that women are willing to be empowered, therefore, we assume that women in this project will be dedicated and actively participate in the empowerment programme. An empower one and one will empower three should prove successful because historically women are more likely to empower others than men. In addition, there is record of most local organizations willing to partner with women groups as a way of increasing their social capital.

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The last step is to identify conditions that need to be there in order for your strategies to work. These are known as assumption; something taken for granted or accepted as true but a necessary condition for your strategy to work (see Focus Box 8). The Kellogg Foundation (2004) argue that a list of assumptions should be created last in this exercise and abstracted learning format because the logic modeler has the benefit of all the information that supports assumptions.

**Logical planning model and example**

Once the logical model template (shown Figure 4) has been completed with stakeholders who were involved in visioning the next step is to create the actual theory of change.

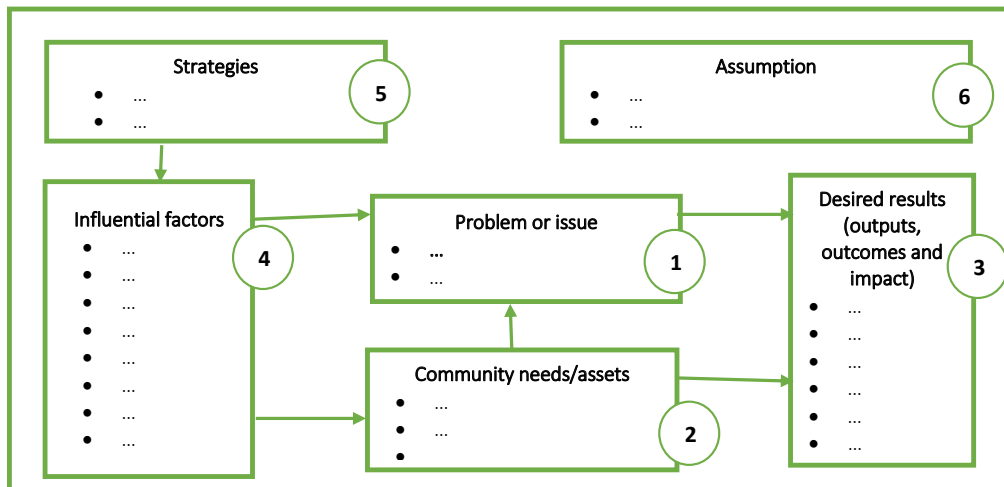


Figure 4: Logical model development planning template - Source Kellogg Foundation (2004)

Once this exercise has been completed, a theory of change diagram can now be developed. Translate the identified information into a cause-and-effect diagram, describing how change will be achieved. The diagram should be accompanied with narrative indicated as superscripts to give more detail on the nature of the relationship. A theory of change can range from a simple or complex one. A ToC can have single to multiple desired impact. In the example in Figure 5 below, a simple and single impact theory of change is illustrated.

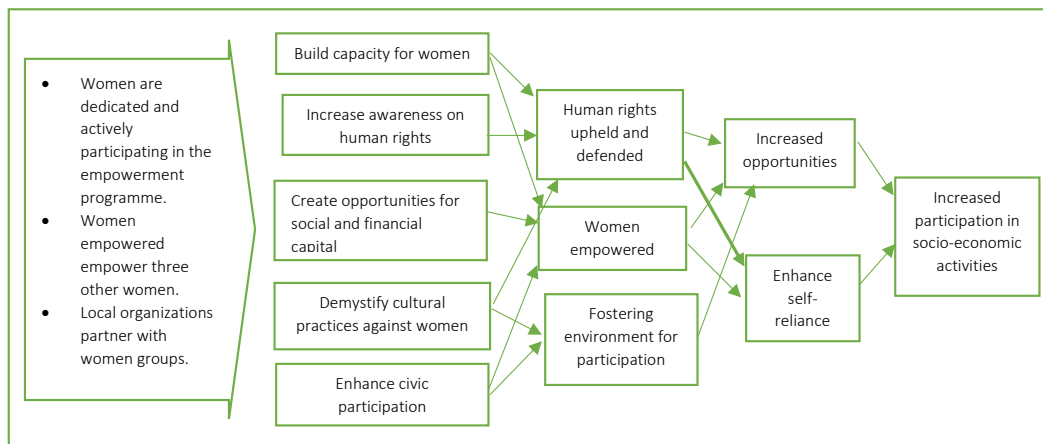


Figure 5: Women empowerment theory of change



## **Translating Theory of Change into a Logical Framework Approach**

With a detailed blue print indicating how impact will be achieved, a logical framework approach can now be developed. According to the Australian Agency for International Development (2005), a logical framework approach (LFA) is a systematic analysis of the development situation, particularly key development problems and of options for addressing those problems. The LFA is a useful document for guiding project design and implementation. A good LFA should:

1. Be clear as possible about what you are trying to achieve and how it will be achieved. Much of this information can be obtained from a theory of change.
2. Describe how you will know if you are achieving your objectives and put in place a monitoring system. Information gathered during a shared vision exercise becomes useful at this stage.
3. Make explicit the conditions (assumptions) outside the direct control of the project that are critical for the project to succeed and assess the risk for the project if these conditions fail to arise (IFAD, 2002).

A well spelt out LFA can lead to better quality and shared understanding of the needs and strategies by all involved. To develop an LFA, there is need to:

1. Establish the general scope or focus of the project.
2. Agree on specific planning framework, terminology and design process.
3. Undertake or refer to a detailed situation analysis.
4. Develop the project strategy (objective hierarchy, implementation arrangement and resources).
5. Identify and analyse the assumptions and risks for the chosen strategies, modifying the project design if assumptions are incorrect or risk is too high.
6. Develop the monitoring and evaluation framework (IFAD, 2002).

## **Logical Framework Matrix**

The written output of the LFA is known as the log frame matrix (LFM), perhaps the most commonly used documents to guide project design and especially implementation. The LFM is a standard matrix table with four rows and four columns hence known as a 4x4 matrix table (see Table 2 below). This matrix summarises:

1. What the project should achieve, from the level of the goal down to specific activities.
2. The performance questions or indicators that will be used to monitor progress and overall achievement.

3. How these indicators will be monitored or where the data can be found.
4. The assumptions behind the logic of how activities will eventually contribute to the goal, plus associated risks for the project if assumptions turn out to be incorrect.

**Table 2: Log-Frame Matrix Table and its Components**

<b>Objective hierarchy (narrative summary, intervention logic)</b>	<b>Performance questions and indicators (objectively verifiable indicators, targets)</b>	<b>Monitoring mechanism (means of verification, source of information)</b>	<b>Assumptions and risks</b>
<b>Goal</b> (overall aim, development objective) The long term aim, change of state or improved situation towards which the project is making a contribution	Performance questions and indicators at goal level-high level impact	How necessary information will be gathered	For long term sustainability of the project
<b>Purpose</b> (project development objective) The immediate project objective ,the overall observable changes in performance, behaviour or resource status that should occur as a result of the project	Performance questions and indicators at goal level- high level impact	How necessary information will be gathered	Assumptions in moving from purpose to goal
<b>Outputs</b> (results) The products, services or the results that must be delivered by the project for the component objectives and purpose to be achieved	Performance questions and indicators for each output-output indicator	How necessary information will be gathered	Assumptions in moving from outputs to purposes
<b>Activities</b> The actions taken by the project that are required for delivery of the outputs	<i>Note:</i> the needed input go here, not indicators for activities		Assumptions in moving from activities to outputs

During project designing, the LFM is crucial in developing the annual work plan and budget (AWPB) – a document that lists activities to be implemented each year with their associated cost. In addition, the LFM becomes the basis for developing the monitoring and evaluation matrix (M&E Matrix).

### **Theory of Change versus Log Frame Matrix**

The theory of change and log frame matrix are not the same and should not be used in place of the other. A LFM is developed or at least inspired from ToC. A theory of change is more detailed in describing how different components influence each other to achieve the project objectives while logic frame matrix is a summary of different components of the project and how they can be used to measure progress. Detailed differences are shown in Table 3 below.

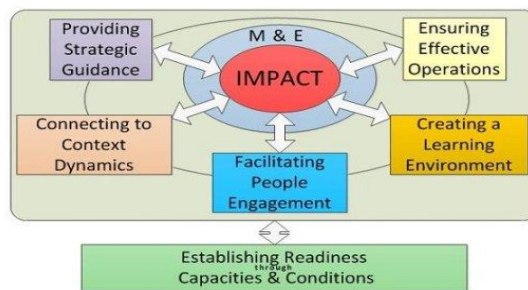
**Table 3: Differences between Theory of Change and Log Frame Matrix**

Theory of Change	Log Frame Matrix
<ul style="list-style-type: none"> <li>• It is outcomes-based to help stakeholders see how change is like</li> <li>• Explains change and link between activities and outcomes (HOW and WHY)</li> <li>• Requires justification at each step of the casual model</li> <li>• Explains why initiatives worked or not and went wrong</li> </ul>	<ul style="list-style-type: none"> <li>• It illustrates different project components in order to help stakeholders easily identify them</li> <li>• Identifies components to be monitored and evaluated</li> <li>• Requires means to verify that proposed components were actualized</li> <li>• Requires testing assumptions articulated to find out if they still hold</li> </ul>

### Managing for Impact

With a clear aspired future and plan of how to reach to that future, deliberate actions must be taken to make the project achieve its goal. Remember, “a plan is just a plan”, it has to be made real by consistently working towards making it a reality. To succeeded in a project, much effort is required. Change begins by acknowledging that one needs to change and then align behaviour and thinking so that it favours the desired change. In projects, we desire to see impact of our interventions. Impact refers to direct or indirect changes caused by the interventions on beneficiaries and non-beneficiaries’ physical, psychological, cultural and social life (see Table 1: Four Levels of Change). IFAD (2002) defines impact as observable; changes that permeate all levels of society, especially among marginalised groups.

To manage for impact, we need a road-map that the Wageningen UR Center for Development Innovation calls the managing for impact framework (M4I). The road to impact is complex and non-linear, yet guiding strategies can help move towards impact. There is evidence that development aid is not having enough impact and in 2005, a study in East and Southern Africa found little evidence of managing for impact (Kuster *et al.*, 2010). Therefore, a road-map to impact guides what to look for on the way to impact. Managing for impact includes six components as depicted in the M4I Framework below:



**Figure 6: Managing for Impact Framework**

The bottom part of this framework is the capacities and conditions' part. Without necessary conditions and capacities including readiness to implement M&E systems, change cannot be guaranteed. Of the six components, four components "guiding the strategy, effective operations, monitoring and evaluation systems and creating a learning environment" are the major components of the framework. The other two are equally important and are interlinked with the other four and work together to maximise impact (Kuster *et al*, 2010). These being:

1. *Strategic guidance* - which must be based on an in-depth understanding of the specifics of the situation (situation analysis). This also involves well-defined and articulated theories of change and the capacity for adapting the strategy in response to learning and changes, both internal and external.
2. *Effective operations* - involves managing financial, physical and human resources to achieve impact. The core qualities that managers need here are the abilities to communicate and to manage the different interests of each stakeholder or partner.
3. *Establishing a participatory and learning-oriented M&E system* - means putting in place systems and processes with which to regularly gather and process the information needed to guide the strategy, ensure effective operations and encourage learning. This monitoring and evaluation system therefore underpins and links the other three components of M4I.
4. *Creating a learning environment* - involves establishing a culture of learning amongst stakeholders and a set of relationships that build trust, stimulate critical questioning and innovation, and generate commitment and ownership.

The other two components of the managing for impact framework (facilitating people engagement and connecting to context dynamics) influence impact and participation. Engaging people means involving stakeholders in the project process. This should enhance ownership and participating in project activities. Projects do not work in a vacuum hence the need to consider contexts in which they operate. Consider how the context is working for or against the project and put corrective actions if the context is working against the project. All six components are intricately connected. You cannot design an effective monitoring and evaluation system without a good project design, neither can you successfully implement and guide the project towards impact without managing operations effectively, including human resources, assets and budgets. In addition, if you do not learn you reinvent the wheel, hence managing operations becomes cost ineffective.

## Managing for Impact Principles

While the six components are important, there are three fundamental propositions that should guide how the six components are implemented. These fundamental propositions or principles include:

1. *People centered* - the idea behind this principle is to think of people as the center of programmes and that the project exists to serve the values of these people. Kusters *et al.*, (2010) argued that this approach thinks in terms of people rather than of abstract entities such as sectors or regions. In people-centered development, instead of asking 'what are our targets?' actors ask 'who is to benefit?' and 'whose interests are being met?' They do not stop at the question, 'what are we going to change?' Rather, they ask 'how do we believe change will come about?' The theory of change that projects identify and consciously adopt underpins the strategy.
2. *Empowerment* - empowerment means allowing people to target change of the desired future. This means people should be asked to define their own targets, to develop their own tools, and to take their own decisions.
3. *Learning* - empowerment is useless unless there is Knowledge among the people the project seeks to serve. Through critical reflection and learning, the people can learn lessons that can be used for the betterment of the project. Wageningen UR Centre for Development Innovation observed that learning is crucial to a model of development that does not start out with the answers. In fact, it does not believe that there are fixed, packageable answers at all. Instead, a group of stakeholders sets out together to navigate the realities, using a conscious process of reviewing and reflecting on experience to fine-tune their approach, to generate and share new knowledge and to feed new insights back into the strategic guidance.
4. *Responsiveness* – a project has to take responsibility for its progress towards the desired impact. This is not an easy thing as it requires change of minds and work cultures. A culture of positive thinking is required to get things done for the people who the project is set to serve is important. This goes beyond meeting targets. This is about responsiveness to the needs of the beneficiaries. As IFAD (2002) puts it, project staff and partners can only claim success when society's most marginalised or affected people or organisations themselves indicate how they have benefited directly from the intervention (Kusters *et al.*, 2010).

## Diagnosing Organizations Managing for Impact

Organisations need to be regularly assessed to determine to what extent their projects in actual operation are managing towards impact. As earlier indicated, most development initiatives are not being

managed to achieve impact hence the reason we do not see desirable impact in their areas of focus. Tools have been developed to assess the extent to which the components of managing for impact have been put in place. One such tool is the managing for impact self-assessment tool developed by the Wageningen UR Centre for Development which can be used as a diagnostic and training tool (see Appendix 1). A spider web assessment tool can be used to understand the overall assessment in each area of the components (see Appendix 2).

## Conclusion

This chapter laid the foundation for results-based M&E frameworks. The chapter started with a discussion on shared vision and how shared vision led to a common understanding of the desired future, thereby maximising the likelihood of success. The chapter describes the development and use of a theory of change that reflects the aspiration and vision of the project beneficiaries, users and implementers. The chapter argued that the theory of change is a stepping stone to impact management but not an impact management framework in its own right. To this end, the chapter ended with a discussion on how to manage projects for impact. This chapter brought out elements that are needed for impact management in projects, policies or programmes.

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## Chapter 4

### Basis for Comparison and Elements of the Monitoring and Evaluation

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## Introduction

This chapter will discuss elements of monitoring and evaluation (M&E). The elements discussed here should make you not only aware of what monitoring and evaluation is about but also enable you to develop monitoring and evaluation frameworks, plans and systems. Remember that M&E frameworks are just frameworks, therefore, what makes M&E systems operational is the commitment and discipline to work schedules. “M&E information is only useful if it is used.” This statement suggests that M&E will not contribute to decision-making and operations of an organisation unless there is a deliberate process to use it. Consequently, it is befitting to start this chapter with a discussion on readiness for M&E.

## Organisation’s Readiness for Monitoring and Evaluation

Before an organisation or institution decides to set up an M&E plan or system, readiness assessment has to be conducted. Always remember that “prior preparation prevents poor performance.” M&E can be a daunting task which organisations should not underrate. Let us now turn to the definition of monitoring and evaluation readiness. Monitoring and evaluation readiness refers to organisations’ preparedness to use monitoring and evaluation data for decision-making and act on recommendation to improve action and project management. Scholars have described readiness for evaluation or ‘valuing evaluation’ as a necessary condition for evaluation use in an organisation (Struder, 1978; Smith, 1992). Therefore, before setting up the monitoring and evaluation system, organisations must ascertain their readiness in terms of culture and values for M&E, human capacities, financial resources, organisational structures to support monitoring and evaluation. In order to be more comprehensive in assessing organisation readiness for monitoring and evaluation, markers such as these in a check list below, can aid in the assessment of readiness.

### Exhibit 1: Example of Organization readiness for M&E Indicators

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Readiness indicators	Qualified and adequate human capacities	<input type="checkbox"/>
	Adequate stakeholder supported budget	<input type="checkbox"/>
	Clear organisational structure supporting M&E activities	<input type="checkbox"/>
	Clear purpose for setting up M&E system	<input type="checkbox"/>
	Positive staff attitudes towards M&E activities	<input type="checkbox"/>

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The last indicator is crucial and is the bedrock upon which an M&E unit can be established. The other indicators compliment the last one because personnel beliefs can either build or destroy the M&E framework.

If an organisation passes the “stress test” on readiness to conduct monitoring and evaluation, a baseline study should be conducted to establish a basis for comparison and benchmarks for assessing indicators. The M&E plan as documented in the project strategy, can also be updated and adjusted with new information from a baseline survey. If the organisation fails the stress test, efforts to address monitoring and evaluation anxiety and fears should be overcome. In such cases, a system must be put in place consisting both technical and procedural steps, to ensure that the process to support the tracking process are implemented.

### **Basis for Comparison**

The importance of a tracking process to check if the organisation is making a desired progress and impact cannot be over-emphasized. M&E is important for assessing if a project, programme or policy is achieving set targets. In addition, M&E serves as an important management tool for facilitating decision-making. By tracking processes, an organisation can ensure that programmes and activities are effective and efficient in yielding the desired results. If an organisation has no means of tracking progress and assessing impact, how can it justify its existence? Thus, an organization that has no means of tracking progress, assessing the impact it is making and documenting lessons learnt from its own processes, it is as good as dead. Therefore, every organisation should have a monitoring and evaluation mechanism which should be referenced to baseline findings or any other basis for comparison.

### **Baseline**

In M&E, a baseline is the initial situation or starting point before a project, programme or policy is implemented and it is a basis upon which comparison is made later, after implementation. The International Fund for Agricultural Development [IFAD] (2002), defines a baseline, as a line or base condition against which comparisons are made later on. Without this base, assessing change or impact is difficult. Baselines provides a critical reference point for assessing changes and impact, as it establishes a basis for comparing the situation before and after an intervention, and for making inferences as to the effectiveness of the project, programme or policy. Unfortunately, many organisations do not value or invest in baseline surveys and as such, many organisations start projects with poor baseline information or no baseline data at all because of:

1. Poorly-designed data collection measures.
2. Project or programme objectives not in line with baseline objectives.
3. Poor timing for conducting baseline surveys - too late or done on non-representative sample.
4. Others consider baselines as expensive and not important.

Baseline surveys are the major forms for establishing a basis for comparison. However, sometimes other basis for comparisons such as benchmarks, are used in place of ordinary baseline studies. A benchmark is a standard, or a yardstick, used as a point of reference for evaluating performance or level of quality of a programme, project or policy. In developing countries, a significant number of children lag behind developmentally, and significant numbers of interventions aimed at stimulating development have been implemented in such populations. Interventions such as these that track child development use internationally-agreed child development milestones as benchmarks for comparisons later on during and after the interventions. Whether an organisation decides to use baseline information or benchmarks, these are used to prove that a project, programme or policy had impact or not by comparing changes that result from the intervention. Bases for comparison studies are conducted just as any other study.

### Options for Establishing Bases for Comparison

There are three main options used as a basis for comparison. Other options are also discussed below. There is a relationship between the kind of a basis for comparison you decide to use and the evaluation design you will use to assess impact at the end of the intervention or programme. Therefore, it is important to consider seriously this choice. The options for establishing a basis for comparison include:

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**Focus Box 1: Basis for Comparison and Evaluation Designs**  
Be careful on the choice of the options you use to conduct a basis for comparison because each option has implications on the evaluation design you decide to use.

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1. *Before and after design* – this type of making a comparative analysis requires an organisation to conduct a survey before the actual intervention in relation to the objectives of the intervention and thereafter compare the results of the baseline to those obtained from post-intervention implementation. It is by far the most common, yet less powerful basis for comparison used by most organisations. Observed differences in results suggest the intervention is proving to bring about desired change and impact. This option is often found in evaluation studies that employ longitudinal designs including interrupted time series designs.

2. *With and without intervention design* – this type of comparative analysis requires an organisation to first carefully select two or more geographical locations with similar socio-economic characteristics. One of the sites/locations can be exposed to the intervention while the other(s) act as a base for comparing. If the site or location receiving an intervention (herein called with-intervention) is showing improvement or change relative to the site without intervention (herein called without), the intervention is deemed to have impact. Though, this option has advantages, one of the criticisms is that it suffers from contamination; a situation that occurs when participants in one condition (i.e. without-intervention) are indirectly affected by the intervention offered to other condition (with) because they interact with participants in another condition (Leary, 2004). This design is common in evaluation studies that use the quasi-experimental design.
3. *Intervention and control design* - this is the most powerful yet under-utilised option for making comparative analysis. This form of establishing a baseline should only be used when an organisation is experimenting the efficacy of an intervention before it is scaled up to beneficiaries or locations. Where the efficacy of a proposed intervention is known, the first two options discussed above are recommended. This option requires the organisation to randomly select potential beneficiaries of the intervention into one arm known as intervention (also known as. experimental or project group) and the other arm known as control (group that does not receive the intervention). The control group is used as a basis for comparing change with the intervention group. Although this option is powerful in bringing out differences, it is very expensive and has ethical setback.

### **Other forms for establishing a basis for comparison**

Although the options discussed above are the most frequently used, there are other options organizations can use, these include international and national benchmarks, documents and rolling baseline profiles:

1. *International and national benchmarks* - poverty datum line, human development index, child developmental milestones, and carbon emission benchmarks are examples of standards that organisations can use to assess progress or impact they are making. The advantages of these benchmarks are that they are internationally or nationally accepted, as such they are acceptable to most stakeholders. Organizations do not need to spend money to establish these standards as they are readily available.
2. *Documented statistics* – documented data about a particular region or area can be a source of data to be used for comparisons later in a project or programme. For instance, the Zambia demographic

health survey is an example of a document you can use as baseline information. Previous reports from other organisations working in similar areas of concern can also be used as basis for comparisons. Although this option is cheap, it is often difficult to use because of passage of time from the time information was documented to the time of use. In addition, some organisations tends to use weak methodologies when collecting data which questions the quality of their data.

3. *Rolling baseline Profile* – this is based on a profile of data collection, showing a trend of a pattern of a phenomenon, especially in large contextually-difficult surveys that challenge ordinary implementation of baseline studies. IFAD (2002) defines a rolling baseline profiles as a baseline involving collecting information to develop profiles not once but on a rolling basis. The last point of data collection becomes the base for comparison.

**Table 1: Comparisons of the Option for Conducting Baselines**

Type of comparison	Basis for comparison	Advantages	Disadvantages	Required evaluations design
Before and after intervention	Change over time in a project in comparison to baseline	Easy to conduct and relatively inexpensive  Indicate traceable change	Difficult to control confounding variable and explaining factors influencing change	Longitudinal
With and without project intervention	Traces changes between two similar geographical location- with and without intervention	Changes are easier to be linked to intervention	Similar geographical location may be difficult to find  Ethical setback of empowering one location over the other	Quasi-experimental
Intervention vs. control group	Helps trace change between the intervention and control group	Easier to explain and see changes	Expensive, pose ethical setbacks and requires advanced methodological and statistical skills that not	Randomised control trail

			everyone may know	
Benchmarks	Use international or national standards as basis for comparison with post evaluation	Easily accessible and inexpensive	They do not take into account cultural and national variation	Cross-sectional
Documentation	Use documented information about a region or people as basis for comparison	Inexpensive and easily accessible	Data may be difficult to find and may not be accurate	Cross-sectional
Rolling baseline profiles	Create a profile of observed changes	Shows trend of change which is easy to understand	Expensive and require advanced methodological skills	Un/interrupted time series

### Conducting Baseline Surveys

You need to be clear what the objectives of the baseline study are so that you collect information that is relevant to the baseline and the intervention. A baseline is the bedrock upon which post-evaluation will be done. Therefore, care must be taken to make sure the measures used are not only valid but reliable. It is advised to use a mixed method approach during baseline to improve validation of results. Because you use the baseline as the basis for comparison, the measures used will also be the ones used in post-evaluations. Changing measures will render non-comparability and renders the baseline useless; because you will be comparing “apples and oranges”. Give experts to develop and assess the baseline tools for their validity and reliability. Ideally, combining both qualitative and quantitative measures will yield good results.

### Collect What You Need not Want

Collect only information that you will use, that is information that will answer your objectives and cross-cutting issues. In evaluation surveys, the data collected should answer, in addition to the objectives, impact, relevance, efficiency, effectiveness, sustainability, utility and governance of the intervention. Cross-cutting issues such as poverty and gender among other relevant information specific to a project that should be collected. The principle is only to collect information you will use. This will focus your data collection and maintain the budget allocated to the baseline survey.

## Picking Apples and Oranges: Assessing Different Project Components

A number of project areas are considered during monitoring or evaluation. Need to assess these areas vary from project to project. Whenever possible, all areas must be assessed. These include:

1. *Different components of the intervention* - the apples and oranges of the project. These components should relate to areas assessed during baseline surveys. In addition to baseline surveys components, the theory of change is often tested indirectly through measuring the components of the hierarchy of objectives.
2. *Hierarchy of objective* – a project, policy or programme should assess different components of the hierarchy of objectives. This process starts during monitoring when inputs, outputs and immediate outcomes are checked relative to targets, while taking into consideration whether implementation and achievements are within budget, time (established schedules), and of acceptable standard or quality (indicators of success). The objectives (purpose) and goal (impact) are the components that are assessed during evaluation. These are assessed against evaluation standards (criteria) or targets.
3. *Core-evaluation questions* – are used as criteria or as standard for judging an intervention. These include: impact, relevance, effectiveness, efficiency, utility, sustainability and governance of the project, programme or policy. These are some of the components that need to be assessed. These standards will be discussed together performance questions later in this chapter.
4. *Cross-cutting issues* - given that cross-cutting issues affect almost every sector, most evaluators consider them as components that need to be assessed in every evaluation. Cross-cutting issues that may be considered include but not limited to poverty, gender, culture, participation and religion.
5. *Project operations* - although under efficiency and effectiveness, operation components are covered, during monitoring it is important to assess use of resources (financial and human), quality and timely implementation of activities.



**Table 3: Components that need to be assessed during monitoring or evaluation**

Project component	Focus for M&E	Timing
Hierarchy of Objectives	Goal	Evaluation
	Purpose/objectives	Evaluation
	Outputs	Monitoring
	Activities	Monitoring
	Inputs	Monitoring
Core-Evaluation Questions	Impact	Evaluation
	Relevance	Evaluation
	Efficiency	Evaluation and Evaluation
	Effectiveness	Evaluation
	Sustainability	Evaluation
	Governance	Evaluation
Cross-Cutting Issues	Poverty	Monitoring and Evaluation
	Gender	Monitoring and Evaluation
Operations and stakeholder needs	Use of resource	Monitoring
	Quality of implementation	Monitoring
	Stakeholders' needs	Monitoring and Evaluation

### Performance Questions

Time and care must be given to the process of developing performance questions. Performance questions are inquiry statements that help identify the phenomenon that needs to be answered through monitoring or evaluation. Morra-Imas & Rist (2009) refer to performance questions as questions that evaluators ask in order to learn about a project, programme or policy. Performance questions guide the direction of the monitoring or evaluation process. Performance questions should mirror the baseline and objectives of the evaluation. Otherwise, performance questions should be developed based on aspirations or information needs of stakeholders and standards or criteria especially when assessing core-evaluation questions. Performance questions must be Specific, Measurable, Agreed upon, Realistic and Time-bound (SMART).

### Importance of Performance Questions

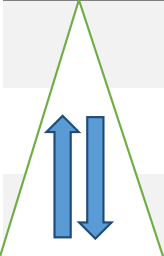
Performance questions help evaluators focus their monitoring and evaluation by providing a path through the data collection and writing processes. Performance questions help you to:

- Formulation of an evaluation plan or proposal.
- Development or adjustment of the aims and objectives.
- Literature search.

- Choice of evaluation design.
- Making decisions about what data is needed and from whom.
- Making decisions about what analysis will use on the data.

### Types of Performance Questions

Performance questions are grouped into three categories: descriptive, normative and cause-and-effect questions. The questions reflect their ability to answer impact. For instance, descriptive questions do not answer impact while cause-and-effect questions do. These questions should be used appropriately based on what they can answer. See Figure 1 below.

Ability to explain impact	When to use them
 Descriptive questions	During baseline, monitoring and answering requested information on what is the condition of the project
Normative questions	When benchmarks or standards have been set against which progress assessed (comparison with targets)
Cause-and-effect questions	When RCTs have been used and aim is to explain cause and effect of observed change

**Figure 1: Performance questions ability to answer impact and when to use them**

*Descriptive questions* – these seek to determine or answer how the situation is “what is”. They describe aspects of the process, a condition, set of views or set of organisational networks (Morra-Imas & Rist, 2009). These questions are often used during baseline studies, monitoring and when answering operational related issues. Morra-Imas & Rist (2009) argue that evaluation questions about policy-making are often descriptive questions. Descriptive questions are a bedrock upon which evaluation is later based on.

**Table 4: Purpose and Examples of Descriptive Questions**

Purpose	Example
Understand or describe project, programme or policy component Describe situation	What role do project implementers have in identifying community assessors? How many meals on average do project target groups have per day?
Ask W&H questions; who, what, when, how and how many	How and how many are benefiting from the feeding programme?

Used during monitoring of inputs, activities and outputs	Has training of traditional birth attendants been implemented? If yes, was this done on time and within budget?
To obtain opinions and perceptions of stakeholders	What are the opinions of project beneficiaries on the way the project is being implemented?

Baseline surveys, monitoring exercises and evaluation questions on efficiency and effectiveness among others, tend to use descriptive questions. Box 4.1 shows an example of a baseline survey that used descriptive questions.

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### Focus Box 2: Baseline survey for the Climate Change, Agriculture and Poverty Alleviation (CCAP) initiative

Climate Change, Agriculture and Poverty (CCAP) Alleviation initiative is a project being implemented through a partnership between ActionAid MJUMITA, MVIWATA, TOAM and TFCG with site-level activities in Kilosa and Chamwino districts. The objective of the project was for Tanzania to be implementing policies and strategies that prioritise support to small-scale farmers to enable them to improve their livelihoods through the adoption of climate smart agriculture and sustainable land and natural resources management. The project was planned to operate for 27 months between 1st October 2012 and 31st December 2014. The project was financed through the Accountability in Tanzania climate change funding window.

This baseline study was conducted from 14th of December 2012 to 14th of February 2013 in 8 villages in Chamwino and Kilosa Districts as well as amongst district and national-level stakeholders. The survey aimed to document a baseline with regards to the status of project indicators and stakeholders' progress markers and to assess the current uptake of climate-smart, small-scale (C3S) agricultural practices. The main question was how many small scale farmers' climate-smart agriculture practices in order to alleviate poverty?

Survey methods included: structured and semi-structured interviews; key informant interviews; direct observations and reviewing of reports and documents.

The study found that: the level of understanding on climate-smart, small-scale agriculture is low amongst most stakeholders; and few farmers in the project villages have adopted climate-smart agricultural techniques. Support by the district authority for C3S agriculture is also low in the project villages. Instead the district targets 'modernising' projects that benefit a few villages each year. MJUMITA and MVIWATA strategic plans and the District Agricultural Development Plans in both districts have not integrated C3S agriculture. The survey also found that the National Climate Change Steering Committee does not see that its role is to promote policy harmonization in relation to C3S agriculture.

In relation to communicating effectively about C3S agriculture, the study found that most stakeholders expressed a preference for meetings as a way of communicating C3S agriculture and related activities. The study recommends that there is a need to use multiple methods of communication in order to reach the different stakeholders and that the development of a communication strategy for the project is highly recommended.

**Source: Nambiza (2013).**

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*Normative Questions* -ask "what should be" to the current situation (baseline or benchmark) rather than ask whether an objective outcome or condition has been achieved. Normative compare the current situation with a specific target or benchmark (Morra-Imas & Rist, 2009).

**Table 5: Purpose and Example of Normative Questions**

Purpose	Example of question
Assessing relevance	Is the intervention a good strategy to improve school attendance?
Milestones	At the purse we are going, can we empower 6,000 families?
Accomplishment	Have families that were living below poverty datum line now eating three meals per-day?

Children born with HIV and AIDS have long been documented to have psychological and physical challenges compared to their health peers. Studies evaluate such children against normative developmental standard. Focus Box 3 illustrates an example of a review study that uses normative questions.

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**Focus Box 3: A review of studies evaluating neurodevelopment in children born to HIV-infected mothers by infection and treatment Status**

This study reviewed the impact of HIV, HIV exposure, and antiretroviral therapy/prophylaxis on neurodevelopmental outcomes of HIV-infected and HIV-exposed-uninfected infants and children. A literature search of Medline, Embase, PsychINFO, Web of Science, PubMed, and conference Web sites (1990 – 2011) using the search terms, infant, child, HIV, neurodevelopment, cognition, language, and antiretroviral therapy, identified 31 studies of HIV/antiretroviral exposure using standardised tools to evaluate infant/child development as the main outcome. Articles were included if results were reported in children <16 years of age who were exposed to HIV and antiretrovirals in fetal/early life, and excluded if children did not acquire HIV from their mothers or were not exposed to antiretrovirals in fetal/early life.

Infants who acquired HIV during fetal and early life tended to display poorer mean developmental scores than HIV-unexposed children. Mean motor and cognitive scores were consistently 1 to 2 SDs below the population mean. Mean scores improved if the infant received treatment before 12 weeks and/or a more complex antiretroviral regimen. Older HIV-infected children treated with highly active antiretroviral therapy demonstrated near normal global mean neurocognitive scores; subtle differences in language, memory, and behaviour remained. HIV-exposed-uninfected children treated with antiretrovirals demonstrated subtle speech and language delay, although not universally.

In comparison with resource-rich settings, HIV-infected and HIV-exposed-uninfected infants/children in resource-constrained settings demonstrated greater neurodevelopmental delay compared with HIV-unexposed infants. The effects on neurodevelopment in older HIV-infected children commenced on antiretroviral therapy from an early age and HIV-exposed-uninfected children particularly in resource-poor settings remain unclear.

**Sources: Le Doare, Bland & Newell (2012)**

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*Cause-and-effect questions* - ask the degree of impact and what caused the observed impact or change. The cause-and-effect help test the theory of change. These questions are often asked at the goal and outcome (purpose) level of the hierarchy of objectives. Cause-and-effect questions should show degree of change, show the effect of observed change, predict and explain change. This is why effect sizes are often reported when cause-and-effect questions are used. Table 4.8 below shows the purpose and example of cause-and-effect questions.

**Table 6: Purpose and Examples of Cause and Effect Questions**

Purpose	Example of question
Assess degree of change	How many children attend school now as a result of the feeding programme?
Show effect	Was the observed increased quality of life as a result of the empowerment of women in these families
Explain cause	What caused the degree in HIV infections?
Predict outcome	Is the increased enrolment in preschool going to predict income levels in adulthood?

Evaluations that use experimental and longitudinal designs are the ones that often use cause-and-effect type of questions. Focus Box 4 shows an example of such an evaluation study.

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**Focus Box 4: An Evaluation Study using a Randomised-Control Trial for the Teachers’ Diploma Programme on Psychosocial Care, Support and Protection in Zambian Government Primary Schools**

Orphaned and vulnerable children (OVC) experience poverty, stigma, and abuse resulting in poor physical, emotional, and psychological outcomes. The Teachers’ Diploma Programme on Psychosocial Care, Support, and Protection is a child-centered 15-month long-distance learning programme focused on providing teachers with the knowledge and skills to enhance their school environments, foster psychosocial support, and facilitate school-community relationships. A randomised controlled trial was implemented in 2013–2014. The main question was, “Does the Teacher’ Diploma Programme on teachers’ cause changes in students’ perceived psychosocial well-being, skills and performance, school environment, and interpersonal relationships?” Both teachers (n=325) and students (n=1378) were assessed at baseline and 15-months post-intervention from randomly assigned primary schools in Lusaka and Eastern Provinces, Zambia. Multilevel linear mixed models (MLM) indicate positive significant changes for intervention teachers on outcomes related to self-care, teaching resources, safety, social support, and gender equity. Positive outcomes for intervention students related to future orientation, respect, support, safety, sexual abuse, and bullying. Outcomes support the hypothesis that teachers and students benefit from a programme designed to enhance teachers’ psychosocial skills and knowledge.

**Source:** Kaljee *et. al.*, (2016)

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## Performance Questions at Different Levels of the Objective Hierarchy

The focus of three types of performance questions differs across the level of the objective hierarchy. At goal level normative and cause-and-effect questions are often used while at activity and output level descriptive questions are common. Table 7 below links performance questions to different components of M&E.

**Table 7: Linking Performance Questions to Different Components of M&E**

Component	Specific Area	Performance Questions Focus on answering:
<b>Hierarchy of objectives</b>	Goal	Intervention's contribution to long term goal
	Objective	Achieved changes as a result of intervention
	Outcome	What are the immediate signs of change in the project
	Output	Observable products or services as a result of activities
	Activities	Whether activities are have been implemented on time, budgeted for and are of quality
	inputs	Whether inputs have been delivered on time and used efficiently
<b>Core M&amp;E Questions</b>	Impact	Consequences of the interventions
	Relevance	Significance of the intervention to the problems needing improvement
	Efficiency	Optional use of resources
	Effectiveness	Achievement of different planned project components
	Sustainability	Likelihood of continued project change
	Governance	Effects of decision made in the project
<b>Cross-cutting issues</b>	Gender	Mainstreaming gender in the project
	Poverty	Assess and reducing effect of poverty on project
<b>Operations</b>	Resource utilisation	How resources are being used in project
	Implementation	If implementation was timely, of quality and within budget
	Stakeholder needs	Answering different information needs of stakeholders

## Information Needs

Have you ever asked a friend or workmate a question and received a response that did not answer your question? Most likely on many instances. The problem your friend or colleague had was he/she did not understand what your information need was to the question. Information needs refer to specific perceived information (response) required to satisfy the person or organisation asking the question. To be able to get this type of information, the question must be clear devoid of ambiguities and it should not be

double-barred because only one part will be answered. In Table 7 above, performance questions focus required information needs.

### **Source of Information Needs**

There are multiple sources of information needs. The first source is the purpose of the M&E system. If the organisation is clear on the reasons they have set the M&E system, then their information needs are made clear too. For instance, an organisation's purpose for setting up the M&E would be to track progress and impact made. If you look at Table 7 under goal, objective (purpose) and impact you will see that information needed to answer these components includes contribution of intervention to project, observable changes in project beneficiaries and consequences of the project. Factors affecting identification of information needs include:

- a) Poorly constructed questions.
- b) Lack of good measures to collect data.
- c) Psychological factors such as personal perceptions and needs.
- d) Leading questions in interviews and perceptual bias in observations.

### **Importance of Information Needs**

Information needs guide data collection and analysis. They focus the direction of monitoring or evaluation processes. So many times, organisations gather data that does not contribute to answering their objectives because of misunderstood information needs. Information needs also help develop effective performance questions and indicators. If one is clear of his or her information needs, questions asked are specifically tailored to such needs.

### **Indicators**

In projects, programmes or policies, we need indicators to show how we are progressing relative to our targets or goals. These indicators can be quantitative or qualitative. IFAD (2002) defines an indicator as a qualitative or quantitative factor or variable that provides a simple and reliable basis for assessing achievement, change or performance. Indicators are signs, signals, marks or measuring devices an organisation uses to assess progress, performance and impact of a project, programme or policy. Therefore, an indicator is a quantitative or qualitative sign, mark or signal that shows the state and condition of the project, programme or policy in relation to its initial start, progression and post-intervention implementation.

Indicators in a project, programme or policy are best understood if seen as traffic and road signs. Just like traffic or road signs, indicators in a project inform project implementers and evaluators whether they are safe to proceed with the current implementation strategy or if it is dangerous and they need to hang back, reflect and readjust the project strategy. “Numbers do not lie”, unless you are using a defected and unreliable device,

numbers will always tell you as things are. In projects, programmes or policies, numbers can indicate if you are headed for success or failure. However, it is also important to know the voice behind the numbers. A friend of mine likes saying “it is immoral to reduce children’s voices into numbers”. What my

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**Focus Box 5: Understanding Indicators**

Just like road traffic signs, indicators inform projects when implementation is doing well or bad, and whether a project can go ahead with current implementation strategies or need to stop and adjust the strategies. In addition, indicator inform projects how much the project has met its targets and how much remains to meet its targets. Further, they inform where the project is heading and in which direction.

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friend means is that when you are researching on children do not just get the number of children who are traumatized for example, but also document their voices on what it means to be traumatised. In the same manner, in monitoring and evaluation, it is important to get qualitative data to back the quantitative data. This means using qualitative indicators as well.

Qualitative indicators allow projects, programmes or policies to gather perceptions, views, opinions and assessments of stakeholders on a number of project components. Like a road sign showing you where, for example, Mpika, Kapiri Mposhi, Ndola, Lusaka towns are in Zambia and which direction you should be heading, qualitative indicators allow stakeholders to give their signals or marks through opinion and perceptions on how the project is progressing and where it should be heading (see Focus Box 6). Qualitative indicators suggest whether you need to change the lane in order to get to where you need to be. Reading through evaluation reports, one hardly notices use of qualitative indicators, yet they are very important as discussed above. Indicators are the heart of the monitoring and evaluation systems. Morra-Imas & Rist (2009) and Kusek & Rist, (2004) put it nicely, indicators in M&E answer the question, “How will we know



success when we see it?" "Are we moving towards achieving our desired outcomes?" "Travelers also tend to ask similar questions?', "How will we know we have arrived at our destination?" "Is there a mark or sign that can inform our arrival?" "Are there signage indicating which direction we should take towards our destination?"

### **Type of Indicators**

There are several types of indicators that can be applied in different situations of a project component or cycle. It is important to use different types while being mindful on their appropriateness. The type of information need and data collection method will to a larger extent determine which type of an indicator to use. Literature reports different types of indicators, including:

1. *Simple quantitative indicator* - this is a type of an indicator that requires one measurement of a straight forward unit. For example, a number of traditional birth attendants (TBA) trained in prevention of HIV and AIDS mother-child transmission. This indicator measures one thing (tradition birth attendants that were trained). Simple quantitative indicators are the most commonly used because they are easy to formulate and measure. The disadvantage is that they do not give the complete picture. For example, we may be interested in the number of TBAs trained and have been attending to delivering mothers, which a simple indicator will not tell us. To obtain this information we turn to the next type of indicator called complex quantitative indicator.
2. *Complex quantitative indicator* – this is a type of indicator that requires different bits of information to be measured to answer the performance question. For instance if we add “and have attended to a delivering mother within the last three months” to number of TBAs then the simple quantitative indicator becomes a complex indicator. Without being specific “those attending to a delivering mother in the last three months”, the indicator will remain a simple indicator.
3. *Compound quantitative indicator* - this type of an indicator requires an adjective or standard that requires to be defined and agreed upon on how it will be measured. For instance, percentage of TBAs who have successfully delivered and prevented mother-to-child HIV and AIDS infection. In this indicator, the adjective “successfully” needs to be defined and agreed upon on how it will be measured.
4. *Proxy indicator* –an indicator which estimates the proportion of the whole or targeted population. This indicator uses numerators and denominators to be calculated:

Number of trained TBAs who have attended to HIV pregnant women X 100

Total number of trained TBAs

This (proxy) indicator would read: % of trained TBAs who have attended to HIV pregnant women.

5. *Ratio* – this type of indicator shows the relation between two amounts showing the number of times one value contains or is contained within the other. Example of ratio indicator is ratio of teachers to pupils in primary schools. Unfortunately some people use ratios as proxy indicators.
6. *Rate* – this type of an indicator is used to quantify the probability of a rare event. Like a proxy, you need a numerator and denominator. Depending on the population from which the rate is being calculated, the obtained value can be rated with 1000, 10,000 etc., e.g., death rate per 1000 population.
7. *Indices* – this type of indicator is based on a composite statistic on a number of indicators. The composite score can be based on indicators such as health, education, life expectancy, CO<sub>2</sub> emission, income per capita. An example of this type of an indicator is the human development (HD) index, climate change performance index, political stability index, investor confidence index, gender development index etc. Indicators such as these are not easy to formulate and calculate as a result they are not common in M&E. Yet indices indicators give a clear and broad state or condition of a project, programme or policy. The general formula for calculating indices is:

$$\text{Index} = \frac{\text{Actual } x_i \text{ value} - \text{minimum } x_i \text{ value}}{\text{Maximum } x_i \text{ value} - \text{minimum } x_i \text{ value}}$$

For construction of HD index, fixed maximum and minimum values have been established for each of these indicators (UNDP, 1995):

- Life expectancy at birth: 25-85 years
- Adult literacy: 0%-100%
- Combined enrolment ratio: 0%-100%
- Real GDP per capita \$100 - \$40,000

Let us say life expectancy is 65 for a Zambian at birth, then the index for life expectancy would be:

$$\text{Life expectancy index} = \frac{65 - 25}{85 - 25} = \frac{40}{60} = 0.667$$

Life expectancy index of 0.67 would be relatively good.

The United Nations Development Programme (UNDP), has also provided a tool for calculating the human development index and gender development index in Excel or STATA which you can obtain

from <http://hdr.undp.org/en/content/calculating-indices>. Example of an indices indicator would be “index of gender inequality in the provision of education”.

8. *Qualitative open-ended indicators* – this type of an indicator allows expression of opinions, perceptions and assessment of stakeholders on a project or wide array of issues in a project. Four adjectives “opinion, perception, views and assessment” are crucial in this type of an indicator. For example, “perceptions of stakeholders about the overall implementation of the project”, would be an example of the qualitative open-ended indicator.
9. *Qualitative closed ended indicator* - is a type of indicator that solicits focused opinions, perception and assessment of stakeholders on specific information pertaining to a project, programme or policy component. For example “opinions of primary stakeholders about possibility of sustainability of observed change.”

### Elements of a good indicator

A good indicator should have a unit of measurement and indication of the value or adjective that will be used to understand the state or condition of the project, programme or policy. A good indicator is referenced to the baseline or benchmark while focusing on the target of the project achievement. IFAD (2002) proposes that a clear indicator should include:

- Specific target to which an indicator will be applied.
- Specific unit (adjective –author insertion) of measurement used for the indicator.
- Specific timeframe over which it will be monitored.
- Reference to baseline/benchmark to refer to.
- Specific location to which it will be applied.

Indicators should be “SMART” that is:

- **S**pecific and significant to the project component measured.
- **M**easurable means a project should be able to measure indicator that we have in a meaningful way.
- **A**ttainable and **a**chievable within budget and time using existing human capacities.
- **R**ealistic and relevant to the project, program or policy.
- **T**ime-bound means indicators should be monitored within a certain timeframe.

Kusek & Rist (2004) proposed that indicators should be CREAM, that is:

- *C*lear - precise and unambiguous.

- *Relevant* – appropriate to the subject at hand.
- *Economic* – available at reasonable cost.
- *Adequate* – provide a sufficient basis to assess performance.
- *Monitorable* – amenable to independent validation.

### **Indicator Tracking Table**

An indicator tracking table (ITT) also known as indicator performance tracking table (IPTT) is a systemic tool used to tracking progress and impact the project, programme or policy is making, relative to the agreed and set targets. This tool is an important element of a comprehensive M&E system because it helps report on project progress and on impact made. There are broadly two kinds of indicators which cover the types discussed above which are outlined in the ITT. These include:

- *Impact indicators* – these measure the project’s achievements of the desired impact of a project’s sub-components. These are found at the outcome level (goal and objective levels).
- *Progress indicators* – these measure improvements or progress made in implementing activities. These are found at the implementation (mechanism) level (input, activity, outputs levels).

Progress indicators are measured more frequently (e.g. weekly, monthly or quarterly, depending on the nature of indicators) compared to impact indicators which are measured infrequently (e.g., annually, at mid-term or end of project).

### **ITT Format**

There is no single format for the ITT. Different organisations will use different formats depending on needs of different stakeholders. However, at a minimum, the ITT should include:

- *Column 1:* a list of impact and progress indicators.
- *Column 2:* baseline and benchmark information upon which indicators will be measured against – point of reference.
- *Column 3:* series of columns of project years divided into quarters or months (depending on project length). This columns show indicators progress in a project life cycle.
- *Column 4:* difference to target – this shows the difference to target compared to what has been achieved so far in the project. This difference changes every time data on an indicator is collected and imputed in the ITT.

- *Column 5: target* – this indicates the target of the project on each indicator.
- *Row 1:* shows indicators based on the outcome level (goal and objectives).
- *Row 2:* shows indicators based on the strategy/mechanism levels (inputs, activities and output).

There are other optional columns that can be added:

- *Indicator direction (positive or negative)* - There are times when we want to reduce incidence of something (for example, incidence of maternal death) in a project. In such instances, the indicator direction we desire is negative. On the other hand if the desire is to increase something e.g. enrolment of girls in school, the indicator direction is positive.
- *Assumptions* – to make sense of the indicators progress sometimes we need assumptions made on certain activities.
- *Indicator timeline* – this indicates when the project started measuring the indicator and when a project intends to stop measuring a particular indicator.
- *Comment* – additional column for project staff to comment on project progress made on a particular indicator can be helpful for decision-making, especially if comments explain “why and why not” progress was made.

### **Tracking Qualitative Indicators**

To track progress using qualitative indicators, thematic maps on a specific project component or indicator are compared before and after the project. Changes in the dynamics and factors influencing the indicator either positive or negative determine the nature of change made. Change can be negative or positive on projects, programme or policies. For instance, if the views expressed in the baseline thematic map are negative while those expressed in the endline review are positive, then a project can claim it made positive change. To achieve this, projects deliberately develop questions asking about the before and after situation e.g., *kindly tell me your situation before your participation in the project” and, kindly tell me about your life after participating in the project?”*

Another way of tracking qualitative indicators is by developing a scale with adjectives that need to be accompanied with respondents own voices as separate means of verification. These adjectives need to be explained right at the beginning of the project to stakeholders and respondents so that the tracking is systematic and the respondents explanations of the adjective attached correspondent with each other. For instance, an indicator assessing perceptions of stakeholders’ views on implementation of activity X can use

a scale 1 = not happy at all, 2 = neutral, 3 = happy. Choice of each of these adjectives needs to be accompanied in a footnote with actual reasons why respondents choose a particular scale. e.g., 3 = neutral:

*My perceptions are neutral for now because since the beginning of implementation of activity X, I have seen little progress which is not impressive given the amount of time and money we have used. If this purse of progress continues, I am afraid most of us we will remain unhappy.* **31 year-old, woman, project key informant**

If the adjective is not based on key informant, semi-quantitative indicators should be used which involve computation of the % based on the number of times the adjective was chosen then backed by actual responses that support the adjective.

### **Advantages of ITTs in Projects**

Indicator tracking tables are important for decision-making. In some organisations, ITTs are treated as reports for decision making. ITTs have several advantages including:

1. Provide clear and simple mechanism for tracking indicators.
2. Outline to key partners, the project objectives and how they will be assessed to achieve the project goals.
3. Focus the evaluation on relevant indicators rather than on interesting indicators that may not add to the overall project impact.
4. Provide means to resist working on activities requested by stakeholders that were not initially agreed, yet require additional resources and obligations or enlarging terms of references.

### **Preparing and Reviewing the ITT in a project**

Care and effort must be taken when preparing to develop an ITT. To effectively develop and adjust the ITT, review and use the following documents:

1. *Baseline survey* – this document is designed to provide baseline indicators which is the basis for developing impact and progress indicator and targets of the project.
2. *M&E plan* – contains indicators, performance questions, and information needs, data collection methods and analysis required to measure a particular indicator.
3. *Quarterly and annual reports* – shows how the project is progressing, based on progress indicators and other strategies often assessed during monitoring.

4. *Mid-term review* - used to determine whether methods used to measure impact indicators and progress indicators are still appropriate, the likelihood of the project achieving its original targets and the need to adjust the targets (McMillan, Sharrock, Willard, 2008).
5. *Quarterly and annual reports after mid-term review* – used to see if the project has responded to recommendations made in the midterm review and how these recommendations are contributing towards impact and progress indicators.
6. *Final report* – used to determine impact indicators, draw lessons and make recommendation for future projects.

### **Steps to developing the ITT**

Once relevant documents (especially the baseline report and the M&E plan) have been reviewed, the project can take the following steps to develop the ITT:

1. *Stakeholder agreement* – make sure all stakeholders have bought in the project strategy and they have the capacity to contribute in developing the ITT. To achieve this, develop terms of references and ITT development booklets or better still organise a workshop on ITT development. At this point, agree with stakeholders on the ITT format and content.
2. *Develop a draft ITT proposal* – this should include a set of indicators based on baseline report and M&E matrix. It should also suggest how indicators will be measured and analysed.
3. *Revise the ITT after quarterly or annual report* – progress reports should form a basis of developing appropriate indicators. This is also an opportunity for revising the initial ITT proposed indicators. This process should continue at every significant milestone of the project e.g., mid-term and final evaluation.

On the next page is an example of a template used to develop an indicator tracking table.





## Target and Milestones

In projects, targets are what projects aim to achieve at certain milestones. A milestone is a significant event in a project, such as a mid-term review on which critical dependent achievements are expected. Milestones are critical because their achievements determine the progression of a project, yet they are dependent on completion of activities appropriate to a milestone. Milestones are often outside control of users and as such they should be few. For example produce a training manual because it is critical for training trainees but dependent on a hiring a consultant developing a training manual. Therefore, it is important that milestones are SMART:

- *Specific* - milestones should be specific and written in clear, concise, and understandable terms.
- *Measurable* - milestones should have realistic and justifiable success criteria which can be measured. Therefore, milestones should have target value range and acceptable (cut-off) values to determine their usefulness.
- *Achievable* - milestones must be ambitious but realistic (do not be too ambitious!)
- *Relevant* - since milestones are critical achievements they must focus on progressing the project along an appropriate development path.
- *Timely (deadlines not durations)* - milestones should have a realistic timeframe with an end date assigned to them.

Milestones can be measured or accessed if a project is to know whether it is progressing on the appropriate development path. Table 9 below shows how to measure milestones

**Table 9: Identifying and Measuring Milestones**

Milestone	Expected achievement date(s)	What is measured	How it is measured	Results (acceptable/unacceptable)	Acceptable variance	Action required
Training manual produced	10 <sup>th</sup> – 20 <sup>th</sup> June	Quality of the manual	Assessing content and scope in line with international standards	Acceptable	10%	Proceed to train
2000 community health workers (CHW) employed	August - October	# of CHW employed	Counting those employed as CHW in targeted areas	Acceptable	15%	Access readiness to be employed as CHW for next cohort

Milestones are used as mock evaluations or litmus paper on readiness to achieve the project or programme targets. A project should have baseline data to enable it plan for its targets. In-between this

process, a project should formulate indicators that will help signal how the intervention is progressing in relation to its target. A milestone moment is a perfect period for projects to give itself a mock evaluation to determine how it are doing with regards to meeting its targets. In monitoring and evaluation, there are a number of key milestone moments that can be used for self-evaluation towards the project goals: mid-term review, annual participatory review, quarterly reviews etc. If the project is on course, specified milestones for each moment such as “Stop early marriage manual developed or 200 girls enrolled in school”, will have been achieved at the specified moment. However, if it is not on course, a milestone moment is a perfect opportunity to adjust the project strategy in order to maximise its impact. Milestones are also perfect opportunity to document lessons learnt. Figure 2 below show the pathway to project milestones and targets.



**Figure 2: Pathway to Project Milestones and Targets**

It is important to understand how the baseline information and the other different elements of monitoring and evaluation come together in a manner that can be easier to use in a project. Table 10 below shows how these different components come together and are captured in the M&E matrix.

**Table 10: Different Elements of the M&E as they appear in the M&E Matrix**

Project component	Basis for comparison	Performance questions	Information needs	Indicators	Milestone	Target
Improve school enrollment at basic school level	20 % of eligible children were in school	To what extent has enrollment improved at basic education level?	Enrollment status	% of enrolled eligible children	1:3 ratio between boys and girl at mid-term review	85% of eligible children to be in school

In addition to the information detailed in the Table 10 above, add the assumptions, means of verifications, data source, design, data collection tools, data analysis and reporting, and the personal responsible columns to have a complete M&E matrix.

## Assumptions

Assumptions as necessary conditions, decisions or events outside the control of the organisation that need to be present for planned activities and objectives to be achieved. The United States Agency for International Development (USAID, n.d.) defines assumptions as conditions under which the development hypothesis, or strategy for achieving an objective, will hold true. A good assumption has three main features: 1.) it is important for achieving an activity or objective, 2.) certainty of occurrence is unknown and 3.) the project can redesign to make the assumption necessary. Assumptions need to occur to achieve set activities or objectives otherwise they become risks. When an assumption becomes a risk, it should be part of the risk management plan and mitigation plans should be put in place.

Turbit (2005) observes that there is a tendency by most projects to let assumptions 'morph' into accepted facts. Assumptions can hold true or not, therefore action lists should be created to follow up assumptions in order to either approve or disapprove and make corrective action for success. Therefore, it is important to keep checking (monitoring) the validity of the assumptions to make sure that they are still preconditions for the success of your activities.

Three parameters including *confidence*; how sure a project is that the assumption is true or still holds, *lead time*; how long it will take for a project to prove or disprove the assumption and *impact*; if the assumption proves incorrect, how much work and effort is involved to assess and manage the project assumption (Turbit, 2005). The three parameters can be rated from 1 to 10 where 10 means the assumption is critical. The three parameter ratings should be added together to provide an Assumption rating (score). Using the ratings below, we can rate the Assumptions as:

9-10: Critical

7-9: High

5-7: Medium

3-4: Low

Therefore projects can include a section on Assumption testing in their monitoring tools as shown below in table 11.

**Table11: Rating Assumptions**

Assumption	Confidence				Lead time		Impact				Assumption score	Comment
	1	2	3	4	1	2	1	2	3	4		

**Assumptions and Risks**

As discussed above, an Assumption is the flip side of a risk. When we use an assumption, we expect something to happen, while with a risk, we ask what we will do if something does not happen, or how to increase the probability that something will happen. We measure risks by looking at their probability and impact. The probability may be highly likely, likely and not likely. The impact may be catastrophic, significant, medium and minor. Project usually give the parameters a numerical rating. A matrix (Table 11) of the impact and probability allows us to develop a priority.

**Table 11: Risk Assessment Matrix**

<b>Probability</b>	4	<b>Medium</b>	<b>Critical</b>		
	3				
	2	<b>Low</b>	<b>High</b>		
	1				
		1	2	3	4
		<b>Impact</b>			

**Conclusion**

This chapter started with arguing that conducting a readiness assessment is important before M&E can be implemented. Readiness is a barometer for assessing likelihood of a successful M&E. Once a readiness assessment has been conducted and hopefully results suggest the organisation is ready, a basis for comparison can be established through conducting baseline surveys. A baseline acts as the base upon which progress in a project will be judged. After a baseline has been established, the evaluation team can then agree on aspect of the project that will be monitored and evaluated. The aspects and components of the project that require M&E should be accompanied by performance questions, information needs and indicators that cannot only help guide M&E processes but will help assess progress and impact. Therefore,

indicator tracking tables are crucial to help determine project progress and impact. Good progress should be referenced to baseline findings and project targets. This chapter ended with a discussion on how to assess assumptions and risks in a project.

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## Part Chapters

- Monitoring and Evaluation Designs
- Data Collection Methods and Tools in Monitoring and Evaluation
- Ethical Issues, Principles and Politics in Monitoring and Evaluation
- Data Analysis in Monitoring and Evaluation

## Part 3

### Methodological Issues in Monitoring and Evaluation

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## Chapter 5

### Monitoring and Evaluation Designs

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## **Introduction**

This chapter looks at the various monitoring and evaluation designs and tips on how to select the appropriate design for your evaluation. It is of interest that the design you will settle for will culminate from the questions you want to answer. This is to say that the evaluation questions play an important role in the selection of a suitable design to use. One cannot think of a design without readily available questions. In addition, one will also look at the type of evaluation such as impact evaluation, implementation or process evaluation, outcome evaluation, and cost and efficiency (economic) evaluation. Also, time, the data to be collected, and money available, will be the driving force to design selection. However, it should be noted that no one particular design is perfect, each design has its own strengths and weaknesses, and is not restricted to work just in one particular way or answer a particular question or to solely be used alone all the time.

## **Evaluation Design and Performance Questions**

The evaluation research designs for each type of evaluation vary depending on the evaluation questions, purpose and the type of evaluation, but the right design is the one that is suitable in answering the evaluation questions (Morra-Imas & Rist, 2009). Thus, the evaluation design chosen should be suitable for the type of evaluation questions being posed. For instance, cause-and-effect questions should be answered by an appropriate design. Descriptive and normative questions should also adopt suitable designs. Quantitative study designs (intervention designs: randomised experiments or experimental and quasi-experimental designs, and non-intervention designs: longitudinal designs and cross-sectional designs) might be appropriate for summative evaluations (outcome or impact evaluations). This is because it is easy to generalise quantitative research findings to the other populations based on quantitative data. More so, it is possible to replicate the programme (Rossi, Lipsey & Freeman, 2004). These types of evaluations are concerned with cause-and-effect relationship questions as they aim to establish if the change in condition or circumstances was caused by the intervention or programme, and not by any other factors or explanations.

Qualitative research designs (case study designs) may be used for formative evaluations (process or implementation evaluations). This is because qualitative evaluation designs are beneficial as they can provide in-depth programme feedback as the process or implementation evaluation is concerned with establishing whether the programme is implemented as intended or not. However, it would also be appropriate to employ the mixed methods evaluation designs (Marlow, 2011).

## Types of Questions

Evaluations are done to answer questions about various phenomena which subsequently help solve problems or improve people's quality of life. Therefore, questions that are usually asked in evaluation programmes, projects or policies are divided into three-broad categories which are: causality inferring (cause-and-effect) questions, descriptive questions and lastly but not least, normative questions.

### Causality Inferring (Cause-and-Effect) Questions

These are questions asked to determine if the changes experienced are solely as a result of the intervention. Better still they also determine the effects of the project, programme or policy.

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#### Focus Box 1: Examples of Cause and Effect Questions

1. Did the increase in motor vehicle offence fines reduce road traffic offences?
  2. Did the mounting of cameras on all high ways reduce road traffic accidents?
  3. As a result of the skills training programme, have participants taken up entrepreneur ventures they would otherwise not have done?
  4. As a result of the contingent talk intervention training of parents, have the 18 months old babies in the intervention group grown their vocabularies more than their counterparts in the control group?
- 

### Descriptive Questions

These tend to describe aspects of a problem, a programme, a process, a condition, or set of views, or a set of organisational work ethics, policies or structure. They ask questions like who, what, where, when, how, how many, and so on. They are also used to describe activities, inputs and outputs (Morra-Imas & Rist, 2009).

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#### Focus Box 2: Examples of Descriptive Questions

1. How many women participated in the programme?
  2. How many men participated in the programme?
  3. How many people participated in the training?
  4. What were the goals of the project?
  5. What are the primary activities of the project?
  6. What are the objectives of the project?
  7. How were people recruited for the project?
  8. Where was the project implemented?
  9. When was the program implemented?
  10. How beneficial was the programme to the participants
- 

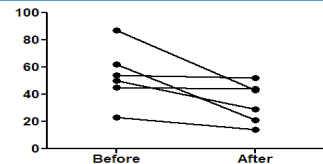


## Normative Questions

These define what is best in a given situation. They simply compare what is with what should be. They compare the current situation with the ideal situation i.e., a specified target, goal, or benchmark. They usually answer questions about inputs, activities and outputs.

### Focus Box 3: Examples of Normative Questions

1. Did we empower 90% of the youths as required?
2. Are we heading towards our target(s)?
3. Are we doing what we are supposed to be doing?
4. Did we reach our objective of vaccinating 20,000 cattle?



## Types of Evaluation Study Designs

After identifying the evaluation questions, one can now choose the evaluation design most appropriate for each given question. A design is simply a strategy that one uses to integrate all components of a study in a coherent and logical way for purposes of effective problem-solving (Leedy & Ormrod, 2012; Morra-Imas & Rist, 2009). Evaluation designs can be grouped into three categories: Experimental designs, Quasi-experimental design and Non-experimental designs. Each design has problems related to validity. However, among all the evaluation designs, the randomised experiments are the strongest in terms of ascertaining causality as they have the least threats to external and internal validity (Marlow, 2011).

### Experimental Design

Also known as *True experiments* or *Randomised controlled trials (RCT)* or *Randomised clinical trials (RCT)* in medical settings (Leedy & Ormrod, 2012). These are designs that are used when answering cause-and-effect related questions. They are often referred to as the “gold standard” designs, to which all other designs are compared. These designs are stronger than quasi-experimental designs in terms of establishing causality or making causal inferences (establishing cause-and-effect relationships), and eliminate majority of the threats to external and internal validity. It must be noted that in evaluation, these designs are only used for new interventions that have not been applied before (Marlow, 2011). Once the intervention has been established that it works, designs that apply normative questions are then used in subsequent evaluations. In true experimental designs, evaluators must be able to show that the intervention is the cause of the results obtained, and that without it the desired results would not have been acquired (Bryman, 2008). To prove that the intervention is the cause of the result, an experimental design must compare the results of two groups; one that receives the intervention (**intervention or treatment group**)

and one that does not (**the control group**). It therefore follows that every experimental design must have at least two groups, meaning that at times this design may have more than two groups such as in the Solomon Four-Group Design (Delvaux, 2004; Rossi, Lipsey & Freeman, 2004).

The most important factor in this design that is actually a distinguishing factor from the other designs, is that participants are randomly assigned to either group (intervention or control), giving all of them an equal chance to belong to either group and to make sure that both groups are equally represented by the various characteristics in the sample such as gender, age, culture, context, and background (Morra-lmas & Rist, 2009; Rubin & Babbie, 2013). This is done to control for any variables that could have the potential of contributing to the outcome results. In the end, this helps to have groups that are similar in terms of demographic factors as well as social economic status.

### **Intervention Group**

Also known as the experimental or treatment group, is the group that is exposed to the intervention, or the group that receives some level of the independent variable (Lahey, 2012). In evaluative projects or programmes, it becomes the beneficiary group which benefits from the resources allocated to the project or programme. The characteristics of the participants in this group must be similar to those in the control group to rule out any possible bias likely to interfere with the outcome (Leedy & Ormrod, 2012).

### **Control Group**

This is a group that is exposed to the neutral conditions or in other words does not receive the intervention; the participants in this group are not exposed to the intervention. It is the group to which the intervention group is compared (Coolican, 2014). It can also be described as the group from which the intervention is with-held. Often times, this is justified as having not enough resources to give to the whole population. Also, the effect of the intervention is not known and the only way to prove it works is by giving it to a fraction of the sample known as the experimental or intervention/treatment group (Harris, 2010; Kothari & Garg, 2014).

### **Randomisation**

The experimental design involves randomly assigning the participants to either the intervention or control group in order to rule out bias in group allocation. This helps to curb out bias in factors such as participants' ages, gender, educational attainments, socio-economic statuses, and many more that could potentially influence the intervention outcome (Leedy & Ormrod, 2013). In an evaluation, one will have to

identify a credible control group that will not receive the intervention. This could be done by randomly allocating the project/programme resources i.e., to those randomly assigned to the intervention group then comparing them to the control group (non-beneficiaries).

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#### **Focus Box 4: Experimental Study Design**

Frazer *et al.*, (2004) evaluated the effectiveness of a multi-component intervention in the treatment of children referred by their teachers for aggressive antisocial behaviour and rejection by their prosocial peers. The children were randomly assigned to either the intervention or control group. The children in the intervention group were trained in a social skills program at school after classes, while their parents/guardians participated in a parenting skills intervention program at home. The children and parents in the control group on the other hand, continued participating in the routine activities they had already been engaging in. The results revealed that children in the intervention group showed significant improvements in prosocial behaviour, emotional regulation and social contact with peers. At the end of the study, the control group participants also received the intervention package that their counterparts had received earlier.

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#### **Advantages of Experimental Designs**

These designs are stronger than quasi-experimental designs in terms of establishing causality or making causal inferences (establishing cause-and-effect relationships), and eliminate majority of the threats to external and internal validity. This is because the true or pure experimental designs randomly assign subjects to the experimental group (treatment group) that receives programme intervention or treatment being evaluated and control group (non-treatment group) that does not receive the intervention being evaluated. In this regard, the researcher should show that the intervention is the cause of the changes or results. This can be achieved by comparing the results of the experimental group (the one that receives an intervention or treatment) and control group (one that does not receive any manipulation). These designs allow researchers to manipulate and deal with extraneous and confounding variables that may influence the changes in the treatment or experimental group. More so, they permit researchers to randomly assign participants to equivalent groups (experimental and control groups). The true experimental designs answer cause-and-effect questions. The evaluation designs attribute the changes, outcomes or results to the programme or intervention and not any other factors or cause. This is because the researcher is able to control for extraneous and confounding variables (Morra-Imas & Rist, 2009; Rubin & Babbie, 2013).

## **Disadvantages of Experimental Designs**

Experimental designs are not always feasible or practical since they are not easy to set up and execute as they require random assignment of subjects to groups (experimental and control groups). More so, experimental designs are not easy to conduct in the natural setting or environment, such as school or church since it may be difficult to control for extraneous and confounding variables (such as age, health, mood, and life experiences of research participants) which may influence the outcome or results of the study. Though the experimental study designs are considered the “gold standard,” they may not be ideal or feasible for both ethical (random assignment means one group does not receive the service/intervention) and practical reasons (a high level of investment is required, including time, expertise, and often expense). So, using experimental designs may not allow experimenters to manipulate variables due to ethical issues and practical reasons when carrying out the study (Project STAR, 2006).

## **Types of Experimental Designs**

### **1. Pretest-Posttest Control-Group Design**

The **Pretest-Posttest Control-Group Design** is the classical experimental design that permits researchers to randomly assign participants to either the experimental group that receives a programme, or control group that does not receive a programme or intervention being evaluated. Groups are randomly assigned before the intervention begins, and at the end of the programme or intervention. The differences between the experimental group and control group can be attributed to the effects of the programme or intervention. Each group is tested before and after the experimental group receives the intervention (Rubin & Babbie, 2013). For example, random assignment of participants to the experimental and control groups may be made from girls (at high-risk of becoming pregnant) in a high school class.

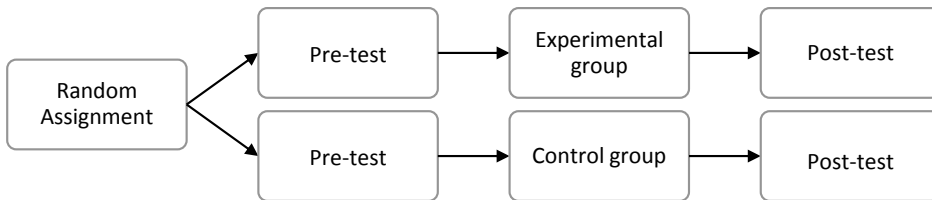
### **Advantages of Pretest-Posttest Control-Group Design**

Random assignment of the subjects to the groups (treatment group or control groups) ensures that the threats (such as history, maturation, mortality, selection, regression to the mean testing, and instrumentation) to internal validity are reduced.

### **Disadvantages of Pretest-Posttest Control-Group Design**

However, reactive effect remains the major threat to external validity since subjects are exposed to pre-test (Marlow, 2011). Researchers using this design may encounter challenges in its implementations

as it might not be practical to find or create a list of participants from which random assignments can be made.



**Figure 1: Pretest-Posttest Control-Group Design**

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#### Focus Box 5: Pretest-Posttest Control-Group Design

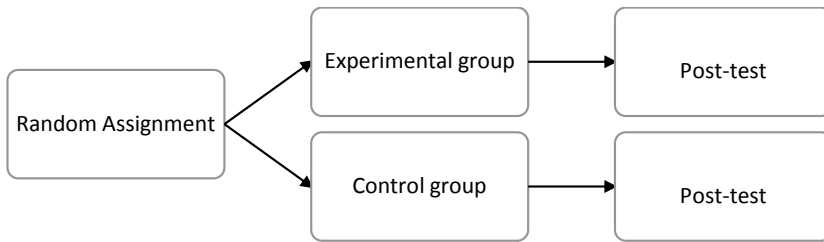
A team of researchers evaluated an intervention programme that was aimed at increasing the responsiveness of social workers to the educational needs of foster children through a specialised training and representation from the school to be present at the welfare agencies. 200 social workers who were divided into pilot and control group participated in the study by completing a questionnaire which tested their knowledge of the school system before and after the programme. In addition, document review was done on 300 case files. The findings revealed that the pilot group performed better than the control group, showing a significant increase in knowledge and awareness of the educational and school system among the social workers (Zetlin *et al.*, 2005).

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## 2. Posttest-Only Control-Group Design

The **Posttest-Only Control-Group Design** is also the type of experimental design in which two groups are equivalent because they are randomly assigned. There are no pre-tests done since this design attempts to address testing effects associated with pre-testing by testing only after the experimental group receives the intervention or programme. This is because the process of random assignment provides for equivalence between the experimental and control groups before exposure to the intervention or programme (Rubin & Babbie, 2013).





*Figure 2: Post-test-Only Control-Group Design*

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**Focus Box 6.: A Posttest-Only Control- Group Design**

The effectiveness of a self-help book and a personalised assessment feedback intervention was assessed by Cunningham (2002). He used a telephone survey to recruit participants who were later assigned to the self-help book only group, personalised feedback only group, a personalised feedback and self-help group, and a control group. The participants were followed after 6 months while comparing the differences in the groups. The group receiving the combined intervention reported a significant improvement in the drinking outcomes

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**3. Solomon Four-Group Design**

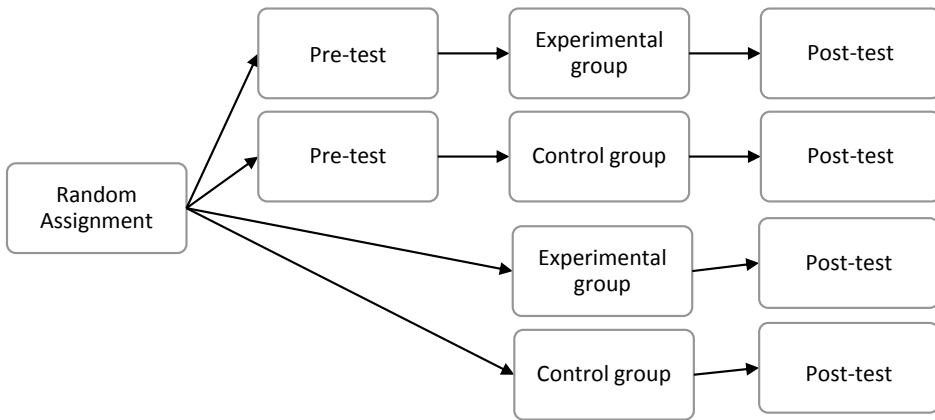
The **Solomon four-group design** is an experimental design that allows researchers to randomly assign participants to four groups, and then introduces the intervention or programme being evaluated to two of them. Thereafter, pre-testing and post-testing are conducted on one group that receives the intervention or programme and one that does not, and post-testing is conducted only on the other two groups.

**Advantages of the Solomon Four-Group Design**

The random assignment of subjects to four groups helps in assessing testing effects. The design is a combination of pretest-posttest control-group design and posttest-only control-group design (Rubin & Babbie, 2013).

**Disadvantages of the Solomon Four-Group Design**

The problem associated with this design is that it is not easy to find an adequate number of participants to assign randomly between two groups (the experimental and control groups) and four groups at large. Figure 3 below shows the Solomon Four-Group Design.



**Figure 3: Solomon Four-Group Design**

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**Focus Box 7: A Solomon Four-Group Design**

An evaluation was done by Traeen (2003) on a sex education syllabus intervention that aimed at preventing unwanted pregnancies among teenagers in Norway. 54 schools participated in this study and were randomly assigned to four different groups. In the first group, students completed a pretest questionnaire, were given the intervention and answered two post-test questionnaires. Students in the next group did not complete the pre-test questionnaire but were given the intervention as well as answering the post-test questionnaires. Students in the other group completed the pre-test and post-test questionnaires but were not given the intervention. Participants in the other group were assigned to the control group, given the posttest questionnaire but not the pretest questionnaires nor the intervention. The results showed that students in the intervention group who engaged in sexual intercourse for the first time between the pre-test and posttest used contraceptives than students who only completed the pre-test and post-test questionnaire.

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**Quasi-Experimental Designs**

These are used when random assignment of subjects to groups is not feasible or practical. They only require the creation of comparison groups (and not control groups) which are not equivalent to the intervention groups (Creswell, 2014). Therefore, they are intervention studies employed to establish the causal relationship or impact of the intervention on the beneficiaries or target population without random assignment of subjects to treatment or control group (Bryman, 2008). Quasi-experimental studies are different from pure experimental designs or randomised controlled trials as they lack the element of randomisation. To that effect, the quasi-experimental designs allow the researcher to control the assignment of participants to the experimental or treatment group without randomisation, but using other

criteria (for example, matching programme non-participants with participants, individually or by aggregate).

Without random assignment, research participants do not have the same chance of being assigned to the intervention or control group. Thus, it may be difficult to clearly establish the causal relationship between the intervention condition and observed outcomes. This is because there could be other factors or explanations (such as extraneous or confounding variables that cannot be controlled or accounted for) than the intervention programme. Although quasi-experimental designs eliminate more of the threats to internal and external validity than pre-experimental designs, they are not as strong as experimental designs in establishing causality. They have limitations with regards to internal and external validity (Marlow, 2011; Morra-Imas & Rist, 2009; Rossi *et al.*, 2004; Rubin & Babbie, 2013).

Quasi-experimental studies are often more realistic in service delivery settings (Project Star, 2006). For example, a group of children who receive tutoring can be compared to the other children in their class who did not receive tutoring to see if grades are generally better in the tutored group. However, because randomisation is not used, one validity threat to quasi-experimental studies is “selection bias.” It may be that there is something different about the people who choose to participate in the programme (for example, they are more motivated) that makes them more likely to succeed. How can we be sure that the change we see (improved grades) was caused by the service and not this personal characteristic?

### **Advantages of Quasi-Experimental Designs**

Quasi-experimental designs are more feasible or practical than randomised experiments because pure experimental designs are not easy to set up and execute as they require random assignment of subjects to groups (experimental and control groups), but quasi-experimental designs do not require randomisation. The quasi-experimental designs only require the creation of comparison groups which are not equivalent (Creswell, 2014; Morra-Imas & Rist, 2009; Marlow, 2011; Rubin and Babbie, 2013). More so, quasi-experimental designs can be conducted in the natural setting or environment of which results from the study can be applied to other settings and populations. This can allow generalisation of the findings from the sample to the general population. Quasi-experiment studies also allow the researcher to make any manipulations he or she desires, and thus the experimenter has control over the manipulations as they do not occur on their own. More so, using quasi-experiments allows experimenters to take into consideration ethical issues when carrying out the study (DeRue, *et al.*, 2011).

## Disadvantages of Quasi-Experimental Designs

One of the disadvantages of the quasi-experimental designs is that they lack random assignment of research participants to the two groups. That is, participants are not randomly assigned to the groups. In this regard, quasi-experimental designs are weaker than experimental designs in establishing causality since they use non-equivalent groups (comparisons groups) rather than control (equivalent) groups (Kettner, *et al.*, 2016; Marlow, 2011; Morra-Imas & Rist, 2009; Rubin & Babbie, 2013). Random assignment of participants takes into consideration different characteristics of the population, and thus it is representative of the population. So without randomisation, quasi-experimental designs have more threats to internal validity than pure experimental designs as it is not easy to account or control for extraneous and confounding variables. This may make it difficult for the researcher to establish causal relationships. For example, academic performance of children in a test score may be influenced by factors such as self-concept, socio-economic status, age, gender, and extra study hours, rather than intelligence which the experimenter may want to measure.

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### Focus Box 8: Quasi Experimental Design Evaluation

An evaluation was done by Koeber (2005) on the use of multimedia presentations, particularly, 'Power point' and a course website named Blackboard. The two were being used in the teaching of introductory Sociology at a US university. The students were divided into two groups, the experimental and the comparison group without randomisation. Those in the experimental group were exposed to the two aforementioned forms of presenting learning material concurrently, while the comparison group were not. The findings revealed that there was no significant difference in performance (after observing their final grades) between those in the experimental and those in the comparison group. Nevertheless, students who were taught using the two aforementioned methods perceived the course in a more positive way than those in the comparison group. They also tended to view the workload as being light, than their counterparts

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## Types of Quasi Experimental designs

### 1. Time Series Evaluation Designs

Time series evaluation designs allow evaluators to make multiple observations of the group before and after an intervention is introduced. These designs permit researchers to observe changes in a group several times before and after the intervention and analyse trends before and after. Thus, time series designs use many pre-tests and post-tests as they measure changes in the group several times before the intervention and multiple times after the intervention. For example, girls may be tested on their knowledge of contraceptives several times prior to the training programme (Traeen, 2003).

### Advantages of Time Series Evaluation Designs

Time series designs have the advantage of detecting changes or trends in data (within the comparison and experimental groups) before and after the intervention. To that end, these designs are stronger than single pre-test/post-test designs as they are able to detect any changes or trends that could be caused by problems of maturation, testing, and instrumentation (Marlow, 2011; Rubin & Babbie, 2013). For example, the effects of maturation on the girls' knowledge of contraceptives could be detected in the difference between pre-test scores later on (Traeen, 2003).

### Disadvantages of Time Series Evaluation Designs

The main problem associated with time series designs is the threat to internal and external validity. On one hand, history is the main problem associated with this design's internal validity since the comparison group is absent. For example, exposure to other sources of information on contraceptives in the past would confound the effect of training program on contraceptives. On the other hand, history-treatment-interaction is a possible threat to external validity as prior knowledge of contraceptives would interact with the training program. So, mediation or intervention that would work in some conditions may not in others. Additionally, repetitive exposure to the same tests would also be a problem (Marlow, 2011).

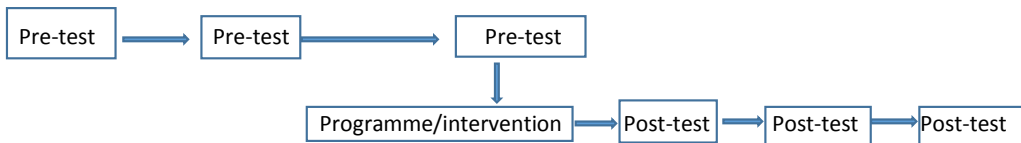


Figure 4: Time Series Designs

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#### Focus Box 9: Time Series Design

A time series design was used to study a dynamic population of homeless shelters in the city of New York from January 1996 till December 2003. Numbers were recorded at the end of each month of the average daily census, monthly entries, as well as monthly exists. The results revealed a complex pattern of issues and that many factors were related to the number of people entering and leaving the shelters. For instance, placing adults from the shelter into subsidised permanent houses reduced the shelter population but at the same time increased the number of people coming in (O'Flaherty & Wu, 2008).

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## 2. Pretest-Posttest Comparison-Group Design

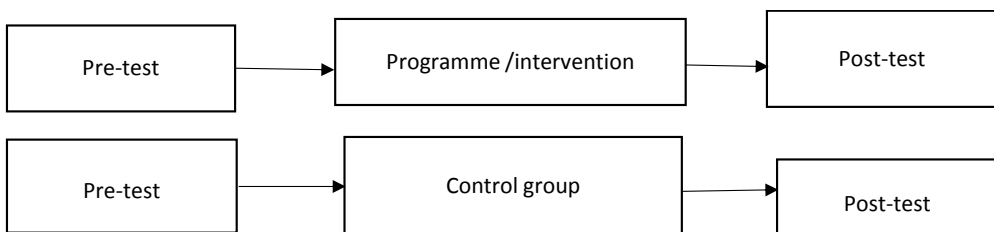
This design is also referred to as the non-equivalent comparison group design (Rubin & Babbie, 2013). It is also a type of quasi-experimental design with a non-random assignment to the control group. So, there is no equivalence between the groups. This design permits data to be collected before and after the intervention. It is a combination of the static-group comparison design and the one-group pretest-posttest design. As such, it controls for all past learning, thereby identifying some differences and similarities between the two groups.

### Advantages of the Pretest-Posttest Comparison-Group Design

With this design, the comparison group is used to address history or prior exposure to other stimulus or intervention. More so, the pre-test identifies to some extent the differences and similarities between the groups.

### Disadvantages of Pretest-Posttest Comparison-Group Design

In this design, selection and maturation interaction are a potential threat to internal validity. For instance, the pre-test may indicate that the group that received the training programme had more knowledge about contraceptives than the comparison group prior to the intervention. If the post-test also indicates this difference between the intervention and comparison groups, then maturation could be the possible cause for this difference. This problem with internal validity is usually as a result of lack of random assignment of subjects to the comparison group. With regard to threats to external validity, selection-treatment interaction is a major problem which can in turn affect generalisation and replication of the results. This is mainly due to lack of randomisation. Additionally, repetitive exposure to the same material, be it in the past or during training may be a threat to external validity (Marlow, 2011).



*Figure 5: Pretest-Posttest Comparison-Group Design*

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**Focus Box 10: A Pretest-Posttest Comparison-Group Design**

An evaluation was conducted by Harris & Franklin (2009) on the effectiveness of a life skills group intervention aimed at improving attendance and grades of teenage mothers at a named high school. 19 participants were assigned to either the intervention or comparison group. The researchers then collected records of attendance and class grades at pretest and later at posttest. The results revealed that students in the intervention group had better attendance as well as better grades than those in the comparison group.

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**Non-Experimental Designs**

Non-experimental designs are types of evaluation designs that do not involve the use of treatment or intervention, and control or comparison groups. These are non-intervention designs that are descriptive in nature as they just describe and analyse the subjects and the situation in which they are found without any manipulation or intervention (Coolican, 2014). They are used to answer descriptive questions. The non-experimental designs do not attempt to create two equivalent groups (study or treatment and control groups). Thus, they do not make any effort to assign participants randomly to intervention or experimental and control or comparison groups. To that effect, non-experimental designs are suitable for description of the relationship between a programme or intervention and its effects. They examine the characteristics, frequency and associations. With non-experimental research designs, the evaluator can use designs such as longitudinal study designs, cross-sectional study designs and case study designs. These designs allow the evaluators to choose the sample and when to sample (Morra-Imas & Rist, 2009).

**Longitudinal Study Designs**

The longitudinal study design is the form of non-experimental designs that permits evaluators to make repeated observations or measures of the same variables of the same group of people over an extended period of time. In this design, participants are studied at several points over a long period of time in order to see the changes in the variables over time (Creswell, 2014; Morra-Imas & Rist, 2009). For example, an intervention or programme might be introduced to examine gender attitudes towards the use of contraceptives among students at a particular University. Thus, these designs allow evaluators take multiple measures over an extended period of time.

**Advantages and Disadvantages of Longitudinal Study Designs**

Longitudinal designs permit researchers to make repeated observations of the same variables of people with the same characteristics over long periods of time. The longitudinal observational designs are

more powerful than cross-sectional observational designs because they make multiple repeated observations of the same people with same characteristics, and the changes or differences observed in those people are likely to be accurate. However, longitudinal observational designs are very expensive as they take time and hence require adequate resources.

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**Focus Box 11: Longitudinal Evaluation Design**

Due to the importance attached to communication in palliative care and the dissatisfaction reported by patients and their families in their interaction with health professional, Wilkinson *et al.*, (1999) carried out a longitudinal evaluation to assess if at all education and training would improve the communication skills of the health professionals. 110 nurses were targeted for this study, of which 20% declined to participate, 45% agreed and 35% did not respond; only 33 nurses returned usable data. The mean length of time in this study was 2.5 years. The results demonstrated a significant improvement in the nurses' communication skills. For instance, the nurses became more confident in emotional care overtime. Additionally, the study also revealed a reduction in stress among health professionals which usually emanated from communication difficulties.

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**Cross-sectional Study Designs**

This is another type of non-experimental or non-intervention design in which variables are not manipulated (Leedy & Ormrod, 2013). These designs are usually used with surveys. They make observations of the representative subset of the population at one specific point in time. These designs are descriptive in nature as they describe the characteristics (such as age, gender, income, education, ethnicity, culture, disability, programme or intervention received) of the subgroups of the population. Evaluators using cross-sectional survey designs, select the sample of current programme or intervention beneficiaries or former programme participants at one specific point in time. So, evaluators might employ this design to assess people's satisfaction with services received, use of services, or opinions of service delivery at one point in time. These designs often answer descriptive questions as they do not establish the cause-and-effect relationship between variables (Morra-Imas & Rist, 2009). One typical example of a cross-sectional evaluation could be a single census, which is descriptive in nature (Rubin & Babbie, 2013).

**Advantages and Disadvantages of Cross-sectional Study Designs**

They are affordable as they make observations of the representative subset of the population at one specific point in time and hence they do not require adequate resources. However, they do not permit researchers to make repeated observations of the same variables of people with the same characteristics over long periods of time. Thus, these designs are not more powerful than longitudinal evaluation designs because they do not make multiple repeated observations of the same people, with same characteristics,



and the changes or differences observed in those people are not likely to be accurate. These are non-experimental designs that do not involve the use of treatment or intervention (experimental) and control or comparison groups. To that effect, they are not suitable for establishing the causal relationship between a programme or intervention and its effects.

### **Case Study Designs**

A case study is a method used in developing a complete understanding of a process, programme, event, or activity. The goal of this type of study is to develop a comprehensive understanding of a case, or complex bounded system, including the context and circumstances in which it occurs, through extensive description and analysis (Smith, 1978). A common element of the case study approach is a reliance on systematic and detailed data collection, particularly first hand observations (Wholey *et al.*, 2007). This is a non-intervention or non-experimental design because it does not involve manipulation of the variables of the subjects. The design may be a single case or multiple cases, and can address descriptive questions.

The case study design provides in-depth information, comprehensive description and broader understanding of the intervention or programme. Therefore, a case study design is employed to get a deeper understanding, in-depth description, explanation and interpretation of the situation being examined. To that end, the aim of the case study design is to provide in-depth understandings of the effects of the intervention or programme on the beneficiaries or recipients of the programme. The case study design is used to describe the implementation of the intervention or programme in terms of how and why the programme was implemented like that. So, it is used in evaluating development policies, projects, programmes or interventions (Morra & Friedlander, 1999; Morra-Imas & Rist, 2009). For example, a case study design can be used to collect in-depth data about people's opinions or choices about using contraceptives to prevent unwanted pregnancies among adolescents at high school.

### **Advantages and Disadvantages of Case Study Designs**

The case study design provides in-depth information, comprehensive description and broader understanding of the intervention or programme. Therefore, a case study design is employed to get a deeper understanding, in-depth description, explanation and interpretation of the situation being examined. Case studies provide a detailed picture of programme operations, often at a number of locations, and can result in a deeper understanding of how and why programme operations relate to outcomes. They are especially useful for understanding the programme implementation process. However, case study designs are non-experimental designs that do not make any effort to assign participants

randomly to the experimental and control or comparison groups. To that effect, they are not suitable for establishing the causal relationship between a programme or intervention and its effects. Additionally, they are unlikely to be statistically-representative, and thus generalising the findings is often problematic. Also, because of the multiple sources of data, the depth of the analysis, and the common desire to include multiple sites, case studies can be time-consuming and costly (Wholey *et al.*, 2007).

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#### **Focus Box 12: Case Study Design**

A case study design was employed in an evaluation study in Kenya with the aim of getting in-depth views about the effectiveness and sustainability of the interventions that had been put in place in the sector of housing, water supply and sanitation in Nairobi. This was to assess the medium to long term impact of the interventions. The study focused on seven sites: Two unplanned settlement sites, two middle income cities and three urban project sites. Data was collected through document review, personal and group interviews, observation of infrastructure and facilities, as well as through household surveys. The analysis was done at many levels including: the socioeconomic impact at household level; and the financial, economic, technical, environmental and economic impacts at neighbourhood levels. Sustainability and effectiveness were measured at each level (Morra & Friedlander, 1999)

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### **Descriptive Evaluation Designs**

Descriptive designs are typically used for formative or process evaluations. Descriptive study designs can help you show whether your programme is operating as planned, provide you with feedback about the services you offer, determine whether your programme is producing the types of outputs and outcomes you want, and help clarify programme processes, goals and objectives (Project STAR, 2006).

These designs include only people from the target population who are eligible to participate in some part of the programme (Campbell & Stanley, 1963). The purpose of a descriptive evaluation design is

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#### **Focus Box 13: Descriptive Evaluation Design**

A descriptive evaluation was conducted by Anich *et al.*, (2005) with the aim of evaluating a routine Complete Blood Count (CBC) monitoring in the patients that were receiving anticoagulation therapy. This was done to describe any clinical outcomes related with this routine in a large diverse sample. An established non-profit organisation recruited patients who came in for the routine CBC which were repeated at a 3 month interval from the year 2000 to 2003. 4033 patients with both overt and occult bleeding were recruited for the study, of which 578 (14.3%) had experienced decrease in hemoglobin. Furthermore, 121 (3.0%) patients with occult bleeding also reported a decrease in hemoglobin, with 13 (0.3%) of these reporting major bleeding resulting in a significant drop in hemoglobin. However, it was concluded that although the CBC monitoring provides a way of detecting occult bleeding, the decrease in hemoglobin that was detected was low. Thereby rendering the routine clinically unnecessary as the clinical outcomes were too low, reporting 0.8% annual detection rate of occult bleeding.

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to describe some attribute or characteristics of the target population members, for example, their attitudes towards public service announcements, their attendance at programme sessions, or their willingness to meet with programme personnel. Descriptive designs might also include some analytic comparisons within the target population. Such comparisons might be made among specific subsets of participants, for example, do female participants prefer a different announcement than male participants? Do older participants attend more frequently than younger participants?

### **Exploratory Evaluation Designs**

Exploratory evaluation study designs can help you at the beginning of your programme to identify what services to provide and the best approaches to providing those services. It can also help you determine what outcomes will be appropriate for you to measure, given the type of services you offer, and the best way to measure them (Project STAR, 2006).

The Exploratory design is used to look at aspects of the initiative that appear disorderly, unorganised, or not well understood. Such areas are unpatterned, surprising, and unpredictable. They may exist before the initiative starts or may be created intentionally or unintentionally during the initiative. The exploratory evaluation is designed to see what insights can be gained about the areas where the complexity of the initiative is not yet articulated. Results from this design are likely to enrich the theory of change (Kellogg Foundation, 2007).

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#### **Focus Box 14: Exploratory Evaluation Design**

An exploratory evaluation was conducted by Gagliardi & Wright (2010) with the aim of evaluating a skills mentorship program as well as exploring the outcomes and barriers associated with it. Data was collected through interviews and surveys from the organisers, mentors and protégés of the two programmes. Interviews were conducted with 23 participants while surveys were administered to 23 non-participants. The results revealed greater participation in the program where planning was participatory and mentors visited protégés. Additionally, mentorship was appreciated in knowledge exchange, hands-on learning and real-time feedback. Also, mentorship led to realisation of gaps in skills which in turn led to continued mentorship. However, the non-participants reported lack of interest in skill as they claimed they were already trained. Therefore it was concluded that mentorship was associated with a number of beneficial outcomes. More so, it was suggested that mentorship be paired with technical training in order to have favourable results.

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### **Conclusion**

In conclusion, this chapter has discussed the various types of evaluation designs and how to use them appropriately. Evaluation designs are grouped into three main categories; experimental designs, quasi experimental designs and non-experimental designs. Experimental designs are used when answering

causal-and-effect related questions. Examples of such designs are; pretest-posttest control-group design, and Solomon four-group design. Advantages of these are that they are stronger than the other designs in terms of establishing causality. They are also better than other designs at eliminating majority of the threats to external and internal validity. Some disadvantages though are that they are not always feasible or practical since they are not easy to set up and execute as they require random assignment of subjects to groups (experimental and control groups).

The other main group of evaluation designs discussed in this chapter are the quasi-experimental designs. These are intervention studies employed to establish the causal relationship or impact of the intervention on the beneficiaries or target population without random assignment of subjects to treatment or control group. They are used when random assignment of subjects to groups is not feasible or practical. Examples of these are: Time series evaluation designs as well as pretest-posttest comparison-group design. One advantage of these is that they are more feasible and practical to set up than the true experimental designs. However, one disadvantage is that quasi-experimental designs lack random assignment of research participants to the intervention and control groups, hence are much weaker than the experimental in inferring causality. The last main category on the other hand are the non-experimental designs. These are basically used to describe and analyse the subjects and the situation in which they are found without any manipulation or intervention. Examples of non-experimental designs include, longitudinal study designs, cross-sectional study designs, case study designs, descriptive study designs, and explorative study designs. Hence, from the aforementioned, each design has advantages and disadvantages and each have suitable scenarios in which they can be used depending on the questions being answered. However, among the evaluation designs, the experimental designs are the strongest in terms of ascertaining causality as they have the least threats to external and internal validity.

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## Chapter 6

### Data Collection Methods for Monitoring and Evaluation

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## **Introduction**

Data collection is a critical component in the implementation of monitoring and evaluation strategies. It can be used to understand different trends, track progress of a project and demonstrate results for monitoring and evaluation. Researchers need to carefully plan and have knowledge on different methods that can be used in the monitoring and evaluation of projects, programmes and policies. The purpose of this chapter is to provide practical explanations of various data collection methods that can be used in monitoring and evaluation of projects. There is a wide variety of data collection methods available and the chapter has been written with the understanding that it is not possible to exhaust all the methods of collection for monitoring and evaluation of projects. To this end, references that point the reader to available resources on a number of methods especially the ones that may not be covered in this chapter are given.

In view of the above, this chapter provides descriptions and explanations on how and when various methods can be used. It also provides an overview of their advantages and disadvantages. The chapter highlights both qualitative and quantitative data collection methods. The data collection methods discussed in this chapter include: focus group discussions, direct observation, stakeholder analysis, document review, transects, semi-structured interviews and questionnaires. These methods can be used on their own or as a combination. What is crucial is to ensure that key questions are formulated and indicators for the intended monitoring and evaluation exercise are identified.

## **Focus Group Discussions**

This is a method of data collection in which a facilitator guides a discussion with the use of an interview guide on a particular topic. The participants consist of a small group of between six to twelve carefully selected participants. The purpose of focus group discussions is to collect rich and in-depth qualitative data on participants' behaviour, beliefs, experiences, attitudes and perceptions towards certain phenomena. This method is helpful in gathering data from communities on how a particular project is performing or on what perceptions a community has on a given project. In focus group discussions, participants are usually composed of a homogenous group like those of the same sex, age group or social status or similar experiences. Heterogenous groups are discouraged because they inhibit participants from fully expressing their opinions in the presence of others. For example, in a project where the participation of women in a community is observed to be low, the evaluator may wish to conduct a focus group discussion with only female members of that given community. Another example in this regard is where one is dealing with a patriarchal society. In this case, a mixed focus group discussion of men and women



may not yield much data. This also applies to focus group discussions with participants of the same sex but different age groups. Studies conducted on water projects in Zambia and Zimbabwe show that young women could not take a lead in local water project meetings attended by older women for fear of being perceived as being disrespectful (Mwale, 2016; Dikito-Wachtmeister, 2000). Due to local norms of appropriate behaviour, young people waited to be invited to speak by the elders or asked for permission to speak. Therefore, in as much as the young people may have important points to share in the discussions, the fact that they are put in a heterogenous group limits their participation.

Depending on the nature of topics or dynamics within the participants, focus group discussions can take about 60 to 90 minutes. Just like any other interview, before beginning the discussion, the facilitator needs to fully introduce and explain the purpose of the discussion and encourage the participants to freely express themselves by sharing their views and opinions. The discussion can be recorded. However, it is recommended that the facilitator is accompanied by a well-skilled note-taker to ensure that all the deliberations are captured. Focus group discussions can be used at any point of monitoring or evaluation of projects. For instance, at the end of a project for small scale farmers, a focus group discussion can be conducted to identify the strengths and weaknesses of a project outcomes and impacts by getting the views and perceptions of farmers. However, in situations where participation in a homogenous group is low, the facilitator needs to make sure that a select few do not dominate the discussions. The facilitator is advised to probe the participants further in order to allow an atmosphere of discussions. Probe questions may include the following:

- Can you elaborate on that?
- Why do you think that is so?
- What do you mean by that?
- Would you give an example of that?

In project evaluation, focus group discussions can also be used to complement quantitative data collected or provide interpretations to quantitative data (CDC, 2008a).

### **Direct Observation**

When preparing for fieldwork, researchers spend a lot of time designing questionnaires or interview guides. However, a lot of rich data can be collected simply by observing situations. The process of directly observing what is happening constitutes the method of direct observation. United Nations (2005) states that direct observation is, 'using your eyes to observe people and their environment, situations, interactions or phenomena and recording what you see as data'. This means that observation

provides researchers an opportunity to take note of people's behaviour, activities and their physical surroundings in their natural setting. Once a decision has been made on the use of observation as a method of data collection, it is critical to also decide which kind of observation will be used. There are two main methods of observations: overt (people knowing that they are being observed) or covert (people being unaware that they are being observed and the researcher's identity is concealed) In the former, one may need to get informed consent and this may affect the way people behave, ultimately influencing the data collected. The latter is appropriate in situations where it is highly likely that people's behaviour will change once they're aware that they are being observed thereby, altering data collected significantly.

Direct observation can be used when you need to collect direct reliable information. For instance, visiting farms to check if the farmers are putting into practice what the area agricultural extension officer taught them or to observe if a new community water facility under a community project is being used. The method can be used to confirm who uses the facility, when do they use it and how often they use it. Observation can prove to be better than asking people's views through a semi-structured interview or focus group discussion. Nevertheless, observation can also be conducted during a focus group discussion where participants' reactions, responses or disposition tell of underlying disagreement or agreement between participants in the discussion. Direct observation can also be used 'when trying to understand an on-going process or situation (CDC, 2008b). When evaluating a corruption-related project, you can monitor or watch a situation as it unfolds and this helps counter subjectivity in certain participant responses where what they say is not matched with what they do (Mwale, 2016).

Regardless of the method chosen, the evaluator should ensure that ethics are upheld and no harm is caused to the people being observed during the process. Observation may seem to be a straightforward method of data collection, but it is imperative to bear in mind *what* exactly will be observed once you set out to go in the field. This can be captured through videos and photographs. For instance, would you be interested in environmental features, project documents, people's interactions? You may also decide on a sample as it would be very overwhelming to observe all the people or components of a project. You may also require an observation *checklist* that will help identify exactly what you want to observe. Direct observation can also be used as an 'on-the-spot' check for both quantitative and qualitative research and serve as triangulation for the responses or explanations given by participants. In evaluating a community project through gender audit, certain variables can directly be observed during meetings and a checklist can include things like: how many females are now chairing community meetings? What leadership skills are they exhibiting? How is their interaction? How free are they to speak out? In order to ensure that there

is improved quality in direct observation, it is suggested that the steps highlighted in Focus Box 1 below be followed.

#### Focus Box 1: Steps in Using Direct Observations

- Step 1: Determine the focus – you may have to narrow down the sample and not whole population.
- Step 2: Develop direct observation forms – list items to be observed and provide adequate space to record observations
- Step 3: Select the sites – decide where the observations will be carried out and whether it will be based on one or more sites.
- Step 4: Decide on the best timing – Wrong timing can distort findings. For instance, if credit institutions are observed during the non-planting season, an inaccurate picture of loan processing may result.
- Step 5: Conduct the field observation – Establish rapport with those being studied, allow sufficient time for the exercise and if possible have more than one observer to reduce bias.
- Step 6: Complete forms - Take notes as inconspicuously as possible. Recording during observation may be good but may make some people self-conscious or disturb the situation.

Adapted from USAID (2011)

### Stakeholder Analysis

Stakeholder analysis is part of the participatory monitoring and evaluation of development projects. Stakeholders can be defined as ‘persons, groups or institutions with interests in a project or policy or who may be directly or indirectly affected by the process or the outcome (WHO, 2005). Stakeholder analysis is therefore the identification of a project's key stakeholders, an assessment of their interests, and the ways in which these interests affect project risk and viability (Macarenhas-Keyes, 2017). In the process of identifying stakeholders, it is crucial to consider the disabled, elderly, women and the poor, all of whom are generally considered as marginalised and vulnerable groups as they may also be affected by the project but may not have a voice to speak out. Unlike other methods of data collection which can be conducted in the middle or end of a project, stakeholder analysis should always be conducted at the start of a project. This is because knowing the actual stakeholders, their interests, understanding the power relationships and their influence in a project helps to determine who should participate, why they should, how and when. Macarenhas-Keyes (2017) suggests that one way in which a stakeholder analysis can be conducted is to:

- a) Draw up a stakeholder table as shown in Table 1 below:
- b) Identify and list all potential stakeholders.
- c) Identify their interests in relation to the problems being addressed by the project and its objectives.
- d) Briefly assess the likely impact of the project on each of these interests (positive, negative, or unknown).

- e) Indicate the relative priority which the project should give to each stakeholder in meeting their interests.

The process of stakeholder analysis should also consider categorising stakeholders for easy monitoring and evaluation and this can be incorporated in a table. Stakeholders can be grouped into two main ways:

1. **Primary Stakeholders** – These benefit from or are adversely affected by an activity. This term describes people whose well-being may be dependent on a resource or service or area (e.g.: a forest) that the project addresses.
2. **Secondary Stakeholders** - includes all other people and institutions with an interest in the resources or area being considered. Secondary stakeholders are the means by which project objectives can be met, rather than an end in themselves, Blackman (2009:20-21).

**Table 1: Stakeholder Analysis Table**

Stakeholders	Stakeholder Interests	Impact on Interests	Stakeholder Priority
Primary			
Secondary			

The table above helps in the process of conducting a stakeholder analysis, where stakeholders are identified and clarified. The process is vital as it will not only provide a good foundation for engaging the relevant stakeholders (potential winners and losers) in a project but that the approaches and interventions to be taken will equally be clarified.

### **Document Review**

Document review may be said to be a non-interactive method of data collection simply because it involves collecting and reviewing existing hard copy or electronic documents. The documents reviewed may be published or unpublished, internal to an organisation or external. The documents may contain qualitative or quantitative data. When conducting a document review for purposes of monitoring or evaluating a project, some of the specific documents of interest may include: official governmental or organisational reports, scholarly publications, legal, regulatory and policy documents, census reports, meeting minutes, financial records, newspaper articles or newsletters among others.

It is a good idea to start a monitoring or evaluation process with a document review as it provides a better understanding of the philosophical, historical and operational aspects of a project, programme or policy. For example, document review of an evaluation of a waste management programme of a city may help in the stakeholder analysis, in that it will help determine whether the implementation of a programme is on course as initially planned. Apart from that, document review can also be used when designing various data collection instruments like questionnaires and interview guides as well as answering evaluation questions such as; what is the number of organisations or individuals involved in the city waste management? How many personnel (with what positions) are there and what is the overall cost for the programme? A number of issues should be adhered to when conducting document review. These may include: deciding what documents the evaluator will access, where and how the evaluator will access them; compiling documents that are most relevant to the evaluation questions, understand who produced, how, when, why the documents were produced to better understand the context (CDC, 2009).

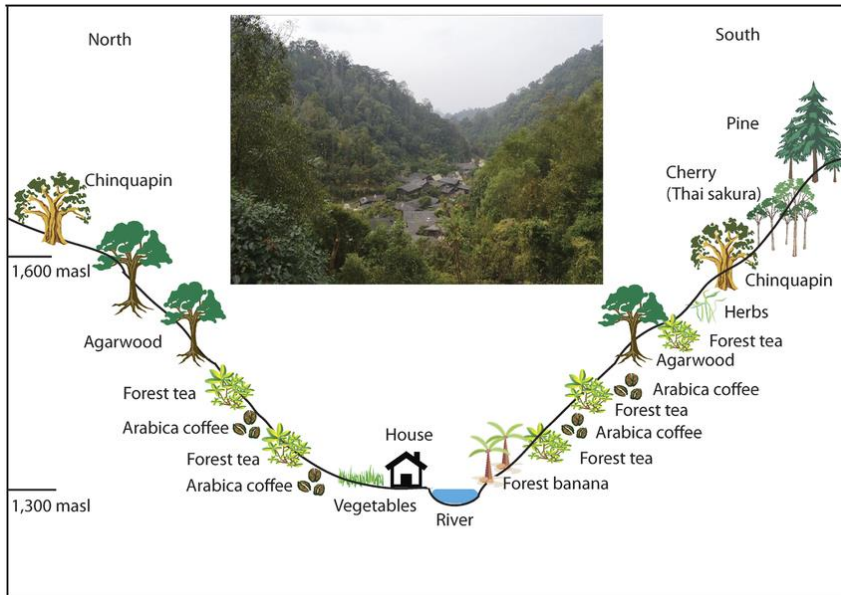
### **Transects**

In a participatory research project, transects are a mapping activity which give an evaluator hands-on experience and provide an accurate picture of the area under study. It is similar to direct observations. Transects are basically walks which can be used for monitoring and evaluating projects and in the process used to verify earlier collected information of a particular local situation. In most cases, transects are used for projects concerned with the communities' land use or social aspects. Depending on the objectives of the monitoring and evaluation, a transect walk can either be a straight or meandering path, involving one or more observers. However, it is recommended that different observers be involved like the community leaders, extension officers, representatives of farmers and any other relevant stakeholders (Guijt and Woodhill, 2002). This is encouraged mainly due to the fact that the named stakeholders will, more often than not, have a good understanding of the community and would in many cases be able to explain things along the way, as the evaluator asks questions while observing and listening. It is therefore, important to clarify the following before embarking on this activity:

1. Has the transect route been identified?
2. What is the purpose of the study and what will be observed?
3. When will the transect walk be conducted?
4. Which local analysts/stakeholders will accompany the evaluator/observer?

Once everything has been clarified, it is important to note that a record of the things observed during the transect walk should be taken. The notes (findings of a transect) will then be used by the

evaluator with the help of the local stakeholders to draw a diagram depicting what was observed and this also acts as a validation process. Below is an example of a diagram drawn after a transect walk concerning a project evaluating land uses.



**Figure 1: Land Use Transect of Mae Kam Pong village, Thailand** (Amnaj, 2014).

As shown above, the figure depicts the natural vegetation, cultivated land with vegetables, human settlement, water source, forest fruits among others.

### Semi-structured Interviews

A semi-structured interview is a qualitative data collection method that uses partially pre-determined open-ended questions contained in an interview guide. This research method allows the researcher to follow the interview guide but at the same time gives an opportunity to probe further, by straying from an interview guide when needed and in the process questions may change from general topics to specific variables.

During the interview, the interviewees are free to express themselves as they do not have preconceived choices of responses. From a monitoring and evaluation standpoint, semi-structured interviews are important for developing in-depth understanding of a qualitative phenomenon (Gujit & Woodhill, 2002). Such interviews give rich descriptive data and assist one to gain a deeper understanding

of issues by examining participants' knowledge, values and attitudes, perceptions, opinions as well as understanding their experiences. Therefore, through participants' opinions, semi-structured interviews can also be used to gauge how project interventions work and assess whether their impacts are either positive or negative. When conducting semi-structured interviews, like focus group discussions, the interviewer needs to help and facilitate a comfortable and relaxed atmosphere in order to develop rapport, which is critical for the interviewees to express themselves clearly. When planning to use a semi-structured interview, one can use the following guidelines in the Focus Box 2 below to help in the process.

#### Focus Box 2: Guidelines for Semi-structured Interviews

1. Write down the topics and questions you consider useful for your interview and avoid questions that can be answered by 'yes' or 'no' response.
2. When designing an interview guide, use terms that interviewees can understand given their characteristics in terms of their education and knowledge, age, language and cultural background etc.
3. Prepare and provide an overview of the purpose of the study and ethical considerations (anonymity and confidentiality, volunteerism etc.) to your interviewee.
4. Get permission for recording or note taking.
5. When beginning the interview ensure that you start with 'warm-up' questions (including those to do with job title and responsibilities, time with the organisation).
6. Develop rapport with the interviewee by being aware of your non-verbal communication like body posture, eye contact, smiles, nodding and establish a relaxed and comfortable atmosphere.
7. The key questions should be open-ended to solicit detailed responses e.g. "Tell me how the women's club started in this community?"
8. Avoid using leading questions such as; "When you said that most women do not participate in local community leadership roles, did you mean they are not interested?" Instead you can ask, what did you mean when you said women do not participate in...?
9. Probes can help generate more in-depth responses but also being silent once the interviewee pauses to encourage them to continue.
10. When ending an interview, always endeavour to find out if there is anything else the interviewee may want to talk about or if they are willing to be contacted later in case of further questions.

Adapted from Zorn (2011)

The success or failure of semi-structured interviews will be depend on whether participants have some knowledge and/or experience on the subject matter in order to give detailed explanations of change unlike a questionnaire which may just solicit 'yes' or 'no' answers.

## Questionnaires

A questionnaire is simply a form with a set of close-ended (structured) questions used for collecting statistical (quantitative) data from a large sample size. A number of monitoring and evaluation studies use questionnaires to try and understand specific performance or indicators. In certain cases, researchers choose to include open-ended questions like those used for semi-structured interviews or focus group

discussions in the questionnaire. When that happens, caution should be taken to plan ahead on how data will be analysed. The choice in terms of the type or number of questions in a questionnaire can move from being simple to complex. This can determine the quality and quantity of data collected, which will inevitably influence whether the research questions will be answered or not. As a way of illustration, a questionnaire can be a very good source of data if you need to find out if small-scale farmers who participated in conservation farming training are utilising the information. In this case, the participants would be the actual farmers who participated in the training but a decision should be made whether a sample or all of them will be interviewed. The sampling decision may be influenced by the availability of human and financial resources, time and actual total population because the smaller the population, the more likely that all of them will participate. Unlike focus group discussions or face-to-face interviews; questionnaires can be administered through telephone, email or post. The tips below provide more guidance on how to go about developing and administering the questionnaires.

- Define the purpose and objectives of your study in order to collect correct data from your evaluation questions.
- Develop clear and simple questions while avoiding the use of jargon or abbreviations.
- Questions should be put in a logical manner to bring about better flow of responses e.g., from general to specific or from less sensitive to more sensitive questions.
- Demographic questions focused on age, sex, marital status, education, occupation, etc., are important for establishing casual relationships. However, it is important to only use those relevant for a particular study.
- Decide on your sample size that is adequate enough to be representative of the study population. Sometimes this can be a portion or the whole study population.
- A pilot study should be conducted to test whether: the questions are clear and capturing the right information, the topic or some of the questions are too sensitive, the time it takes to interview one respondent is good (too long may be boring). The pilot may also act as a gauge for research skills, especially when using research assistants.
- The interviewer should have good reading and writing skills, good interviewing skills and have an idea on how data will be analysed as that will help in how questionnaires will be designed.
- If a questionnaire is self-administered, the researcher should ensure that the respondent is able to read and write (Burgess, 2001; CDC, 2008c).



**Table 2: Advantages and Disadvantages of Various Data Collection Methods**

Methods	Advantages	Disadvantages
<i>Focus Group Discussions</i>	<ul style="list-style-type: none"> <li>• Quick and cheaper to collect data as it allows interviewing a group of people at the same time.</li> <li>• Group interaction and dynamic can enhance the quantity and quality of data collected.</li> <li>• Good source of information on participants' beliefs, opinions and perceptions on the topic of the researcher's interest.</li> <li>• Generates an opportunity to understand factors that influence opinions or behaviour and differences in participants' perspectives.</li> <li>• The flexibility of focus group discussions allows the facilitator to probe issues in more detail and this brings about new and broad range of ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• They can be difficult to arrange, manage and control.</li> <li>• The discussion can be dominated by some influential members inhibiting others from contributing.</li> <li>• Not suitable for sensitive topics like sexual behaviour or HIV/AIDS, especially if the group is heterogeneous.</li> <li>• There is great temptation for some members to support popular ideas even when they do not believe in them thus collecting less reliable data.</li> <li>• The success of a focus group discussion depends more on a well-trained interviewer and a good atmosphere that encourages interaction.</li> </ul>
<i>Direct Observation</i>	<ul style="list-style-type: none"> <li>• Data collected is very reliable as you can observe what is happening in a natural setting unlike being told by respondents.</li> <li>• Does not depend on the availability and willingness of respondents to provide information.</li> <li>• Observation can be conducted even by novice researchers as it is less demanding in terms of skills compared to interviews or group discussions.</li> <li>• It allows the researcher to observe people's natural behaviour and determine whether what they say matches with what they do.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited to studying the present and not past problems or events.</li> <li>• Does not help in understanding factors influencing people's behaviour simply because opinions, attitudes or perceptions cannot be studied by observations.</li> <li>• Satisfactory results of a study may not be attained by use of observation only instead; interviews may be conducted to seek clarification among other things.</li> <li>• Prone to observer bias as direct observation increases chances of people changing their behaviour.</li> </ul>
<i>Stakeholder Analysis</i>	<ul style="list-style-type: none"> <li>• Cheaper to use as less resources are required to conduct it.</li> </ul>	<ul style="list-style-type: none"> <li>• The process of agreeing who the stakeholders are can be overwhelming and time-consuming and complex.</li> </ul>

	<ul style="list-style-type: none"> <li>Increases support, cooperation and success chances for a given project, programme or policy.</li> <li>Data collected helps to identify interactions between different stakeholders thus avoid duplication of work and enhance ways to merger stakeholders.</li> <li>Researchers facilitate the inclusion of stakeholders that would otherwise be overlooked.</li> </ul>	<ul style="list-style-type: none"> <li>Needs to be conducted on a regular basis as actual stakeholders, their interests and relationships may change overtime.</li> <li>The exercise can be subjective.</li> <li>Mere fact of identifying stakeholders does not guarantee their commitment to the project, programme or policy so other methods like interviews may be needed to complement it.</li> </ul>
<i>Document Review</i>	<ul style="list-style-type: none"> <li>Relatively cheaper than collecting your own raw data which may be expensive to do.</li> <li>Reliable source for detailed background information.</li> <li>Does not need participants, that may be difficult to find and unwilling to be respondents.</li> <li>Information in documents can easily be referred to and verified in less time.</li> <li>Document review is flexible and can be done anytime at the researcher's convenience.</li> </ul>	<ul style="list-style-type: none"> <li>Documents may contain out-dated or incomplete data.</li> <li>Documents are susceptible to tampering especially where the document is electronic.</li> <li>One has little or no control over the quality of data contained in documents.</li> <li>Documents may not provide enough information to answer all research questions.</li> <li>Relevant documents may be classified, thus inaccessible or not available for use by researchers.</li> </ul>
<i>Transects</i>	<ul style="list-style-type: none"> <li>Increases indigenous and local knowledge on land use or natural resources among others.</li> <li>Appropriate for communities with low-literacy levels.</li> <li>Transects are more participatory and this enhances a sense of ownership of programmes and projects by stakeholders.</li> <li>Very useful in data validation as actual situation is captured in a diagram.</li> </ul>	<ul style="list-style-type: none"> <li>In order to have a good transect diagram, the researcher needs to have good participatory, observation and graphic skills.</li> <li>Like direct observation, transects rely on current observable situations and not past events.</li> <li>Unavailability of local participants/analysts makes the exercise difficult or impossible.</li> </ul>
<i>Semi-structured Interviews</i>	<ul style="list-style-type: none"> <li>Appropriate for sensitive topics as it enhances privacy and confidentiality.</li> <li>The flexibility in asking questions helps the researcher to probe and get clarification on all important topics resulting in detailed and rich information.</li> <li>The mere fact that this method is semi-structured and not fixed allows free flow of responses making the interview more natural compared to a questionnaire.</li> </ul>	<ul style="list-style-type: none"> <li>Prone to interviewer bias</li> <li>Interviewer needs to have good research skills including communication, probing and experience to successfully conduct interviews.</li> <li>The interviewer needs to have basic knowledge of the topic under research.</li> </ul>

<i>Questionnaires</i>	<ul style="list-style-type: none"> <li>• Questionnaires are very good in enhancing privacy and confidentiality of respondents as they can complete the instrument anonymously.</li> <li>• Anonymity in completing questionnaires enables the researcher to collect data on sensitive topics.</li> <li>• Respondents can complete the questionnaire at their convenience unlike interviews which demand the interviewer and participant to have a discussion together at the same time.</li> <li>• Able to collect data from a very large sample size quickly.</li> </ul>	<ul style="list-style-type: none"> <li>• Not possible to have a complete replica of an interview due to the flexibility nature of the method where some questions are unstructured.</li> </ul>
		<ul style="list-style-type: none"> <li>• Have low response rate due to a number of reasons including illiteracy or busy respondents, large number of questions and anonymity resulting in no follow-ups.</li> <li>• Unable to probe or follow-up on unclear responses or those that need explanations thus little detail is collected and increased chances of misinterpretation.</li> <li>• Questionnaires are less participatory and limit non-verbal communication from respondents which is also a very good source of information.</li> </ul>

## Conclusion

Participatory monitoring and evaluation for projects, programmes and policies requires a well-planned data collection methodology. This chapter attempted to describe and explain a number of data collection methods that can be used, how they can be used and when they can be used. It also gave examples of their main advantages and disadvantages. The chapter has shown that data collection methods can be combined but this should be done in line with well identified research objectives. When combined, disadvantages of a particular method may be reduced by advantages of the other. Choices of data collection methods vary and can range from more participatory to less-participatory methods, group discussions, large sample size or individual interviews, document review or participant interview, as well as methods which require a skilled interviewer to those which can be conducted by anyone without any experience. The methods discussed in this chapter include: focus group discussions, direct observation, stakeholder analysis, document review, transects, semi-structured interviews and questionnaires. Ultimately, the choice of a research method should be determined by the research questions the interviewer is attempting to answer. In the process of collection of data, ethics should be adhered to and one needs to have an idea on how data will be analysed.

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## Chapter 7

### Ethics, Principles and Politics in Monitoring and Evaluation

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## Introduction

Monitoring and Evaluation (M&E) involves collecting, analysing and communicating information about a project and most, if not all projects involve people. There is therefore need to conduct the M&E process in an ethical manner, particularly paying attention to the welfare of those involved in the process as well as those affected by it (International Federation of Red Cross and Red Crescent Societies [IFRC], 2011). The discussion of ethics in evaluation is linked to the debate about values of evaluation. Values in evaluation refer to opinions, beliefs, preferences, interests, wants, needs or desires of different stakeholders (House & Rowe, 1999). Ethical standards are followed or breached because of values. Therefore, the first question to ask when conducting monitoring and evaluation particularly the one that takes a participatory approach is: Whose values (preferences, interests, wants, need or desires) are we doing this (monitoring and evaluation) for? Is it for the donor, board of directors or the primary beneficiaries? Values influence our choices directly or indirectly as shown in the scenarios below (Focus Box .1):

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### Focus Box 1: Ethical Scenarios in Evaluation

Dr. Mwiinga received a call from Mr. Banda the Learning, Monitoring & Evaluation manger asking him if he would be willing to be engaged as a data analyst for the baseline data which his organization had just collected. Dr. Mwiinga agreed, but Mr. Banda interrupted him before he could even say thank you and said this is very urgent, we need the results by end of next week. Therefore, Dr. Mwiinga asked the data to be sent ASAP. Upon receiving the data, Dr. Mwiinga started with data cleaning and assessing missing values and response bias. Shockingly, he discovered 63% of missing data and called Mr. Banda that the data had too much missing values, and that would warrant the data to be invalid. Mr. Banda with an angry tone responded, “*I do not care, our donors are coming and are expecting results which will be discussed with them. I want the results to be on my table by next week - stressing that that’s why he (Dr. Mwiinga) is being paid*”. Gently, Dr. Mwiinga responded that he would analyse the data, but the results will be invalid (not a reflection of situation) hence requesting his name not to appear on the acknowledgment section of contracted data analyst consultant.

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The importance of ethical issues in M&E can be summarized by two quotations: “*It is truly unethical to leave ethics out of programme evaluation*”- Scriven (1993; 30). “*Ethics is not something for special occasion; it is a part of daily practice*” – Newman & Brown (1996; 187).

What then are ethics? Ethics are sets of values and beliefs that guide our choices (Morra-Imas & Rist, 2009). Mathison (2005) defines ethics as a moral duty and obligation, involving actions that are subject to be judged as good or bad, right or wrong. Because evaluation research is action-oriented and participatory, it poses many ethical dilemmas and political pressures.



## **Funding and Funders**

All development work or 'doing' development requires money and that includes monitoring and evaluation activities. In any case, even research that is purely academic might require a sponsor. Ethical issues therefore arise when the results from the evaluation are not in line with the views of the funders (Lemmens & Freedman, 2000). This raises a dilemma for the evaluation officer because publishing such results could entail the termination of the project- closing any further access to funding from such sponsors, which may ultimately hinder the organisation's future work and could have far-reaching impacts on personal career development. The dilemma is, do you publish and 'perish' or do you develop short term amnesia on the aspects of your findings/outcomes that are not favourable to your organisation and the funders? Or do you manipulate the data so that the problematic aspects are no longer a problem? (See, Lundh *et al.*, 2015). From an ethical point of view, falsifying the results is never an answer nor is developing short term memory lapses. In an event that you get unexpected results, it is prudent to do a thorough check at community level as this could entail some lapses during the monitoring and evaluation process which could be worked out. In other cases, however, it could help initiate alternative thinking or ways of doing things which could be beneficial to the project and its recipients (Brydon, 2006).

## **Responsibilities and Competence**

Clarification of responsibilities and competence in M&E can help reduce ethical problems. For instance, clarifying responsibilities helps ensure that work is undertaken systematically and competently, with integrity, honesty and respect for people, local values and cultural norms. The goal is to promote honesty, justice and development to improve the quality of life of those being served (Hagens, 2008). The M&E staff must engage in systematic inquiry that meets the highest standards for each activities of the M&E component undertaken. This involves but not limited to:

1. Acknowledging and attempting to eliminate bias in M&E activities. Biasness may result from poor methodologies, for example, data collection measures that are not valid or reliable. It may also involve staff collecting data from the sample that was not defined in the evaluation design in the first place. See exhibit box below (Focus Box.2).

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### Focus Box 2: Collecting Data from an Excluded Data Source

A faith based organisation in Zambia in collaboration with a University in the USA started a mental health program in Kabwe, Makululu compound. The programme trained local people as community assessors, whose main job was to assess and identify children with mental problems. After identifying such children, they would then refer them to a community therapists. It so happened that, community assessors discriminated who to assess based on relations they had with the children. Mostly they assessed and referred for counselling children who were related to them or children of their colleagues because they thought children would be given some money at the end of the session. The result was that children who came for therapy had no mental issues that required therapy. This professional bias, did not only cost the opportunity to serve deserving children, but was also a waste of resource (payment to therapist and transport from Lusaka to Kabwe).

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M&E staff may also produce biased results if they hold strong opinions or beliefs (either positive or negative) about an M&E activity or project. Staff must remain neutral and promote evidence-based reporting by ensuring that data are allowed to speak for itself in an objective and unbiased manner (Hegans, 2008).

2. Ensuring that M&E activities are systematic, accurate, fair, and also identify the project's strengths and weaknesses. This means data should be collected using agreed upon procedure and widely known procedure. The data collected should reflect the state or opinions of the respondent in a fair and unbiased way, reflecting the views of the population.
3. Clearly communicate the methodology or approach to allow stakeholders to understand and critique M&E activities. Methodologies should include tools and questions to capture both the intended and unintended project impact, whether positive or negative. Openly explore the strengths and weaknesses of the adopted approach with clients and stakeholders, so that the results can be accurately interpreted within their context and limitations. Acknowledge any evident weaknesses in the planning stage and any additional unanticipated weaknesses in reports and documentation. Reflection events and M&E reports should include a thorough methodology section detailing all limitations of the approach (Hegans, 2008). The issue here is transparency in evaluation data, findings and openness about methodological decisions and interpretation of conclusions (Patton, 2008).

A number of in-service applicants who attend our programmes at the University of Zambia always claim that they are very competent they just need a paper (certification) to back up their experience and competence in M&E. Surprisingly during course work, their competence is challenged, perhaps because

they do not understand what competence means or confuse it with work experience. Competence in M&E means holding skills, possessing knowledge and cultural competences required to conduct M&E activities (Hagens, 2008). The following procedures should be followed to ensure competence:

1. If you have no competence in M&E or a particular component of M&E, you should decline to participate in any M&E activity. Refer the task to experts or colleagues who have technical knowhow. In M&E, it is important to have a data base of consultants in different M&E activities, who should be asked to openly bid for the job. It also means employing highly skilled M&E staff and continue to train them in recent developments in the field of M&E for them to remain relevant. Experience alone is not enough, moreover you can have experience of the wrong practices. Reading literature on M&E can help improve skills of staff.

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### Focus Box 3: Decline M&E Work outside your Skills

Sometime back the second author received a call for consultant(s) to conduct an economic evaluation of an intervention in ministry X of Zambia. After reading the terms of reference, he felt the scope of work needed someone with economic or public administration background. He then replied to the sender that he couldn't do it because the scope was outside his expertise. He received a reply showing disappointment, but he assured the caller that he would find more suitable people to do it. He took it to a colleague he felt would do it. The first words his colleague uttered were, "why are you not doing it?" He replied "because it is outside my expertise". The colleague laughed and said "as long as you have a degree you can do all evaluations..." Unfortunately this is a common belief among consultants and job seekers. As a result, when we do such work our competences and skills are questioned.

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2. Do not undertake an M&E activity if stakeholders doubt your **credibility** due to your past work or publicly-stated views. If key stakeholders find fault with your work or position on related activities, they may discredit your approach or findings in future assignments (Hagens, 2008).

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#### Focus Box 4: Unscrupulous Evaluators

In Russia an external evaluator arrived, one without any substantive expertise in the programs' areas of focus. He spent a couple of days with the program, then disappeared leaving an unpaid hotel bill and expenses that the program had to cover because it had made arrangements for his visit. A couple of months later, the program director received a draft evaluation report for her comments but the deadline for her comments had already passed. The evaluation contained numerous errors and had biased conclusions based on evaluators own prejudices.

In Siberia, an American evaluator hired for a midterm evaluation was a charming man who gave a great deal of attention to the program director. In a private conversation with her, he talked about an organizational development model he had recently implemented in another country in central Europe. It gradually became clear that the evaluator was offering positive evaluation findings if the director hired him as a consultant to return and implement his model in her agency. He said, "I really want to say good things about your program. I want to support it, but I need to hear something from you before I do that."

**Patton, (2008, p555).**

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Integrity and honesty should be demonstrated in all stages of the M&E activity and to the stakeholders - beneficiaries, programme staff, donors, or other groups of interested parties and participants (Hagens, 2008). This involves not avoiding to willingly twist the truth in order to produce positive results simply because there is a conflict of interest or other perceived payoffs or penalties (Morra-lmas & Rist, 2009?). Integrity and honesty require one to:

1. Disclose any potential conflicts of interest to stakeholders and donors prior to finalising the plans for an M&E activity. These include, for example, a stakeholder's interest in presenting only project success instead of maintaining neutrality, or a stakeholder interested in demonstrating needs in one sector at the expense of needs in another (i.e., focusing on agricultural needs and not acknowledging environmental issues). It is also important to disclose the source of financial support to stakeholders so that they are aware of the donor interests in the M&E activity. The job of internal evaluators depend on the pressure of superiors, and future work for independent evaluators' depending on client satisfaction. As such, there is always the fear that "those who pay the piper call the tune". This call is not just about determining the focus of the evaluation, but also prescribing the results. Thus, evaluators find themselves in a conflict of interest between their professional commitment to integrity and honesty and their personal interest in monetary gain or having future work.
2. Honour agreements made with stakeholders (including communities and participants) regarding the timing of surveys, plans for sharing results, community participation in data collection, and any other relevant aspects of the M&E activity. If adjustments to the agreements are necessary, consult stakeholders to determine the best alternative for all parties.

3. Do not undertake M&E activities for which there are insufficient resources to provide quality data and results. If there is not enough staff or money to conduct the fieldwork as planned or to analyse and report on the data collected, develop an alternative methodology for which there are sufficient human and financial resources.
4. Ensure that, to the best of your knowledge and ability, the M&E data are accurate. Address any questionable M&E practices observed during data collection or analysis, whether due to negligence or mistakes by M&E team members. Correct any questionable practices even if additional data must be collected.
5. Ensure that M&E results are accurately represented and attempt to prevent their misuse. It is the evaluator's obligation to present the full and unbiased picture that the data provide and to correct misperceptions if stakeholders should try to present only the favourable results in a public forum, to use the data out of context (level of representation), or to disregard the noted limitations of the approach.

Respect for people begins with the premise that M&E staff have a solid understanding of contextual elements that may influence the M&E activity, and respect relevant differences in stakeholders, such as gender, socio-economic status, age, religion, and ethnicity (Hegans, 2008). Respecting people also includes avoiding using incentives, monetary or other incentives with the aim of attracting them to participate who otherwise would have not. To respect participants, evaluators should:

1. Follow standards and regulations regarding informed consent for participants. Informed consent simply entails that we can only carry out our evaluation only after explaining to communities involved why the activities are being done and the intended outcomes both for themselves and for the project/programme at large (Brydon, 2006). Informed consent refers to informing participants on the study purpose, procedures and its consequences and their right to withdraw before giving consent (Lofman, Pelkonen & Pietila, 2004). Determine the appropriate method for collecting and documenting informed consent, whether in writing or orally, given the level of literacy in local communities. A lack of refusal is not considered informed consent. Informed consent is the voluntary consent to participate in research and is required by each participant in any M&E activity (Williams and Senefeld 2007). The assumption is that free choice about participation will result in accurate information (Lofman, Pelkonen & Pietila, 2004).

Information, understanding, agreement to volunteer, and decision-making capacity are the four main elements of informed consent (Pedroni & Pimple 2001), as follows:

*Information:* M&E staff should share information about possible risks and benefits of participation, use of results, confidentiality procedures, contact information for voicing concerns, and any other information relevant to the decision to participate with all potential respondents prior to requesting consent.

*Understanding:* M&E staff must ensure that potential participants fully understand the information provided prior to requesting consent.

*Agreement to volunteer:* Potential participants should, in no way, be coerced, persuaded or pressured to participate.

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### Focus Box 5: Rights of Participants

To determine the impact of a prescription drug take-back programme, an evaluator is coordinating with the local community college to assess students' use of the programme and their substance use behaviors. The evaluator knows that it is important to have a broad representation of students to ensure the generalisability of the findings.

Funds are available to provide a monetary incentive to professors for every class that has at least 80% of registered students complete the survey. The evaluator suggests that professors offer extra credit to students who complete the survey in order to increase participation rates and the likelihood they will receive the incentive.

Professors are also encouraged to introduce the evaluation as they deem appropriate given the course subject and size of the classroom. One professor asked if it would be okay to send out individual emails to his students who are involved with the campus peer recovery program. Because it is possible that students could take the survey more than once the evaluator has included student ID as one of the survey questions. How does these scenarios affect agreement to volunteers and decision making of respondents?

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*Decision-making capacity:* Informed consent requires that each participant has full decision-making capabilities and is able to weigh the risks and benefits of participation. Special consideration is required when seeking informed consent from vulnerable groups who may not have full decision-making capacity, including children, persons with mental disabilities, very poor individuals, and persons with limited access to services and resources. Consideration from an ethical review committee is required to determine whether and how informed consent can be obtained from these vulnerable groups.

2. Follow the appropriate standards for confidentiality and anonymity of data collected from participants. Confidentiality guarantees that data that could link information to respondents,

such as name, location of household, or identification number, are not to be shared. Anonymous data are not linked to respondent names or any other identifiable information, and do not allow for follow-up with respondents. Be sure to clarify with respondents whether the data will be anonymous or confidential (Leviton, 2011; Hegans, 2008; Newman & Brown, 1996; Stake & Mabry, 1998).

3. M&E activities should maximise benefits and minimise harm. Both the human and financial time and resources required to conduct the M&E activity should be far outweighed by the benefits of knowledge gained or results demonstrated. Also consider environmental resources in this equation. Respondents should not be put at risk physically, subject to discrimination, or disadvantaged in any way due to their participation in the M&E activity. Changes during evaluation process and data collection make large emotional, physical and social demands on all the people involved. Therefore, all changes should take place slowly. This means acting and proceeding on participants' terms (Lofman, Pelkonen & Pietila, 2004).

Hegans (2008) argues that general and public welfare responsibilities include not just immediate outcomes of the evaluation process and results, but long-term implications and effects as well. As such, stakeholders should review and comment on the M&E results and reports. The format and content of the reports should reflect stakeholders' wishes but most importantly, the report (and any presentations) should provide a full and unbiased picture of the results, including the methodology, a limitation section, and any less favourable findings.

When disseminating information follow what has been agreed upon in the communication strategy while considering the non-disclosure policy agreed with stakeholders. Declare interest and conflict of interest in all monitoring and evaluation reports. When disseminating information, make sure video in presentation, photos and names of participants and their identity are withheld unless where a participants decides that doing so will help another person in the project area. For instance, in HIV project, some participants sign agreements that allow them to openly be used in the project with the view that their experiences may help another person out there. People living with HIV and AIDS are advised to live a positive life and not hide their conditions. If well-known people are used as models, projects can progress in their agendas. Determine the appropriate means for disseminating results to each stakeholder (See William & Senefeld, 2007).

Control groups were long considered the gold standard for demonstrating programmatic impact. Including control groups in M&E which involve collecting data from households and communities that

received no services and comparing the data with that from project participants. However, using control groups requires significantly more data collection resources and raises ethical considerations, as follows:

- In what circumstances should data be collected from individuals who receive no benefit from the current project and are unlikely to benefit from future projects (based on the M&E results)?
- If the project intervention initially appears to be effective and successful in reaching its goals, should project services continue to be withheld from the control group and data collected to further prove project effectiveness?
- Would the answer differ if the project provides life-saving interventions?

In determining whether to conduct an evaluation, researchers must consider likely costs and benefits: Potential benefits include the following:

- Basic knowledge or lesson to improve decision-making and practice.
- Improvement of evaluation or assessment techniques.
- Practical outcomes.
- Benefits to organisation or country.
- Benefits to participants.

Potential costs of doing and evaluation may include but not limited to:

- Participants investment of time and effort.
- Mental and physical risks on participants.
- Financial investment on evaluation – is it justifiable?

### **Use of Ethical Standards**

In the planning phase, it is important to identify potential ethical challenges and to develop a framework for resolving any conflicts. Although planning ahead will not ensure that ethical conflicts do not arise, it is likely to decrease the severity of any conflicts and expedite their solutions. To identify challenges and paths towards solutions, begin with individual reflection and critical thought about the ethical components of the upcoming work. Next, hold discussions with key stakeholders to engage them in the ethical elements identified, as well as any they see as relevant (Leviton, 2011; Hegans, 2008).

Individual reflection requires that M&E staff set aside adequate time to consider the broader project context, including any potentially-conflicting stakeholder interests and cultural norms. The Program Evaluation Standards place evaluation standards according to: utility, feasibility, accuracy, and propriety



categories (Morra-Imas & Rist 2008; Patton, 2008). Morra-Imas & Rist (2008), summarised the propriety standards related to an evaluation's ethical elements as follows:

1. *Service orientation*: Evaluations should be designed to assist in addressing and serving the range of targeted participants.
2. *Formal agreements*: Obligations of an evaluation (what is to be done, how, by whom, when) should be agreed to in writing, so that the parties are obligated to adhere to all conditions of the agreement or formally renegotiate.
3. *Rights of human subjects*: Evaluations should be designed and conducted to respect rights and welfare of human subjects.
4. *Human interactions*: Evaluators should respect human dignity and worth in their interactions with other persons associated with an evaluation, so that participants are not threatened or harmed.
5. *Complete and fair assessment*: Evaluations should examine and address their weaknesses and build on strengths.
6. *Disclosure of findings*: Ensure that the findings and limitations are accessible to the persons affected by the evaluation.
7. *Conflict of interest*: Conflict of interest should be dealt with openly, so that it does not compromise the evaluation.
8. *Fiscal responsibility*: The evaluator's allocations and expenditures should reflect sound accountability procedures and otherwise be prudent and ethically responsible, so that expenditures are accounted for and appropriate.

Professional evaluation associations around the world have formulated and adopted codes of ethics. In Zambia, the Zambia Monitoring and Evaluation Association (ZaMEA) has ethical guidelines for its members. A list of evaluation associations in developing and developed nations have this information which can be found on <http://www.ioce.net/members>. Some notable associations of interest include:

1. International Organization for Cooperation in Evaluation (IOCE).
2. International Development Evaluation Association (IDEAS).

### **The Framework for Making Ethical Decisions**

Newman and Brown (1996) proposed a framework that can guide evaluators when making ethical decisions on evaluation:

1. Pay attention to ones' intuition that something is not quite right.

2. Look for rules that provide guidance.
3. Examine how the situation looks in terms of basic ethical principles: autonomy (right involved), non-maleficence (doing no harm), beneficence (doing good), justice (fairness) and fidelity (adhere to agreement).
4. Examine your personal values in a order to be in touch with your personal beliefs and comfort levels.
5. Efforts can include consulting with colleagues, calculating trade-offs, and making and following the plan.

## Politics and Evaluation

Morra-Imas & Rist (2008) argues that evaluation is always carried out in a political context; the mere fact that an evaluation is being conducted may be used to advance a personal or institutional agenda. There is evidence that researchers and indeed evaluators sometimes push a set of findings to further their own political purpose (Focus Box.6).

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### Focus Box 6: Influence of Politics on Evaluation

Patton (2008: 555) in his book "Utilization focused evaluation narrates how a host government influenced the valuation of the programme. Note that some of the issues here also relate to the issues of competence, integrity and honesty discussed above:

Patton recently had a length exchange with an evaluator who was disturbed by having just come back from a mid-term site visit of a large and important but controversial project funded by an international agency in a developing country. All sites visited were selected by the host government. Only project participants selected by the host government were interviewed and always with a project and/or government people present. Most requested documents were not available...**Patton, (2008)**

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Politics influence evaluation in a number of ways including: (1) programmes and policies are results of political decisions so evaluations implicitly judge those decisions: (2) evaluations feed political decision-making and compete with other perspectives in the political process (national or local government level) and: (3) evaluation is inherently political by its very nature because of the issues it addresses and the conclusions it reaches (Patton, 2008). So then, how can evaluators maintain their integrity if they are involved in close, collaborative relationships with stakeholders? How does the evaluator take politics into account without becoming a political tool of only one partisan interest? Thus, according to Patton (2008), evaluators find themselves on the proverbial horns of a dilemma whereby getting too close to decision-

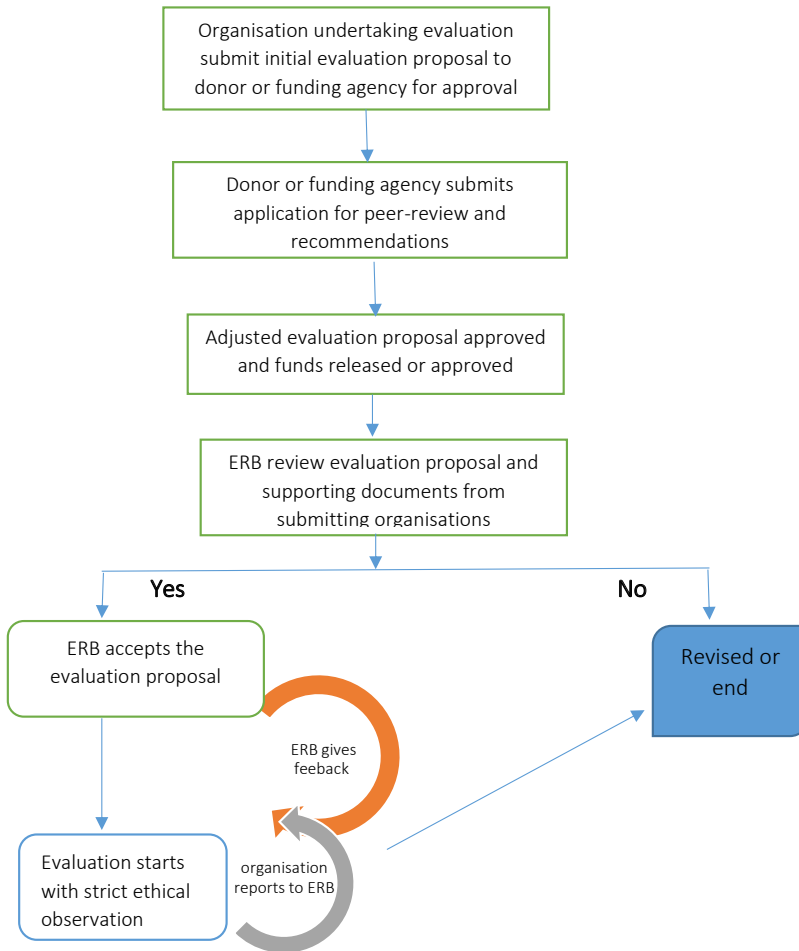
makers may jeopardise credibility and remaining distant may undermine use. Part of the solution lies in a country/organization led monitoring and evaluation system.

A country/organisation-led monitoring and evaluation system may enhance evidence-based policy-making by ensuring national or organisational monitoring and evaluation systems are owned and led by the concerned countries or organisation without international and national politics. According to Segone (2009), country (organisation)-led evaluations (C/OLE) are evaluations in which the country (organisation) which is directly concerned leads and owns the evaluation process by determining: what policy or programme will be evaluated; what evaluation questions will be asked; what methods will be used; what analytical approach will be undertaken; and, how the findings will be communicated and ultimately used. The C/OLE serves the information needs of the country/organisation and, therefore, C/OLE is an agent of change and instrumental in supporting national/ organisation development results.

Another way to manage politics in evaluation is by building trust at each phase of the evaluation. According to Morra-Imas & Rist (2008), evaluators should ensure everyone understands the underlying logic and are able to identify political games played by people being evaluated and by stakeholders which can help engage them in a manner that brings integrity and honesty to the evaluation.

### **Ethical Committees**

Each country and sometimes disciplines have their own ethical committees, which are also known as independent ethics committee or ethical review board (ERB) that one needs to be aware of. An ERB is a committee that has been formally designated to approve, monitor and review biomedical and SOCIL-behavioural research involving humans and animals with the aim of protecting the rights and welfare of the research subjects. In Zambia there are two public ERBs namely: the University of Zambia Biomedical Ethical Committee and the University of Zambia, Humanities and Social sciences Ethical Committee. There is also one private research ethics committee. The process of obtaining ethical approval is illustrated in Figure 1.



**Graph 1: Steps to Obtaining Ethical Approval**

**Conclusion**

This chapter described the importance of observing ethical issues in evaluation of development projects or programmes. Specifically, the chapter discussed how ethical issues arise sometimes because of funding conditionalities and conflict of interests that may arise from funders of development projects, programmes or policies. The chapter also discussed responsibilities and competences that evaluators must follow and adhere to in order to practice evaluation in an ethical manner. To be ethical and guard ethical standards, evaluators must possess certain competences and adhere to their responsibilities. This way ethical standards will be used according to the utility, accuracy and propriety standard. However,

possessing certain competencies and adhering to evaluation responsibility is not necessarily, sufficient for ethical practice, a framework for making ethical decision must be developed and strictly followed while considering politics that may influence ethical decisions. Consulting ERBs and submitting evaluation studies for ethical approval is the most universally accepted practice for conducting ethically-accepted evaluation studies.

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## Chapter 8

### Monitoring and Evaluation Data Analysis: Quantitative and Qualitative

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## **Introduction**

At the heart of every project is the analysis of data. This involves processes of inspecting, cleaning, transforming, and modelling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. Many scholars have different but convergent meanings of data analysis. For example, Marrshall & Rossman (1990) define data analysis as a process of bringing order, structure and meaning to the mass of collected data. This process is seen as a messy, ambiguous, time-consuming yet creative and fascinating process. LeCompte & Schensul (1999) define it as the process a researcher uses to reduce data to an interpretable story. With all the processes in data analysis, it does not proceed in a linear fashion and it is not neat. Three pertinent issues are identified in data analysis: 1) data organisation; 2) data reduction through summarization and categorisation; 3) linking patterns and themes (Patton, 1987).

Generally, statistics are used to describe the characteristics of a group of observations or to draw inferences for purposes of making generalisations from a sample group to a larger group or population. More specifically, data analysing monitoring and evaluation (M&E) follows much the same principle. Data analysis in M&E enables researchers to assess whether a programme has achieved the set objectives at programme and population level. There are primarily two paradigms of dealing with data in M&E; quantitative and qualitative. Each of the paradigms has unique processes and procedures for data analysis and interpretation.

## **Dealing with the Data**

Before any data can be analysed, (quantitative or qualitative) preliminary steps important to the processing of data must be engaged. Below are some of the crucial processes that data analysts must consider before getting to the actual analysis.

### **1. *Field editing***

As the first step in the processing of data, field editing involves reviewing data for completeness and legibility. This process is conducted while still in the field. It involves systematically reviewing field notes; transcripts from in-depth interviews, focus group discussions, observations and questionnaires. In this process, data is reviewed for completeness and legibility while data collectors' memories are still fresh. This process enables consultations with the sources of the data facilities or persons, in the event that the data provided may not be clear. This process also helps with the systematic organisation of the data such as recording the date, place, name or identifier of the informant.



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### **Focus Box 1: Data Quality**

Main points dealing with data that are commonly referred to aspects of data quality (Peersman, 2014). These include:

1. Validity: Data measure what they are intended to measure.
  2. Reliability: Data are measured and collected consistently according to standard definitions and methodologies; the results are the same when measurements are repeated.
  3. Completeness: All data elements are included (as per the definitions and methodologies specified).
  4. Precision: Data have sufficient detail.
  5. Integrity: Data are protected from deliberate bias or manipulation for political or personal reasons.
  6. Timeliness: Data are up to date (current) and information is available on time
- 

## **2. Data Transcription**

Transcripts refer to data verbatim that must be done before any data analysis is conducted. The verbatim is basically the information that was said during an interview or focus group discussion. This data is usually transcribed from a recorder or otherwise handwritten notes. These notes can be edited and expanded while the information from the field is still fresh. These transcripts place emphasis on specificity of the script focusing on who said what and conveyance of gestures or others responses that may not have been captured on tape.

## **3. Coding**

This is the process of assigning and organising meaning to the data both quantitatively and qualitatively. Assigning of codes makes interpretation of answers easier. For example, questions about how much one drinks alcohol could have coded responses for each level (e.g. 1=none; 2= once a week; 3= 3-4 times a week; 4=daily etc.). This helps organise and interpret descriptive data such as answers to open-ended questions about experiences, attitudes or opinions. Qualitative data may have to be reduced before coding.

## **4. Data cleaning**

This is an essential step that checks for and corrects errors that may have arisen in the data entry. In a technologically-driven research world, some software have in-built programmes that deal with errors such as inconsistencies between data items, data omissions and values entered that may be out of range. One way of cleaning the data is to sample through the questionnaires and check for consistency for sample cases since it may not be feasible to do it for all the entered data.

## **Analysing M&E Data**

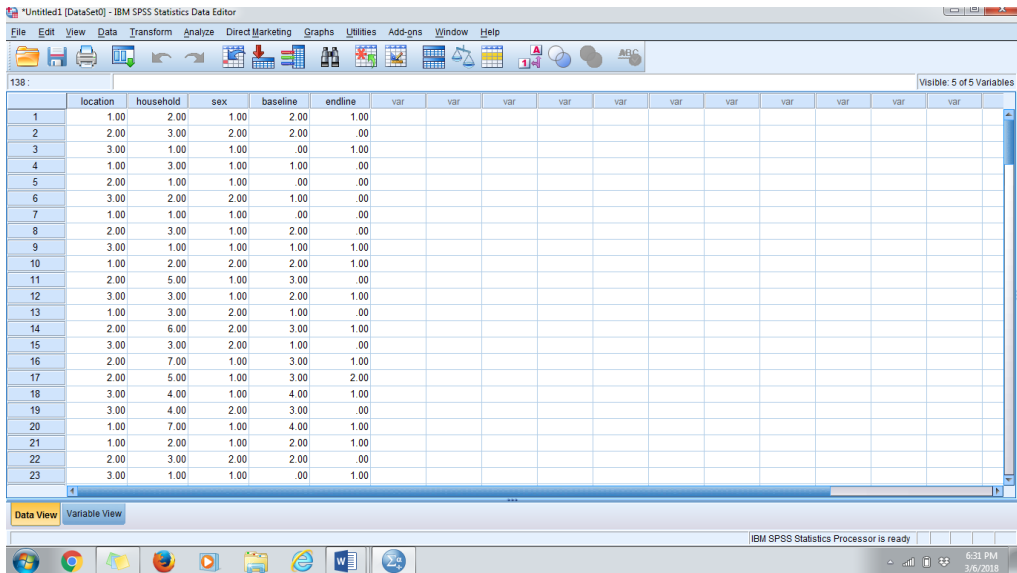
Monitoring and process evaluations can reveal programme quality, coverage and exposure as well as programme functions. In impact evaluations, analysis may reveal how the programme achieved the intended results, and the portion of the changes in outcome indicators the programme can take credit for. Monitoring and Evaluation data presents at the least, two time periods, the Base-line and End-line. This enables comparison of the implemented programmes to be evaluated before and after the programme treatment or implementation. This analysis aids comparing the effect or impact that a programme/treatment brings before and after. In other designs, there may be more than two time units of comparison (i.e. including midline or several assessments before the end-line assessment). More time units of assessment are usually common in projects that take more years to be completed.

Beginning analysis with M&E data must reveal key components in the data that relate to;

- a) Participants' demographic characteristics such as gender, age, marital status, schooling status, residence and other important attributes.
- b) Performing frequencies of specific behaviours both risk and protective factors.

## **Hypothetical Example**

For the sake of demonstrating how data is analysed in M&E, hypothetical data on a project aiming to reduce malaria in three project areas – Mumbwa, Kafue and Chongwe districts will be used. The intervention involved residual spraying, supplying of mosquito nets and sensitisation on the need to sleep under mosquito nets. A total number of 140 households were targeted in these three districts. The data in SPSS Data View looks like this:



**Figure 1: Data View Window of SPSS**

### Analysing Quantitative Data

*Quantitative methods* of data analysis principally refer to objective measurements with primary emphasis on statistical, mathematical, or numerical analysis of data collected. Quantitative Data Analysis (QDA) involves mathematical calculations that produce statistics about the tabulated data. Examples of collected data may include among others, questionnaires and surveys. QDA focuses on inferential statistics with various tests used to help assess the confidence of research and project findings (Pell & Fogelman, 2002). Important in QDA are descriptive and exploratory analyses, which are usually the first step in the analysis. These (descriptive and exploratory analyses) produce the first results in form of simple distributions and or summary statistics like averages and measures of dispersion in the data. After these initial analyses have been performed, complex statistical techniques can follow that will enable the researcher to make inferences from the data. The exact techniques to implore are usually based on the project aims, objectives and questions asked. In addition, the nature of the data in quantity and completeness also determines the kind of statistical techniques to be used. If the data does not fit the planned assumptions, objectives and questions, the evaluators may have to regroup and decide on what to do with the presented data. In cases where observations in the data have huge variations, perhaps a

different form of data analysis may be advisable to use. However, if some observations are untrustworthy or missing altogether, additional data collection may be necessary.

Before any analyses are performed, it is imperative that data is carefully considered on its levels of measurement because different statistical techniques will only work with certain levels of measurement. Data collected for all research investigations can be nominal, ordinal, interval or ratio (Black, 1999). Nominal data simply distinguishes between categories (Leary, 2004; Roberts, 2008). For example, responses of “Yes, No and I don’t know” or codes like 1 or 2 for distinguishing categories male and females. The numbers in Nominal data are treated as “markers”. They cannot be added, divided or multiplied. Ordinal data represents numbers with size that is meaningful. This level is often used for variables that cannot be directly measured such as happiness, anxiety or satisfaction. Mainly, likert scales are a good example of numeric categories that provide numerical hierarchy rather than absolute measurement (Norman, 2010). The numbers at this level indicate order while Nominal indicates difference only. The last levels of measurements are grouped as representing continuous data (Interval and Ratio scales). Data on these scales is measured directly using infinite scales where increment on scales is of equal distances (Pell & Fogelman, 2002). The difference between the two scales is that the Ratio scale has an absolute zero, meaning that a score of Zero equals absence of existence. For example, zero kilogram (kg) weight means there is no weight. In comparison, the interval scale has no absolute zero, meaning a score of zero does not mean absence of existence. For example, zero degrees Celsius does not mean the absence of temperature. When deciding on which statistical techniques to apply, the first question often is about the level of measurement.





In the world today, major advancements in data analysis softwares have been made. Several quantitative data analysis packages are in existence (SPSS, mini TAB, Excel, stata, R etc). The choice of the software package is determined by the project aims and objectives in connection with the applied design beside the software cost which is one of the drawbacks for accessing some of the software. The software package used for analyses in this chapter will primarily be the Social Package for Social Sciences (SPSS) and Microsoft Excel in some cases. While quantitative analysis may involve complex statistics, much of the analyses done in typical monitoring and evaluation are straightforward and easy to understand. There are two types of statistics that are involved when analysing data quantitatively in M&E: *Descriptive and Inferential statistics*.

## ***Descriptive statistics***



Calculating descriptive statistics is the first step in analysing quantitative data. Descriptive statistics are used to describe general characteristics of a set of data that includes frequencies, counts, averages and percentages. Descriptive statistics simply use numerical procedures or graphical techniques to organise and describe the characteristics or factors of a given sample. The main aim of these statistics is to describe the midpoint of a spread of scores, usually referred to as the measure of central tendency, and the spread of scores known as the dispersion or variance (Fisher & Marshall, 2009). These summary descriptives accurately describe large volumes of data with a fewer values that are easier to understand.

To begin with, the distribution of the data can be analysed using a *frequency* distribution. A frequency is simply a univariate—a single variable that refers to the number of observations or occurrences. Methods of summarising and describing sets of numerical data can be classified as either numerical or graphical. Numerical methods summarise data in form of numbers such as percentages or means that are tabulated in a table. Graphical methods involve the presentation of data in graphical or pictorial forms like graphs. In a graphical sense, values of observations are plotted on the horizontal axis with a bar showing how many times each value occurred in the data set. This chapter shows how descriptives statistics can be obtained by the use of graphs. SPSS includes several commands specifically designed to produce descriptive statistics. This chapter looks at three commands that produce descriptives: *Descriptives*, *Frequencies* and *Explore*. The descriptives and frequencies commands produce a variety of useful descriptive statistics that may need further grouping. In the case of grouping, the Explore command can be used.

### ***Steps to producing the descriptive statistics using the DESCRIPTIVE command in SPSS***

1. Ensure that all data has been entered into SPSS, checked, cleaned for possible errors and saved.
2. Go to  **Analyse** on the Top of the Viewer Window.
3. **Analyse** will bring a dialogue box containing several commands.
4. **Select**  **Descriptive Statistics**, another dialogue box containing with further commands will come
5. **Select**  **Descriptives**
6. After choosing the Descriptive command, a window with two Boxes will pop up. The left box contains all the variables in the data set while the right side contains a box in which all the interest variables for descriptive analysis will be put. Placing the interest variables into the right-side is done by using the arrow (  ) that is in between the two boxes. All that is required is to click on the

interest variable which highlights the arrow. Then click on the arrow and the variable is reflected on the right side.



7. When the interest variable(s) has been identified and placed,  on **Options** command on the upper right-side corner. This will reveal the **Options** dialogue box which lists all the descriptive statistics available in the descriptives command.
  8. In the **Options dialogue**  descriptive statistics that are required for your analysis (i.e. *mean, standard deviation*)
  9. After selecting the required statistics, select continue to return to the descriptives dialogue box.
  10. When all this is done, click on the **OK** button to execute the descriptive command.
- If the right steps are followed, a display of the output should look like the table on the next page.







**Table 1: Descriptive Statistics Summary Table**

Statistics		
Number of household members		
N	Valid	140
	Missing	0
Mean		3.3000
Std. Deviation		1.85325
Skewness		.611
Std. Error of Skewness		.205
Kurtosis		-.544
Std. Error of Kurtosis		.407
Range		6.00

In the output, look for information that summarises the large data into manageable units that can help interpret and understand the data without looking at all the data. In this case, the interest would be descriptive about household members including range of scores, mean, standard deviation and the normality of the data by observing the Skewness and Kurtosis scores.

**Steps to producing frequencies**

1. From the main viewer window  Analyse
2.  Descriptive Statistics

3.  Frequencies -the frequency dialogue box will pop up.
4. In similar ways as the descriptives, two boxes will come up. One containing all the variables in the data set normally on the left-hand side and where the interest variables will be put for analysis at the right-hand side separated by an arrow.
5. Select the variables of interest to be included in the frequency analysis by dragging them into the right-hand side box or by clicking on the arrow after selection.
6.  Statistics at the right corner.
7. In the Frequencies Statistics box dialogue, select all descriptives that are required
8.  Continue button, this will return you to the Frequencies Dialogue box
9.  On Charts at the right corner, below statistics. Another Frequencies Chart box will appear
10. Select the type of chart that you would like taking into consideration that the type data you have allows for that kind of chart (i.e. Histogram, Bar charts, and Pie charts).
11.  Continue and finally  OK button.

The output will give you the frequency table: the number of times a score appears and the percentage it represents. This is tabulated in a table form. In addition to this tabulated output, a graph is also presented on the same data for pictorial presentation. The following example of the Histogram is what you get when these steps are followed.



**Table 2: Frequency Table Output from SPSS**

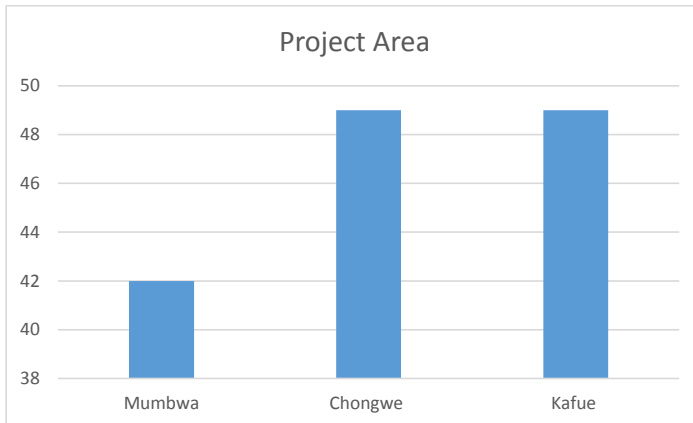
		project area			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mumbwa	42	30.0	30.0	30.0
	Chongwe	49	35.0	35.0	65.0
	Kafue	49	35.0	35.0	100.0
	Total	140	100.0	100.0	

This output is showing the number and percentage of households from each district that participated in the evaluation of the malaria intervention. The summary table reflected above may be also represented in a graph form as seen below.

Note that the nature of the data should guide you into the kind of chart you can use. For continuous data (interval and Ratio scale) use Histograms while categorical and ordinal data use pie or bar charts.

Producing a simple bar chart requires the same steps but selecting bar chart option if the data is categorical or ordinal. However, bar charts for group data follow different commands.

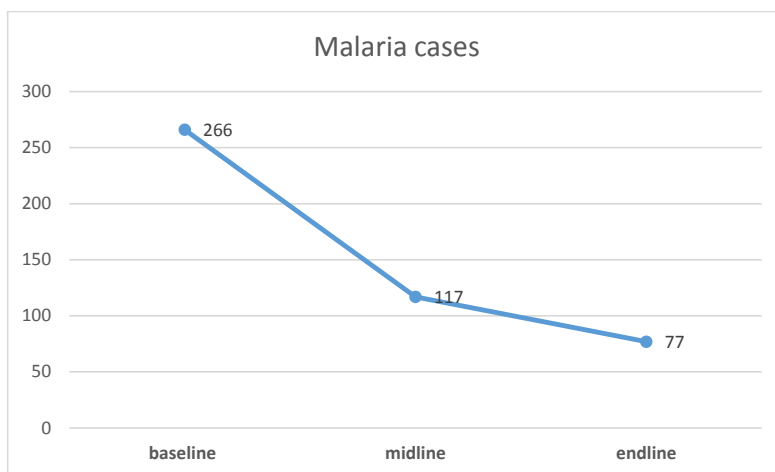
1. Thus go to Analyse,
2.  Descriptives
3.  Cross tabs
4. Then enter the interest variables into the row and columns. It does not necessarily matter what variable is entered into the rows or columns. An example of a bar chart generated, is for households from each district that participated in a survey which could look like the one below. This graphical presentation shows the survey locations and the counts for households from each district. This gives immediate impressions on which location had more households.



**Figure 2: Bar Graph of Number Households in each District**

The line graph below is an example of how line graphs look like in Excel. To produce this line graph in excel is by ensuring that your data is set. Having data that is at least on a three-points of measurement, thus an intervention that was conducted on sample and the measures were done at three different points within the project period in order to assess the level of performance of the intervention for the entire time.








**Figure 3: Line Graph of Malaria Cases**

### ***Steps to producing using the Explore Command in SPSS***

When applying descriptive statistics to obtain sample description or distributions, you perform this command which allows for the calculation of summary statistics in the data that are separated by the groups.

1. Go to Analyse on the viewer window
2.  Descriptive statistics
3.  Explore
4. Two boxes with commands will appear. The rationale for the contents of variables is the same. The left side has all the variables in the data set while the right side has interest variables for analysis. You will note that the dialogue box is different. In this case, the right hand-side has a dependent and factor list.
5. In the dialogue box that appears, select the grouping variable from the left hand box and move it to the Factor List.
6. Press the  OK button to execute the Explore command.

After the command is complete, a table is generated with descriptive information that may be of interest to the analysis. This table gives details of the counts and other descriptive statistics that may be of importance.

## Inferential Statistics in Data Analysis

*Inferential statistics* allow the evaluator to make inferences about the population from which the sample data were drawn based on probabilities. Inferential statistics are grounded in the concept of probability, or the likelihood of an event occurring. They rely on *statistical significance*, or a way of giving odds for or against the probability that something happened strictly by chance. Testing for statistical significance helps ensure that differences observed in data, however small or large, were not due to chance. For example, suppose descriptive statistics found that the proportion of children who were vaccinated for the Rubella Virus in February 2018 did not have side effects like diarrhoea and fever caused by the vaccine and that these side effects occurred only by chance compared to those who were in the control group. Here, you could ask a question of whether the vaccine caused the diarrhoea and the fever. Whether the difference between those vaccinated and those in the control (NOT vaccinated) differ significantly to conclude that the vaccine caused the diarrhoea and the fever. To answer this question, you could conduct a statistical test to tell you how likely it would be to observe a difference of this size by random chance alone. Suppose that the statistical test indicated that this difference was significant at the 95% confidence interval. This would mean that the likelihood of this difference being due to random chance is only 5% out of 100%. Thus, you could conclude with a high degree of confidence that the vaccine caused the diarrhoea and fever.

A few statistical tests have been covered in this chapter to aid exploring and conducting such tests in SPSS. It is advisable to purchase a statistics textbook that will provide the information needed to conduct such and other statistical tests.

### Tests of Difference for two Sample Designs -*T*-tests

The *t*-test is a test that is used to determine whether two group means are significantly different from one another. *T*-tests are parametric tests that make certain assumptions about the data. The assumptions include;


- a) The data is measured on either an interval or ratio scale.
- b) There is homogeneity of variance.
- c) The population from which the data is drawn has a normal distribution.

There are basically three types of *t*-tests.

- *Single sample t-test*- this is the simplest *t*-test and determines whether the observed mean is different from a set value. This set value is the benchmark that determines the difference in the mean.

- *The independent t-test*- this is used to compare means from independent sample groups of individuals. This test compares the means between two unrelated groups on the same continuous, dependent variable. For example, one could use an independent *t*-test to understand whether customer service differs based on gender. Alternately, one could use an independent *t*-test to understand whether there is a difference in testing depression based on educational level.
- *The paired t-test*- is used in comparing the means of the observations from the same individuals.

### Performing a T-test in SPSS

1. Go to **Analyze**  **Compare Means**
2. This brings the different *t*-tests that is ***one-sample test, Independent-Samples T-Test*** and ***paired t-test...***
3. **Clicking on the desired t-test will bring a** dialogue box for the selected *t*-test. An example for independent *t*-test is as follows:
  - a) *In the dialogue box*– typical in all SPSS procedures that the box on the left side lists the variables in the data file.
  - b) Click the name of the dependent variable for the analysis and click on the arrow button to move the variable to the marked Test Variable(s).
  - c) After that, click the name of the independent variable and put it in the grouping variable. In this dialogue box, the groups need to be defined. Here, the box will pop-up to specify what is group one and two.
  - d) Click on Continue that will take to the independent test main dialogue box and then click **OK** to get the output.
  - e) The output will generate several statistics, including the size of the effect (effect size) in terms of the differences recorded between the variables.

The **effect size** is simply a way of quantifying the size of the difference between two groups. It is particularly valuable for quantifying the effectiveness of a particular intervention, relative to some comparison. It allows to move beyond the simplistic such as ‘Does it work or not’ to the far more sophisticated, ‘How well does it work in a range of contexts’ (Coe, 2002). The output from SPSS of the *t*-test analysis does not provide the size of the effect and SPSS has no functionality to be selected in order to produce the effect size. However, from the output, effect size can be calculated using the information that

SPSS output produces. There are several ways of calculating the effect size and this is provided in good statistics books.

**Performing Paired t – test**

**Table 3a: Paired Sample Statistics**

		Paired Samples Statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	malaria cases at baseline	1.9000	140	1.22504	.10353
	malaria cases at endline	.5500	140	.59161	.05000

**Table 3b: Paired Samples Correlations**

		Paired Samples Correlations		
		N	Correlation	Sig.
Pair 1	malaria cases at baseline & malaria cases at endline	140	.424	.000

**Table 3c: Paired Samples Test Results**

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	malaria cases at baseline - malaria cases at end line	1.35000	1.11190	.09397	1.16420	1.53580	14.366	139	.000




The output above shows that the interventions to reduce malaria cases were effective because the mean cases of malaria cases reduced from 1.9 at base-line to .55 at end-line (mean difference 1.35) and this difference was statistically significant ( $p = <.05$ ).

## Non-Parametric Equivalents of the $t$ -test

In the event that one is working on the data that does not fulfill the requirements for a parametric test (i.e. if the data are not normally distributed; if the variances for the two conditions are markedly different; or if the data are measurements on an ordinal scale) there are options to use tests that do not adhere to the strict assumptions of parametric tests. The nature of the data will determine the exact tests to use. It is safer to use the less strict tests called non-parametric tests in SPSS to explore and analyse the data because parametric tests cannot be performed due to some limitations.

**The Mann-Whitney-** This test is used when two different groups of participants have at least two conditions. Thus, it is appropriate for analysing the data from an independent-measures design with two conditions. The logic behind the Mann-Whitney test is to rank the data for each condition, which assesses differences in the two rank totals. If there is a systematic difference between the two conditions, then most of the high ranks will belong to one condition and most of the low ranks will belong to the other one. As a result, the rank totals will be quite different. On the other hand, if the two conditions are similar, then high and low ranks will be distributed fairly evenly between the two conditions and the rank totals will be fairly similar. The Mann-Whitney test statistic " $U$ " reflects the difference between the two rank totals. The SMALLER it is (taking into account how many participants are in each group) the less likely it is to have occurred by chance. A table of critical values of  $U$  shows how likely it is to obtain the particular value of  $U$  purely by chance (Note that the Mann-Whitney test is unusual in this respect: normally, the BIGGER the test statistic, the less likely it is to have occurred by chance).

### Performing Mann-Whitney in SPSS




1. Go to Analyse
2.  Non-parametric Tests
3.  Legacy Dialogs
4.  2 independent samples and click.
5. The 2 independent samples dialog will appear.
6. Enter the variables into the required boxes and click OK.

The output generated gives information on the calculated value of  $U$  for the Mann-Whitney  $U$  test, and among other generated statistics, it will give the significance value that shows whether the difference exists or it is by chance.

## The Wilcoxon Test

This is another example of a non-parametric or distribution free test. It is used to test the null hypothesis that the median of a distribution is equal to some value. It can be used (a) in place of a one-sample  $t$ -test (b) in place of a paired  $t$ -test or (c) for ordered categorical data where a numerical scale is inappropriate but where it is possible to rank the observations.

### Performing the Wilcoxon test in SPSS

1. Go to Analyze
2.  Nonparametric Tests
3.  Legacy Dialogs
4.  2 related samples.
5. Enter the variables into the required boxes and click OK.
6. The SPSS output generates information for reporting whether there are significant differences in the groups or not.

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#### Focus Box 2: Non-parametric Tests

These nonparametric tests will produce descriptive statistics that accompany the results. In the case of selecting measures of central tendency and dispersion for reporting, it is a normal practice to select the median and the range. The median and the range are more appropriate tests because they are distribution-free tests and do not assume normality of the data. In addition, they are more appropriate for data based on ranks. These tests rank the data, and calculations are carried out on the ranks.

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## Tests of Correlation

A correlation is a statistical method used to measure and describe the relationship between two variables, represented by  $r$ . This test makes no assumption of causality but that there is a relationship between two variables. In correlation, there are no independent (cause) variables. Both variables are treated as “dependent,” meaning that they have not been ordered causally. A relationship exists when changes in one variable tend to be accompanied by consistent and predictable changes in the other variable.

*Assumptions to perform a parametric correlation test include entail that:*

- a) There is no distinction between explanatory (x) and response (y) variable.
- b) Variables are continuous scale: interval or ratio.
- c) Variables are normally distributed.
- d) A minimum of 100 participants would produce acceptable correlation (Brace, Kemp & Snelgar, 2012). A small sample size may either fail to produce a correlation or may produce a correlation that does not exist due to skewed data.

In essence, a correlation typically evaluates three aspects of the relations: *Direction, Form and Degree*. The direction of the relationship is measured by the sign of the correlation (+ or -). A positive correlation means that the two variables tend to change in the same direction; as one increases, the other also tends to increase. A negative correlation means that the two variables tend to change in opposite directions; as one increases, the other tends to decrease.

The most common **form** of relationship is a straight line or linear relationship which is measured by the Pearson correlation. Linear relationships implying straight line associations are visualised with scatter plots. A strong linear relationship is seen when the points of data (observations) lie close to a straight line, and weak if they are widely scattered away from the straight line.

The **degree** of relationship (the strength or consistency of the relationship) is measured by the numerical value of the correlation. A value of 1.00 indicates a perfect relationship and a value of zero indicates no relationship.

*Examples of different values for linear correlations:*

- a) a perfect negative correlation = -1.00
- b) no linear trend = 0.00
- c) a strong positive relationship, approximately +0.90
- d) a relatively weak negative correlation -0.40.

Positive  $r$  indicates positive linear association between  $x$  and  $y$  or variables, and negative  $r$  indicates negative linear relationship. The strength increases as  $r$  moves away from zero towards  $-1$  or  $+1$ . The extreme values  $+1$  and  $-1$  indicate perfect linear relationship (points lie exactly along a straight line). The graded interpretation of  $r$  are widely understood as values of  $0.1-0.3$  = weak;  $0.4-0.7$  = moderate and  $0.8-1.0$  = strong correlation.

## Scatter Plots in SPSS

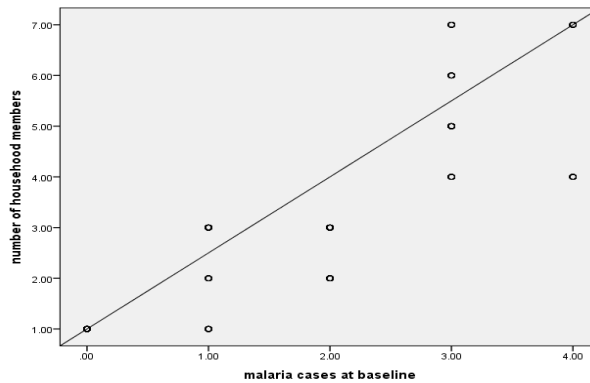
Basic scatter plots are most easily created through SPSS's graphs function. The process for creating scatter plots in SPSS begins the same way.

Step 1: From the main data view window, select "Legacy Dialogues." A listing of graphs and charts available through this method will appear.

Step 2: Select "Scatter/Dot." With various kinds of graph options, select a two-variable option and click "Define."

Step 3: A new window entitled *Simple Scatter plot* will appear. Use this option to identify and insert the independent (X) and dependent (Y) variables from those listed on the left side of the window. Performing this action requires highlighting the name of each variable and click on the arrow next to the box labelled with the appropriate axis name. Thus, identifying the independent variable and moving its name from the box on the left to the box labelled "X Axis." In the same manner, identify the dependent variable by moving its name from the box on the left to the box labelled "Y Axis."

Step 4: Click OK.





**Figure 4: Scatter Plot Output**

In the output, the scale for independent-variable scores lies along the X axis while that of the dependent-variables are along the Y axis. Each data point represents a particular independent and dependent variable score. The scatter plot in this example shows that the more the household number, the more the malaria cases were identified at baseline, suggesting a positively-sloped regression line. Regression line can be activated by selecting to add the reference equation line by double-clicking on the



generated scatter plot. The Chart Editor refers to the least-squares regression line as a fit line. It is encouraged to acquire any SPSS books for practice and reference.

### Performing Parametric Test of Correlation

1. Go to **Analyse**
2.  **Correlate/Bivariate**. Bivariate entails the examination of a simple association between two variables.
3. In the dialog box, select any two variables from the left hand side where all the variables are to the right side where the variables that you want to analyse are to be located. In the same dialog box, select **Pearson** for **Correlation Coefficients** since the data are continuous and fulfil the other requirements for performing a parametric correlation. The default for **Tests of Significance** is **Two-tailed**. You could change it to One-tailed if you have a directional hypothesis.
4. Selecting **Flag significant correlations** means that the significant correlations will be noted in the output by asterisks.
5. This option enables to see the variables that are significantly corrected at first glance and easier to spot.
6.  **Options**. After clicking Options you will see the kind of descriptive statistics that are built into other menus. Here, you will select what you want to be calculated for you. For example, you might want to select **Means and standard deviations** under **Statistics**.
7. After the selection, click on Continue and then on OK. Below is an example of the output.

**Table 4: Correlation’s Results Output**

Correlations			
		Number of household members	Malaria cases at baseline
Number of household members	Pearson Correlation	1	.834**
	Sig. (2-tailed)		.000
	N	140	140
Malaria cases at baseline	Pearson Correlation	.834**	1
	Sig. (2-tailed)	.000	
	N	140	140

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The above output shows the bivariate associations between the variables under investigation. These Bivariate analyses reveal that there is a strong positive correlation between the number of people in the house and malaria case reported as,  $r = .834 (140), p < .001$ .

### **Analysis of Variance**

The purpose of Analysis of Variance (ANOVA) is much the same as the  $t$ -tests but the goal is to determine whether the mean differences that are obtained for sample data are sufficiently large to justify a conclusion that there are group mean differences between the populations from which the samples were obtained. These procedures produce an analysis for a quantitative dependent variable affected by a single factor (independent variable). Analysis of variance is used to test the hypothesis that several group means are equal. This technique is an extension of the two-sample  $t$ -test. The difference between ANOVA and the  $t$ -tests is that ANOVA can be used in situations where there are *two or more* group means being compared. Whereas the  $t$ -tests are limited to situations where only two means are involved.

Analysis of variance is necessary to protect researchers from excessive risk of a Type I error where multiple comparisons produce inflated group mean differences that reject the null hypothesis when it is actually true in situations where a study is comparing more than two population means. These situations would require a series of several  $t$  tests to evaluate all of the mean differences. (Remember, a  $t$ -test can compare only 2 means at a time). Although each  $t$  test can be done with a specific  $\alpha$ -level (risk of Type I error), the  $\alpha$ -levels accumulate over a series of tests so that the final experiment wise  $\alpha$ -level can be quite large. ANOVA allows researchers to evaluate all of the group mean differences in a single hypothesis test using a single  $\alpha$ -level, thereby, keeping the risk of a Type I error under control no matter how many different group means are being compared.

### **ANOVA Assumptions**

Like other techniques, the ANOVA also has to fulfill certain assumptions before it can be calculated.

- a) The dependent variable comprises data measured at interval or ratio scale
- b) Data is drawn from the population is normally distributed
- c) There is homogeneity of the variance, that is, the samples being compared are drawn from the populations which have the same variance

A typical situation to use the ANOVA is when three separate samples are obtained to evaluate the mean differences among three populations (or treatments) with unknown means. Thus:

- a) The test statistic for ANOVA is an  $F$ -ratio, which is a ratio of two sample variances.
- b) In the context of ANOVA, the sample variances are called **mean squares**, or **MS** values.
- c) The top of the  $F$ -ratio  $MS_{\text{between}}$  measures the size of mean differences between samples.
- d) The bottom of the ratio  $MS_{\text{within}}$  measures the magnitude of differences that would be expected without any treatment effects.
- e) A large value for the  $F$ -ratio indicates that the obtained sample group mean differences are greater than would be expected if the treatments had no effect.

At its simplest (there are extensions) ANOVA tests the following hypotheses:

- a.  $H_0$ : The means of all the groups are equal.
- b.  $H_a$ : Not all the means are equal





However, the ANOVA does not tell how or which of the three variables differ, and in such cases, further analyses using “multiple comparisons” or posthoc comparisons are applied.


### Performing ANOVA in SPSS

The following instructions are divided into three sets of steps before performing an ANOVA. The first step is to ensure that all descriptives show that data presented enables an ANOVA to be performed. Conduct an exploratory analysis to (a) examine descriptive statistics, (b) check for outliers, (c) check that the normality assumption is met, and d) verify that there are mean differences between groups to justify ANOVA. In performing ANOVA it is important to

- a) Conduct the actual one-way ANOVA to determine whether group means are different from one another (warranting planned or post-hoc comparison tests, as described in step 3). Also, check that the homogeneity of variance assumption is met.
- b) Conduct planned or post-hoc comparisons if warranted. For illustration purposes, instructions are provided for both planned and post-hoc comparisons.

### ANOVA in SPSS

1. Go to **Analyse**
2.  **Compare Means.**
3.  **One-Way ANOVA.**
4. Highlight the Dependent variable and move  it to the Dependent List box.
5. Highlight the independent variables and move  them to the Factor box.

6.  **Options** in the lower right corner to open the One-Way ANOVA:
7. Options dialogue box.
8. Check **Homogeneity of variance test**.
9. Click **Continue** to return to the One-Way ANOVA dialogue box.
10. Click **OK** at the bottom of the One-Way ANOVA dialogue box to run the one-way ANOVA.

**Table 5: ANOVA Test Results Output**

ANOVA					
Malaria cases at baseline					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.267	2	5.633	3.911	.022
Within Groups	197.333	137	1.440		
Total	208.600	139			

The results of the overall  $F$  test in the ANOVA summary table can be examined to determine whether group means are statistically different. The overall  $F$  test is significant in the above output (i.e.,  $p$  value  $< 0.05$ ), and it indicates that means between groups are not equal for the number of malaria cases as a function of the residence. To report the ANOVA results, you indicate the main statistical output that will aid with the interpretation and in this case, you indicate  $F(2, 137) = 3.911, p < .05$ . Since the ANOVA in the table above confirms that there was a significant difference among the three residencies, in its current form, it does not tell us which of the residencies differ in the malaria cases. To achieve this, multiple comparisons also referred to as planned or post-hoc comparison tests need to be performed to tell us more on which residencies differed significantly. Examples in SPSS include; *LSD, Sidak, Scheffe, Duncan, Dunnett, SNK, Bonferroni, and more...* These post-hoc comparisons are often selected based on the rationale they hold for performing the comparisons.

**Table 6: Multiple Comparisons Output of ANOVA**

Multiple Comparisons						
Dependent Variable: Malaria cases at baseline						
Bonferroni						
(I) project area	(J) project area	Mean	Std. Error	Sig.	95% Confidence Interval	
		Difference (I-J)			Lower Bound	Upper Bound
Mumbwa	Chongwe	-.61905*	.25237	.046	-1.2307	-.0074
	Kafue	-.04762	.25237	1.000	-.6593	.5641
Chongwe	Mumbwa	.61905*	.25237	.046	.0074	1.2307
	Kafue	.57143	.24247	.060	-.0163	1.1591
Kafue	Mumbwa	.04762	.25237	1.000	-.5641	.6593
	Chongwe	-.57143	.24247	.060	-1.1591	.0163

\*. The mean difference is significant at the 0.05 level.

The table above provides more information on how the residencies have been compared using the *Bonferroni*. The results in the output above show that only Mumbwa and Chongwe produced significant difference on the number of malaria cases reported ( $p = .05$ ).

**Qualitative Data Analysis**

Qualitative data analysis is the process of turning written data such as interviews and field notes into findings. Marshall & Ross (1990) define it as a search for general statements about relationships among categories of data. The qualitative test of a hypothesis, although subjective in the sense of relying upon observations of the researcher rather than quantitative statistics, can be equally as valid as the statistical test. A qualitative analysis of data uses the same processes of data organisation and evaluation as is found in quantitative analysis, albeit with non-numerical observations. This type of analysis has got no formulas that need to be applied.

However, skill, knowledge and experience give critical insight on how that process can be done. This process needs the willingness to keep learning in order to get the best out of the data that is at hand. The willingness of working and learning while working on the data is cardinal in this process because there are no quick fixes when trying to make sense of the information in a much quicker way. Merriam (1998) describes this process of data analysis as a complex action of moving back and forth between data and concepts, between description and interpretation, using both inductive and deductive reasoning. Analysing data qualitatively has no fast-forward ways but requires patience on the part of those conducting the analyses. In qualitative analysis, it is encouraged that the analysis is done independently by different

individuals in order to achieve some sort of reliability. Having other people to review what has been analysed is important because it enhances and helps findings to be considered more useful and trustworthy. It is usually difficult to take as truth, work that has not been reviewed or seen from one eyes' perspective. Whatever method of analysis and interpretation thereof, the aim of every evaluation is to produce good quality findings.

### **Importance of Qualitative Data Analysis**

Some of the identified significance of conducting qualitative data analyses includes;

- a) Identifying any significant change that may have occurred in people and communities.
- b) Understanding any subtle indicators of social change that may have emerged from the data.
- c) Identifying ways that could improve the implemented programme.
- d) Gaining knowledge about emerging issues that may help understand the data.
- e) Enriching findings with lively and detailed information that lacks in quantitative data.
- f) Understanding culture, experiences and activities of diverse community members and the context of people's lives.
- g) Understanding the community dialogue of who is included and excluded.

### **Types of Qualitative Data Analyses**

Many forms of conducting analyses qualitatively exist (i.e. case study approach, theory-based approaches, and collaborative and participatory analysis). Therefore, some of the ways of organising, managing and analysing qualitative data are discussed.

### **The Process**

Qualitative data from M&E methods like most significant change stories and focus group discussions are often messy and unstructured. Unlike quantitative data analysis, qualitative data analysis does not happen in a linear way, neither is it a neat or simple process. It requires a repeated process of critically reading, interpreting and reaching shared understanding of the data. To ensure effectiveness of data usage, it is imperative to generate a data organisation, management and analysis system that all those involved in the analysis follow.

### **Coding**

Coding involves classifying or categorising individual pieces of data. Boyatzis (1998) states that a good code has five elements:

- a) A label (i.e., a name);
- b) A definition of what the theme concerns (that which characterises the theme);
- c) A description of how to know when the theme occurs (those aspects that let you know to code a unit for that theme);
- d) A description of any qualifications or exclusions to the identification of the theme; and
- e) A listing of examples, positive and negative, to eliminate confusion. The label should be developed last and should be conceptually meaningful, clear and concise, and close to the data.

Coding of qualitative data can create either qualitative or quantitative categories. Coding units like *concepts* are coded as the units of analysis. Thus, a single sentence or several pages of text might code identically, as an expression or example of a concept. Similarly, a unit of analysis might be coded within several coding units simultaneously. Coding is a physical act where the researcher decides how each event or artifact is coded. This process can be done “by hand” or by computer software programmes.

## Steps to Coding

### *a. Theory Driven Coding*

This kind of coding begins with the researcher’s theoretical predisposition of what occurs. It stretches to the formulation of the indicators of evidence that would support the theory. The elements of the codes are derived from the hypothesis or the elements of the theory. In this coding process, prior research can be used to develop coding schemes.

### *b. Research Driven Coding*

Research-driven codes consider codes used by other researchers whose findings provide the most direct help in the development of codes. Using someone else’s codes and may require that one looks at inter-rater reliability.

### *c. Data-Driven Coding*

This involves inductive code development based on the data collected. Here, the researcher might decide which concepts to investigate *a priori*. In most cases of qualitative analysis, the researcher builds a series of codes inductively through the process of analysing the data. The process of coding data includes looking for patterns and themes. This process of creating codes inductively typically requires several iterations of trial and error to decide which codes will be used. The researcher begins with “open coding,” the process of creating many codes as one takes an initial look at the data (Strauss & Corbin, 1990). Open coding is followed by “axial coding,” or the process of selecting the key codes and concepts of interest. Axial coding

involves a regrouping of the data into the main coding scheme while “selective coding” identifies *the* central code, the one to which all other codes are related. Once a coding scheme is finalized, to the extent that any coding scheme is “final,” the researcher will try to assign instances to the existing coding scheme.

### **Memoing**

Memoing is the process of writing memos to oneself when developing the coding scheme. These notes help to recall ideas for coding and developing concepts as the data analysis progresses. Several techniques help the researcher to progress with a grip in the analysis such as:

- a) Code notes which identify the code labels and their meanings.
- b) Theoretical notes which give the researcher ideas for concept and theory development during the coding process.
- c) Operational notes that deal primarily with methodological issues. These are ideas and reminders that focus on the data gathering or coding process itself.
- d) The elemental memo is a detailed account of relatively specific points of interest to the researcher. The final coding scheme and conceptual development of the study rely upon the compilation of these memos.
- e) Sorting memos are notes regarding the organisation and compilation of the elemental memos. These are ideas about how to move to axial codes.
- f) Integrating memos are ideas about how to organise the axial codes into a coherent account of the data. The process of memoing is iterative. The many memos and notes entail a trial and error process of developing the overall conceptual account of the data.

If we coded, the evaluator can organise verbatims that answer his or her evaluation questions. For instance, the evaluation also tried to find out at baseline signs of malaria and how household manage malaria cases. This information can be presented as follows:

Respondents in all the FGDs conducted, mentioned hot body (especially at night), headache, restlessness, loss of appetite, bitterness in the mouth, body weakness, body and joint pains, dizziness, tired feeling, cold, chills and a feeling that makes you fond of sitting in the sun as signs and symptoms associated with malaria while yellow eyes; dark or yellow urine, and yellow vomiting were associated with severity of malaria:



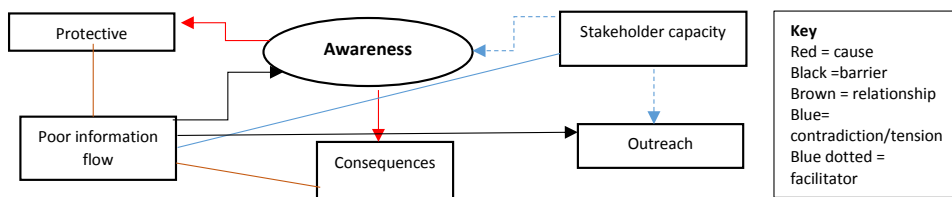
*Your whole body will become hot, your mouth becomes bitter and you don't have the appetite for anything" (FGD Atta Akura, female 35-49). "You will feel cold, weak, with bitterness in the mouth and when you urinate; the urine is very yellowish in colour" (FGD, mothers less than 30 years).*

*What happens is, you have to use some local herbs and see but when it becomes severe then you go to the hospital." (FGD mothers less than 30 years)*

*"Most often, we usually manage the sickness at home a little. We are able to manage it by giving for instance paracetamol syrup. If we see that after some days the situation is not improving then we take the child to the hospital" (IDI mother above 30 years)*

### Concept mapping

In qualitative data analysis, the researcher spends a lot of time in committing thoughts to paper, in organising ideas into a coherent conceptual approach to the data. This process is iterative and uses trial and error system. Placing concepts in a graphical format, called *concept (thematic) mapping*, can help the researcher organise thoughts. The example below is a concept map of factors influencing awareness of malaria control and management.



**Figure 5: Thematic Map on Awareness of Malaria**

## METHODS IN QUALITATIVE DATA ANALYSIS

### 1. Grounded Theory Method

Using this method entails cross-case analyses that inductively create/adopt concepts and build theories. A key feature of this method is the use of the constant comparative method. This Comparative method involves;

- a) Comparing incidents across cases.
- b) Developing/adopting concepts.

- c) Comparing concepts across cases.
- d) Integrating concepts from different avenues of inductive inquiry.
- e) Delimiting the theory (creating/adopting a theoretical approach; ruling out some concepts that seem less important).
- f) Writing theory and explaining the approach and theory to others.

## **2. Semiotics (The Science of Signs).**

In this method, learning the meaning of language, symbols, and behaviour within a social setting is critical. This method focuses on content validity of concepts. "Signs" can be material artifacts or non-material instances (e.g., "body language," gestures, word usage). Semiotics also focuses on the dramaturgy of everyday life; the presentation of self and meanings to others. It determines how the meaning of signs and symbols is constructed. It assumes that meaning is not inherent in signs and symbols but the meaning comes from relationships with other things (Manning, 1987).

## **3. Conversation Analysis**

This analysis gives extremely close scrutiny of the way people converse with one another. It is especially important to studies of ethno-methodology. This kind of analyses makes assumptions of socially structured activities in nature. Emphasises that conversations must be understood contextually and seeks understanding of the structure and meaning of the conversation.

## **4. Hermeneutics/ Interpretive Analysis**

In hermeneutics/interpretive analysis, the meaning of text is drawn from people in situation (van Manen, 1994). It emphasises the story of the participants, their use of words in a particular situation. This method provides different layers of interpretation of text. Knowledge is constructed through the meaning of text (from background and current situation). It looks at how the context is used in time and place of writing in order to understand. Fundamental questions for this method include; what was cultural situation? What is the historical context?

## **5. Narrative Analysis**

This method of analysis looks at the data from an individual's perspective (Reisman, 1993). The emphasis here is the story of what a person is sharing about self which frames the perception. The researchers need to compare the ideas about self that are shared. It is important to be aware as a

researcher that with this method, participants have a tendency of avoiding to reveal negatives about self. Researchers need to consider the following;

- a) Context-situation;
- b) Core plot in the story told about self;
- c) *Basic actions*-narrative analysis could involve study of literature or diaries or folklore.

## 6. Discourse Analysis

This method focuses on the interaction among participants. The researcher here is interested in finding patterns of questions, the person dominating the discussion in time and topical issues under discussion. Other patterns of interactions are determined among the several people that that are discussing (Gee, 1990).

## 7. Content Analysis

This method focuses on looking at documents, text, or speech to see what themes emerge. The essential question here is; what do people talk about the most? This method focuses on how themes relate to each other. Through the content, latent emphasis is found within the text. Standard rules of content analysis include:

- a) How big a chunk of data is analysed at a time (a line, a sentence, a phrase, a paragraph) must be stated and stay with it.
- b) What are units of meaning? The categories used must be inclusive (all examples fit a category) and mutually exclusive that is, defined precisely and observing the properties in which all data fits some category (exhaustive).
- c) Note the context- It is advisable that when you are using this method for analysis, you have to start by reading all way through and then specify rules.
- d) After determining categories, do the counting, determining the number of times and how often categories occur.

## Conclusion

In sum, data analysis is an integral part of every project. The data collected from the field come in different shapes and sizes, following different methods and orientations. These data require relevant ways of making sense of the seeming mess that is collected from the field to ensure that appropriate interpretation and conclusions concerning a matter are adequately addressed. In M&E, two methods of

data analysis exist quantitative and qualitative. The choice of which method to use is entirely dependent on the design selected for the project. Whichever method is deemed appropriate, researchers need to understand the purpose of the project to ensure that the right method is used. There are several kinds of computer software programmes that aid the data analysis processes whether quantitative or qualitative. It is important that books on statistics are consulted in order to get a fuller understanding of how these data analyses processes work.

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## Part 4

### Disseminating and Reflecting on M&E Results

#### Part Chapters

- Communicating and Reporting M&E data
- Impact Evaluation: A report on the Impact of the Pre-School Feeding Programme in Gauteng Province, South Africa
- Reflecting, Learning, Documenting Best Practices and Adjusting the Project Strategy





## Chapter 9

### Communicating and Reporting Monitoring and Evaluation Data

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## Introduction

One of the final stages of the monitoring and evaluation process involves communicating the results of your research. This is a very important component because it renders the research relevant, meaningful and beneficial to various stakeholders and various segments of society. What would be the point of conducting research if it does not benefit or add value to society? This chapter will discuss communication of results. It will begin with a brief explanation on what communication is and the importance of communicating and reporting your research results. This will be followed by the different modes of communication that can be used, depending on the audience.

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### Focus Box 1: The GraphoGame Intervention in Zambia Study

The above mentioned study was conducted by the Centre for Promotion of Literacy in Sub-Saharan Africa (CAPOLSA) in collaboration with the University of Jyväskylä. It was funded under the All Children Reading Project: A Grand Challenge for Development with partners USAID, World Vision and Australian Aid. The study was conducted as a pilot study to establish if ICT could be used to improve literacy skills of early grade learners and literacy teaching skills of first grade teachers. A literacy game, GraphoGame, was used as an intervention for the learner, while a GraphoGame teacher training website was used to impart information on how to teach literacy in the local languages and information about how to help struggling readers. This study was conducted in the Eastern Province of Zambia.

Baseline, midline and endline data was collected from 30 schools (15 intervention and 15 control schools) using GraphoGame and the Early Grade Reading Assessment (EGRA). During the course of the project monitoring of the project was conducted via phone calls and site visits to the intervention schools. On a weekly basis GraphoGame play logs were downloaded from the GraphoGame server. These logs provided detailed information for each of the intervention schools. It included information such as whether or not learners were exposed to the game in that week and if so, how long did the learners play for? How far in the game did they progress? Which specific learners played and how much progress did the learners make? If this information was not on the server for a particular school, the school would be contacted to find out if they had any challenges and what could be done to help.

As most teachers had not worked with ICT in education, it was important to provide them the necessary technical support to help them conduct the intervention correctly. This was done to determine the fidelity of implementation of the project. Based on this and other data from the project, various changes to the research design were made to make it more realistic and attainable. Quarterly progress and financial reports were prepared and shared with the funders, who uploaded our progress reports onto their website. Updates on the progress of the project were given to the funders on a fortnightly basis via email.

During the duration of the project, stakeholder consultative meetings were held with different organisations in the field of education as well as various funders. Stakeholders included the Ministry of General Education, Curriculum Development Centre, Teacher Education and Specialised Services, various NGO's, FBO's and funders such as JICA, USAID and DFID. This provided the opportunity to meet other stakeholders and learn about the work they were doing. The meetings provided good networking opportunities and possibilities for future collaborations. Experiences on the project were shared through various forums such as conference presentations, articles and stakeholder workshops. A series of dissemination workshops will be conducted at the end of the project. These catered for different audiences such as stakeholders, policy makers and the teachers who took part in the study.

---

## Using M&E Data

Now that you have collected all the research data. What will it be used for? Data from research, monitoring and evaluation is very useful for the organisation and various stakeholders, depending on the field you are in. The value of a monitoring and evaluation activity is measured by the extent to which the information is used by the organisation, intended decision-makers and the society at large. For the project or organisation, the data can be used to inform decision making about whether or not to design another programme, accountability, to make corrections during the implementation process of a project, where to allocate more resources and learning in general (UNDP, 2006). Results from an M&E activity can certainly provide information and facts that can be used as learning opportunities and create new knowledge within the organisation. Thus:

1. Information can be used to improve the performance of current and future projects, programmes and strategies.
2. Information from M&E can also be used for partnership building and advocacy. For example, if a project highlights its successes and good practices, these can then be shared with other stakeholders who could learn and possibly adopt the good practices and also promote collaborations with other organisations.
3. Information from M&E can help promote credibility and transparency within the organisation and other partners.
4. Results obtained can then be shared with other stakeholders for the good of the organisation and the greater good of society.

## How can a Project/Organisation learn from Monitoring and Evaluation?

*Accountability* -this can only be achieved if measures are put in place to ensure that there is accountability and individuals within the organisation learn from this. For example, the regular exchange of information through the process of reporting, conducting learning sessions and information from M&E can be used to provide feedback into the planning process. This will encourage better outcomes and results.

*Future planning and programming*: knowledge gained and lessons learned from monitoring and evaluation can be used to inform new projects that are being identified, designed or appraised. For example, M&E data can be used for project revision. The data can help answer the following questions about a project: is the implementation on tracks (quality of outcomes and timeliness)? Is the implementation strategy working? Is the project reaching the intended beneficiaries? What is working and what is not? Responses to these questions can help make timely decisions that will improve the

implementation of the project. If your project was a pilot, information from M&E will provide information on what worked and what did not work, thus determining how well the study can be replicated or scaled up.

M&E results can also be used in the production of project documents. Various project documents should include relevant information from reviews and evaluations conducted in the project. For example, financial and progress reports could be included. These should highlight lessons learned from evaluation findings and how the lessons have informed the project.

### **Contribution at Regional and National Level**

M&E data and evaluations should go beyond benefiting the project or organisation. Contributions should be made to the targeted community and society at large. Key findings, conclusions and recommendations should be shared and made available to other partners, stakeholders and anyone who may benefit from that information. Distribution of evaluation reports to a wider audience can certainly increase the impact of the project. As the needs of different audiences differ, information from the evaluation report will need to be packed differently to cater for the audiences. It is therefore important to identify your potential audience; who they are, what they do, and how they can benefit from the evaluation report. There are many different ways in which your organisation can share evaluation reports.

---

#### **Focus Box 2: How to share Evaluation Reports**

1. Upload on organisation's website.
  2. Organise dissemination meeting with stakeholders.
  3. Include evaluation results in publications, reports, newsletters and bulletins.
  4. Present results at annual stakeholders' meeting.
  5. Brochures and handouts of successes.
  6. Brief/summary of results.
  7. Peer-reviewed article.
  8. Presentation at a conference.
  9. Dissemination workshops.
  10. Success stories.
-

In order to effectively share information from evaluation reports, knowledge products should be of high quality, with an identified purpose and audience. Some of the characteristics of good knowledge product are listed below in Focus Box 3. A more detailed explanation will be given in the following section.

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**Focus Box 3: Characteristics of good knowledge product**

1. Based on assessment of needs and demand for the product among targeted users to ensure relevance, effectiveness, usefulness and value for the product.
  2. Designed for a specific audience, taking into consideration functional needs and technical levels.
  3. Relevant to decision-making needs.
  4. Timely.
  5. Written in clear and easily understandable language.
  6. Data is presented in clear manner.
  7. Based on the evaluation information without any bias
  7. When appropriate, it is developed through a participatory process and validated through a quality assurance process with relevant stake holders.
  9. Easily accessible to the target audience through most effective and efficient means.
  10. Consistency in presentation of products to enhance visibility and learning.
- 

**Source:** UNDP, 'Ensuring Quality Control and Policy Coherence: BDP Quality Assurance and Clearance Process', Bureau for Development Policy, May 2007. Available at: [http://intra.undp.org/bdp/clearance\\_process.htm](http://intra.undp.org/bdp/clearance_process.htm).

The above section attempted to highlight the importance of M&E information and results and how they can be used by the organisation to enhance internal processes and projects as well as make a contribution to the larger community. The latter aspect is very important. The success or failure of a dissemination process, especially to external stakeholders is largely dependent on how well the information is communicated. The following section will focus on communication of results and the different forms and channels of communication.

### **What is Communication?**

Before we define what communication is, let us first establish what communication is not. To begin with, communication is not standing in front of an audience and sharing your findings. Neither is it merely sharing your report via email or hardcopies. While these methods will ensure that you have sent the information to your audience, it does not guarantee that your audience has read, understood and appreciated your work. Effective communication of results considers some of the following aspects: formats and channels of communication, length of presentation or document, language used, writing style and the audience. Communication ensures that the message has been received, understood and is useful

to the audience. To some extent, it involves some level of engagement with the audience, i.e., the audience should be able to ask questions or communicate with your organisation about anything related to your results (Zimmerman, 2007).

### Communicating Research Results to Various Stakeholders.

In order to have the greatest impact, it is crucial that communication of results is effective and efficient. To achieve this it is important to:

1. **Know your audience:** Who do you want to receive the results of your study? Why have you chosen this audience? What message do you want your audience to take away from your results? What action do

“Writing is thinking. To write well is to think clearly. That's why it's so hard.”  
**David McCullough**

you want your audience to take once they have received the information. Answers to these questions are very important as they will determine what information to present, the depth of information to be presented and the mode of

presentation.

It is important that communication takes different forms so as to cater for different audiences as what might work for one audience

may not necessarily work for another. Communication of results to policy makers, may not be an effective way to communicate the results to community members such as parents and teachers. The different audiences

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#### Focus Box 4: Choosing Stakeholders

If your evaluation is focused on HIV prevalence rates in Lusaka, you would consider the various stakeholders in the field of health. These could include the Ministry of Health (policy makers), medical practitioners like doctors and nurses, community health workers, NGOs conducting work in the health sector, researchers and funding agencies.

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that may be considered will differ depending on the research and its objectives. However, audiences may typically include various stakeholders such as Government policy makers, the research community, Non-Governmental Organisations (NGOs), community members and many others.

2. **Know your message:** What is the most important message you want your audience to know? This message should be very clear to you before you begin to prepare the presentation. The most important messages should be presented at the beginning. The information should be presented in a logical and transparent manner. It should be organised, with headings, sub-headings and numbering where necessary. The manner of presentation should clearly show the development of various themes in your presentation (Jones, 2011).

3. **Present your message clearly:** Ensure that the information presented is easy to read and understand. Be direct in your presentation. Say what you want to say in a simple and precise manner. A range of 17 – 35 words per sentence words should be used (Jones, 2011). You refer to the audience as “you” and “we” and “I” when referring to yourself or your organisation. Use short sentences and avoid jargon, especially if you are writing for a non-expert audience. Use one sentence to present one idea, especially when using power point presentation. If you are presenting the information in a paragraph, ensure that one idea is represented in one paragraph.

### How to Communicate Research Findings to your Targeted Audience

There are many different formats and channels that can be used to communicate research findings that cater for different audiences. Some of these include:

1. **Policy briefs:** These are tailored for policy makers in government. They provide precise overview of the policy problem the research was focused on, information about the findings and recommendations or implications from the study. The document highlights the significance of the findings for the policy makers. The number of pages for this document can average 2-4 pages (1000-2000 words). The Table 1 below shows the general structure of a policy brief.

**Table 1: General Structure of the Policy Brief**

Section	Proportion	Content
Introduction	15%	<ul style="list-style-type: none"> <li>• Problem and its significance</li> <li>• Summary of findings and policy implications</li> <li>• Research methodology</li> <li>• Create anticipation for rest of content</li> </ul>
Discussion	40%	<ul style="list-style-type: none"> <li>• Description of context and problem</li> <li>• Discussion of research findings and solid evidence for recommendations</li> </ul>
Recommendations/implications	40%	<ul style="list-style-type: none"> <li>• Should not be more than three</li> <li>• Implications of what could happen</li> <li>• Recommendations of what should happen</li> </ul>

		<ul style="list-style-type: none"> <li>• Implications and recommendations should be supported by evidence presented earlier in the document.</li> </ul>
References and other resources	5%	<ul style="list-style-type: none"> <li>• Reader can make reference to this information if needed.</li> </ul>

**Adopted from:** Jones, (2011)

2. **Media publication/press release:** This is usually targeted at the general public. It has the main purpose of informing the public and making the research and its findings more visible to the public. The release may be on television, print media or website. It is important that the press release contains information that is news worthy, and has a human interest perspective attached to it. The information must captivate the audience by its relevance, creation of awareness and contribution to society. As you prepare a press release, it is essential to have answers to the following questions:
- I. The “who” questions -Who are the key players in your press release? Your organisation, stakeholders, donors or community members? Who are the beneficiaries of the press release? Who is the message most targeted at?
  - II. The “what” questions -What will the press release focus on? What new information is it presenting to the audience?
  - III. The “why” questions -Why is this information important to the audience? How is it different from similar information previously presented by other organisations/projects? What value or major contribution does the press release make?
  - IV. The “when” questions -When is the most appropriate time to release the information? Remember timing is everything. You want your article to have maximum impact. It should not be overshadowed by more important events.
  - V. The “where” question -Where will the press release be published? Even though a press release is meant for the general audience, remember that the audience you target when your press release is published in the newspaper or aired on television is different from the audience in a specialised magazine. For example, an article published in the newspaper on an intervention study conducted to improve the growth of maize should be different from one published in an agriculture magazine. The latter is likely to have a more specialised audience.



Once you have responses to the above questions, you can then organise the information in a coherent manner that will make it easy for the readers to follow. The content of the article will help you decide on the title of your press release. The title should immediately draw the attention of the readers and encourage them to read the press release. It should be short and concise, while reflecting the content of the press release.

Remember to keep sentences short and the language simple (especially for a non-specialised audience). Sentences with less than 25 words are preferable. Avoid lengthy explanations as they will deter the attention of the reader. The first paragraph is important. Try and get as much information as possible into the first paragraph. The idea of this is that if a reader was unable to read the press release in its entirety, he or she should be able to get a general grasp of the release just from the first paragraph.

The second paragraph should focus on expanding the points highlighted in the first paragraph. The third paragraph provides quotations and additional information related to the article. The fourth paragraph is more of a closing paragraph. It provides a summary of the press release and additional sources of information. Ensure that the press release is within a page. If your press release is 3 pages, it is more of an article than a press release. Do not forget to include contact information at the end of the press release in case someone would like to contact your organisation for additional information or clarifications. If there is an opportunity to include a picture as part of the press release, go for it!

3. **Scientific presentation:** This is focused on an academic audience. It is usually structured to include the following main sections: Introduction, research questions/objectives, theoretical framework, methodology, findings and conclusions/recommendations. Technical language is usually used because the audience can understand. The presentations can take the form of oral/PowerPoint presentations or poster presentations. Very little text is used in these presentations. One sentence is used to represent an idea/point. The presentation of findings will focus more on graphs, figures, tables and diagrams. The information presented in scientific presentations is usually a summary of a much larger report on the research and its findings.
4. **Stories of change.** These are stories that explain change that has occurred as result of the project. They are not focused on the research process. Instead they explain how the research led to change in policy, behaviour, attitudes, knowledge or practice (Jones, 2011). Stories can also highlight expected change from research projects that did not happen, thereby using the story to reflect on what went wrong and what could have been done differently. The structure of the presentation is usually one of a story. The table highlights the sections that should be included in the story.

**Table 2: Presents the Sections of a Document that would contain a Story of Change**

Section	Proportion	Content
Introduction	20%	<ul style="list-style-type: none"> <li>• Description of major message from the story in no more than four sentences.</li> <li>• Describe the situation/policy issue when the story began such as people involved, the date, situation, location etc.</li> </ul>
Action	25%	<ul style="list-style-type: none"> <li>• Description of research and other activities undertaken that helped deal with the challenge e.g. meetings, workshops, rallies</li> </ul>
Result	20%	<ul style="list-style-type: none"> <li>• Highlight successes and failures of activity conducted both in short and long term.</li> <li>• Provide description of impact on beneficiaries</li> </ul>
Conclusion	30%	<ul style="list-style-type: none"> <li>• What were lessons learned from the activity?</li> <li>• What were factors that led to the success and failure of activity?</li> </ul>
Further information	5%	<ul style="list-style-type: none"> <li>• References used in the research and other relevant resources.</li> </ul>

**Adopted from:** Jones, (2011)

**Theatre and drama:** Theatre and drama can also be used as a form of communication. This form of communication is very relevant when communicating to an audience that is unlikely to read any information you want to disseminate. In most instances drama is conducted at the community level. It can be used to communicate behaviour change related to issues affecting that community. It is a very powerful form of communication as the audiences are likely to identify and connect with the scenario presented in the drama or play.

There are many other forms of communication that can be used to communicate research results apart from the ones listed above such as

websites, fairs or exhibitions, etc. What is important is that you identify the objective of the communication and the most appropriate format and channel of communication that will meet your organisation's objective. For some

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**Focus Box 5: Characteristics of Good Communication**

1. Communication is a two way process. As you communicate the results... listen to your audience!!
  2. Know your audience
  3. Know what the audience needs to know, know what will draw their attention
  4. Consider the context in which the work is being done
  5. Be clear, precise and keep it short!
-

organisations, the need for a communication strategy may arise. The strategy would outline how various aspects of the research project would be packed and disseminated to various stakeholders over a period of time. An expert in communication strategies would need to be involved in the preparation of such a document.

### **How to Prepare a Progress Report**

As the name suggests, a progress report is an important written document that helps communicate the progress of a project to people within the organisation and outside the organisation (clients, funders, stakeholders etc.). It highlights what has been done and what is yet to be done on the project.

### **Functions of a progress report**

The three functions of a project progress report are to:

- a) Inform the project stakeholders what has been accomplished and what remains to be accomplished in order to complete the project.
- b) To alert the project stakeholders, especially the project sponsors to various project needs and issues.
- c) To provide documentation in case of any legal problems that may arise during the project implementation.

Project stakeholders are individuals or organisations that have a share/interest in the project. These are usually identified at the very beginning of the project in the **project charter** or **project plan**. Project stakeholders usually include the project sponsor or sponsors, project team members and other leaders or executives. Since the project sponsors are responsible for financing the project, they have the right to know about any risks or issues that may affect the project and what is being done to mitigate or solve them and what the sponsors can do to help solve any problems. Stakeholders may also include individuals from other areas whose work may be affected by the progress or results of the project. If there are any delays, these too will be highlighted in the report.

A progress report also helps establish and formalise the various duties and responsibilities of team members on the project. When reporting what has been done, there is also information about who did what and when. This acts as a formalisation process of the various responsibilities. Progress reports also help tie down a work schedule. By determining what is left to be done, a time schedule can be attached to each of the remaining activities. If previous activities have not been achieved within a stimulated time-frame, the progress report will contain information on the various challenges that led to this. It will also highlight problems (if any) that were experienced during the project.

The subsequent paragraphs will discuss progress reports in more detail, the different types of progress, their formats and content.

### Types of Progress Reports, Formats and Content

Progress reports come in different forms. However, there are three main types of progress reports:

1. *Memo*: This is mostly used for communication within an organisation. It is internal communication that is used when everyone is familiar with the project. Correspondence about the project is usually copied to other individuals associated with the project within the organisation. In terms of formats, different organisations have different formats for presentations of memos.
2. *Letter/email*: Instead of a memo, an email or letter can be used to communicate. This can be shared internally or otherwise.
3. *Formal report*: Emails and memos can sometimes be informal and targeted mostly at individuals within an organisation. The formal report, as the name suggests, is more formal and can be shared with individuals outside the organisation. The presentation format is usually in a folder and bound to make it look neat and professional. This format is the most preferred when sharing information about the project to a wide audience, as this is the most widely used format of presenting information. The table below shows the different components of a formal progress report. Most reports will not contain all of the sections listed below. The organisation or person responsible for preparing the report can decide which sections are most relevant for their audience.

**Table 3: Format for a Progress Report**

Component	Description
Project ID	This is the title of the project or a special ID that is assigned at the beginning of the project.
Project manager(s)	Name(s) of the project managers/coordinator(s).
Project sponsors	Name of project sponsor(s)/funders.
Reporting period	Dates of the period being reported on. This can be general or specific
Budget status	This can be presented in either general or specific terms. If presented generally, terms such as “under budget”, “on budget” and “over budget” can be used. If the information is expected to be more specific then specific

	amounts should be included. This will include amounts on planned expenditure, actual expenditure and deficit or surplus.
Schedule status	This can also be reported in either general or specific terms. General terms will include “ahead of schedule”, “on schedule” or “behind schedule”. To be specific include, specific details about planned hours, days or weeks, actual hours, days, or weeks spent on a project so far and deficit or surplus.
Projected completion date	This is the date for when the project is expected to be completed. This is usually included in the project plan. If the date changes during the course of the project, the plan will have to be updated.
Project description	Two or three sentence descriptions of the project. This is meant to serve as a reminder to the sponsors about the project. This statement can be maintained for all the progress reports.
Personnel	Personnel information will include information on individuals and the positions on the project. Information on personnel can include team members, their names, functions and time commitments to the project. Information on released members and the function they served during the reporting period. Individuals to be released during the next reporting period, their names and functions can also be included.
Milestones	Milestones are high level goals that define the different phases of a project. These must be stated at the very beginning of a project in the project plan. Milestones that have been reached at the point of reporting should be indicated.
Accomplishments	These are tasks that were accomplished during the reporting period. These are low level milestones. They are smaller tasks that are required to accomplish high level milestones.
Projected goals	These are goals that are expected to be completed in the next reporting period.
Changes	These refer to any changes that occurred during the period being reported. These include tasks, milestones, budget and resources.

Issues/challenges	These are problems being faced by the project that need to be addressed for the successful completion of the project. The project should keep a log of these and action points included.
Risks	A description of risks to the successful completion of the project. The project should keep a risk log, which includes risk analyses.
Change requests	These are requests to change certain aspects of the project. Changes could include project schedules, tasks, milestones, budget or resources. References should be made to the change log, which will provide explanations for the requested changes.

When preparing the progress report, the goal should be to provide the least amount of information needed for the reader to easily and quickly read through. If the document is easy to read, the sponsors are more likely to respond promptly to the information presented. It may be necessary to create different progress reports for different stakeholders, as different stakeholders have different interests in the project. It is also important to check with the funders of your project if they already have a preferred format of presentation. Some funders may provide their own templates for reporting. Other than progress reports, projects are expected to produce evaluation reports. The subsequent sections will focus on what to include in an evaluation report.

### **Evaluation Report**

Simply put, an evaluation report is the document that is produced after an evaluation of the project has been done. It provides information on whether a project or programme is being implemented according to standards set out at the beginning of that project (Scheunpflug & McDonnell, 2008). An evaluation is a procedure that examines a project. It includes data collection and analyses about the project activities, characteristics and outcomes. Evaluations are mainly conducted to:

#### **(a) Improve Project Design and Implementation.**

An evaluation will allow you to assess and adapt the project's activities to ensure effectiveness. It helps identify areas that need improvement, thereby providing information that will help the project meet its goals. It also helps you to identify what was effective within the project and what was not. This is knowledge that can be applied to future projects (OECD, 2001; UNICEF, 2004).

**(b) Demonstrate Programme Impact.**

Evaluation allows for you to determine the progress that has been made and highlight the success or milestones achieved. This information can be used to communicate the project’s impact to various stakeholders. This communication is important for public relations, giving positive feedback to members of staff, which will increase their morale. The information can also be used to attract future funders or collaborators (Imas & Rist, 2009).

If you were asked to prepare an evaluation report for your organisation, what information would you include in the report? The table below can be used as a guide. When you present the information in a systematic and uniform manner, it makes it easier to read. Remember to check with the funders if they have an already stipulated template that they would like you to use.

**Table 4: Format for an Evaluation Report**

<b>Component</b>	<b>Description</b>
Title	What is your project called? The title must reflect or describe your project. Always keep your audience in mind.
Executive summary	This section provides the reader with a summarised version of the evaluation results. It should be 1-2 page long and should include information about the purpose of the evaluation, main findings, conclusions, recommendations and lessons learned. This section should be well written as this may be the only section of the report that some people will read. Be sure to break up the text so that it is easy to read.
Introduction	Provides the background and overall purpose and scope of the evaluation, including how it was done, who did it and its intended use (this could include accountability, learning or preparation for another phase of the project etc.), the evaluation criteria used and the key questions the evaluation was answering. A brief description of evaluation methods used and the involvement of stakeholders should be included. Finally, an outline of the structure of the report for ease of reference to readers should be provided.
Background	This section describes the main characteristics of the evaluated programme/project; its history, location, organisation and stakeholders. It should also include the problem addressed by the project, objectives and how the project is tackling the problem. A description of the activities being carried

	<p>out by the project, key outputs delivered and overall costs should be stated.</p> <p>The policy and development context of the evaluated project, assumptions about external factors that were considered during the planning of the project should be included. Information about previous evaluations conducted on the project should also be included. This section may be quite long. It is important to use sub-headings and break the text into shorter paragraphs to make it easier to read.</p>
Evaluation methods	<p>What methods were used to evaluate the project, for example, FGDs, questionnaires, interviews, observations? Strengths and weaknesses of the chosen methods should be stated. Who took part in the evaluation e.g., number and characteristics of participants and how they were sampled? How was the data analysed? The use of varied methods and data sources adds to the validity of the evaluation.</p>
Results/findings	<p>This section presents the results of the evaluation which should be presented according to the objectives. It usually includes both qualitative and quantitative data. Tables, charts and graphs should be used to present quantitative data while qualitative data can be presented as themes. Quotes can be used to present key themes, while bearing in mind the confidentiality of the informants. In this section, it is also important to include evaluative conclusions. These are concluding assessments of the project based on the findings. They provide answers and evaluative conclusions to the questions in terms of references, based on the available data. These evaluative conclusions may include information on whether the project was relevant, effective or efficient; whether it reached the intended target and had the intended effect or whether or not it was sustainable. Evaluative conclusions are best presented together with the underlying findings on which they are based. They should not be presented separately.</p>
Discussion	<p>This is more of a reflection of the lessons learned from the evaluation. It also includes recommendations based on the findings. Recommendations focus on what was useful in the project and should be maintained or expanded. It also provides information on where changes need to be made in terms of policy or</p>



	practice. Recommendations could be directed to various stakeholders and the project itself. Each recommendation should be linked to the findings.
Conclusion	This section is used to reinforce the major message which you want the audience to take home, based on the evaluation. Summarise what the evaluation found. Make sure that it is clear and precise.
Acknowledgements	This is where you thank people who have been involved in the evaluation as well as funders and other relevant audiences. This information can be included either at the beginning or the end of your report.
References	List any references that you used during the evaluation and in the preparation of the report. This should be done in a way that allows others to follow up on them without difficulties. Often used is the Harvard or APA style of reference.
Appendices	This will include copies of your data collection tools and other information that would interrupt the flow of the main project.

The above table indicates the main sections of an evaluation report. However, depending on the funding agency additional sections may be included.

### **How to Prepare a Communication Strategy**

The subsequent section will focus on key components of a communication strategy. A communication strategy is important, as it is intended to help you and your organisation to communicate effectively and meet core organisational objectives.

#### **1. Purpose of Communication Strategy**

When preparing your communication strategy, it is important for you to understand why it is important for your organization and what you hope to achieve with it. This is important as it acts as a reminder for those who will be using the strategy. For example, this communication strategy shows how effective communication can:

- Help us effectively engage with stakeholders;
- Help people understand what we do;
- Help us achieve organisational objectives.

## 2. Introduction Section

This section will include information about your organisation, what it does, its main objectives, where it is found and who your work targets. It should also indicate the organisation's success over the past years and its current situation. This can be done by using a PESTEL analysis, which involves stating the political, economic, social and technological factors that could contribute both positively and negatively to your organisation and how each factor will likely affect you. You could read more about this at <https://knowhownonprofit.org/organisation/strategy/externalanalysis/pest>

In your introduction, you could also list your strengths and weaknesses as an organisation. This can be done by using the analysis: strengths, weaknesses, opportunities and threats (SWOT). In terms of your communications strategy, how can you turn the threats into opportunities? How can you use your strengths to enhance your communication as an organisation? To read more on SWOT analysis, you can go to <https://knowhownonprofit.org/organisation/strategy/options/swot>

## 3. Organizational Objectives and Communication Objectives

An important part of the communications strategy is the organisation's overall plan. What is your organisation's vision, core aims and objectives? These should be clearly spelt out and known by everyone in the organization. The communication strategy should indicate how communication can help achieve these goals. Key messages that will be delivered should therefore be connected to the goals and objectives. Each of the organisation's strategic objectives (from its business plan) can be broken down to show how operations and communication can contribute to delivering the objectives.

Below is an example of one of CAPOLSA's objectives:

**Objective 1:** To help increase literacy levels of first grade learners through the use of GraphoGame.

**Operational/policy objectives:** To work by conducting research using GraphoGame and inform key stakeholders such as MOGE on the findings of the research with GraphoGame.

**Communication objectives:** To provide a regular flow of information about on-going research with GraphoGame to key stakeholders as well as to provide information on the findings of the research through dissemination workshops.

An important point to remember is that your communication strategy should cater for the entire duration of the organization's overall plans, for example, if your project has a 5-year plan, the communication strategy should work within that timeframe. All this planning should be done with available budgets and resources in mind.

#### **4. Identifying Stakeholders**

In the earlier part of this chapter, we discussed the importance of identifying the various audiences/stakeholders, both internal and external, local and international. In this section of your communication strategy, you should provide a detailed description of the main audiences as well as potential audiences. The strategy may need to outline what which audiences would be interested in parts of your strategy and activities. This will make it easier to prioritise work related to communications.

For example, various aspects of CAPOLSA's activity to produce early grade reading materials in the local languages could be of interest to different stakeholders. If CAPOLSA identifies MOGE, CDC, publishers, local writers and book stores as audiences then they would tailor their communication strategy to these audiences. Therefore,

- a) MOGE and CDC would be interested in the quality of the books, languages in which the books are produced and distribution of the books to schools around Zambia.
- b) Maiden and McMillian publishers would be interesting in the publishing of the books.
- c) Local writers would be interested in the production and editing of the stories.
- d) The book stores would be interested in selling the end product.

Some interests might overlap for the difference audiences. As an organization you would focus your communication on specific activities to specific audiences. However, if you were to have a dissemination about activities related to the books, you would provide that information to all the stakeholders.

Another way of prioritising your audiences or stakeholders could be done through a process known as 'mapping'. This will involve choosing criteria important to your organisation and then ranking your different audiences against those criteria. This will help you determine which stakeholders are the most important and focus your communication on those select few. Some simple examples of mapping stakeholders include looking at their influence on policy and resources and their interest in your organisation.

#### **5. Messages**

As mentioned earlier in this chapter, different messages should be tailored to different audiences. Start with the audiences that are the highest priority. However, it is important that there is continuity throughout the messages to the different stakeholders. It is important that all of your stakeholders understand what kind of organisation you are, so your messaging needs must always link back to your key organisational objectives and values.

## 6. Methods of Communication

For each audience that you identify, you should determine the most appropriate channels for communicating with them. Some of the communication methods have already been mentioned earlier in this chapter. These can include conferences, workshops, leaflets, press releases etc. You should always remember that there are advantages and disadvantages to each of these different channels of communication. These should be considered as you decide on each method. Once you have connected your channels of communication to the different audiences, you can then construct your communication plan. For example: if we make reference to audiences CAPOLSA identified above, we could tailor the messages in the following way:

**Table 5: Communication Messages and Channels for specific Audiences**

Audience	Key communications messages	Key communications channels
MOGE/CDC	<ul style="list-style-type: none"> <li>▪ We have a strong evidence base and our research with GraphoGame is grounded in robust evidence.</li> <li>▪ We have a good knowledge of the policy environment.</li> <li>▪ We are a well-respected, authoritative organisation in the use of ICT and education.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Quarterly policy briefings on policy related to ICT and education.</li> <li>▪ Ensure up to date research evidence is shared in brief reports.</li> <li>▪ Ensure all press releases are sent to relevant government departments in advance.</li> <li>▪ Positive media coverage.</li> </ul>

## 7. Work Plan

Once you have identified your audiences and key communications methods the next step is to link the key communications activities, budget, and resources allocated to delivering the strategy. The work plan should also include proposed timeframes and milestones within the strategy. This will allow you to measure clear steps towards ultimate goals. There may be specific projects, events or publications that you know will take place, and these should be highlighted in the work plan; for example, CAPOLSA takes note of events related to literacy such as world literacy day and literacy week.

## 8. Evaluating Success

Your communication strategy should include a section that focuses on evaluation. How will you know when objectives have been successfully met? In this section, you will need to indicate the tools that

will be used for evaluation of the various communications. These could range from the number of times you update your website, the number of people that visit your website, newsletters and newspaper articles, and other media coverage to actually collecting empirical data to determine the effectiveness of your messages.

The above section focused on presenting the various parts of a communication strategy and the kind of information that goes into these sections. The communication strategy is what will guide implementation of all the messages you send out to the various audiences. Once the life of the project or activity has been completed, many organisations have what is known as a culmination event. This is another way of referring to a dissemination event. This is when the organisation can share with various stakeholders, including the community, the various activities they have conducted throughout the duration of the project. These activities include both research-related activities and others that may not have been research-based. This kind of event gives an opportunity to the organization to show-case its successes, achievements, challenges and lessons learned. The subsequent section will briefly outline how to conduct a successful dissemination activity.

### **How to Conduct a Dissemination Workshop/Seminar**

In this section, we made reference to dissemination workshop as a method of communicating research findings and other activities that your organisation has conducted over a specified period of time. But what exactly is included in a dissemination? Well, it is an opportunity for the organisation to sing its praises and show everyone its achievements, reflect on the challenges, how they were overcome, lessons learned, recommendations and what the next phase of the project looks like. The organisation will need to make sure it has enough time to prepare for the event, preferably a couple of months. So what needs to be done in advance? Here are some tips based on our experience at CAPOLSA:

1. Firstly everyone in the organization needs to know that this event will take place and when it will take place. As part of the planning process, meetings should be held to decide what exactly this event will look like, where exactly it will take place, who will be invited and the dates.
2. Different individuals from the different sections in the organisation that conducted different activities need to be assigned a role that will ensure that information about those activities will be well presented. This might mean preparing some items for exhibition, preparing a power point presentation or handouts, fliers or banners etc.
3. Your invitees, which should include your stakeholders, other organisations doing the same work as you, community members etc. will need to be informed in advance about the event. As an

organisation, you would need to compile a list of all the invitees. Invitations to the event should be sent out at least a month in advance. You could start with a general email informing them about the upcoming event and then follow up with physical invitations as there are some individuals that do not check their email regularly. You could also use google calendars, or any other application to send out the invitations. This is a good application as it allows you to keep track of who will be attending, who has sent apologies and has not yet responded to the invitation.

4. Based on the number of guests, the activities you have planned for the event and the resources you have available, you can then decide on a venue. Consider a venue that is easily accessible and that will accommodate everything you want to do. You could consider hotels with conference facilities for this kind of event or an outdoor area that has sufficient space, depending on the weather. Others prefer to have the activity in the communities in which they have been working, for example, in a school-setting.
5. Decide on a programme: Will the event be a day's event? Half a day? Two days? What will the sequence of events be like? Who will the master of ceremonies (MC) be? Will we have a guest of honour if so, who will that be and what will his or her role be? How many speakers will the programme have and what will they be presenting on? These are questions that you will need to answer as you prepare the programme. If you have a guest of honour, you may need to prepare the speech for him or her in advance. You will also need to confirm his or her availability and send a reminder a day or two before the event.
6. Your key stakeholders, that is your funders, will want to see that you have acknowledged them during this event. Ensure that everything you print, be it banners, fliers, etc., contains their logos, they should be acknowledged in all the speeches and they should even be given an opportunity to speak at the event. Different donors will have different requirements when it comes to acknowledgments. Be sure to keep these in mind.
7. If you are going to use power point presentation, make sure that the projector is tested in advance, all the presentations are placed in one location, whether on the computer or flash drive.
8. On the actual day, stress that all the employees involved in the event show up very early to prepare for the day. Ensure also that you have designated seating spaces for the key stakeholders and your guest of honour.
9. Always prepare something for your guests to take away; pamphlets, brief reports, published articles, flash drives with the presentations etc.

Overall, the dissemination event should be fun and exciting for the organisation and the guests that you have invited. While speeches are important during these events, they should not be too long and too many. You want to give your guests an opportunity to move around the exhibition area where your staff

members will be waiting to show-case the different materials and activities. The guests should be given an opportunity to ask questions

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**Focus Box 6: Caution when Disseminating Information**

Depending on the nature of project, it is important to be aware of the potential problems that may occur as a result of the information you disseminate. This could be as a result of the context, for example, the political climate or an event that occurred that is related to the work your organization is focused on. This is not to say that the information should not be disseminated. However, it would be useful to consider the following:

1. Nature and sensitivity of results. Are the results likely to offend anyone? If so who?
2. Are they culturally sensitive to the community they are being presented to?
3. Will they cause any harm to any particular individual or organisation?
4. Have all the relevant stakeholders been included in the dissemination of the results?
5. As an organisation are we using the best and appropriate channel of communicating these results?

**Source: UNICEF M&E training resource**

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and engage in conversations with members of the organisation as well as other guests at the event. Such events provide a good networking opportunity.

With regard to power point presentation about the different activities: they should not be too long, slides should not be cluttered with text, more pictures, graphs, tables and videos should be used, they should be interactive, the font size should at least be 28 and above, depending on the theme fonts. Your presentations should be fun and engaging!! You really do not want your guests sleeping when you are presenting.

Important to remember, is that the communication strategy mentioned above, helps you to consistently disseminate information to the different audiences. It is not just a day's event. The dissemination event mentioned here can be done at the end of a project or activity. However, the dissemination of information to the various stakeholders and audiences is something that should happen throughout the duration of the project. This is part of the ongoing monitoring and evaluation process of your organization's activities.

## Conclusion

A summary of the information presented in this section about communication and dissemination reads as follows:

- i. Ask yourselves, what is the desired outcome, what do we want to achieve from the dissemination?
- ii. Who are we targeting? Which audiences do we want to disseminate the information to?
- iii. What kinds of messages do we want to give to the different audiences?
- iv. Why do we want to deliver these messages to these particular audiences?
- v. What is the most effective way of disseminating information to the different target audiences?
- vi. What is the best timing to disseminate these messages and why is this particular timing right?
- vii. What resources will we need to deliver these messages to the different audiences?

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## Chapter 10

### Impact Evaluation: A report on the Impact of the Pre-school Feeding Programme in Gauteng Province, South Africa

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## Executive summary

### Background

Nutrition feeding programmes are regarded as appropriate interventions to improve poor nutritional status, health and well-being, as well as reduce hunger on the children. This assists to reduce malnutrition and cognitive development interruption. The South African government has introduced feeding programmes at schools, however not in pre-schools. Joint Aid Management (JAM) saw a need for the intervening at the pre-school level by introducing a feeding programme in South Africa. The organisation provided non-commercial fortified sorghum-based meal. Sorghum has been used in Africa and Asia to alleviate food insecurity, hunger and malnutrition as it contains essential nutrients needed by the body, such as macronutrients (starch, protein and fat), B vitamins (thiamin, riboflavin, pyridoxine), liposoluble vitamins A, D, E and K, and minerals (phosphorus, potassium, iron and zinc). Sorghum is considered to be one of the staple foods, used to produce porridge for children because it has resistant starch, which weakens digestibility, especially for infants when compared with other staple foods such as maize and wheat (Queiroz *et al.*, 2015; Dicko *et al.*, 2005; De Mesa-Stonestreet *et al.*, 2010). Figure 1 show the sorghum plant and sorghum bran.



**Figure 1: The sorghum plant and sorghum bran** (Rampho, 2005; Siddique, 2013).

### Purpose and objectives

The purpose of this study was to measure the impact of a feeding programme on the nutritional status of pre-school children in order to give feedback to JAM. Therefore, JAM contacted the Centre of Sustainable Livelihood (CSL) at Vaal University of Technology (VUT) to evaluate the impact of the feeding programme in order to analyse if it had an impact. Therefore pre-analyses were conducted, then the feeding programme was implemented for a period of ten months, after which the post-analyses were conducted to determine the impact sorghum meal had on the nutritional status of pre-school children. This

will assist in the drawing up of guidelines for pre-school children in South Africa regarding the nutritional status and needs of the children.

## **Methods**

This was an experimental research design, descriptive in its nature. This is a descriptive study in which quantitative approach was used to collect and analyse data. Data was collected using a socio-demographic questionnaire to determine the social background; anthropometric measurements (height, weight and mid-upper-arm-circumference [MUAC]) for nutritional status and blood spot card for biomedical status (Iron Deficiency Anaemia [IDA]). The data was analysed using Statistical Package for Social Sciences (SPSS), Antroplus, United Nations Children's Fund (UNICEF) colour reference indicator and Hemacue, respectively. Children who attended three pre-school in Evaton West (Johannesburg) and Soshanguve (Pretoria) were involved in this study.

Multistage sampling was used, whereby participants were divided into two groups: one experimental and one control group. The experimental group consisted of six pre-schools from both Soshanguve(Pretoria) and Evaton West (Johannesburg). Three pre-schools were randomly selected from both areas, and also for the control group of which the participants from two pre-schools (Sharpeville and Eaton-side) in the Vaal region. Convenience sampling was used to select the participants in all areas. Pre-schools of the Vaal region were selected for the control group on the bases that their social background was similar to that of the area in the experimental group.

Data collection methods used in this study were considered to be relevant for producing consistent, accurate information to serve the purpose and to avoid bias that could lead to inaccurate conclusions; they were also found suitable for the participants as they had been tested for validity and reliability through various previous studies conducted.

The experimental group was provided with a sorghum-based meal for a period of ten months, while the control group did not receive any supplementary feeding. The study was divided into three phases: to undertake a baseline survey in order to determine all the variables mentioned above; implement, with the assistance of JAM, a feeding programme at the pre-schools for a period of ten months, and then evaluate the impact of the feeding programme on the nutritional status of pre-school children after the period of ten months in both experimental groups. Variables used to collect data at baseline were used again for follow-up data collection, except of the socio-demographic information. This data was also collected for control group for comparison purposes.

## Results

Socio-economic data was collected in order to assess the household status of the participants. The results reported in the study indicate that poverty was still a main factor as the majority of the caregivers were unemployed, with the highest unemployment rate in the Vaal regione (85%) compared with Evaton West (73%) and Soshanguve (84%). However, all groups had high educational levels, where the majority of the caregivers in all three study areas had secondary and even a college education. Mothers were the main caregivers of the children and also responsible for taking care of the households.

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### Focus Box 1: Sorghum meal

A sorghum meal plays a big role in African content as it alleviates food insecurity and malnutrition. It contains essential nutrients such as unsaturated fats, protein, fibre and minerals; phosphorus, potassium, calcium and iron which are vital for the human body

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Malnutrition was still prevalent in all three study areas as both experimental groups had high prevalence of stunting (Evaton West [52.4%] and Soshanguve [61.6%]), underweight (19.0% for both areas) and overweight (Evaton West [7.0%] and Soshanguve [5.8%]) whereas there was a low prevalence in the control group. However there was significant improvement after the intervention. High Iron deficiency anaemia (IDA) was also observed in all three study groups, with the Evaton West group having the highest (17.5%) prevalence rate followed by Soshanguve (14.7%) and the Vaal region (9.9%). After the intervention Soshanguve and Vaal region showed improvement IDA whereas Evaton West did not show improvement.

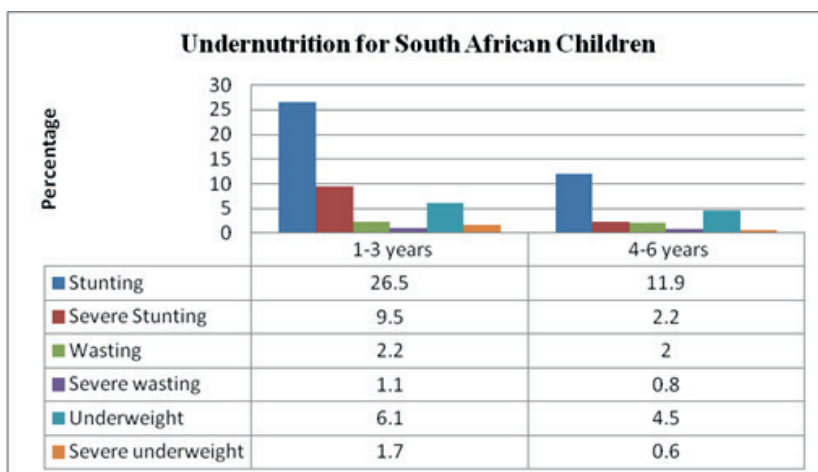
## Conclusion

Poverty, unemployment and food insecurity are the major household problems identified and all of this affect the nutritional status and well-being of the children. Even though the nutritional status of the children improved, malnutrition is still prevalent among young children; pre-school children were stunted and underweight and also had iron deficiency anaemia, even after the intervention. This might have been caused by some other diseases such as HIV/AIDs and also the time-frame of the intervention. However, despite what has been mentioned above, there has been some improvement in the nutritional status of the children.

## Introduction and Background

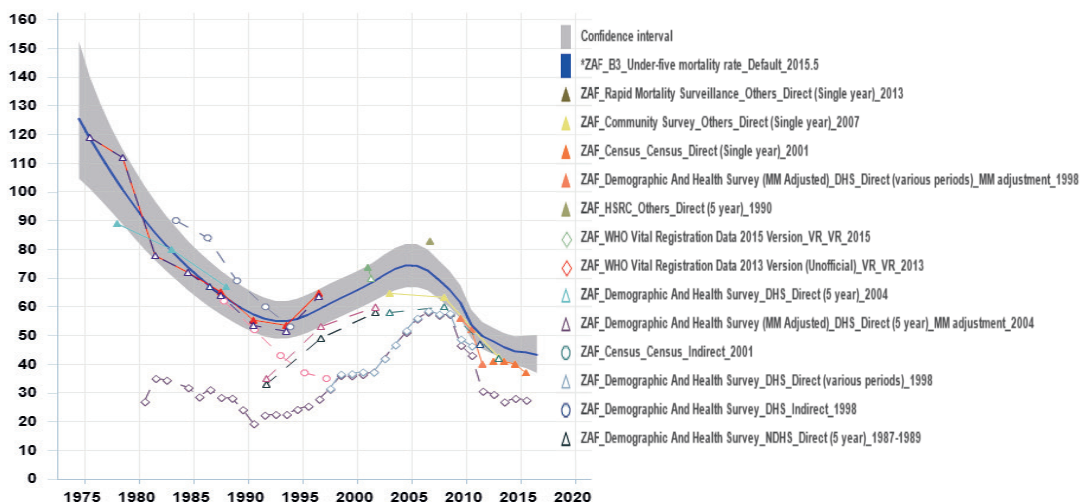
Worldwide, 800 million people are still undernourished. In developing countries, 27% of children under the age of five years are underweight, 32% are stunted and 10% are classified as wasted (De Lange, 2010). Malnutrition is a public health crisis in South Africa (SA), contributing to illness and death in young children. Most South African children are stunted because of a lack of adequate nutrition at an early age, which leads to illness and psychosocial stress which are the most significant immediate causes of malnutrition (Willey *et al.*, 2009; Kuzwayo, 2008). In SA, under-nutrition affect mostly young children residing in rural areas, where parents have little education, low or no income and live in poor environmental conditions (Iversen *et al.*, 2011). Study conducted on children (1-5 years) reported that 20% of the children were stunted and 6.8% were underweight, which confirms that underweight and stunting are prevalent in children younger than five years (Iversen *et al.*, 2011). Furthermore, these were indicated to be a problem in the Free State, Northern Cape, Limpopo Provinces (Department of Health (DOH), 2008) and Eastern Cape (UNICEF, 2008). Several studies conducted in South Africa have found that Human Immune Virus (HIV) is also affecting the nutritional status of children under the age of six. For every stage of life, good nutrition is needed for survival, physical growth, psychological development, performance and good health (WHO & UNICEF, 2010:2). The nutritional status of children in South Africa is presented in Figure 2, in terms of anthropometric indices (adopted from SANHANES, 2013).

South Africa is classified as a middle-income and developing country consisting of nine provinces with inter-provincial differences in income, employment and other general standards of living as well as socio-economic differences in the standard of living between rural, informal and urban households. This situation is attributed to the unemployment rate of more than 40%, especially in poor communities (Iversen *et al.*, 2011), which could be responsible for morbidity, mortality and poor growth in children for the past decade, as reported by several studies conducted in South Africa (Steyn, 2008:).



*Figure 2: Nutritional status of South African children aged between 1 and 6.*

The Millennium Development Goals (MDGs) aimed at reducing poverty, hunger and disease by 2015 to ensure that children grow up healthy and develop to their full potential. There has been improvement in the past 15 years as it was reported that child mortality was reduced with less than half between 1990 and 2015, however mortality rate of 5.9 million of the children is still observed. Of these deaths, 81% were of children under five years of age (UN Inter-agency Group for Child Mortality Estimation, 2015:3-6). The challenge is mainly around birth period as 45% of death occurs in the first 28 days of life and almost half of under-five deaths are concomitant with under-nutrition. Prevalence and trend of child mortality is indicated in Figure 3 (UN Inter-agency Group for Child Mortality Estimation, 2015).



**Figure 3: Under-five mortality rate in South Africa**

Until the eighteenth century, children were not considered to be part of scientific studies; in the nineteenth and twentieth centuries, scientific study was introduced in children only through observation. This had a negative impact on children’s health as nutritional conditions were not measured, resulting in a high prevalence of malnutrition in young children and infant mortality (Mukherji & Albon, 2010).

In efforts to deal with the causes of malnutrition discussed above, interventions have been conducted to address malnutrition both internationally and nationally at basic level through children’s right to sufficient food and basic nutrition, poverty reduction and social security, agriculture and food, as well as basic services; at underlying and immediate level, interventions have addressed malnutrition by promoting breastfeeding, complementary feeding and hygiene, as well as by supplementing Vitamin A and Zinc (Ruel, 2008).

**Rationale and Motivation of the Study**

Acute and chronic malnutrition are still prevalent in developing countries causing child death and also poor cognitive development and educational performance (Huybregts *et al.*, 2012). South African studies conducted among rural and urban children still indicate insufficient intake of macro- and micronutrients (Hendricks & Bourne, 2010). Effective feeding interventions impact positively on growth and development during childhood (Kounnavong *et al.*, 2011). However, there are other factors that influence choices and consumption of food, such as biological, physiological, sociological, psychological,

economic, marketing and genetic factors (Lanham-New *et al.*, 2011). HIV and AIDS is the current main factor associated with nutritional deficiencies in infected children, influencing progression of diseases, increasing morbidity and mortality specifically in Sub-Saharan Africa (Crush *et al.*, 2011).

Feeding programmes are usually introduced to address hunger and malnutrition problems in children; however the impact on the nutritional status is not always assessed (Fatima *et al.*, 2015). There is limited information available reporting on the outcome of these interventions. The aim of this research was to evaluate the impact of a feeding programme (Sorghum-based meal) that was introduced in pre-schools to address malnutrition.

### **Description of the intervention**

Feeding programmes are one of the strategies implemented to alleviate hunger and improve nutritional status (O'Neil *et al.*, 2014). JAM South Africa established a pre-school feeding programme in 2010 with the aim of improving nutritional status of the children. They provide nutritious porridge on daily bases to the children attending JAM-supported Early Childhood Development (ECD) centres (pre-schools) in seven provinces (Gauteng, Limpopo, KwaZulu-Natal, Eastern Cape, Western Cape, North West and Northern Cape). The porridge is known as Corn Soy Blend (CSB) and it contains 75% of the nutrients required. JAM provides the porridge to 1 700 ECDs, feeding 84 000 children from vulnerable communities aged from zero to six years. In Gauteng they provide the porridge to over 694 centres covering 37 500 children. The porridge is provided daily, except for Saturday and Sunday with the aim of improving the lives of under-privileged children (JAM, 2016).

The JAM South Africa recommended daily consumption portion size was 50 grammes for children under the age of four and 100 grammes for children of four years and older after preparation. The sorghum-based meal (instant porridge) is prepared by mixing it with water or milk to a desired consistency. It has different flavours, such as banana, strawberry and original. Pre-schools were given serving bowls, which have measurements so that they can use them to measure the sorghum-based meal accurately, before preparation and after preparation to ensure consistency of portion sizes as well as to minimise wastage. One bowl of prepared sorghum-based meal fed eight children after preparation. Pre-schools food handlers prepared the meal by mixing sorghum-based meal with water referring to the preparation methods that JAM provided. Researchers together with JAM personnel visited the pre-schools randomly to observe if the meals were prepared and served accurately. Figure 4 is the JAM bowl and the prepared sorghum meal. Nutritional analyses of the sorghum meal are indicated on table 1.





Figure 4: JAM bowls and prepared sorghum-based meal.

Table1: Nutritional content for sorghum meal

Nutrients	Measurements	Amount per 50g serving	% of EAR for children aged 1–3 years	Amount per 100g serving	% of EAR for children aged 4–6
Protein	G	6.75	13	13.5	19
Total fat	G	1.75		3.5	
Total carbohydrates	G	39	130*	78	130*
Dietary fibre	G	2.35	19*	4.7	25*
Energy	Kj	885		1770	
<b>Vitamins</b>					
Beta-carotene (Vitamin A)	McgRE	1.65	210	3.3	275
Thiamine (B1)	Mg	0.7	0.4	1.4	0.5
Riboflavin (B2)	Mg	0.8	0.4	1.6	0.5
Niacin (B3)	Mg	9	5.0	18	6.0
Vitamin (B6)	Mg	1	0.5	2	0.4
Vitamin (B12)	Mc	1	0.7	2	1.0
Biotin	Mcg	50	8.0*	100	12*
Vitamin C	Mg	30	13	60	22
Vitamin D	Mcg	2.5	5.0	5	5.0
Vitamin E	Mcg	5	5.0	10	6.0

Folic acid	Mg	100	120	200	160
Phosphatidylcholine (30%)	Mg	175		350	
<b>Minerals</b>					
Calcium	Mg	400	500*	800	800*
<b>Chromium polynicotinate</b>	Mcg	100	11*	200	15*
Copper	Mg	0.5		1	
Iodine	Mcg	75	65	150	65
Iron	Mg	7	3.0	14	4.1
Magnesium	Mg	150	65	300	110
Manganese	Mg	1.25		2.5	
Molybdenum	Mg	75		150	
Phosphorus	Mg	384.5	380	769	405
Potassium	Mg	80		160	
Selenium	Mcg	100	17	200	23
Sodium	Mg	45.62		91.25	
Zinc	Mg	7.5	2.2	15	4.0

\*= Adequate intake (AI)

## Evaluation approach and methods

### *Main purpose of the study*

The purpose of this study was to measure the impact of a feeding programme on the nutritional status of pre-school children in Evaton West, compared with those of Soshanguve, in order to give feedback to NGOs as well as government organisations on drawing up guidelines for pre-school children feeding programmes approaches and implementation in South Africa.

For the purpose of this study, specific objectives were addressed at baseline and a follow-up made except for socio-demographic factors. These included:

- Assessing socio-demographic background;
- Assessing nutritional status of the pre-school children through anthropometric measurements
- Biochemical measurements;
- Implementing a feeding programme at the selected pre-schools for a period of 10 months;
- Measuring the impact of the feeding programme.

### Study setting

This study took place in Southern (Evaton West) and Northern (Soshanguve) areas in the Gauteng Province (Google earth maps, 2016). The study areas mentioned above are regarded as the poorest informal/rural settlements. These areas were previously affected by the violence and unrest which led to socio-economic instability. As a result, unemployment and poor living conditions are prevalent; majority of the families receive income of less than R2, 500 (US\$200) and live in poor house status with no access to most of the basic needs. Maps showing the two study areas are presented in Figure 5.

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#### Focus Box 2: Study Setting

This study was conducted from the previously disadvantaged areas popularly called “Townships”

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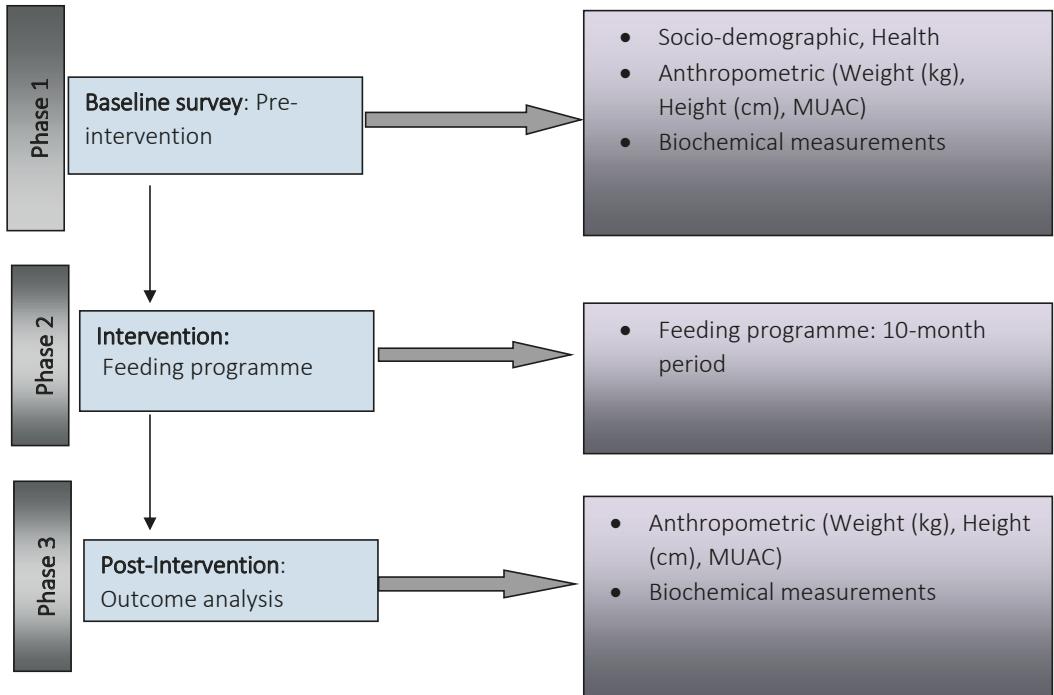


Figure 5: Maps showing study areas (Pretoria and Johannesburg) in Gauteng province, South Africa.

### Study design

An experimental design was considered to be suitable for data collection in order to respond to research objectives (Vogt, 2007) as it has control over the research environment, and some variables are influenced to observe their effect on other variables (Rohilla, 2010). This study was conducted using the quantitative approach as it expresses the hypothesis of positivism. The positivist paradigm was considered to be a suitable approach to solve the research problem as it emphasises on variables, describing the analysis of human behaviour (Sale *et al.*, 2002). The baseline followed a cross-sectional analytical research

design in which the data were collected within the same period of time (Morrone & Myer, 2007), whereas the implementation and impact study pursued a case-control study design (Morrone & Myer, 2007). Three phases of the study are illustrated in Figure 6.



**Figure 6: Overview of experimental study design.**

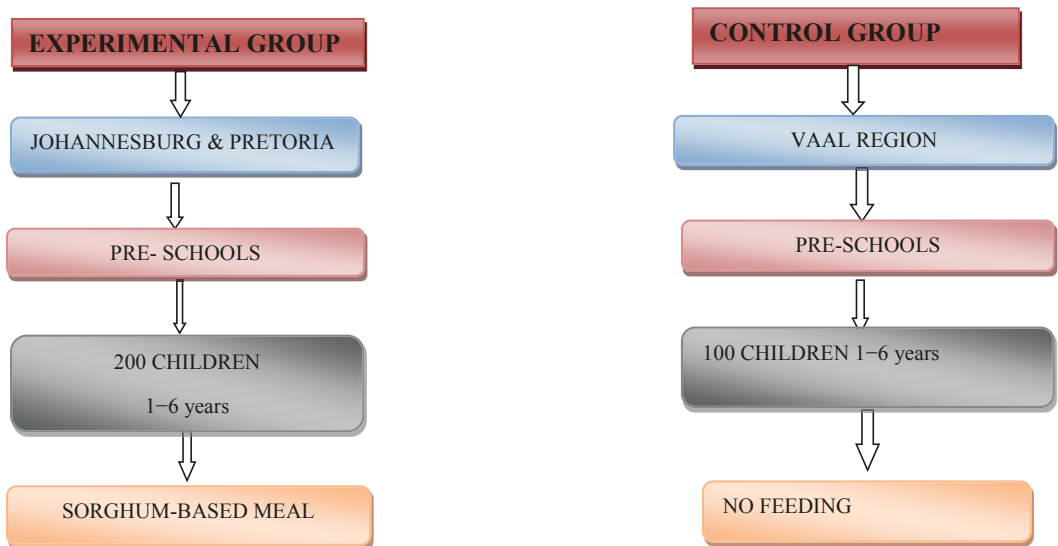
**Study population**

Sample size was determined using *Stata* programme version 12.0MP in order to collect and produce statistically representative data. The parameter used was a 95 confidence level ( $p=0.05$ ) with a power of 90%; the alternative mean was 12 with a standard deviation of 8.4. The calculated sample size was 84 for each group. As a result, 100 children were selected for each group. Extra 16 respondents in each group was to ensure that the sample size would still be sufficient in case of drop-outs.

A random sampling technique was used to select the participating pre-school children from the list of consenting caregivers and from the purposively selected pre-schools ( $n=300$ ). This technique was considered to be suitable for this study because it was unique in representing a completely experimental

approach in human beings to reduce bias; and also children had equal opportunity to participate in the study. When choosing a random sampling technique, the following methodological concerns were considered for the quality and the standard of the research; sample size, statistical analyses, description, interpretation and generalisation of results and the overall quality of the results (Gibney *et al.*, 2009). Only boys and girls aged between one to six years, whose parents had signed the informed consent form participated in the study.

To select a multistage sample, participants were divided into two groups; one experimental and one control group. The experimental group was drawn from three different pre-schools from Evaton West (Lesego, Lerato and Sisonke) and three from Soshanguve (Dineo, Table of His Grace and Lethabong), and the control group was drawn from two different pre-schools (Sharpeville and Eatonside) in the Vaal region. Pre-schools of the Vaal region were selected for the control group because their social background was similar to that of the schools in the experimental group. The experimental group consumed a sorghum-based meal for a period of ten months, while the control group did not receive any supplementary feeding. Framework of the groups is illustrated below.



**Figure 6: Framework of groups that participated in the research project**

### **Data collection**

Data collection was conducted between 2010 and 2011 during the week (Monday-Friday). The baseline study was collected in 2010 and for follow-up in 2011. Data collection was conducted by the team from Centre of Sustainable Livelihood. The research team consisted of the principal researcher, trained fieldworkers, qualified medical technologist and nursing sisters. During the intervention (10 months) period, the JAM team monitored the implementation of the feeding programme. Caregivers/parents completed the self-administered socio-demographic questionnaire. Fieldworkers assisted those who could not clearly understand the questions, read and write. A survey was conducted to determine the nutritional status of the children. This included:

- Socio-demographic questionnaires to determine socio-background;
- Anthropometric measurements (weight, height and mid-upper arm measurements [MUAC]) and;
- Biochemical measurements, which included Vitamin A and haemoglobin.

Data collection was treated in the same way for both the experimental and the control groups.

Similar variables were used for baseline and follow-up data collection, with the exclusion of the socio-demographic. Below are the pictures of pre-schools and the participants (Figure 7).



**Figure 7 Pre-schools and participants.**

### **Measurements**

The range of measurements was used for this study. These were as follows:

- Validated socio-demographic questionnaire (Oldewage-Theron & Slabbert 2008),
- Anthropometric measurements
  - Height - using a non-elastic tape measure
  - Weight - using Seca electronic scale

- MUAC - using United Nations Children's Fund (UNICEF) MUAC tape for children.
- Haemoglobin level - using Dried Blood Spot (DBS).

The measurements in this study were used to collect and produce consistent, accurate information to serve the purpose of the study and to avoid bias that could lead to erroneous conclusions; they were also considered to be suitable for the participants as they had been tested for validity and reliability through various previous studies. Data collection variables are shown in Figure 8 below.



**Figure 8: Data collection.**

### **Data analyses**

Different statistical analyses were used for variables measured to determine the findings. The Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyse socio-demographic data in order to present descriptive statistics which described data in terms of means, standard deviation, frequencies, and percentages. This technique assists to minimise and summarising data sets, which can then be more easily interpreted and presented (Fox & Bayat 2007). Inferential statistics (independent t-test) was used to compare the difference between the two experimental groups (Evaton West & Soshanguve) and the control group (Vaal region) (Wilman *et al.*, 2005). Height and weight data were analysed using World Health Organisation AnthroPlus (WHO, 2007), growth standards and interpreted in terms of underweight (weight-for-age), stunting (height-for-age), and wasting (weight-for-height/BMI-for-age). SPSS 20.0 was also used to analyse MUAC and presented according to the colour references indicated on the tape measure (Red [ $<11.0\text{cm}$ ] for severe malnutrition, yellow [ $11.1\text{-}12.5\text{cm}$ ] for moderate malnutrition and green [ $>12.5\text{cm}$ ] for healthy) (UNICEF 2009:1). Haemoglobin levels were analysed by using full blood count analyser and presented in terms of mean and standard deviation (Erhardt *et al.*, 2007; Mcdade & Shell-Duncan, 2002).

### ***Ethical consideration***

Ethical clearance for this study was obtained from the University of Witwatersrand Medical Ethics Committee for Research on Human Beings (R14/49). The protocol was submitted in accordance with the guidelines of the South African Medical Research Council (MRC) as well as the guidelines of the Helsinki agreement (World Medical Organisation, 1996; Colantuno, 2009). Before the commencement of the study, stakeholders (caregivers/parents, pre-school principals, and teachers, and Early Child Development (ECD) governing bodies) were informed about the feeding programme, thereafter caregivers/parents gave informed consent by signing the forms indicating that they understood the purpose of the study and what was required of them and that they were willing to participate (Mukherji & Albon, 2010). Parents/caregivers were informed that participation was voluntary and they were allowed to withdraw any time during the study period. The numbers system was used, whereby children were allocated numbers to ensure confidentiality of information and identity. The master list with names and contact details of the participants was kept by the principal researcher.

Other ethical issues were considered, such as making sure that all parents were competent to make decisions. It was made clear that no harm would be done to the children, and that the study would adhere to the ethical principle of beneficence and would conform to a scientific principle, and the programme would be carried out by scientifically-qualified researchers under the supervision of a competent clinician. Assessments of risks and benefits were conducted, hazards weighed, and finally; the interest of the participants always took precedence over the interest of science and society.

### **Results**

#### *Socio-demographic baseline results*

The socio-demographic results indicate that the majority of the caregivers were the mothers, with 84%, 74% and 66% from Evaton West, Soshanguve, and Vaal region, respectively, and of these women the majority (84% in Evaton West, 86% in Soshanguve and 71% in the Vaal region) ranged from 20 to 40 years of age.

The results showed that of the all caregivers in all the groups, the majority were unemployed (73% in Evaton West, 84% in Soshanguve and 85% in the Vaal region). Majority of the parents/caregivers had secondary school education, with 50%, 48% and 37% in Evaton West, Soshanguve, and the Vaal region respectively holding a matriculation certificate. Most of the households had a maximum monthly income of less than R1500 in the Vaal region (57%), compared with a minority of households in Evaton West (42%)



and Soshanguve (26%). All three groups experienced money shortages occasionally (64%, 59%, 71% for Evaton West, Soshanguve and Vaal region, respectively) and the majority consumed meals two to three times a day (68% in Evaton West, 82% in Soshanguve and 89% in the Vaal region).

### ***Nutritional status results***

#### a) Anthropometric

The anthropometric results are presented according to WHO growth standards of 2007. The anthropometric baseline results in Table 2 indicated that 49% and 32% of the pre-school children in Evaton West and Soshanguve, compared with 3% of the participants in the Vaal region, were thus stunted (<-3 SD) at baseline, this may result from a chronic insufficient food, nutrient intake and, possibly, frequent infections (UNICEF 2007). Wasting was observed mainly in the experimental group, with 19% and 20% of wasting prevalence in Evaton West and Soshanguve respectively, compared with only 3% in the Vaal region. Wasting is usually the result of acute insufficient food and nutrient intake (UNICEF, 2007). The BMI-for-age (thinness) results showed that in all three groups, the underweight prevalence was relatively low (0.9% in Evaton West, 4.3% in Soshanguve and 1.4% in the Vaal region). However, 3% and 6% of the participants were overweight in Evaton West and Soshanguve, respectively, and 4% and 1% were obese. None of the participants in the Vaal region were either overweight or obese.

At follow-up stage, stunting and wasting results showed a significant improvement in Evaton West and the Vaal region, whereas stunting increased significantly in Soshanguve, regardless of a reduced prevalence of wasting. In both the experimental groups, the prevalence of underweight increased. In the Vaal region, at follow-up stage none of the participants presented with stunting, wasting or underweight. In Evaton West the prevalence of both overweight and obesity increased, whereas there was a decrease in Soshanguve. In the Vaal region, none of the children presented with overweight at follow-up, but the prevalence of obesity increased to 13% (Table 2).

**Table 2: Summary of Anthropometric Results: Baseline and follow-up in Evaton West, Soshanguve and Vaal region.**

WHO Growth Standards, 2007							
		Evaton West		Soshanguve		Vaal region	
Cut-off points	Classifications	Baseline n=100	Follow-up n=63	Baseline n=100	Follow-up n=47	Baseline n=70	Follow-up n=33
		n(%)	n (%)	n (%)	n (%)	n (%)	n (%)
Stunting (HAZ)							
<-3 SD	Severely stunted	26(27)	3(15)	2(2)	5(11)	1(1)	0(0)
≥-3<-2 SD	Stunted	22(22)	11(17)	19(20)	10(22)	1(2)	0(0)
Wasting							
<-3 SD	Severely wasted	5(5)	0(0)	3(3)	3(7)	0(0.0)	0(0.0)
≥-3<-2 SD	Wasted	14 (14)	2(3)	16(17)	4(9)	2(3)	0(0)
Underweight Thinness							
<-3 SD	Severe thinness	0(0)	0(0)	1(1)	2(5)	1(1)	0(0)
≥-3<-2 SD	Thinness	1(1)	4(6)	3(3)	2(5)	0(0)	0(0)

≥-2<+2SD							
≥+2<+3 SD	Overweight	3(3)	2(4)	5(6)	1(2)	0(0)	0(0)
≥+3 SD	Obese	4(4)	1(2)	1(1)	0(0)	0(0)	4(13)

b) Mid-upper arm circumference

Mid-upper arm circumference (MUAC) indicates that the mean±SD of the pre-school children was 15.89±1.29 cm, 15.25±1.36 cm and 16.06±1.45 cm in Evaton West, Soshanguve and the Vaal region, respectively at baseline, and 15.97±1.35cm, 15.35±1.07 cm, and 16.48±0.89 cm respectively at follow-up (Table 3). MUAC results in all three areas indicated that more than 95% of the children were normal and less than 5% were moderately malnourished before and after the intervention.

**Table 3 MUAC for Evaton West, Soshanguve and Vaal region at baseline and follow-up.**

		Evaton West Baseline		Evaton West Follow-up		Soshanguve Baseline		Soshanguve Follow-up		Vaal region Baseline		Vaal region Follow-up	
Categories	Variables	n=100	%	n=63	%	n=99	%	n=49	%	n=71	%	n=33	%
Severe malnutrition	<11.0 cm (Red)	0	0	0	0	0	0	0	0	0	0	0	0
Moderate malnutrition	11.1-12.5 cm (Yellow)	1	1	0	0	4	4	0	0	1	1	0	0
Normal	>12.5 cm (Green)	99	99	63	100	96	96	49	100	70	99	33	100

## Biochemical Results

Iron deficiency anaemia (IDA) is usually present when Hb levels are less than 9.5 mg/dL. The mean±SD serum Hb levels for both the experimental groups were normal, with a low level for the Vaal region at baseline. However, IDA was observed in 13%, 15% and 23% of the participants in Evaton West, Soshanguve and the Vaal region at baseline, respectively (Table 4a). In both the experimental groups, the mean±SD Hb level was lower after the intervention, although not significantly so ( $p>0.05$ ), despite a decreased prevalence of IDA in Soshanguve (32%). In Evaton West, the IDA prevalence increased to 26% after the intervention (Table 4b). These results were, however, not significant. In the control group (12%), a higher mean Hb level and lower prevalence of IDA was observed after the intervention. In all three groups, there was no significant difference between baseline and follow-up ( $p>0.05$ ) ( $p>0.15$  for Evaton West,  $p>0.15$  for Soshanguve and  $p>0.10$  for the Vaal region).

**Table 4a: Haemoglobin results for Evaton West, Soshanguve and Vaal region at baseline.**

	Evaton West (n=93)		Soshanguve (n=85)		Vaal region (n=60)	
	mean±SD	n (%) of children <9.5 mg/dL (DeMaeyer 1989)	mean±SD	n(%) of children <9.5 mg/dL	mean±SD	n(%) of children <9.5 mg/dL
Haemoglobin	11.28±1.32	12	11.40±1.59	13	10.85±2.09	14

**Table 4b: Haemoglobin results for Evaton West, Soshanguve and Vaal region at follow-up.**

	Evaton West (n=77)		Soshanguve (n=59)		Vaal region (n=41)	
	mean±SD	% of children <9.5 mg/dL	mean±SD	% of children <9.5 mg/dL	mean±SD	% of children <9.5 mg/dL

Haemoglobin						
	10.64±2.07	20	10.99±1.82	19	11.94±1.97	5

## Discussion

### A. Pre-intervention

Anthropometric indices

#### *Under-nutrition*

Stunting and underweight remain the most common nutritional disorders in South Africa (Labadarios *et al.*, 2008) with a national prevalence rate of 19% (Steyn *et al.*, 2005). This was also observed in this study, especially in the experimental groups, although poor nutritional status was indicated to be prevalent in all three study groups. A high prevalence of stunting was reported by Labadarios *et al.*, (2005), who reported that one in three South African pre-school children were stunted, the rural (24%) and farm (26%) areas being most affected. Stunting usually indicates a chronic shortage of food (WHO, 2013) and in this study it was found mainly in both the experimental groups (Evaton West, 52% and Soshanguve, 62%), which were situated in peri-urban informal settlements, whereas there was a low prevalence in the control group (3.0%) situated in an urban area.

The results of this study showed a much higher prevalence rate of stunting in the experimental groups than the national and global prevalence of 20% (Labadarios *et al.*, 2008) and 32% (UNICEF, 2007) respectively. Similar results were reported by Schoeman *et al.*, (2010), whereby high prevalence of stunting in children between the ages of 6 and 59 months residing in the Eastern Cape and KwaZulu-Natal provinces was observed. High prevalence rates of stunting were also observed in other African countries such as Kenya (Maseta *et al.*, 2008) and Ghana (Adom *et al.*, 2010). The national prevalence rate for underweight was 10% in children between 1 and 9 years old (Labadarios *et al.*, 2008). The underweight prevalence in both the experimental groups was higher (20%). In comparison, the control group had a low prevalence of underweight (3%), with none of the children presenting with severe underweight at baseline.

Prevalence rates of wasting in children aged 1–9 years in urban areas ranged between 6% and 9% in urban areas in 1999 and have increased in urban areas since 2005 (Labadarios *et al.*, 2008:134–135). In this study, the prevalence of wasting was less than 5% in all three groups, thus not indicating severe food insecurity (hunger) in these households. These results are congruent with the results indicating that 22%

of the children are still stunted, however, showing a decrease in underweight and wasting with 5% and 3% respectively (SANHNES 2015:210).

The MUAC measurements did not confirm the parameters of the WHO growth standards in this study, as the majority of the children in all three groups were within the normal range when compared with the UNICEF MUAC cut-off points. However, a positive relationship was found between MUAC, underweight and wasting in Soshanguve at baseline. No significant relationships were observed between MUAC and the parameters of the WHO growth standards in Evaton West and the Vaal region at baseline. Additionally, the MUAC results in this study were similar to those in a study conducted in the Greater Accra region of Ghana by Adom *et al.*, (2010), who reported that only 4% of the children between the ages of 6 and 18 months were severely malnourished.

Poor socio-demographic and economic factors were reported to be influential determinants of underweight and stunting in previous studies (Steyn *et al.* 2005), this might be similar in this study as these factors were observed.

#### *Over-nutrition*

Overweight and obesity is increasing all over the world, with 20 developing countries already reporting rates of more than 5% (UNICEF, 2007). Similar trend was observed in SA, where overweight and obesity are prevalent among 10% and 4% of all children aged 1–9 years (Labadarios *et al.*, 2008). This was also observed in this study, in both experimental groups. Furthermore, this was confirmed by Kelishadi (2007) and Oldewage-Theron & Egal in Qwa-Qwa (2010), where children were reported to be overweight or obese. These results indicate that obesity may start at an early age and can escalate as the children grow older.

#### *Biochemical results*

Iron deficiency anaemia has been reported to be one of the most prevalent health problems worldwide, affecting 600 million children (Maslova *et al.*, 2009). The National Food Consumption Survey found that almost one-third of all the children aged 1–9 years old were anaemic, based on serum Hb concentration (Labadarios *et al.*, 2008). The children in urban areas were most affected (DoH & UNICEF, 2008). Although IDA was also observed in this study, the prevalence rate was much lower than the NFCS rate, however higher than recent findings of 11% reported by SANHNES (2015). Iron deficiency anaemia was observed in all three study groups. However, no significant difference between the prevalence rates

of the three groups was observed. Similar findings were observed in communities in the Lao People's Democratic Republic where IDA was reported (Kounnavong *et al.*, 2011).

## Impact of the intervention

### *Anthropometric results*

The prevalence of stunting improved in all the three the study groups after the intervention. The same trend was observed for underweight. However, the prevalence of wasting increased in both experimental groups after the intervention but decreased in the control group. This finding contradicts the intervention goals, as both experimental groups received a sorghum-based meal daily, in contrast with the control group, which received no complimentary meal. Wasting is indicative of acute food shortage and it was expected that wasting would thus improve in the experimental groups. However, this was not the case in this study. This finding is consistent with results from Nigeria, in which the acute malnutrition remained high despite the provision of a supplementary therapeutic food. Overweight and obesity decreased in the experimental groups, but increased in the control group. The MUAC and WHO growth standards as determined in this study did not give consistent results, as the MUAC results did not indicate the prevalence of severe malnutrition in any of the three study groups at baseline and follow-up, despite the high prevalence of stunting in Evaton West and Soshanguve as determined by the WHO growth standards.

### *Biochemical results*

Prevalence of IDA observed in all three study groups was lower than the national prevalence rate of 25% (Labadarios *et al.*, 2008). IDA is one of the most prevalent nutritional deficiencies in infants and children globally (Brito *et al.*, 2013). In Chile, it was found that consumption of iron-fortified food items resulted in a lower

prevalence of IDA in children (Brito *et al.*, 2013). In SA, maize meal has been fortified with iron since 2004 and this may have

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#### **Focus Box 3: Key Evaluation Findings**

It can be concluded that the peri-urban areas (both experimental groups) presented with more malnourished children than the urban area (control group) in this study as a result of both chronic and acute food shortages. Under-nutrition was observed in large percentages of the children in the experimental groups compared with much lower prevalence rates in the control group. On the other hand, overweight and obesity were observed also in the experimental groups. It has been found that childhood under- and over-nutrition can co-exist, leading to a double burden of malnutrition (UNICEF, 2007), as observed in the experimental groups at baseline.

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contributed to the lower prevalence of IDA in the children in this study. The main cause of IDA is usually a

lack of bioavailable iron in the diet. The prevalence of IDA among the children decreased in Soshanguve at follow-up, but increased in Evaton West and the Vaal region; however, this difference was not significant.

### **Lesson learnt**

1. *Data collection*: During this period, data were collected on different days because parents/caregivers had commitments and also that some of the children were absent, and this resulted in varying in all the results; this might have a negative impact on the findings.
2. *Intervention*: Implementation period was 7 months instead of 10 because of the 3-Month pre-school holidays. When arranging intervention at the school level, one should consider the holidays and weekends. This has impacted on the impact of the intervention. There are various factors that can have a negative impact towards the implementation of the feeding programme, such as diseases, hygiene, and safety. Food handlers were not formally trained on hygiene and safety when handling food. Children were not tested for HIV and it might have been the contributing factor on the impact of the feeding programme.
3. *Ethics*: Minimal biochemical parameters were tested because ethical approval for venous blood sampling was not granted. For this study, only haemoglobin parameters were measured for iron status and this limited the determination of other nutritional deficiencies that might have existed in the children.

### **Conclusion**

This impact evaluation study showed participation as there were high drop-out rates at follow-up. Prevalence of stunting and underweight decreased in all study areas at follow-up, however, inconsistent results in terms of nutritional status and prevalence of IDA were observed. Prevalence of wasting and IDA was higher in Evaton West. In Soshanguve, the prevalence of wasting also increased whereas the prevalence of IDA decreased. The Vaal region showed a lower prevalence of wasting, but the prevalence of overweight and IDA was higher at follow-up. In both experimental groups, the prevalence of wasting increased during the course of the study. This may have been due to HIV infection, as wasting is a persistent significant clinical problem associated with HIV and AIDS, independent of increased dietary intakes (Grinspoon *et al.*, 2003).

Based on the findings, it can be concluded that all three of the study areas were poverty-stricken and that the resultant poor household food security brought about malnutrition in the children. Although few statistically significant differences were observed with regard to nutritional status and IDA, positive



changes were observed in each of the groups, indicating that food provision may have a positive impact on an impoverished and malnourished community.

### Recommendations

- *Communities*: Nutritional feeding programmes should be implemented from a young age in order to address food insecurity and malnutrition.
- *Organisations*: Nutritional considerations at a pre-school level should be part of government strategic planning and programme development process.
- *Research*: A long-term intervention should be conducted to determine the impact of a feeding programme approach to address malnutrition in pre-schools. HIV/AIDS should also be included in the nutrition research as it has a major impact on human health.

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## Chapter 11

### Reflecting, Learning, Documenting Best Practices and Adjusting the Project Strategy

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## Introduction

Critical reflection has gained ground in project management, monitoring and evaluation practice as an approach that can help project staff to maximise the impact or deliverables of the project. Thus, the purpose of this chapter is to enliven, deepen our understanding of critical reflection, documenting lessons learnt and best practices in projects in order to maximise impact. Though this chapter is specially written for people working in monitoring and evaluation, the intended audience is broad and not limited to the former only. Project implementation staff and programme officers, managers and government employees interested in getting the best out of their projects or practice will find this chapter useful. (*Perhaps the most important questions to ask ourselves is: what is critical reflection and when does one begin to critically reflect on action?*).

Critical reflection refers to stepping, back and examining our practice, ideas and challenges by asking ourselves probing questions. In other words, critical reflection in a project involves interpreting experiences and data to create new insights and agreements in action. Thus, critical reflection is a process, cognitive, emotional, and experiential of examining assumptions embedded in action or practice. Other scholars however, see critical reflection as a process of thinking, comparing and verifying for the purposes of learning, improving and changing practices (Fook & Gardner, 2007). Based on these definitions, it is clear that critical reflection involves:

- *Reflecting*: Looking back and thinking about what has happened, what it means to the overall project goal or organisational goal and how to proceed.
- *Reflexivity*: Challenging rules and assumptions about our processes and practices, modes of thinking of self and others.
- *New insight*: Reflecting and reflexivity helps in bringing about collective learning and decision-making.

Let us imagine that a donor has given you money to implement a project, “training women on how to write a Will before death” and you have been asked to choose an area within Lusaka where the project should be implemented “rich area i.e., AREA A” or poor areas i.e., AREA B. see Figure 1:



**AREA A:**



**AREA B:**



**Figure 1 1: Choosing Location for Implementing Wills before Death**

Where would you implement this project and why? Please write your reasons “If you choose area “A” why, and if you choose area “B” why”. Whatever your reasons might be for the choice of area, one thing that is evident is that you stepped back to think critically about the two areas? Most probably you also critically analysed the people that live in these areas and the properties that they might have or not have. The process of you stepping back to critically think and analyse the characteristics of people you find in these areas, their level of education, the wealthy they have or not have and reflecting on how they will benefit from the project is what you can refer to as critical reflection. In other words, you engaged in critical reflection. Therefore critical reflection denotes a higher level of reflection beyond “critical thinking”.

It is also important to note that as project implementers or evaluators we are never value neutral or value free. Your choice of area (whether A or B) was probably informed by your past experiences in these areas, perhaps also your interaction with people who live in similar areas, your beliefs and values about people who live in such areas and properties that they might have or not have. These assumptions, values and beliefs that we all have are shaped by our experiences, which impact on our daily lives; how we interact with those who we serve or work with, decisions we make and these in turn affect ways of seeing reality or indeed ways of engagement. Thus, in a quest to find a reason why this project should be implemented where you thought best (whether A or B) your assumptions, values and beliefs informed your decision, clearly attesting to the fact that we are never value neutral. Four activities are considered central to critical reflection. Let us draw on the above examples for insights on what is involved in critical reflection:

1. *Assumption analysis* - Is it “rich area i.e. area **A** or poor area **B**. Assumption analysis involves thinking in ways that challenge our beliefs, values, and cultural practices. Remember that in every project we have assumptions on what activities we need to implement to bring about change. Always question yourself on what was your original assumption.
2. *Contextual awareness* – Realising that our assumptions of women in these two areas are shaped by our experiences or beliefs that are socially and personally created, we are probably making an assumption that people in poor areas have no property hence there is no need to teach them how to write a Will and yet we forget that people in rich areas may not have property of their own or we might assume that because they are educated they know the importance of writing a Will when in fact not.
3. *Imaginative speculation* - Imagining alternative ways of thinking about phenomena in order to provide an opportunity to challenge our prevailing ways of knowing and acting.
4. *Reflective skepticism or reflexivity* - Questioning of universal truth claims (for example, people in poor areas have no property or people in rich areas have property) or unexamined patterns of interaction through the prior three activities; assumption analysis, contextual awareness, and imaginative speculation. It is the ability to think about a subject so that the available evidence from that subject's field is suspended or temporarily rejected in order to establish the truth or viability of a proposition or action.

In sum, critical reflection promotes critical self-awareness; realisation that our assumptions about problems, situations and people have practical consequences. The process also promotes questioning of personal practice and knowledge. Critical reflection involves more than thinking and requires deeper

engagement; thinking, analysis, actions and emotions (Marcos, Sanchez & Tillema, 2011). See Figure 2 below



**Figure 2: Model of Critical Reflection**

### **Benefits of critical reflection**

Critical reflection has huge benefits:

- Critical reflection is a useful strategy to learn lessons and discover opportunities for improvement.
- It helps to uncover new information and insights. By sharing ideas with others, individual's memories can be triggered and new information and more refined insights can emerge thus critical reflection can help practitioners to identify what they are doing right (learn from good practices), what they are doing wrong (learn from bad practices) and where improvements are needed. As noted already, critical reflection is a useful tool in the learning process about the project. If you are not learning in your project, your project is as good as dead.
- Critical reflection can help develop active engagement on processes, decision-making, critical thinking among project team members and stakeholders.

- Critical reflection can help to generate knowledge through critical thinking about one's practice. Knowledge generated from one's experiences as a practitioner helps to improve practice.
- Critical reflection can help to build a clear picture of the situation/event/process; by discussing data, contradictions and gaps can be identified. In so doing, critical reflection can be a useful tool for improving learning in the project.
- Critical reflection ensures well-reasoned, meaningful action, and decisions are found to problems before disaster happens. Remember that projects cost money and any activity within the project has a budget line.
- It facilitates action that has broad ownership of project through promotion of dialogue. Engaging in critical reflection helps practitioners to be more active in their organisations and work by expressing their opinion on how things are being done, and how they can be improved.

### **Participants of Critical Reflection**

As noted above, critical reflection is a process of analysing practices or action against organisational objectives, milestones or long-term impact or goal, with the aim of drawing lessons and applying these lessons to improve action so that impact can be maximised. It should be noted that critical reflection is not a preserve of management or project implementers but all stakeholders (internal and external); project managers, monitoring and evaluation staff, recipients or primary beneficiaries, project implementers and all those interested or who have an interest in the project should participate. To maximise on impact or ensure that the project delivers the intended goal, stakeholders need to engage in critical reflection about what is happening; why it is happening; the impact of what is happening in meeting project deliverables or impact; questioning what the initial assumption and what the new understanding is; and what to do next. If critical reflection is practised, problems will be solved before they become worse and this will save organisational resources such as money and time. *Imagine implementing something that does not lead to the desired impact/objective/output?* Suffice to say that critical reflection can be done individually or it can be a shared activity among project staff in groups. For example, weekly staff meetings can be an important avenue or event for critical reflection.

Project staff can reflect on their experiences, challenges, what they have learnt and what they would or should do differently. There are several opportunities within the life of the project which an organisation can take advantages of to engage in critical reflection. These moments are participatory

project strategy review meetings, monthly partner meetings, quarterly partner meetings, mid-term review meetings to mention etc. These events are not only important for critical reflection but also for assessing performance against targeted outputs in the project. However, it is important to train all relevant stakeholders, on critical reflection, documenting lessons, writing minutes if these events are to produce the desired outputs of maximising impact.

### **How can we promote critical reflection in Projects/Organisations?**

One of the problems faced by project managers, monitoring and evaluation specialists and programmers is that the pace and demands of workplaces allow little space for reflection (Gray, 2007). Critical reflection will not come by accident. It is important that a positive environment and culture is created within the project or organisation that promotes critical reflection among staff and other stakeholders. The promotion of critical reflection represents an important strategy, not only to ensure involvements of stakeholders but also learning to help maximise impact. In order to ensure that satisfactory and desired results are achieved within the projects we serve, each organisation should put in place an environment aimed at encouraging staff and other relevant stakeholders to engage in critical reflection. This means creating a conducive environment that encourages project, monitoring and evaluation staff to engage in critical reflection or raise questions about experiences, challenges, processes and also ideas.

Adopting critical reflection will reduce the costs associated with implementing activities that do not lead to impact; will also help to identify potential dangers early and ensure timely action. Overall, critical reflection helps to improve productivity of project staff and stakeholders feel that their voices and contributions are valued. To ensure a working environment that ensures the maximisation of impact, critical reflection must be promoted as a core activity. This involves creating systems and working practices which encourage critical reflection. Thus;

1. An approach which is gaining widespread use in ensuring that project staff and stakeholders engage in critical reflection, including expectation of involvement in critical reflection in the job description, memorandum of understanding (external stakeholders) and terms of reference. This helps to ensure that everybody associated with the project, from project staff right through to primary beneficiaries are actively involved in critical reflection. By emphasising critical reflection within the job description or memorandum of understanding helps to underscore the importance of learning within the project. This also helps to reduce complacency among project staff and stakeholders.
2. Project staff and stakeholders should also be encouraged to engage in critical reflection by consistently asking them for their opinion or views regarding challenges, processes or how certain

things can be improved within the project. Regularly asking project staff and stakeholders their views is necessary to enable the workers and stakeholders to report immediately when they sense danger or deviations of project objectives. Critical reflection can help to detect a lack of control and risks.

3. Project staff and stakeholders should be encouraged to provide constructive feedback. This is necessary to provide as assurance that project staff provide their views on remedial action that they see appropriate.
4. Valuing field visits and exchange visits help to encourage critical reflection. Field visits may help in detecting a lack of control measures and in identifying risks that may stifle impact. Visits to the project sites may facilitate feedback from people with whom the project interacts with and those that benefit from the project.
5. Organisations also need to put in place incentives for critical reflection. Given the fact that many people might not see the immediate benefits of critical reflection, incentives must be in place to encourage staff and stakeholder to engage in critical reflection.

### **Learning in Projects**

Learning within the projects is useful in assisting project staff to learn from action and experience to promote individual and organisational growth. Action and experience in themselves do not however lead to learning. Critical reflection aids learning at a deeper transformative level. The question perhaps that might be bothering you as you read is “what is a lesson learnt”. A Guide to the Project Management Body of Knowledge (PMBOK) defines lessons learnt as learning gained from the process of performing the project (Jugdev, 2012; Reich & Wee, 2006) while the International Fund Agriculture Development [IFAD] (2002) defines lesson learnt as knowledge derived from experience that is sufficiently well founded and can be generalised so that it has the potential to improve action. Based on these definition, we see that a lesson learnt is any learning that emerges out of being part of the project. Lessons learnt can develop out of the evaluation process as evaluators reflect on their experiences in undertaking the evaluation or when project implementers/stakeholders reflect on their experiences. It is worthwhile to document these reasons for ongoing current or future projects so that knowledge derived from experience can be used for organisational growth. Lessons learnt can be both good (what worked well) and bad (what did not work well so that it could be improved upon). Learning is key not only in organisational development but also in project implementation. Growing evidence suggests that learning is a key requirement for the success of any project (Gray, 2007). Evidence-based learning and decision-making is important if the project is to

deliver impact. Though there are many benefits that can be derived from learning, unfortunately, most projects do not promote benefits in learning. Benefits of learning include but not limited to:

1. Leads to maximisation of impact;
2. improved performance based on learning from the past (*The more and more lessons are accumulated, so practices become better and better*);
3. Problems being solved before they worsen.

Capturing lessons learned should involve a systematic approach because waiting until the end of the project would mean wasting many potential learning opportunities. A lesson learnt- event can involve long discussions and brainstorming, therefore it must be prepared well. In order to make this process systematic and enable the event extract lessons learnt, answer six key questions with stakeholders;

1. What do we mean by a “lesson learned”
2. Why do we want to identify lessons?
3. For whom are these lessons and, accordingly, how are they best shared (written, verbal, video etc.)?
4. Whose lessons are they? And who should be involved in identifying the lessons?
5. What are the lessons? And how do we prioritize them if there are too many to share?
6. How do we document the lessons and how do we link the lessons into the next phase of planning? (IFAD, 2002).

Answering these questions is the starting point for formulating a lesson learnt. To formulate a lesson learnt follow the following

1. Include a generalised principle that can be applied in other situations. Do not write the lesson only as an observation, description or a recommendation that lacks justification.
2. Explain the lesson in the context of the project. For other stakeholders to find it useful, they need to understand the context in which it occurred too. Then related the lesson to assumptions on which the project based, to help others appreciate the lesson.
3. Then justify the lesson with proof of why it is a valid lesson. If the lesson is hypothetical, it must be tested before it can be considered valid.
4. Make sure the lesson is specific to the theme under discussion. General lessons learned are not useful (IFAD, 2002; White & Cohan, 2016).

Once you have formulated a lesson learnt, the next step is to document it. There are at least five elements of a documented lesson learnt;

- *Theme of lessons learned* - this is a core question that the project asked itself due to a problem, evaluation finding, or because it is a key issue in a project.
- *Original understanding or assumption* – this is a short description of the original understanding of the problem, theme or question. This is what stakeholders assumed before the implementation and experience on which they reflected and formulated a lesson learnt. For example, we assumed after training traditional birth attendants they would use the learnt skills to help safe delivering of mothers and help prevent mother-to-child HIV transmission.
- *Revised understanding or assumption* – this is the new understanding of the initial problem, question or theme that prompted a lesson learnt. For instance, we now know that training women in reproductive health should involve assessing their interests, motivation but also give them incentives to sustain their practice to make it possible for women to deliver safely and prevent mother to child HIV transmission (WHO, 2008; IFAD, 2002; White & Cohen, 2016).

The above elements help document lessons learnt, but their quality need to be assessed. Maurer (2012) suggests six criteria for assessing quality lessons learnt:

- *Rationale*: Provide a justification by stating how this lesson was learnt. Three aspects are important: What happened? Why did it happen? Why is it important?
- *Preconditions*: They refer to the specified conditions in which the application of a lesson learnt could be considered as appropriate.
- *Lesson suggestion*: It refers specifically to what has been learnt through the experience, and therefore it is appropriate to be repeated or avoided in future contexts.
- *Applicable task*: It describes the task to which a lesson learned could be applied. Depending on the context, a lesson learnt may be applied to an activity, a decision or an organisational's process."
- *Examples to substantiate the new understanding* – here provide evidence to support the lesson learnt. The more multiple source of proof, the more its application in future.
- *How project come to new insight* – this is a description of what triggered the project team to be challenged by its current view that needs revision.

Best practices are offshoots of both reflective practices and learning. As practitioners engage in critical reflection, lessons are learnt (what is being done right and what is not right), thus ideas or knowledge



on how to improve practice is generated. Thus the conscientious use of lessons learnt from critical reflection to improve practice constitutes best practice. In other words, best practice means the use of learning or best evidence to aid relevant decisions-making. The World Health Organisation (WHO) defines “Best Practice” as a technique or methodology that, through experience and research, has proved reliable to lead to a desired result. Best practices are processes, practices, or systems identified in organisations that performs exceptionally well and are widely recognised as improving the performance and efficiency of organisations in specific areas.

The main difference with a lesson learnt is that best practices are positive activities or systems that you recommend to others for use in similar situations, while lessons learnt are typically negative with respect to identifying processes, practices, or systems to avoid, in specific situations but are positive with respect to identification of solutions to problems when they occur. When a solution identified through formulation of lessons learnt is proved to have a wider improvement in performance and efficiency of an organisation over a period of time it is then called best practice. Though, best practices are derived from lessons learnt, identifying “best practices” requires sound judgment on the part of project staff and all stakeholders involved. Core evaluation criteria and questions can aid in identifying best practices. These include effectiveness, efficiency, relevance, sustainability, involvement, replicability or transferability and ethical soundness (WHO, 2008).

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**Focus Box 1: Criteria for Best Practice**

**Effectiveness:** The practice must work and achieve results that are measurable.

**Efficiency:** The proposed practice must produce results with a reasonable level of resources and time.

**Relevance:** The proposed practice must address the priority problems

**Ethical soundness:** The practice must respect the current rules of ethics for dealing with human populations.

**Sustainability:** The proposed practice must be implementable over a long period of time without any massive injection of additional resources.

**Possibility of duplication:** The proposed practice, as carried out, must be replicable elsewhere in the region.

**Involvement of partners:** The proposed practice must involve satisfactory collaboration between several stakeholders.

**Community involvement:** The proposed practice must involve participation of the affected communities.

**Political commitment:** The proposed practice must have support from the relevant national or local authorities.

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Thus, if best practices are to be adopted, it importance not only to identify such lessons, but also to document such lessons as well as best practices. Just like lessons learnt, the best practice is knowledge derived from experience that is sufficiently well-founded (has been tested and proved to lead) and can be generalised to other projects and has potential to improve action (IFAD, 2002). The steps to document best practices include the following format.

**Table 1: Contents of a Best Practice Report**

Part of report	Content
Title of the best practice	This should be concise and reflect the practice being documented.
Introduction	This should provide the context and justification for the practice, and address the following issues: <ul style="list-style-type: none"> <li>▪ What is the problem being addressed?</li> <li>▪ Which population is being affected?</li> <li>▪ How is the problem impacting on the population?</li> <li>▪ What were the objectives being achieved?</li> </ul>
Implementation of the practice	<ul style="list-style-type: none"> <li>▪ What are the main activities carried out?</li> <li>▪ When and where were the activities carried out?</li> <li>▪ Who were the key implementers and collaborators?</li> <li>▪ What were the resource implications?</li> </ul>
Results of the practice (outputs and outcomes)	<ul style="list-style-type: none"> <li>▪ What were the concrete results achieved in terms of outputs and outcomes?</li> <li>▪ Was an assessment of the practice carried out? If yes, what were the results?</li> </ul>
Lessons learnt	<ul style="list-style-type: none"> <li>▪ What worked really well – what facilitated this?</li> <li>▪ What did not work – why did it not work?</li> </ul>
Conclusion	<ul style="list-style-type: none"> <li>▪ How have the results benefited the population?</li> <li>▪ Why may that intervention be considered a “Best Practice”?</li> <li>▪ Recommendations for those intending to adopt the documented “Best Practice” or how it can help people working on the same issue(s).</li> </ul>

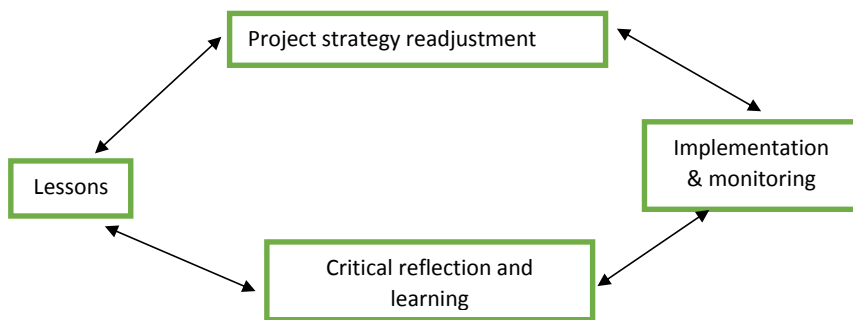
*Source: (WHO, 2008):*

**Critical Reflection, Learning and Project Strategy**

Project strategy is a plan on what is to be achieved and how it will be achieved. Information based on critical reflection and learning is a basic ingredient for project strategy readjustment. It should be appreciated that project design is an ongoing process over the life of the project, and the project strategy is the basis for working out project operations. However, project strategy is not cast in stone but it is flexible, depending on the existing conditions and thus can be adjusted on the basis of evidence learnt from reflective practice. Project strategy is readjusted on the basis of learning or knowledge generated from monitoring and evaluation. Thus knowledge derived from reflective practice, monitoring and evaluation informs or feeds systematically into project strategy or design readjustment such as re-planning the project, rescheduling or redefining activities and reallocation of funds etc. Project strategy readjustment helps to ensure that:

1. The project is relevant to the real problem of the targeted community or group and makes the best of existing opportunities based on lessons learnt.
2. Project impact is feasible by making sure that problems are solved before they worsen and that resources are directed to activities that bring about impact.

Figure 3 below shows the circle involved in readjusting projects after a lesson learnt exercise. The process involves four interlinked steps: implementation and monitoring, critical reflection and learning, documenting lessons learnt and readjusting the project strategy:



**Figure 3: Project Strategy Readjustment Flow Chart**

### **Conclusion**

Maximising impact is in the best interest of all projects thus critical reflection is a principle strategy of any project culture committed to continuous improvement. Critical reflection helps professionals to develop self-awareness about their assumptions, values, and beliefs, which helps to aid in best practices. The best way to achieve best practices within the project is to ensure learning through critical reflection is promoted among project staff and stakeholders. Thus, critical reflection, learning, documenting best practices and adjusting the project strategy are the best tools for sustaining excellence and impact in projects.

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## Part Chapters

- Translating Monitoring and Evaluation Data for Advocacy and Policy
- Governance, Monitoring and Evaluation: A brief Overview
- Developing a Participatory Monitoring and Evaluation System

## Part 5

### Applying Monitoring and Evaluation for Action

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## Chapter 12

### Translating Evaluation Findings into Advocacy Plans and Policy

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## **Introduction**

Projects or programmes hardly conduct research to inform policy makers and other actors of change. While some organisations conduct baseline surveys and knowledge, attitudes and practice (KAP) surveys, the majority do conduct evaluation studies. However, much of the findings from these evaluation studies end at demonstrating the efficacy of their interventions to their funders without making any impact on policy makers and other actors of change. Therefore, this chapter discusses how evaluation studies (including baseline and KAP) surveys can be translated for advocacy and policy. Interest in translation research has increased in recent years due to the recognition that it is crucial for relevant knowledge development, dissemination and action based on results (Oelke, Lima & Acosta, 2015). Projects and/or programmes are time-bound, therefore, there is need for national, local and indeed citizens to take up the responsibility of changing their own communities. Therefore, advocating for change and translating what we know from evaluation findings into policy are key to the process of ownership at national, local and individual levels.

## **Translation of Evaluation Findings**

Development, to a larger extent, is dependent on research. Research informs policy and informing policy through research is a critical and powerful way of improving the well-being of individuals and the population (Mirvis, 2009). As research and evaluation continue to identify strategies that have the potential to solve human problems, the need for translating these findings into practice is on increase. (Wilkins, *et al.*, 2012). However, new knowledge from evaluation studies in itself does not lead to broad application or affect human development outcome beyond project catchment areas or boundaries. For research, such as evaluations to contribute towards development, it must be translated in ways that can impact development. Uptake of evaluation results can facilitate improved outcomes of human development as we address outcomes at the provider and system levels. Take for instance, the school feeding programme described in Chapter 10 by Nyathela in South Africa, the recommendation of this evaluation study if applied at national level can lead to far much better learning and health outcomes for learners. However, only when findings are translated into policy, such recommendation(s) remain just knowledge. Thus, translational research is now central to policy, research and funding initiatives (Fudge, *et al.*, 2016). The need for translational evaluation (research) is based on the premise that much evaluation research has failed to advance development and change beyond its catchment areas, yet it offers itself as a solution to human problems.

Traditionally, the uptake of evaluation impact assessment into practice is low often taking many years (as with basic research) making innovative human problem solutions difficult and rendering some



evaluation evidence-based best practices obsolete (Oelke, Lima & Acosta, 2015). There are a number of factors that act as barriers to translational evaluation (research) including; (i) lack of a culture of translation within institutions and organisations conducting evaluations; (ii) inadequate infrastructure and equipment to conduct evaluations based on randomised control trial designs; and (iii) inadequately trained evaluators and difficulties in retaining those who do possess the necessary skills (Fudge et al., 2016). The first and later barriers are the reasons why this chapter was written to help bridge this gap.

### **Implementation of Evaluation Knowledge Translation**

Monitoring and evaluation findings demonstrate evidence-based interventions that work or do not work. Therefore, scaling up working intervention could improve the well-being of mankind. However, the gap between evaluation findings and implementation has long existed and is a major barrier to achieving desired human development. Therefore, in order for crucial evaluation findings to reach the broadest audience possible and be effectively and widely adopted, it is important to understand how to make these findings relevant and effectively disseminated, implemented and bring them to scale in a wide variety of context and settings (Wilkins, *et al.*, 2012). The authors further argue that for this to happen, evaluation findings must be synthesised, distilled, and packaged in ways that are user friendly and action-oriented. Therefore, development of an evaluation knowledge translation plan is essential when starting new projects (Oelke, Lima & Acosta, 2015). The process should start with involving different knowledge users (these would already be detailed in the M&E communication strategy) to ensure ownership which will assist in facilitating uptake of evaluation results. In addition, knowledge users can assist in identifying problems with interventions under evaluation, relevant to policy and practice. Knowledge from evaluation findings can then be used as evidence solutions for advocacy and policy influence. This process is not new as has been done in many countries (see Focus Box 1 below).

Evidence from the examples in the focus box suggest that wielding effective influence requires sharing information that is in demand by decision-makers. Policy makers often operate in an environment

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### **Focus Box 1: Translating Knowledge for Policy**

#### **Kenya**

From 2006, CARE, Emory University's Center for Global Safe Water, and Water.org, through the Bill and Melinda Gates Foundation-funded Sustaining and Scaling School Water, Sanitation and Hygiene Plus Community Impact (SWASH+) project, have worked to achieve sustainable and national-scale school WASH services in Kenya through applied research and advocacy. The project tested a multi-armed school WASH intervention through a randomised, controlled trial with multiple policy-relevant sub-studies. Research results were then used to advocate for policy change to bring about sustainable school WASH services nationally. These efforts have focused on improving budgeting for operations and maintenance costs, improving accountability systems with a focus on monitoring and evaluation, and more effectively promoting knowledge of WASH through teacher training and the national curriculum.

#### **Zambia**

Less than 50% of houses and business buildings in formal settlements in Zambia are connected to the national water and sanitation grid. As such, there has been an increase in drilling of boreholes for water, construction of underground septic tanks and soak-aways for sanitation purposes. Different players working in the area of water, sanitation and hygiene (WASH) expressed concern on likelihood of underground water contamination. Numerous research studies were done to test quality of water most of which suggested ground water is contaminated in settlements without proper water reticulation. To this end, a ground water and borehole drilling policy has been developed waiting cabinet approval.

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where they have to make decisions based on poor or sometimes almost no objective data. The ability to provide positive results and clear recommendations based on tested solutions can be the difference between ineffectual advocacy and achieving real results. Positive results and good recommendations enable an advocating organisation to position itself as a technical expert and trusted insider rather than simply an interest group (SWASH+, 2011).

Organisations preparing actionable knowledge can package it in many forms, from simple, plain language briefs to more detailed policy documents. Here we discuss two forms to packaging actionable research; advocacy plans and policy briefs.

### **Developing Advocacy Plans**

Organisations with evidence of best practices have tremendous potential to change the world around them through advocacy. Advocacy is a tool for addressing human problems and bringing issues affecting mankind to the forefront of the agenda for decision-making. Therefore, organisations are in a strong position to speak on behalf of their target project intervention beneficiaries given the results from M&E that demonstrate change and impact on mankind. UNICEF (2010), defines advocacy as a deliberate

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**Focus Box 2: Refusing “Business as Usual” to bring Change**

Change does not roll in on the wheels of inevitability, but comes through continuous struggle.

**Dr. Martin Luther King Jr**

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process based on demonstrated evidence, to directly and indirectly influence decision makers, stakeholders and relevant audiences to support and implement actions that contribute to the

fulfilment of issues and problems at hand. Therefore, advocacy involves delivering evidence based on recommendations to decision makers, stakeholders and/or those who influence them. Performing advocacy requires organising and organisations. The former entails that advocacy must be done within the human rights framework. The human rights-based approach is a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights (Jonsson, 2003). It seeks to analyse inequalities which lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress.

A well thought-out plan of a sustainable advocacy strategy can contribute to the development of effective and efficient planning and implementation of programmes that improve our well-being. WHO (2008), argues that without a proper advocacy plan, there is a risk that desired changes may never happen or may occur in a fragmented manner and the benefits of the population that should flow from comprehensive policies and programmes may not be realised. Therefore, it important to carefully think about the idea of developing an advocacy plan that can be actualised. Creating an advocacy plan does not only help understand the situation, it also helps to understand stakeholders and their powers and how change happens. As such, a good advocacy plan has at least 9 steps described below, namely: defining situation; setting goals and objectives; identifying the target audience; mobilising support; developing persuasive messages, selecting methods of advocacy; putting in place necessary conditions and capacities; developing and implementing the advocacy plan and putting in place a monitoring and evaluation system. WHO (2008) and UNICEF (2010) have developed toolkits to guide the development of advocacy plans. What follows is a description of the development of an advocacy plan.

*Step 1: Defining Situation* - Defining the current state of a problem or issue challenging optimal human development is the first step in developing and understanding the need for advocacy. UNICEF (2010) states that every advocacy must begin here: what do we want the advocacy to achieve? To answer this, organisations need to understand the problem, issues and their solutions. Knowing what an organisation wants involves conducting a situational analysis, generating evidence and carefully choosing priorities that the advocacy must focus on to bring about the desired change. The situational analysis

identifies areas of action and forms the foundation for developing an advocacy plan. A situational analysis gives an opportunity to organisations to uncover the problems and identify ways to address them. Situational analyses create a solid evidence base upon which advocacy priorities are set and a baseline, upon which its progress will be measured against. A problem and solution tree is a particularly useful tool for conducting a situation analysis because it offers a visual structure to analyse the problem and solution. The problem tree will help

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**Focus Box 3: Defining Situation**

Step one in developing an advocacy plan requires asking what do we want? This entails undertaking the situation through situation analysis exercise. To achieve this; 1. Develop a problem and solution tree, 2 plan research 3. Generate evidence and choose advocacy priorities.

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advocates understand the immediate, underlying and root causes of the issue, as well as help in gathering information to support the analysis. The objective/solution tree then provides a visual structure of the solutions and how they can affect change. Situational analyses should provide evidence of the problem's extent and solution to the problem. Good evidence is important for successful advocacy. Generating evidence is only possible with a good research plan, gathering both primary and secondary data to substantiate the problem and proposed solutions. Sometimes, the situation analysis will identify many issues that could be addressed through advocacy. However, choosing just a few is necessary to ensure a focused plan and meet the realities of context and resources (UNICEF, 2010). Further, it is important to identify barriers and opportunities to addressing the issue at hand. This enriches the advocacy plan development.

*Step 2: Setting Goals and Objectives* - As with any other plan, an advocacy plan should have a goal it aims to achieve. Planning should be done in a group so that the goals and objectives of the advocacy plan are reflective of their needs. This increases ownership and collective responsibility. Although setting goals and objectives of the advocacy plan is the second component of the plan, they are often formulated at the beginning of the advocacy plan. The analysis of the situation in step one could influence the direction of the goal and objective.

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**Focus Box 4: Goals and Objectives**

Successful advocacy starts with strategy and moves to tactics. Your strategy is the larger mission, the overall map that guides the use of tactical tools towards clear goal. Start by clarifying your bigger goals and then select your tactics.

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Therefore, in most cases, by the time you are on step 2, the initial goals and objective would have slightly changed to reflect evidence of the situational analysis.

A well formulated goal should bring out what the advocacy intends to achieve. The goal and objectives frame clearly states what the plan should work towards achieving. The advocacy goal is what the

organisation hopes to achieve in the long term; the change that is desired as a result of advocacy efforts (UNICEF, 2010). Objectives on the other hand are issues that are required to change or attained in order to achieve the goal. Therefore, objectives should be based on the SMART principle that is; *Specific, Measurable, Achievable, Realistic and Time-bound*. To this end, objectives must show what the advocacy intend to change in a manner that applies the application of the SMART principle. Adverbs such as *increase, reduce, enhance, and influence* are commonly used to express desire to change a situation. Examples of objectives include:

- a. To increase awareness among influential groups and the public
- b. To reduce poverty in the rural setting
- c. To engage stakeholders to speak-out against gender based violence.

Consequently, when identifying objectives, it is important to ask; what needs to change? What are the obstacles to achieving change? What steps can be taken to address these obstacles? Answers to these questions can help frame SMART objectives. After SMART objectives have been developed, develop a theory of change; describing a logical sequence of events, tactics and strategies showing how change will be achieved (this should be a cause and effect model of change).

*Step 3: Identifying the Target Audience* - Once you have clear goals and objectives of what you want to achieve, the next step is to understand who will help you achieve your goal. Knowing which audience to include, especially those that will facilitate and or influence change is important. There are two main audiences for advocacy work and usually include decision-makers and influencer. Decision-makers are the primary audience to target because of the power they have to turn evidence based findings into policy. Decision-makers here include politicians, funding agencies and traditional or community leaders. On the other hand, influencers are considered secondary audiences because as the term denotes, they only influence decision-makers to implement actions. WHO (2008) refers to these as individuals or groups who have access to decision makers and have influence on them such as the Bill and Melinda Gates foundation. As a result, these are considered as partners in the advocacy plan. Identifying policy makers is one thing, but we also need a messenger to deliver the messenger to them. Associations, civil society organisations, personalities including celebrities, the media and researchers are all potential advocacy messengers to consider.

Identifying the audience involves conducting a stakeholders' and power analysis, and how it can make desired change happen. The analysis at its minimum takes into consideration the following:

- a. Identification of stakeholders who can be individuals, groups or an institution

- b. Conducting an assessment of stakeholders' interests. Some interests increase the likelihood of achieving desired change.
- c. Assessment of stakeholders on what the stakeholders support and oppose in order to select those that form synergy with you.
- d. Assessing interest and point of view is not enough, a further assessment of stakeholder influence should be assessed. Only influencer stakeholders will make change happen.
- e. Lastly, some stakeholders are influential but not important. Hence, there is need to consider the importance of stakeholders too. UNICEF (2010) puts it this way: "although the stakeholders' importance and their influence over an issue might seem similar, they are actually very different. The degree of influence reflects the direct power a stakeholder has to influence change. The importance on the other hand, reflects the necessity to engage that stakeholder in order to address the underlying causes of a problem and achieve sustainable change. Analysis of importance is very much consistent with a rights-based approach."

A mapping table can be created to aid the stakeholder and power analysis. Interest in the issue can be rated from low to high. Stakeholder's point of view on the issues can be rated, for instance, as strong ally, medium ally, strong opponent etc. for stakeholders influence, influence can be rated as unknown, no influence, some influence moderate influence, significant influence and or very influential. Lastly, level of importance of the stakeholder can be rated as *unknown*, *no importance*, and *some importance*, *moderate* or *very important*. Rating must be done with partners to ensure correctness of ratings, therefore maximising likelihood of impact.

*Step 4: Mobilizing Support* - Influencers are often used as partners in advocacy; to enhance support and influence the advocacy. Identifying partners can easily be from the audience analysis. Only partners that can bring added advantage and value to the advocacy should be involved. Numbers are not always important. However, the more partners come on board the better because this creates strong commitment and fosters coalition-building and social mobilisation based on common goals (WHO, 2008). Mobilising partners should be done with care. Adhering to the following guiding questions of mobilising partners can be helpful (UNICEF, 2010):

- a. Can they influence our target audience?
- b. Do we have shared interests and goals?

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**Focus Box 5: Power of Working in Groups**

You can do what I cannot do. I can do what you cannot do. Together we can do great things – **Mother Teresa**

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- c. Do they increase legitimacy, credibility and effectiveness of the advocacy campaign?
- d. Do they bring knowledge, evidence and technical support?
- e. Do they bring other resources to the advocacy resources?
- f. Do they have global, national or local presence?
- g. Are their capabilities and strengths complementing to ours?

Though these questions are important in mobilising effective partners, three types of partners seem to make the advocacy campaign effective; *coalition building*, *victim/beneficiary involvement* and *social mobilization*.

*Coalition building* – coalition is when two or more individuals, groups, organisations or states agree to work together in a partnership until their common goal has been achieved. Working together with others strengthens advocacy. However, group dynamics can sometimes affect the effectiveness of the advocacy campaigns. Overall, evidence suggests coalitions than individual actors, have more effective advocacy campaigns. The Zambia Alliance for Maternal, Neonatal and Child Health (MNCH Alliance) is one such coalition of civil society organisations that have come together to conduct joint advocacy activities aimed at contributing to the reduction of the rates of maternal, newborn and child mortality and morbidity. This coalition was formed after a situation analysis which showed that in Zambia, one out of 22 children die before reaching the age of one, and one in every 13 children does not survive their fifth birthday. The maternal mortality rate among women age 15-49 is 0.74 maternal deaths per 1,000 births, a rate that has fallen by 39 per cent since 2007 (UNICEF, n.d). When five or more organizations working in maternal, neonatal and child health approach government asking for competing improvement to MNCH, the request for each is weakened, however, like a potluck meal, where every guest brings his or her special dish to the table; coalitions allow organisations to pool their strengths in common cause (United Nations, 2017). To ensure the coalition is effective, the following elements should be considered (WHO, 2008):

- a. Encourage all coalition partners to participate actively.
- b. Planning events incorporating credible speakers from different partners/organizations.
- c. Developing a schedule and sequence of activities for maximum positive impact.
- d. Delegating responsibilities to coalition members, and monitoring specific events and activities.
- e. Networking to enlarge coalitions and to keep them together.
- f. Organising training and practice in advocacy, using the framework model proposed in this module, to allow participants to deepen their understanding of advocacy while simultaneously creating new partnerships and alliances.

- g. Presenting information in a brief, dramatic and memorable fashion.

*Victim/beneficiary involvement* – involving victims in a problem or potential beneficiary of a proposed solution can strengthen advocacy. For instance, on 9, October, 2012, a young girl from Pakistan, passionate about education, was shot by the Taliban for supporting education for girls. Her experience attracted worldwide attention and intensified her girl-child education advocacy activities. Today, Malala Yousafzai is not only a Pakistani activist for

female education but she is also the youngest Nobel Prize laureate which was awarded to her in 2014. Malala in partnership with the UN has advocated for women education and her voice is widely

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**Focus Box 6: The Voice of the Victim**

How can we do that? You were the one who said that if we believe in something greater than our lives, then our voices will only multiply even if we are dead. We can't disown our campaign! – Voice of Malala after her father asked her to stop the campaigns, p.188.

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respected by policy makers. Therefore, organisations running advocacy programmes should deliberately involve victims of problems they are trying to change to be part of the advocacy campaign. Victims sometimes come with strong voices which appeal to the emotions of influencers and policy makers (see Focus Box 6: voice of the victim) above.

*Social mobilisation* – today success of some campaigns depend very much on whether society can be mobilised to increase its expectation of desired change. From the Arab Spring in North Africa to North Americas' Black Lives Matter demonstrations, societies mobilised themselves to voice their concerns about the need for political and regime change in Maghrebs to protecting lives of innocent Black Americans who often died at the hand of White police officers. While the Black Lives Matter campaign is a milestone towards rights of black people and there is still work to be done, the Arab Spring managed to bring political and regime change. In Zambia, World Vision and its partners, have launched a two-year advocacy project called the Enhanced Participation,

Accountability and Governance in Education (E-PAGE) aimed at improving governance, accountability and service delivery in the education sector through

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**Focus Box 7: Power of Social Mobilization**

Defeating the infidels requires a much greater effort. It requires the mobilization of nations – Muhammad Munajid

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community mobilisation and participation. Among other things, this project aims to empower communities to mobilise themselves and hold authorities in the education system accountable in order to enhance quality of education. The more the problem interests society, the more likely society will engage in the advocacy campaign. WHO (2008) identified the benefit of social mobilisation include the following:



- a. Accelerating collective momentum and social change;
- b. Fostering inclusivity (shared goals, aspirations, language and action);
- c. Heightening credibility and legitimacy;
- d. Engaging highly motivated individuals as credible spokespersons;
- e. Reducing stigma and isolation;
- f. Increasing effective management and allocation of resources and effort;
- g. Enhancing transparency and accountability;
- h. Engaging decision-makers and key influencers;
- i. Urging stakeholders and citizens to act.

*Step 5: Developing Persuasive Messages* - At the core of developing advocacy messages, is the question, *what do they want to hear?* Messages should be crafted in such a way that they would convince decision-makers and influencers to act or call for action. Revisit your advocacy goal and objectives so that the message you design takes account of them. In addition, consider the audience and the message that would be appealing and motivate them to act. Ultimately, a good advocacy message will have two basic components, an appeal to what is right and an appeal to the audience self-interest (UNICEF, 2010). Your message should be like an elevator-pitch, a succinct and persuasive sales pitch. Remember “less is more”. You may risk losing support and

attention if you cannot communicate in less than one minute what you desire to change. Therefore, make your concerns clear. This means that you first craft your primary message, a universally-compelling statement which

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**Focus Box 8: Advocacy Message: Example on Girl Empowerment**

Girls are by far more likely to drop out of school as a result, more are likely to suffer from poverty, diseases and infringement of human rights. Data shows that 36% of girls compared to 19% boys drop out of school between the ages of 14-18. Consequently, more girls are out of employment, affected by HIV and suffer from human rights violations. Our goal is to see increase in the number of females completing school and participating in decision making. To achieve this, government must mainstream enrolment and retention of girls, increase scholarship and positions of women in decision making positions.

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then can be followed by secondary messages that support or explains your primary message. Good messages include *statement + evidence + example + goal + action desired* (see Focus Box 8: Girl Empowerment above). Secondary messages can include examples of countries that have empowered girls and have made gender equality strides and how they did it. In our example, the opening sentence is both the message statement and primary message. Other sentences are part of the secondary statement and include evidence, example, goal and action desired.

**Table 1: Parts of the advocacy message**

Component	Sections	Sentence example
Primary	Statement	Girls are by far more likely to drop out of school, as a result, they are more likely to suffer from poverty, diseases and infringement of human rights.
Secondary	Evidence	Data shows that 36% of girls compared to 19% boys drop out of school between the ages of 14-18.
	Example	Consequently, more girls are out of employment, affected by HIV and suffer from human rights violations.
	Goal	Our goal is to see increases in the number of women completing school and participating in decision-making.
	Desired action	To achieve this, government must mainstream enrolment and retention of girls, increase scholarship and positions of women in decision-making position.

Ensure that the message demonstrate both the problem and an evidence based solution. In addition ensure your message is:

- Credible, clear, compelling, concise, consistent and convincing;
- Simple and persuasive, incorporating a direct call to action;
- Rational, moral and appealing to hearts and minds;
- Repetitive and reinforced;
- Consistent in visual style.

The deliverer of the message is as important as the message itself. The same message can have different impact, depending on who communicates it. Therefore, choose credible people with knowledge, influence and sometimes expertise. Those who speak from personal experience such as Malala Yousafzai, Prudence Mabele, a South African iconic AIDS activist who died in 2017, and Winston Zulu a renowned Zambia HIV and AIDS activist who was the first to openly disclose his HIV status and died in October 2011. Celebrities have influence, therefore, they are good messengers. In Zambia, celebrities such as Lulu Haangala-Wood is a UNAIDS goodwill ambassador, advocating on the need to attain the UNAIDS 90-90-90 ambitious target aimed at fast tracking the end of HIV by the year 2030.

*Step 6: Developing Methods for Advocacy* - At the centre of deciding which method to use is the question, "how can we make sure they hear it?" Do your research to find out the preferred medium of communication for your targeted audience. The choice of the format to deliver the message depends on who you are speaking to, what you want to say, your purpose and your ability to work with that format. Generally, there are three methods to deliver advocacy messages:

1. *Lobbying* - involves gaining access to influence decision-makers through direct or private communication. Setting meetings is often the biggest challenge for this method. However, the influence of the messenger may make it easier, hence the need to choose your messenger carefully. Lobbying through meetings with decision-makers and influencers is the most effective and cost-effective method. Make sure to leave a good impression after the meeting and documentation, such as policy briefs to amplify your campaign request.
2. *Negotiation* - this involves bargaining to forge an agreement on the desired action to solve a problem. This is the hardest method because it involves advancing the position on the issue and debating with the decision-maker to agree with your position. This method requires you first to develop negotiation and persuasion skills alongside the knowledge and evidence on the problem and evidence-based solution you are proposing.
3. *Media campaign* – involves speaking publicly with the aim of mobilising the public to join forces with you to attain your goal using mass media. Because media reach a large number of people it offers a powerful tool to inform and build support around an issue. Most popular mass media include press releases, events, news conferences, letters to the editor, TV, radio, newsletters, briefs, indabas etc. Nowadays the quickest and cost-effective method is using social media platforms such as Facebook and Twitter. In the last two years, social media through public mobilisation has changed or influenced issues affecting our society. Some influential Twitter hashtags that have influenced change are summarized in the table below.

**Table 2: Influential hashtags**

Hashtag	Aim of campaign/advocacy	Number of times used
#Ferguson	Call for US government to act on indiscriminate attack and shooting of black Americans	27,200,000
#LoveWins	Legalise and recognise gay marriages	12,800,000
#BlackLivesMatter	Stop violence and attacks on black people in the US	12,000,000
#IndyRef	Referendum to vote Scotland independent from the United Kingdom	8,500,000
#BringBackOurGirls	Call for release of abducted Chibok school girls by Boko Haram and call for Nigerian government and international community to act on terrorism	6,100,000
#YesAllWomen	Call for women to share their experiences with rape, abuse, sexism and judgment	3,700,000

**Source:** The Washington Post (March, 2016)

Social media advocacy has become an effective way of mobilising the public to take social responsibility to hold those in government accountable for many socio-economic issues. Conducting media forums in which you invite the media and communicate your message is another effective way to mass-communicate the campaign messages. The more noise you make, the more effective the advocacy. Therefore, use more than one method of advocacy.

*Step 7: Putting in Place Necessary Conditions and Capacities* - before you start your advocacy, take stock of the necessary capacities and conditions that can make your advocacy not only effective but efficient. Just like capacities and conditions needed in implementing M&E systems, the advocacy plan needs to consider capacity for people, partners and organisations, incentives to motivate the advocates, supportive and optimal organisational structures, and finances and resources to do the advocacy.

### ***Capacities***

When asked why advocacy is weak or not working, the common response is “poor” or insufficient skilled capacity. Capacity is the ability of individuals and organisations to perform functions effectively, efficient and in a sustainable manner (UNDP, 1998). Capacity includes human ability, knowledge and skills of organisational staff. Therefore, to meet capacity needs of the advocacy team, the organisation needs to acquire right people by hiring already trained and skilled people, training the advocacy team and indeed the entire organisation through internally or externally organised courses and hiring external consultants for specific advocacy inputs. This could bring in new insights into the advocacy project.

Skills and knowledge are just two of the required things among many; capacity of good quality can complement the skills. Therefore, ensure capacity is of good quality by removing disincentive and introduce incentive for learning, be clear about what you expect from each staff and partner and conduct staff and partner performance appraisals. In addition, develop a sound advocacy training plan. This will continuously need to be updated and adjusted to reflect current trends in advocacy e.g., use of social media.

### ***Incentives***

Use of incentives in advocacy means offering stimuli that motivate staff and partners to perceive your advocacy work as useful and as tool to bring about sustainable change. IFAD (2002), argues that incentive systems should be equitable, applied in a timely manner, be compatible with the organisation’s principles and strategies. Incentives need to be context-specific and aimed at supporting sustainable efforts. As such, monetary incentives should be discouraged because they cannot go beyond the advocacy period. Good incentives include:

- Clarity of advocacy responsibilities in job descriptions and work plans.
- Appropriate salaries and other rewards.
- Support and mentorship to carry out the advocacy.
- Opportunities for continuous professional development.

### ***Supportive and optimal organisational structures***

Putting in place even basic structures for advocacy functions and responsibilities right in an organisation can avoid major communication challenges, conflicts of power and interest, forgetting and duplication and waste of efforts (IFAD, 2002). Therefore, a clear structure within the organisation organogram should be developed where advocacy fails. In some big organisations, or advocacy based-organizations, advocacy is a department or unit of its own. In small organisations or organisations whose sole purpose is not advocacy, advocacy is fussed in the communication, research or M&E department. Whatever the structure of the organogram, size and purpose of the organisation, it is important that advocacy functions have a clear position in the organisation's structure. To ensure clarity of advocacy functions and tasks, consider:

- Defining the advocacy responsibilities of implementing partners;
- What staffing levels are appropriate for the set of advocacy tasks and function you need to fulfil;
- Allocate clear level of authority to advocacy related staff;
- Use detailed terms of reference for each staff member to coordinate inputs.

If you are going to use consultants as most organisations do, ensure that you use them strategically for advocacy development in ways that build local capacities and build on existing advocacy strategies and methods.

### ***Finances and resources***

Advocacy requires money and supporting resources such as equipment. Therefore, ensure your budget is adequate for the time staff and partners are spending, for supporting advocacy strategies and methods, trainings, transport and other necessary conditions and capacities for advocacy. Develop annual activity-based budgets which are results-based to get the best out of the resources you have.

*Step 8: Developing and Implementing the Advocacy Plan* - Participatory advocacy development and implementation should be embraced in order to empower and facilitate ownership, motivation, trust and

impact. The development of the advocacy plan should be premised around two questions: What is the most effective way to move the strategy forward? What will bring the right people together, symbolise the larger work ahead and lay the ground work for reaching the advocacy goal? (Schultz, n.d). When developing the plan, consider all elements described above.

A good advocacy plan responds to newly-identified needs for political support and awareness-raising in the community (WHO, 2008). Consider developing a theory of change, showing a logical sequence of how change will be achieved and its underlying assumptions. The plan must show the relationship between many strategies and tactics you intend to implement, and the results you hope to achieve (“if-then” relationship). Once the advocacy strategic direction is clear, plan how to implement it. Consider the following:

- Gather the community to define the current national or regional target problem advocacy needs;
- Identify, categorise and map the affiliations and influence of the stakeholder community;
- Decide on and document the current goals and objectives (e.g. engage the education professional and learner community in order to raise awareness of the educational issues and the need for a comprehensive education plan among key political decision-makers within a specified period of time);
- Assess and document the advocacy methods used (e.g. the media used, the network of contacts, communication vehicles, government relations);
- Assess the quantity and quality of services (e.g. education, information dissemination and new legislation);
- Assess and document the available collective resources (e.g. financial resources, human resources [staff, professional, volunteer], social capital (trust, understanding, communications));
- Consult and cultivate a network of champions who lead by example and demonstrate the values and goals;
- Engage members and stakeholders by building common ground through shared visioning, planning, actions and learning;
- Enable and mobilise the stakeholder network to act collectively with a unified voice and vision;
- Measure the impact of action to date, modify the advocacy methods as necessary; and
- Expand the network through community outreach and public engagement, leveraging the collaborative momentum created.

*Step 9: Put in Place a Monitoring and Evaluation System* - The progress and impact of the advocacy must be evaluated. Therefore an advocacy M&E system must be developed. Chapters 4 and 14 of this handbook give detailed descriptions of impact-oriented monitoring and evaluation systems. The system should be able to generate lessons learnt, therefore, it is important to be able to make corrections and discard elements of the strategy that are not working (UNICEF, 2010).

Nine questions can be used to collect, organise and summarise information to aid the development of the advocacy plan. Using this sheet, UNICEF (2010) calls the advocacy strategy planning sheet that can ease the development process.

**Table 3: Advocacy Strategy Planning Sheet**

<b>Impact:</b>	what we want to happen...
<b>Advocacy goal:</b>	long-term goal you want to contribute towards e.g., reduction of MNCH
<b>Objectives:</b>	SMART changes you desire to see
Who can make it happen?	Target audiences...
What do they need to hear?	Primary messages and secondary messages for each target audience ...
Who do they need to hear it from?	Messengers for each target audience (individuals and institutions)...
How can we get them to hear it?	Approaches & opportunities (lobbying, campaigning, media, partners, etc.)...
What do we have/need to develop?	Capacity assessment and how to address gaps...
How can we begin?	Advocacy action plan (activities that link to interim outcomes and advocacy goals, and who is responsible for doing them)...
How do we tell if it is working?	M&E plan (users of M&E data, how will they use M&E data, data collection tools, and responsibilities, indicators, targets, assumptions)...

**Source: UNICEF, 2010**

After planning the advocacy strategy using the sheet above, you can then begin to develop your advocacy strategy plan. The plan contains the following sections indicated in Table 4 below:

**Table 4: Sections of an Advocacy Strategy Plan**

<b>Section</b>	<b>Description</b>
Situational analysis	Give a brief contextual and situational analysis - what is the problem? Why advocate on the issues? Human rights approach to the issue.
Goal and objectives	Write down the goal of the advocacy and its SMART associated objectives
Audience and messengers	Describe who the audience is and the expected change they can make. Who influences people?
Partners and social mobilization	Describe who will work with you, and what they will bring with them to make the advocacy a success.
Messages for each audience	Write key messages for each audience: statement, evidence, example, goal and desired action.
Activities and outputs	Describe activities, tactics and strategies you will use to achieve the goals and objectives e.g., mobilisation, negotiations and the medium of delivering these activities
Timeline, roles and responsibility	Describe moments and opportunities for influence. This should include a role and responsibility matrix.
Resource requirement and budget	Describe all necessary conditions and capacities required to achieve the advocacy goal. Include an activity-based budget
M&E plan	Develop an M&E matrix to show what to monitor and evaluate



## Developing policy briefs.

One of the methods used to advocate is a policy brief. A policy brief is a product of research and can also be developed from a situational analysis during the development of an advocacy plan. Policy includes legislations, laws, statements or prevailing practices enacted by those in authority to guide or control institutional, community and sometimes individual behaviour (WHO, 2008). A policy brief is a concise summary of a particular issue, the policy options to deal with it and some recommendations on the best options. It presents research or evaluation findings to policy actors, highlighting the relevance of the specific research to policy and offering recommendations for change. (FAO, n.d.). A typical format is an A4 sheet report containing 700-1000 words (See Focus Box 9). Policy-makers need to make practical decisions under time constraints, so, a policy brief should provide evidence and actionable recommendations within a page or two. It has an attractive design and may have one or more photograph(s). Long briefs are also common.

### Types of policy briefs

There are two basic types of policy briefs:

1. *An advocacy brief* – argues in favour of a particular cause of action
2. *An objective brief* – gives balanced information for policy-makers to make up their mind.

### Focus Box 9: Policy Brief Sample

WHO/NMH/NHD/14.7

Global Nutrition Targets 2025  
**Breastfeeding Policy Brief** 5

**TARGET:**  
Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%

#### WHAT'S AT STAKE

In 2012, the World Health Assembly Resolution 65.6 endorsed a *Comprehensive implementation plan on maternal, infant and young child nutrition (1)*, which specified six global nutrition targets for 2025 (2). This policy brief covers the fifth target: **increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%**. The purpose of this policy brief is to increase attention to, investment in, and action for a set of cost-effective interventions and policies that can help Member States and their partners in improving exclusive breastfeeding rates among infants less than six months.

**E**xclusive breastfeeding – defined as the practice of only giving an infant breast-milk for the first 6 months of life (no other food or water) – has the single largest potential impact on child mortality of any preventive intervention (3). It is part of optimal breastfeeding practices, which also include initiation within one hour of life and continued breastfeeding for up to 2 years of age or beyond.

Exclusive breastfeeding is a cornerstone of child survival and child health because it provides essential, irreplaceable nutrition for a child's growth and development. It serves as a child's first immunization – providing protection from respiratory infections (4), diarrhoeal disease, and other potentially life-threatening ailments. Exclusive breastfeeding also has a protective effect against obesity and certain noncommunicable diseases later in life (4).

Yet, much remains to be done to make exclusive breastfeeding during the first 6 months of life the norm

for infant feeding (see Box 1). Globally, only 38% of infants aged 0 to 6 months are exclusively breastfed (5, 6). Recent analyses indicate that suboptimal breastfeeding practices, including non-exclusive breastfeeding, contribute to 11.6% of mortality in children under 5 years of age. This was equivalent to about 804 000 child deaths in 2011(5).

It is possible to increase levels of exclusive breastfeeding. Between 1985 and 1995, global rates of exclusive breastfeeding increased by 2.4% per year on average (increasing from 14% to 38% over 10 years) but decreased subsequently in most regions. However, 25 countries increased their rates of exclusive breastfeeding by 20 percentage points or more after 1995, a rate that is similar to what is needed to achieve the global target (7,8). Countries already at or near 50% exclusive breastfeeding should continue to strive for improvements because of the health and economic benefits of exclusive breastfeeding. In these cases, we suggest a minimum increase of 1.2% per year or more.



Whatever the type of a policy brief, a good brief should provide background information for the reader to understand the problem, convince the reader that the problem must be addressed urgently, provide information about alternatives (in an objective brief), provide evidence to support one alternative (in an advocacy brief) and simulate the reader to make a decision. In addition, as in developing the advocacy plan, know your audience and tailor the brief to its needs. The format of the brief is indicated below. Note that attractive briefs tend to have one or all of the extras (boxes and side bars, cases, tables, graphics and photographs).

**Table 5: Components of a Policy Brief**

Component	Description
Title	This should be catchy and short and to the point e.g. breast-feeding in the age of HIV
Executive summary	One to two short paragraphs including: <ol style="list-style-type: none"> <li>1. Description of the problem addressed;</li> <li>2. A statement on why the current approach/policy option needs to be changed;</li> <li>3. Your recommendations for action.</li> </ol>
Context and problem statement	Persuasive statement of the problem including: <ol style="list-style-type: none"> <li>1. A clear statement of the problem or issue in focus;</li> <li>2. A short overview of the root causes of the problem;</li> <li>3. A clear statement of the policy implications of the problem that clearly establishes the current importance and policy relevance of the issue.</li> </ol>
Critique of policy options/evidence of problem	This part shows: <ol style="list-style-type: none"> <li>1. Short overview of the policy option(s) in focus;</li> <li>2. An argument illustrating why and how the current or proposed approach is failing. It is important for the sake of credibility to recognise all opinions in the debate of the issue.</li> </ol>
Policy recommendations	This section is achieved by including: <ol style="list-style-type: none"> <li>1. A breakdown of the specific practical steps or measures that need to be implemented;</li> <li>2. Sometimes also including a closing paragraph re-emphasising the importance of action.</li> </ol>
Conclusion	Not always necessary but includes problem statement and key recommendations

*Source: Tsai, 2006*

### Identifiers

Remember to put the name(s) of the organisation(s) and author(s) of the brief. If you add authors, include their names, position, institution and email for correspondence. In addition, add acknowledgements of funding sponsors and contributors. Also add date and name of publisher, copyrights

and disclaimers if views expressed in the policy brief do not reflect those of the publishing organisation and funders.

## Conclusion

We have seen that in the recent years, interest in knowledge translation, especially from basic research has increased due to its recognition that it is critical to relevant knowledge development, dissemination, and uptake of research results. While most organisations in international and community-based organisations do not often carry basic research, they often current evaluation research. Information from evaluation research often end at demonstrating to donors that impact was made or not. Policy-makers remain ignorant about the efficacy of their interventions. Therefore, this chapter discussed the gap between evaluation findings, advocacy and policy. It argued the needs to begin to use evaluation data which is often available in international development organisations to develop advocacy plans and policy briefs. The chapter described the process of developing advocacy plans and how to implement the advocacy plan. In addition, the chapter described the development of policy briefs.

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## Chapter 13

### Governance and, Monitoring and Evaluation: A brief Overview

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## Introduction

The dawn of the 21<sup>st</sup> century has put a focus and considerable discussions on governance, and good governance at all levels. Consequently, the significance of good governance as a critical condition for human development can no longer be ignored (Sebudubudu, 2010). Taking this as a departure point, this chapter will define governance and its importance in development, the role of M&E in governance is also presented and discussed, possible actions needed to encourage M&E in public service with examples of countries that are making efforts to apply M&E to enhance their governance performance are also covered.

## What is Governance and its Importance in Development?

The word governance has become a ‘hot’ topic in international and national development discourse, but in most cases this word is under-discussed in connection with M&E. Defining what governance is can be quite challenging, since different perspectives exist on what it is.

**What is governance:** “Governance refers to the exercise of political and administrative authorities at all levels to manage the country’s affairs. It comprises mechanism, process, institutions, through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their interest,” (United Nations, 2012). Therefore, governance is simply a process through which citizens and established governance institutions interact in formulating public policies, strategies and service delivery. It is not what was done, but how it was done that matters most, for example, was the process consensus-oriented, participatory, inclusive, transparent, responsive, etc.

## Importance of Governance in Development

Governance is important in getting the business of development done, either at community or national levels, by ensuring the following:

1. *Citizens’ confidence in central and local governments:* Citizens have confidence, feel secure and trust governments to conduct public affairs in the best interest of society as whole rather than for the privileged few. This makes citizens feel more confident that public authorities will act in the public’s overall interests, regardless of the differing opinions.
2. *Rule of law in development processes:* The development processes are conceived, developed, implemented, monitored and evaluated within the established rules. This helps both central and local governments to adhere strictly to the established rule of law in delivering development to their citizens. However, only if the development processes are open and citizens are able to follow, the more likely that both the central and local governments will adhere strictly to the rule of law,

and then less tempted to take shortcuts or bend the established rules during development processes and service delivery.

3. *Improved decision-making process*: The process of decision making is transparent, evidenced-based by good information and data, by citizen views, and by open and honest public debates that generally reflect the broad consensus of various stakeholders' competing interests. This however, does not mean that everyone will think that the decision is the right one and agree with the outcomes. Nonetheless, citizens are more likely to respect and accept the outcomes if the process was good i.e. consensus-oriented, participatory, inclusive, responsive, transparency etc. even if they do not agree with the decision and outcomes. This in turn improves citizens' faith in decision-making processes, therefore, leading to better decision-making processes at community and national levels.
4. *Effective and efficient institutions*: Governing institutions are not only effective and efficient but also capable of delivering reliable and quality services to the citizens whenever they are needed, and within the limited public resources available. This enables public administration to collect, allocate and manage public goods for the benefit of all.
5. *Accountable institutions*: Governing institutions are *accountable* for the consequences of their development decisions they take on behalf of the general public. This in turn creates the environment where the people entrusted to preside over public affairs consider what is right and wrong in discharging their duties to the public. In other words, established institutions have the obligation to report, explain, and be answerable for the consequences of the development processes and decisions they make on behalf of citizens. On the other hand, it helps both central and local governments to remember that they are acting on behalf of their citizens and assist them understand the importance of open and ethical processes, and stand up to public scrutiny.
6. *Sustainable participatory development*: Sustainable participatory development is crucial as it wins public ownership of community and national development interventions. However, citizens are more likely to own and sustain any developmental intervention, at community or national levels if they are involved from identification, design, implementation, monitoring and evaluation. This also helps citizens feel as partakers in their community and national development and decision-making processes rather than mere recipients of the outcomes. This means that citizens, especially the disadvantaged and vulnerable groups, have the opportunity to participate in their community and national development and decision-making processes.

7. *Transparency development processes*: Transparency development processes enable citizens at all levels; community and national levels, follow the decision-making process on any given development interventions. This means that citizens are able to clearly see how and why a decision was taken; what information, advice and consultation the central or local government considered; and, what relevant policies/strategies and procedures were followed. If development processes are open and able to be followed by the public, the more likely that both central and local governments will follow established relevant legal requirements.
8. *Equitable and inclusive development processes*: Equitable and inclusive development processes help all stakeholders feel that they have a stake in the development and decision-making processes, and do not feel excluded from the mainstream of development and decision-making processes, both at community and national levels. In short, all stakeholders feel their interests have been considered by the development and decision making processes either at community or national levels.
9. *Responsive development processes*: The development and decision making processes respond to the real felt needs of the citizens, and attempts to serve all stakeholders within a reasonable timeframe. In other words, both central and local governments try to serve the needs of all stakeholders while balancing the competing interests in a timely, appropriate and responsive manner.
10. *Consensus oriented development processes*: The development and decision-making processes attempt to reach broad consensus among various stakeholders, both at community and national levels. This makes all stakeholders feel that both central and local governments take into account most competing and diverse views in their development and decision-making processes. Therefore, the development and decision-making processes ensure mediation of different stakeholders' interests to reach broad consensus on the best interests of all stakeholders and how to measure and achieve development intervention goals and objectives. Mediation of these different stakeholders' interests help to achieve a maximum agreement and common understanding on the development interventions.

The above outlined the importance of governance in development and collectively are referred to as characteristics of good governance and are summarised in the Figure 1 below.



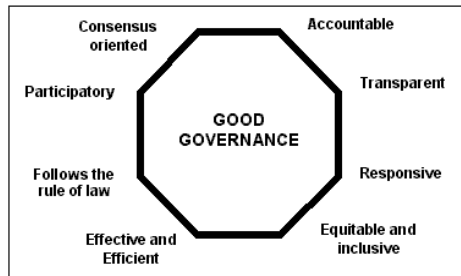


Figure 1: Characteristics of Good Governance (Source: Sheng, 2009).

In the 21<sup>st</sup> century the words “good governance” has become popular in both national and international development discourse, consequently flooding the development literature. “Bad governance is being increasingly regarded as one of the root causes of all evil in societies,” (Sheng, 2009). Good governance comprises all eight characteristics of good governance (ibid). Therefore, good governance is not all about the outputs/outcomes of the development and decision making processes, but how well the process reflects and adheres to characteristics of good governance.

The outline above clearly signifies the importance of governance in development and underscores the centrality of good governance in the development and decision making processes both at community and national levels. Therefore, the importance of good governance in development is directly linked to sustainable economic growth and human development which are both desirable development objectives.

### The Role of M&E in Governance

Now that we have a fair understanding and appreciation of the importance of governance and good governance in development, let us

now turn to the role of M&E in governance. The role of M&E in governance includes but not limited to the following:

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**Focus Box: The Interface between M&E, and Good Governance**  
 Good governance requires that citizens monitor power-holders and that power-holders evaluate whether their systems and practices produce the intended positive impact on citizens’ lives.  
 Anne Sophie Ranjbar - Associate Director of Accountability Lab.

---

1. *Informs citizens, central and local governments:* M&E informs citizens, central and local governments on whether they are doing things right and whether they are achieving results intended, thereby creating transparency and accountability in the development and decision-making processes, both at community and national levels.

2. *Evidence-based policy making process*: M&E plays a critical role in facilitating evidence-based policy making by generating and integrating the generated information into policy-making process to help policy-makers design and formulate public policies that are evidence-based. This makes public policy to be more responsive to the real needs of the citizens, both at community and national levels.
3. *Informed decision-making*: M&E helps policy-makers and development planners in coming up with sound and informed decisions in the development processes, both at community and national levels.
4. *Budget planning process*: M&E provides key indicators and information on the national budgeting process, thereby providing the basis for citizens' participation in the budget planning, implementation, monitoring and evaluation, which in turn improves budget effectiveness and efficiency.
5. *National planning*: M&E provides valuable information in setting public objectives and goals, Key Performance Indicators (KPIs) from informed angles on national development, both for economic growth and human development, thereby making planning more responsive to the development challenges.
6. *Public feedback*: M&E helps to obtain feedback from the public on national development indicators and communicate to policy-makers, which is essential in policy design and formulation of public action.
7. *Public spending*: M&E assists in making public spending more effective, to ensure that funds are being used correctly and on the right things, thereby making public spending more effective and efficient.
8. *Law-making*: M&E helps law-makers formulate laws that are based on scientific evidence to ensure that laws are contextual and responsive to the public developmental aspirations and needs of the community and the nation at large.

From the above discussion, it is clear that M&E has a strategic role in governance. Without timely, reliable information, it is difficult to make informed decisions, formulate evidence-based public policy, have an effective and efficient public spending system, and support responsive laws and policies. Therefore, the next section proposes what should be done in order to promote and uphold the role of M&E in governance issues.

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### Focus Box 2: The Role of M&E in Governance

The key take home message from this section is that the role of M&E in governance revolves around participation, transparency, accountability, responsiveness, effectiveness and efficiency. Below is the summary of M&E roles in governance:

1. Informs citizens, central and local governments;
  2. Evidence-based policy;
  3. Informed decision-making;
  4. Budget planning;
  5. National planning;
  6. Public feedback;
  7. Public spending;
  8. Law-making.
- 

### What should be done to enhance the role of M&E in Governance?

In this section, the discussions are centred on what actions should be taken in order to enhance and uphold the role of M&E in governance.

Possible suggestions are outlined below.

There are many actions that can be undertaken to enhance and uphold the role of M&E in governance. These include but not limited to the following:

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### Focus Box 3: M&E necessary Capacities and Conditions for Governance

Just as political will is a critical prerequisite to improving governance, buy-in from key stakeholders is a critical ingredient to successful M&E.

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- (a) *Design and institutional strengthening of M&E system for public policies and programmes:* There is need to incorporate M&E practices into the public policies processes. These perspectives may include; (i) the creation of legal and managerial mechanism, (ii) the implementation of institutional M&E units or public organisations dedicated to monitoring and evaluating the policies, and (iii) the appropriation and use of the M&E system's results to feedback the policies and programmes.
- (b) *M&E methodologies and practices:* Ensure that all national development interventions have the following; (i) evaluation plans, (ii) logical framework, (iii) selection of outcome indicators and goals of public management, (iv) impact evaluation, and (v) design of a management information system.
- (c) *Establishment of M&E systems in ministries:* Deliberate policy is needed to encourage the establishment of functional M&E systems in government ministries to improve effectiveness and efficiency, accountability and transparency, responsiveness, equitable and inclusiveness, and achieve evidence-based public policy, informed public decisions, strategies and actions.
- (d) *M&E Capacity building:* To ensure functionality and sustainability of the public service M&E system, there is also need to come up with M&E capacity building initiative for public sector, such as;

training personnel in M&E, acquiring appropriate technology for M&E and allocating adequate financial resources. It must be noted here that capacity building is an ongoing expertise as the field and practice of M&E is dynamic. Sustainable investment in M&E capacity building is crucial to the success and sustainability of M&E systems in government ministries.

- (e) *Promoting culture of M&E*: To ensure that M&E has prominence within the government ministries, there is need to cultivate the culture of M&E from the top leadership, ministers and permanent secretaries, directors and support staff.

The above suggested actions if taken together can spur M&E in government ministries. However, for this to happen, political will, and sustainable resources are needed to actualise M&E in public service.

### Examples of Countries applying M&E to improve Governance

The link between M&E and governance has not been fully explored hence few countries are applying M&E to improve governance. However, few countries have made strides in these areas to enhance their governance performance. The World Bank has listed some, such as “Brazil, Latin America, Caribbean, Colombia, India, South Africa, Canada, Chile, Italy, Mexico, New Zealand, Peru, Spain, Sri Lanka, and United States” (World Bank, 2010). The countries listed above have made notable efforts in using M&E in governance matters, consequently promoting the culture of transparency and accountability in the public service.

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#### Focus Box 4: M&E and Governance in South Africa

M&E in South Africa has been used to promote democratic and good governance deliverables, such as transparency, accountability and learning, and to influence public administration practice.

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### Conclusion

The main aim of this chapter was to highlight the link between governance, and M&E in the public sector management and administration. The idea of governance and M&E do play a role in development discourse at all levels as discussed in this chapter. This is a potential area for strengthening cooperation between government and citizens through good governance-linked public service delivery. Despite this potential, efforts to create understanding and appreciation of the interface between governance and M&E at community, local and central government still remains scant, utilised and under resourced.

The pursuit of sustainable economic growth and human development at all levels demands that they reflect and adhere to the characteristics of good governance to enhance public confidence and trust in the development discourse. This will require a functional M&E system to enable citizens proactively monitor power-holders and evaluate whether their public service system(s) operates and delivers public goods within the characteristics of the good governance wheel. However, for this to happen, a strong and well-resourced M&E system at all levels is a precondition, especially at local and central government levels. This will entail policy efforts to place M&E functions and culture at the center stage of all development processes to significantly improve public service delivery, management and administration as well as effectiveness and efficiency. Therefore, based on the chapter discussions, the following are the recommendations;

- Resource and sustain efforts to create awareness, understanding and appreciation of the link between governance and M&E, and its role in development discourse to enhance cooperation between citizens and power-holders.
- Promote the characteristics of good governance within the public service delivery, management and administration to steer public confidence and trust.
- Establish M&E systems in government ministries through deliberate policy to encourage the establishment of well resourced, strong and functional M&E systems to improve good governance principles, and achieve evidence-based public policy, informed public decisions, strategies and actions.

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## Chapter 14

### Developing a Participatory Monitoring and Evaluation System

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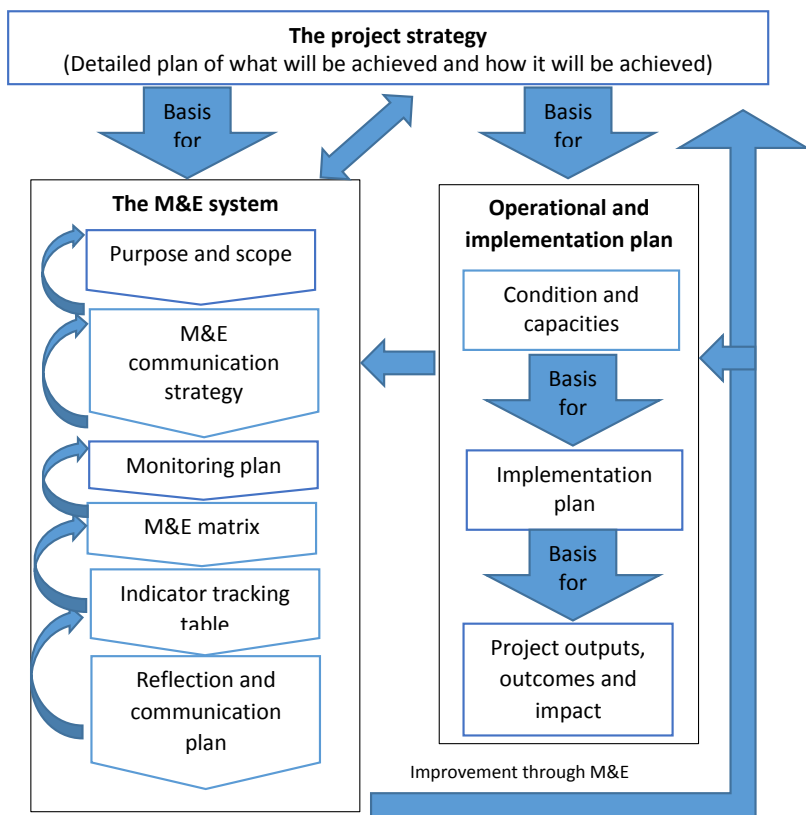
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## Introduction

Any organisation needs to have a systematic mechanism of how to monitor and evaluate a project, programme or policy. This means organisations need to set up a monitoring and evaluation system. Many people confuse a monitoring and evaluation plan to be the same as the monitoring and evaluation system. These two are different but they build on each other. The M&E plan is the precursor of the M&E system. The M&E plan is developed from a project strategy and takes into account a lot of the organisation's operational activities. Figure 1 below shows the link between M&E system and the project strategy and operations.



**Figure 1: The link between M&E, project strategy and operations** (adapted from: IFAD, 2002)

The International Fund for Agricultural Development-IFAD (2002), defines an M&E plan as an overall framework of performance and learning, information gathering requirements (including indicators), reflection and review events with stakeholders, resources and activities required to implement a functional



M&E system. This definition has one key term that must be understood “framework”. A framework is a supporting structure for a system. It is a basic structure underlying the system of something. Without this structure the M&E system cannot function. In living organisms (e.g., humans), we have a skeletal structure from which various systems are supported. In a car we need to have a chassis to support the body and other parts. In a project, programme or policy we have an M&E plan which contains an array of components including performance questions, indicators, data collection and management tools, critical and learning events, and the annual work plan and budget (AWPB). If you put these together, they form what we call the M&E plan. The problem is, this overall framework (collation of all these components) does not say how monitoring and evaluation should be done, how different components work together or influence each other. To be able to know this we turn to the M&E system. IFAD (2002), defines a system as a set of planning, information gathering and synthesis, reflection and reporting processes along with necessary supporting conditions and capacities required for M&E outputs to make valuable contributions to decision-making and learning. A system in M&E refers to a set of principles or procedures according to which monitoring and evaluation is done. It is a set of planning mechanisms including information gathering and synthesis, reflection and communication, together with necessary conditions and capacities deliberately put together and influence each other in order to track progress, impact and enable learning and decision-making. Simister (2009), defines a system as a series of policies, practices and processes that enable a systematic and effective collection, analysis and use of monitoring and evaluation information.

Participatory monitoring and evaluation systems, are systems that involve key stakeholders in planning, information gathering and analysis, reflection and communication in order to track progress, impact, enable learning and decision-making that are not only owned by stakeholders but a reflection of all stakeholders’ needs and wishes.

### **Country and Organization Led Monitoring and Evaluation Systems**

House & Howe (1999), posed a question, “For whose values do we do evaluations?” Is it for the donor or the primary beneficiary of the programme or policy we are evaluating? Questions like these, have led M&E systems to transition to what is now known as country or organisation-led monitoring and evaluation systems (C/OLMES). For instance, the 37<sup>th</sup> Development Assistance Committee (DAC) working group on aid evaluation, acknowledged the fact that most evaluations of development aid have been led by donors and are done to satisfy donors’ requirements (UNICEF, 2009). According to UNICEF, such systems have at least two significant consequences:

1. Lack of country (organisation) ownership of these evaluations and, therefore, underutilisation of evaluation findings and recommendations.
2. Proliferation of donor evaluations leading to high transaction costs for the countries. In addition, the primary purpose of donor-led evaluations is to ensure donor accountability and learning, and not to address the information needs of national and local decision-makers and governance systems.

In the literature, a country-led system has been extensively discussed. However, with a lot of medium-sized, faith and community-based organisations increasingly receiving money from donors and sometimes donor funded multinational and local civil society organizations, it is worth discussing the organization-led monitoring and evaluation system too. Medium-sized, faith and community-based organisation receive such donor funding with conditionalities attached to them, hence influencing the M&E outcomes one way or another. A country or organisation-led monitoring and evaluation system is a system in which the host and not donor leads and owns the system by determining:

1. What intervention component, project, programme or policy will be evaluated?
2. What evaluation questions will be asked?
3. What analytical approach will be used?
4. How findings will be communicated and ultimately be used?

The idea of a country or organization-led monitoring and evaluation system is to serve primarily, information needs of a nation or organisation before serving needs of donors. Therefore, it is for this reason that a county or organisation-led M&E system is seen as an agent of change and instrumental in supporting national and organisational developmental needs. Country or organisational-led M&E systems focus on building change on personal, relational, cultural, structural and systems levels within a country and organisation. Although country or organisation-led systems seem to be the trending development now, they have their own challenges. First, its common knowledge that most donors do not just transfer funds but also skills in order to make sure their agendas are met. This means that the separation (independence) advocated by country-led systems still involve capacity building and clearly defined “values” that the system must save, most of which would be donor-driven. This entails that the donor and host (country or organisation) must agree on ownership, power and boundary issues that must be respected by each party.

Unfortunately, the funder tends to have more power and control, hence agreements tends to favour the funder. This transition should not be mistaken with advocating for non-accountability on the

part of the host. While accountability and learning are key in monitoring and evaluation, the systems' purpose should primarily focus on meeting the needs and values of the primary beneficiaries of a project, programme or policy. The issue of accountability started because of misappropriation of funds. However, this suspicion is not easy to remove by donors, as such, they still need a stake of control to make sure that their funds are used for the intended purpose. Therefore, agreeing on the degree of control is a challenge in such systems. The other challenge that may arise from a country or organization-led M&E systems includes time that it takes to negotiate ownership (UNICEF, 2009), and issues to do with power and boundaries for the parties involved.

### **A Methodology of Developing the M&E System**

There is no internationally-agreed blueprint on how to develop an M&E system. As a result, different people or organisations will develop systems differently. The most important thing is for a system to meet its intended purpose and meet the criteria of a good system. What is discussed below is based on what literature says and the experience of the author in developing M&E systems for organisations. Before we turn to the methodology, we should discuss what constitutes a good M&E system. A good M&E system should address Ws&H adverbs and each of these should speak to each other:

1. *What* – a good system should clearly state what is to be monitored and evaluated within a specified time period.
2. *Where* – the system should clearly state where a particular project component, performance question or indicator is to be monitored or evaluated and on whom (e.g., persons or what e.g., physical structures).
3. *How* – the system should state clearly how a particular indicator will be monitored or evaluated. What methods will be used to collect data and analyse the data.
4. *When* – the system should be clear when a particular component or indicator is to be monitored, evaluated or adjusted.
5. *Who* – the system should clearly state who is responsible for particular monitoring and evaluation activities. This enhances accountability.
6. *Whom* – the system should clearly state for whom the M&E data is and when this data is needed
7. *Why* – the system should state clearly why certain information from M&E is needed by a particular stakeholder. The purpose for M&E-related data should be used and feedback should be obtained from data consumers.

Now that we know what a robust system addresses, we can now review the steps for developing an M&E system. There are at least 9 steps to follow when developing a robust M&E system:

1. *M&E readiness assessment* - M&E readiness refers to the preparedness to use M&E data for decision-making and act on recommendations to improve action and project management (Patton, 2008). According to Patton (2008), research on readiness found that ‘valuing evaluation’ is a necessary condition for evaluation use, and it is important to be in touch with reality on the ground, such as human capacities, financial resources to support M&E, supporting organisational structures and having a clear purpose for setting up the M&E system. If stakeholders are not ready to use M&E data, there is no need to waste resource on M&E. Smith (1992), developed a readiness for evaluation questionnaire shown in Exhibit 1. Positive beliefs and willingness to be actively involved in monitoring and evaluation are precursors to using the evaluation system.

**Exhibit 1: Items on Belief in Programme Evaluation from Readiness for Evaluation Questionnaire.**

- 
1. Programme evaluation would pave way for better programmes for our clientele
  2. This would be a good time to begin (renew or intensify) work on programme evaluation
  3. Installing a procedure for programme evaluation would enhance the statue of our organisation.
  4. We do not need to have our programme evaluated.
  5. The amount of resistance in the organisation to programme evaluation should be a deterrent to pursue a policy of programme evaluation.
  6. I have yet to be convinced of the alleged benefits of programme evaluation.
  7. Programme evaluation would only increase the workload
  8. “Programme evaluation” and “accountability” are just fads that hopefully will die down soon.
  9. Programme evaluation would tell me nothing more than I already know.
  10. I would be willing to commit at least 5% of the program budget for evaluation.
  11. A formal programme evaluation would make it easier to convince administrators of needed changes.
  12. We would probably get additional or renewed funding if we carry out a plan for programme evaluation.
  13. Programme evaluation might lead to greater recognition and reward for those who deserve it.
  14. It would be difficult to implement a procedure for a programme evaluation without seriously disrupting other activities.
  15. No additional time and money can be available for program evaluation
  16. Most of the objections one hears about programme evaluation are really pretty and irrational
  17. Some money could probably be made available to provide training to staff in programme evaluation.
- 

**Source:** Smith, (1992)

2. *Define purpose and scope of the M&E system* – defining the purpose and scope of the M&E system looks easy but it can be astonishingly challenging to do. Whatever the case, defining the purpose and scope can help decide on issues such as budget levels, number of indicators needed and type of communication among others (IFAD, 2002). Purpose relates to the reasons why a country or organisation is setting up the M&E system. Different organisations have different reasons for setting up the M&E systems. In many cases, organisations wish to develop (or improve) M&E

systems to allow them both to be accountable to different stakeholders and to learn in order to improve performance in current or future projects or programmes. An M&E system designed fundamentally to learn and improve performance will not necessarily be the same as the one designed to show accountability. Nor indeed will a system designed to be accountable to donors or supporters always be similar to a system designed with accountability to partners and service users in mind (Simister, 2009). The scope refers to the extent and degree of sophistication of the M&E system. A sophisticated system requires a combination of qualitative and quantitative methods and information management systems while a simple system rely on discussions and transect walks with stakeholders (IFAD, 2002).

3. *Engage different stakeholders* – in order to be inclusive, consult different stakeholders so that their information needs are met by the system. Stakeholders’ expectations of the systems must be obtained and addressed to avoid surprises. Therefore, in consultations with stakeholders, ensure that different groups have some input into the decisions that will affect their work or lives; to ensure that there is buy-in into the new system, and to improve its potential quality (Simister, 2009).
4. *Establish system network* – this involves identifying where within the organisation structure the system will sit, who will be accessing and using it within the organisation structure. The structures will differ from international, national or regional networks. The networks can also be broken down from programmes to projects, country assistance to sector, project to organisation, or even themes, all which must be captured within a system network. Such networks will influence whether a system will be simple; one that has limited access and use due to the size of the intervention or cascading system; one that is complex due to the numbers of interventions or regions involved. For instance, a typical complex organisation, such as an international non-governmental organisation, might work in a number of regions. Each region may include a number of different countries. Country network might be broken down further into programmes and projects; often implemented through partner organisations. An international M&E system would need to consider all these levels. In fact, what looks from the outside like an international M&E system is usually a series of overlapping and interlocking M&E systems at different levels, with information and analysis flowing between them (Simister, 2009).

5. *Identify key components of the systems* - there are no agreed upon core areas/components that a system should constitute. To be able to meet the standards in the definition of what the M&E system is and does, the system should include details discussed in Focus Box 1:

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#### **Focus Box 1: Parts of the M&E System**

1. *Theory of change and hierarchy of objectives* - this spells-out how desired change for an intervention to be monitored and evaluated is conceptualised and is hoped to be realised. The hierarchy of objectives (then the log-frame matrix) is the starting point of developing the M&E matrix, the heart of the M&E system. The M&E matrix is a table describing the performance questions, information gathering requirements, including indicators, reflection and review events with stakeholders and resources and activities required to implement functional M&E systems. It lists how data will be collected, when, by whom and where (IFAD, 2002).
2. *Implementation and monitoring plan (M&E)* – this is a plan describing how and when activities to be monitored will be implemented and the expected outputs and immediate outcomes expected as a result of the activities.
3. *M&E matrix* – is the heart of M&E. It is important to add more information to the table to make it more robust, such as baseline data, milestone for monitoring and evaluation, targets set for each activity, assumptions associated with each activity, designs to be used, data source (sample), and the person responsible.
4. *Indicator tracking table* – is a table that tracks progress of the indicators included in the M&E matrix. It is often used for quantitative indicators, yet it can also be used to track qualitative indicators. To successfully use qualitative indicators, practitioners need to scale the adjective upon which more information is obtained from participants/stakeholders. For example, a qualitative indicator would be “assessment of stakeholders on the quality of implementation”. It would be better to scale this from 0 = not happy to 5 = very happy. This scale should be accompanied with detailed qualitative narratives to justify the choice of the adjective. This method is based on the semi-quantitative interpretive framework.
5. *Core M&E and cross-cutting issues matrix* – this is a table that describes the core questions of evaluation e.g., impact, relevance, effectiveness, efficiency, sustainability, utility and governance. In addition, it describes cross-cutting issues such as gender, poverty and participation. It includes associated performance questions, information needs, data collection tools and persons responsible, mostly external consultants.
6. *Data collection plan* – this shows tools/methods to be used and linked to either objectives, performance questions or indicators. It shows when data will be collected using a particular tool and the person responsible. The matrices discussed above already contain this information but it helps contextualise data collection.
7. *Communication strategy* – this identifies the audiences that require information in the project, what information they need, why they need it, when they need it, what communication format they prefer to be communicated with and the person responsible.
8. *Critical reflection and learning plan* – this details specific events that the project will deliberately use to reflect and learn. It describes who is to be involved, any training or capacity building required to make the reflection event successful and the person responsible.
9. *M&E Conditions and capacities plan* – it details the conditions and capacities needed to make M&E effective. This may include staff, equipment, financial and others supporting structures.

- 
6. *Work out the M&E proposal* – this involves working out a detailed proposal on how monitoring and evaluation will be done. Detailed work required will vary, depending on how the M&E system has

been conceptualised. Work could include developing planning templates, designing or adapting information collection and analysis tools, developing indicators, developing protocols or methodologies for service-user participation, designing report templates, developing protocols for when and how evaluations and impact assessments are carried out, developing learning mechanisms, designing databases (Simister, 2009), planning for reflection and learning events, developing M&E budgets, terms of references and other tasks deemed important to make the system effective and functional.

7. *Orient and train user* – as the M&E system is rolled out, users should be oriented and trained on how to use the system. The system should be frequently adjusted and improved. Therefore, training on how to not only use it but assess its quality is vital during this stage.
8. *Implement the M&E system* – the M&E system is only good if it is implemented. The system should be interactive and responsive, otherwise it risks to be just one of those documents in the office. To avoid this, many organisations are now developing web-based responsive and interactive systems.
9. *Make the system respond to different information needs of stakeholders* – An organisation's M&E system needs to respond horizontally (with other organisational systems and processes) also known as internal needs and vertically (with the needs and requirements of other stakeholders) also known as external needs. Horizontally, the system should respond to financial, administrative, logistics, fundraising, human resources and learning needs (Simister, 2008). Vertically, the system should respond to external stakeholder needs detailed in the communication strategy, such, as best practices used in an intervention, project target groups and catchment areas among others.

### **Quality of the M&E system and how to update the system**

Once a system has been set up, check for its quality. According to the IFAD (2002), the standard criteria for assessing the quality of your M&E system are:

- *Utility* – the M&E system should serve the practical information needs of intended users.
- *Feasibility*- the methods, sequences, timing and processing procedures proposed should be realistic, prudent and cost effective.
- *Propriety* - the M&E activities should be conducted legally, ethically and with due regard for the welfare of those affected by the results.
- *Accuracy* – the M&E outputs should reveal and convey technically adequate, fair and accurate information.

- *Independence* – This one has been added by the author because it is a requirement for organisation-led system. Here you assess if the system is independent from the influence of donors and other policy makers.

The M&E system is not a “cast in stone”, it needs to be updated and adjusted accordingly. Different project milestones can be used for system adjustment such as weekly staff meetings, monthly partner meetings, monitoring visits, participatory annual review, mid-term review etc. The criteria used for quality assessment can also be used when updating the M&E system.

### **Web-based and non-web-based M&E systems**

There are web based and non-web based M&E softwares that can be more effective than paper-based systems. Unlike paper-based systems, in web-based, component of the system speak and influence each other. One such software commonly used is found on <https://mandeonline.com/>. The software does a lot to include GIS mapping, annual operation plans, donor management systems, indicator tracking systems, procurement and chain management systems, comprehensive reporting etc.

In Zambia, the Impact Manager is one of such sophisticated and interactive web-based software that does analysis; both qualitative and quantitative within the framework. It develops reports, tracks activities on the platforms and sends notification to users of any activities done on the system and users are able comment and receive feedback. It also has a calendar and planner that is synchronised with all processes in the system.

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## Part 6

### Chapter Appendices

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#### Part Appendices

- Appendix 1: Managing for Impact Assessment Tool
- Appendix 2: Impact Evaluation Measuring Instrument: A Report on the Impact of the Pre-School Feeding Programme in Gauteng Province, South Africa
- Monitoring and Evaluation Templates: An Example

## Appendix 1: Managing for Impact: Assessment Tool

*Instructions:* for each statement indicate (**1 Limited:** to indicate limited awareness, knowledge and capacities in place on the issue; **2 Being developed:** to indicate there is an awareness of the importance of this issue but the mechanisms and capacities to put it in place may be lacking although an effort is made to develop the issue; **3 Partially functioning:** to indicate most people are aware of the importance of this issue and they have basic knowledge and skills to work on it. Capacities and conditions are generally in place to make it work but there is still room for improvement, and **4 Fully effective:** to indicate the issue is fully accepted as an important issue and fully integrated into processes and systems, and leading to positive results.

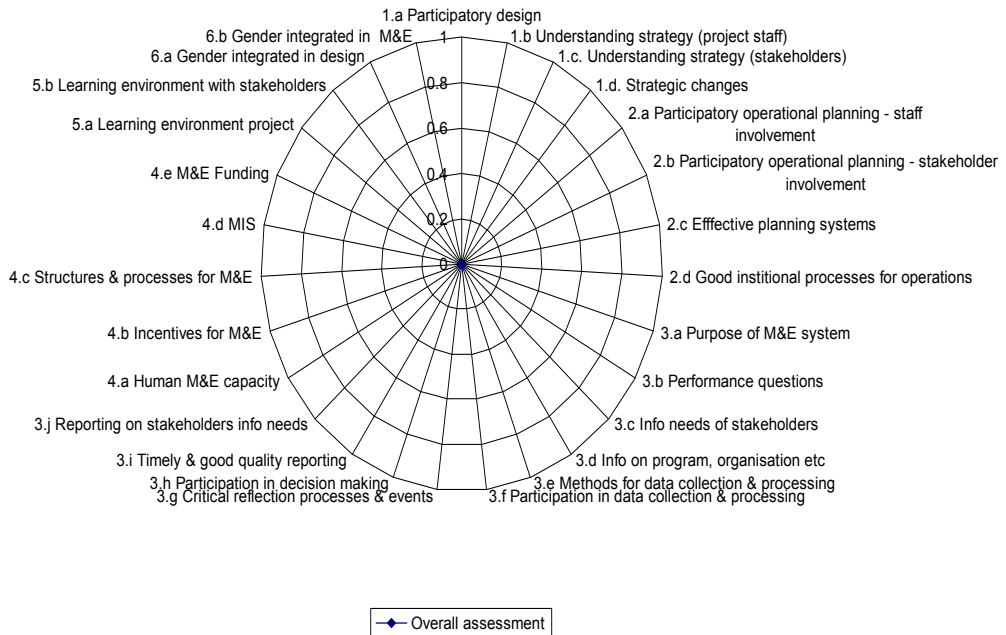
No.	Guiding question (Include why or why not)	1	2	3	3	Comment (Ideas for further improvement)
<b>Part 1: Guiding project strategy towards impact</b>						
1a	To what extent is programme redesign taken as an integral and ongoing process?	1	2	3	3	
1b	To what extent does the project strategy incorporate long-term capacity development and sustainability?	1	2	3	3	
1c	To what extent are there built-in opportunities and activities that support learning and enable adaptation of the project strategy during implementation (e.g., flexible and critical use of the log-frame enabled through critical reflection/review meetings)?	1	2	3	3	
1d	To what extent is programme design and redesign participatory? (strategic level) – i.e., who are the stakeholders of the project and to what extent are they involved in the development of the strategic plan(s) and the strategic changes?	1	2	3	3	
1e	To what extent do project staff understand the intervention strategy (development pathway)? (e.g., to what extent do project staff have an understanding of the logic & approach the project uses for its interventions?)	1	2	3	3	
1f	To what extent do other stakeholders (beneficiaries, partners etc.) understand the intervention strategy (development pathway)? [e.g., to what extent do other stakeholders have an understanding of the approach the project uses for its interventions?]	1	2	3	3	
1g	To what extent are changes made at strategic level (e.g., changes in log-frame at outcome and impact level; changes in approaches used etc)? (e.g., changes in the approach, advocacy, working with partners; changes in key components of the log-frame (strategic level) etc.	1	2	3	3	
1h	To what extent are gender issues considered as a cross-cutting issues in project design?	1	2	3	3	
<b>Part 2: Ensuring effective operations</b>						

2a	To what extent are project staff involved in the revision of an operational plan? i.e., to what extent are project staff involved in the development and adaptation of the work plans and budgets?	1	2	3	3	
2b	To what extent are other stakeholders (e.g. beneficiaries & partners) involved in the revision of the operational plans? (e.g., Who are the stakeholders in the project and to what extent are they involved in the development and adaptation of the work plans and budgets?)	1	2	3	3	
2c	To what extent are the planning systems effective in guiding operations and how they are being revised? (e.g., making work plans and budgets, allocating staff and resources, office requirements, contracts etc.)? What drives the operational changes? e.g., funds?	1	2	3	3	
2d	To what extent are institutional processes, systems contributing to effective operations? (e.g., policies and systems for human resource development; finance systems; decision making processes; having regular meetings in place; organizing space and time for lessons learned etc.)?	1	2	3	3	
2e	To what extent are the necessary staff in all units of the project in place and are they provided with the necessary incentives to ensure effective operations? Is the number of staff, capacities and relevance, process to assess staff performance in place?	1	2	3	3	
2f	To what extent are the necessary conditions, capacities and processes for effective and efficient procurement management in place?	1	2	3	3	
2g	Are the necessary conditions, capacities and processes in place for effective financial management of the project?	1	2	3	3	
2h	Are the necessary facilities including equipment, vehicles, goods, office buildings provided for the successful operation of the project? Are operating spaces, processes and resources in place for their operation and maintenance?	1	2	3	3	
<b>Part 3: Setting up and using the M&amp;E system</b>						
3a	i. To what extent is the purpose of the M&E system directed towards accountability?	1	2	3	3	
3a	ii. To what extent is the purpose of the M&E system directed towards supporting operational management?	1	2	3	3	
3a	iii. To what extent is the purpose of the M&E system directed towards strategic management?	1	2	3	3	
3a	iv. To what extent is the purpose of the M&E system directed towards knowledge creation?	1	2	3	3	
3a	v. To what extent is the purpose of the M&E system directed towards empowerment?	1	2	3	3	
3b	i. To what extent has the M&E system included key evaluation/performance questions on relevance?	1	2	3	3	
3b	ii. To what extent has the M&E system included key evaluation/performance questions on impact?	1	2	3	3	
3b	iii. To what extent has the M&E system included key evaluation/performance questions on effectiveness?	1	2	3	3	
3b	iv. To what extent has the M&E system included key evaluation/performance questions on efficiency?	1	2	3	3	

3b	v. To what extent has the M&E system included key evaluation/performance questions on sustainability?	1	2	3	3	
3c	To what extent is the M&E system considered as an integral part of the project strategy; Is the M&E system placed in a strategic position to influence the decision making-process?	1	2	3	3	
3d	To what extent are the key information needs of the different stakeholders included in the M&E system?	1	2	3	3	
3e	To what extent is the M&E system focused on the program, organisational, and institutional issues e.g., staff performance, partner collaboration, policies, networks etc?	1	2	3	3	
3f	To what extent are methodologies used for data collection, and processing, participatory or conventional?	1	2	3	3	
3g	To what extent are stakeholders involved in data collection, and processing?	1	2	3	3	
3h	To what extent are different (critical) reflection events & processes in place?	1	2	3	3	
3i	To what extent are different stakeholders involved in the decision-making processes? (strategic & operational)	1	2	3	3	
3j	To what extent are the reporting documents and processes timely and of good quality?	1	2	3	3	
3k	To what extent are the results/findings communicated/reported and in line with stakeholders' needs?	1	2	3	3	
<b>Part 4: Capacities and condition for M&amp;E</b>						
4a	To what extent is human capacity adequate for M&E?	1	2	3	3	
4b	To what extent are incentives for M&E in place and adequate (e.g., M&E training for staff; encouragement from management to do M&E; enough money for M&E activities; dealing with staff and stakeholders' information needs (and not more or less etc)?	1	2	3	3	
4c	To what extent are structures and processes for M&E in place and adequate (e.g., decision-making processes, using M&E findings for (shared) decision-making; roles and responsibilities in M&E)?	1	2	3	3	
4d	To what extent is MIS adequate e.g., computer-based system as well as non-computer-based information systems?	1	2	3	3	
4e	To what extent are financial capacities for M&E adequate? (e.g., separate budget line for M&E; enough money to carry out M&E)?	1	2	3	3	
<b>Part 5: Creating a learning environment</b>						
5a	To what extent does the organisation/programme have a learning environment (e.g. periodically produce lessons learnt reports)?	1	2	3	3	
5b	To what extent is a learning environment created with stakeholders (including beneficiaries)?	1	2	3	3	
5c	To what extent does the organisation/programme critically reflect on its' work?	1	2	3	3	
5d	To what extent does the organisation/programme critically reflect on its' work?	1	2	3	3	
5e	To what extent is lesson learning encouraged?	1	2	3	3	
5f	To what extent does the organisation facilitate learning opportunities for staff?	1	2	3	3	

5g	To what extent is individual performance linked with organisational performance?	1	2	3	3	
5h	To what extent do forums for critical reflection facilitate dialogue about lesson learning and improving practice?	1	2	3	3	
5i	To what extent is critical reflection encouraged at an individual level?	1	2	3	3	
5j	To what extent is the organisation/programme linked with other networks/initiatives that encourage learning & sharing around good practice etc?	1	2	3	3	

Overall assessment



Source: Wageningen University, The Netherlands



# JAM

Joint Aid Management

**SOCIO-DEMOGRAPHIC QUESTIONNAIRE**

This questionnaire covers certain aspects of your life, including work and personal details, health and illness, lifestyle and social life that is relevant to health. The answers to these questions will be kept strictly confidential and the information will not be identifiable from any reports or publications.

**1. GENERAL INFORMATION**

Date:.....

Subject ID number:.....

Pre-school name:.....

Please answer all questions by marking the correct answer with **X**, except where otherwise indicated.

**Example:** In what town do you live?

Johannesburg	Bloemfontein	Cape Town	Vanderbijlpark	Durban
--------------	--------------	-----------	----------------	--------

**2. PERSONAL INFORMATION**

2.1 Your role in the family

Mother	Grandmother	Caregiver	Other, specify.....
--------	-------------	-----------	---------------------

2.2 When were you born?                      Year: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_

2.3 How old are you? \_\_\_\_\_ years

2.4 Gender:                      

Male	Female
------	--------

**3. ACCOMMODATION AND FAMILY COMPOSITION**

3.1 Where do you live?

Town/City	Farm	Informal settlement	Rural village	Hostel	Other, specify.....
-----------	------	---------------------	---------------	--------	---------------------

3.2 Do other people live in your house?

<input type="checkbox"/>
<input type="checkbox"/>

3.3 How many people are living in your house?

1	2	3	4	5	6	7	8	9	10	10+
---	---	---	---	---	---	---	---	---	----	-----

3.4. How many children live with you?

1	2	3	4	5	5+
---	---	---	---	---	----

3.5. Are all members permanent residents in this house?

Yes	No
-----	----

3.6 If yes, how long have you been staying permanent in this house?

< 1 year	1-5 years	>5 years
----------	-----------	----------

3.7 In what type of house are you staying?

Brick	Clay	Grass	Zinc/shack
-------	------	-------	------------

3.8 How many rooms does your house have?

< 2 rooms	3-4 rooms	> 4 rooms
-----------	-----------	-----------

3.9 Are there other houses/shacks within the same yard of the main house?

Yes	No
-----	----

3.10 How would you describe the place where you are currently living?

Homeless	
Living with relatives/friends	
Hostel accommodation	
Squatter home	
Rented house/flat	
Own house/flat	
Other, specify.....	

3.11 Do you have the following facilities at home?

3.11.1 Water

Tap in the house	
Tap outside the house (in yard)	
Borehole	
Spring/river/dam water	
Fetch water from elsewhere	

3.11.2 Toilet facilities

None	
Pit latrine	
Flush/sewage	
Bucket system	
Other, specify.....	

3.11.3	Waste removal	Yes	No
--------	---------------	-----	----

3.11.4	Tarred road in front of house	Yes	No
	Gravel road in front of house	Yes	No

3.12 To what extent do you have problems with your housing (e.g. too small, repairs, damp, etc.)?

.....

3.13. Do you have problems with the following?

Mice/Rats	Cockroaches	Ants	Other pests, specify.....
-----------	-------------	------	---------------------------

**4. WORK STATUS AND INCOME**

4.1. Are you currently employed?

Yes	No
-----	----

**If YES, go to Question 4.5.**

4.2. If NO, how would you describe your current status (tick one box only)?

Unemployed	Retired	Housewife	Student	Other, specify.....
------------	---------	-----------	---------	---------------------

4.3. Are you actively looking for paid employment at the moment?

Yes	No
-----	----

4.4. How long have you been unemployed?



< 6 months	6-12 months	1-3 years	> 3 years
------------	-------------	-----------	-----------

4.5. If YES (question 4.1) is your current job a:

Permanent position	Temporary position	Fixed term contract	Other, specify.....
--------------------	--------------------	---------------------	---------------------

4.6. Is your job?

Full-time	< 25 hours per week
-----------	---------------------

4.7 What is the exact title of your current job?  
(Including self-employed)

4.8 Do you have a second job for extra cash?

Yes	No
-----	----

**If YES, go to Question 4.10.**

4.9 If NO, is your spouse (partner) in paid employment at present?

Yes, full time, permanent	
Yes, part-time, permanent (< 25 hours p w)	
Yes, temporary	
No, unemployed	
No, retired	
No, other, specify.....	

4.10. If YES, what is your spouse (partner)'s occupation or job?

4.11. What is the total income in the household per month?

<	R501-R1000	R1001-R1500	R1501-	R2001-R2500	> R2500
---	------------	-------------	--------	-------------	---------

4.12 Please specify the monthly income in the household (if willing).....

4.13. How often does it happen that you do not have enough money to buy food or clothing for you or your family?

Always	Often	Sometimes	Seldom	Never
--------	-------	-----------	--------	-------

4.14 How many people e.g. partner, relatives & others (including yourself) contributed to your household income from any source,(including wages/salary from paid employment, money from second or odd jobs income from savings investments, pension, rent or property, benefits and or maintenance etc.) in the last 12 months?

People

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

4.15 How often do you buy food?

Every day	Once a week	Once a month	Other, specify.....
-----------	-------------	--------------	---------------------

4.16 Where do you buy food?

Spaza shop	Street vendor	Supermarket	Other, specify.....
------------	---------------	-------------	---------------------

4.17. How much money is spent on food PER MONTH? (Tick only one box)

R 0 – R 50	R 51 – R 100	R 101 – R 150	R 151 – R 200	R 201 – R 250	R 251 – R 300	> R 300	I do not know
---------------	-----------------	------------------	------------------	------------------	------------------	---------	---------------

4.18 How much money do you give to each child to take to school for buying food / snacks PER WEEK?

50 c	R 1 – 2	R 2 - 3	R 3 - 4	R 4 - 5	> R 5
------	---------	---------	---------	---------	-------

## 5 EDUCATION AND LANGUAGE

5.1. What is the highest education you have?

None	Primary School	Standard 8	Standard 10	College	Other post school
------	-------------------	------------	-------------	---------	----------------------

5.2 What language is spoken mostly in the house?

Sotho	Xhosa	Zulu	Pedi	Venda	Xonga	Other, specify.....
-------	-------	------	------	-------	-------	---------------------

5.3 How many children (in the household) have birth certificates?

None	1	2	3	4	5	6	7	8	All
------	---	---	---	---	---	---	---	---	-----

5.4 How many children have completed their immunisation schedule?

None	1	2	3	4	5	6	7	8	All
------	---	---	---	---	---	---	---	---	-----

5.5 How many children are attending school?

None	1	2	3	4	5	6	7	8	All
------	---	---	---	---	---	---	---	---	-----

5.6 How do the children get to school?

Walk	Bus	Taxi	Lift	Other, specify.....
------	-----	------	------	---------------------

6. ASSETS

Tick one block for every question:	Father	Mother	Sibling	Grandma	Other
6.1 Who is mainly responsible for food preparation in the house?					
6.2 Who decides on what types of food are bought for the household?					
6.3 Who is mainly responsible for feeding/serving the child?					
6.4 Who is the head of this household?					
6.5 Who decides how much is spent on food?					

6.6 How many meals do you eat per day?

0	1	2	3	> 3
---	---	---	---	-----

6.7 Where do you eat most of your meals?

Home	Friends	Work	Buy	Other, specify.....
------	---------	------	-----	---------------------

6.8 Where do your children eat most of their meals?

Home	Friends	School	Buy	Other, specify.....
------	---------	--------	-----	---------------------

6.9 Does your home have the following and how many?

	Yes	No	Quantity
Electrical stove			
Gas stove			
Primus or paraffin stove			
Microwave			
Hot plate			
Radio			
Television			
Refrigerator			
Freezer			
Bed with mattress			
Mattress only			
Lounge suite			
Dining room suite			
Electrical iron			
Kettle, electrical			

6.10 What type of fuel do you usually use for food preparation?

Food fire	Paraffin	Electricity	Gas	Coal	Other, specify.....
-----------	----------	-------------	-----	------	---------------------

6.11 What type/s of pots do you use to cook your food (tick all relevant options)?

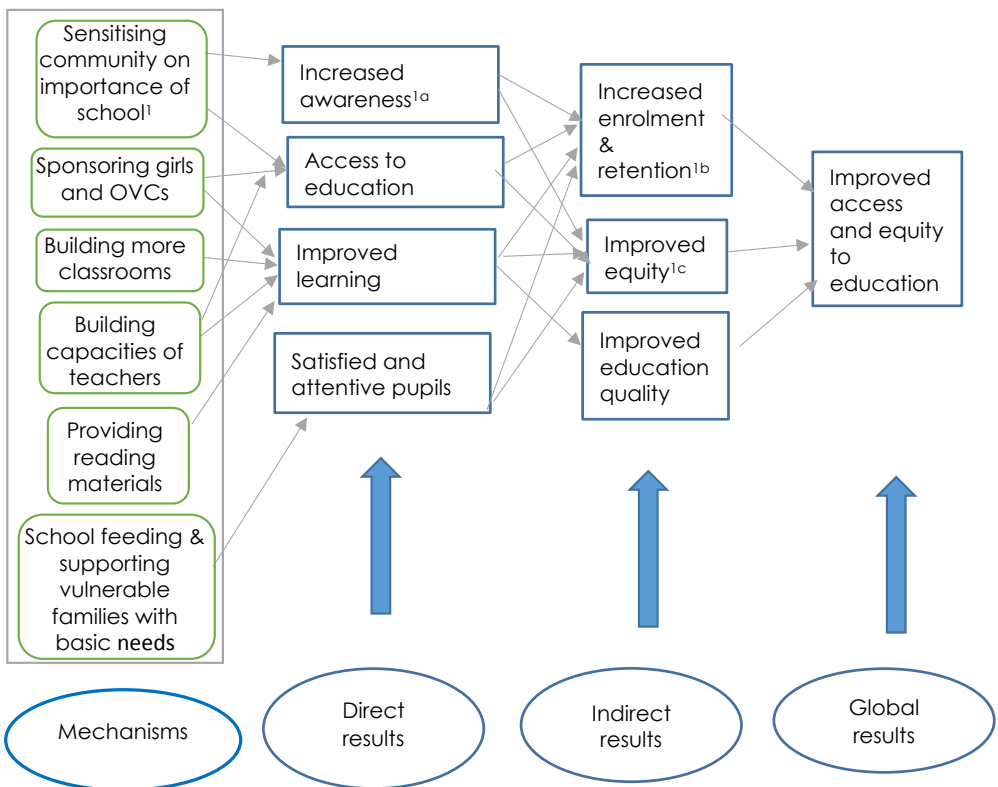
Cast iron	Aluminium	Stainless steel	Clay	Other, specify.....
-----------	-----------	-----------------	------	---------------------

Thank you very much for your co-operation. We appreciate the time.

### Appendix 3: M&E System Templates: An Example

This system is based on a hypothetical project on improving access and equity to education in Mukonchi, Kapiri Mposhi district in Central Province supported by UNICEF. This is a 4-year project which started in 2015 running through 2019. In the following pages an example of how the M&E system is written and looks like based on a hierarchy of objectives for this project is provided. In the matrix, because of its bulkiness, only the goal level, one purpose level, one output and one activity are provided. This will give you an idea how the M&E matrix is written. The theory of change and hierarchy of objectives for this project was as follows:

#### 1.0. SIMPLE THEORY OF CHANGE



**NOTE:** Ideally a theory of change should be followed by a narrative explaining the relationship (cause & effect) between components of the theory. Below is an example of a narrative:

<sup>1</sup>it is assumed that if communities are sensitised on the importance of education using appropriate media, families and children will become aware of the importance of education<sup>1a</sup> which will lead

to increased enrolment and retention in school<sup>1b</sup>, and improved equity<sup>1c</sup>. If this happens, then it may contribute to improved access to education.

## Hierarchy of Objectives

### Goal

- To improve access and equity to quality basic education of 80% eligible children by 2019

### Purpose/objective

- To increase the number of children completing basic education
- To increase the number of girls and OVCs completing basic education
- To improve the quality of education provision

### Outputs

- Increased enrolment
- Increased retention
- Conducive learning and teaching environment
- Attractive learning environment

### Activities

- Sensitising communities on importance of education
- Sponsoring girls and OVCs with fees and learning materials
- Providing reading and teaching materials to schools
- Supporting families with basic needs
- Building class rooms and providing desks in selected schools
- Building capacities of teachers especially in community schools

## 2.0. PURPOSE AND SCOPE OF THE IMPROVED ACCESS AND EQUITY TO QUALITY EDUCATION M&E SYSTEM

### Purpose

The core purpose of the M&E system of the Improved Access and Equity to Quality Education System in Mukonchi is to provide the information needed for impact-oriented project management and involve key stakeholders in learning how to improve project implementation. The M&E system will provide regular reports on project progress to different stakeholder groups in a format appropriate for their needs.

### Scope

The scope of the system will employ both qualitative and quantitative approaches. The system will use qualitative approach in order to document stakeholders' views and opinions on project components such as gender equity and quality of education. Quantitative will be used to estimate the effect size of

the intervention in improving access and equity to education. This approach will also be used to estimate the numbers of pupils that have been enrolled and retained in school and the predictor of the two variables. In addition, the system will use an interactive data base that will enable key stakeholders not only access the information but use it and give feedback.

### 3.0. IMPLEMENTATION AND MONITORING PLAN

**Note:** While you budget for the whole duration of the project, it is recommended to develop an annual implementation plan than for the whole project duration because each year you are supposed to adjust the project strategy which may affect planning and budgeting.

Activities	Target Beneficiaries	Time Frame												Results Anticipated (output)	Indicator	Assumptions or Comments	Proposed Monitoring Visit Date (s)	Person Responsible
		J	F	M	A	M	J	J	A	S	O	N	D					
Sensitising communities on the importance of education	Mukonchi communities													Increased community awareness on importance of school	# and type of sensitisations done	Communities and their leaders will respond positively	March, June, October	Project staff
Sponsoring girls and OVCs with fees and learning materials	Girls and other OVCs													Girls have requisites and attend school	% of girls and OVCs sponsored with school fees, learning material	Feels and learning materials will enable them attend school	March, June, October	Project staff
Providing reading and teaching materials to schools	Schools and pupils													Schools have reading and teaching materials	# and type of reading materials provided per target school	Reading and teaching materials will improve teaching	March, June, October	Project staff
Supporting families with basic needs	Vulnerable families													Families have basic needs therefore children attend school instead of working	% of families supported with basic needs per month	Children will focus on school instead of helping families meet basic needs	March, June, October	Project staff
Building class rooms and desks in selected schools	Selected schools in Mukonchi													Sufficient and conducive classroom	# and size of class built per school, # of desks provided per school	Expansion of schools will attract and accommodate more pupils	March, June, October	Project staff
Building capacities of teachers especially in community schools	Teachers													Teachers are skilled and knowledgeable	# of teachers trained in specialised training in community and regular schools	Teachers behaviors and teaching methodologies will improve	March & June	Project staff





#### 4.0. AUDIENCE AND COMMUNICATION STRATEGY

Internal Audience						
Name	Information needs	Use and application of required information	Required data/frequency	Reporting format	Feedback required	Person responsible
Primary beneficiaries and families	How the project is improving their lives	To provide checks and balances	Annually	Drama and community sensitization	Signal of levels of suggestion and improvements for	M&E officer
Director	Project implementation and impact-oriented management	For decision-making related to project management	Quarterly	Report	Strategy to improve implementation and impact-oriented project management	M&E coordinator
M&E director	Efficiency and effectiveness of the M&E system	To help adjust the system	Monthly	Report	Tips on improving the M&E system	M&E coordinator
Human resource manager	Performance and required human capacity	To help on improving human resource capacities in M&E	Annually	Report	Adjusting job descriptions and ToRs	M&E manager
Financial manager	Expenditure and allocation on project activities	Adjust budget allocation to project activities	Annually	Report	Best maximisation of financial resources	M&E manager
Project officer-gender	Gender equality	Improve on implementation	Annually	Report	Adjustment to project strategy	M&E coordinator
Project officer-school feeding	State of feeding project	Improve on implementation	Annually	Report	Adjustment to project strategy	M&E coordinator
UNICEF	Project progress and use of resources	To give technical advice on impact-oriented project management and optimal use of resources	Annually	Report	Adjustment to project strategy	M&E manager
External Audience						
Name	Information needs	Use and application of required information	Required data/frequency	Reporting format	Feedback required	Person responsible
Ministry of General Education	Effectiveness of intervention	Replication	Annually	Workshop	Best practice experiences	M&E manager

Ministry of Community Development Zambia Community School Secretariat	Effectiveness of intervention	of	Replication	Annually	Workshop	Best experiences	practice	M&E manager
	Effectiveness of intervention	of	Replication	Annually	Workshop	Best experiences	practice	M&E manager



### Annotation

#### How do you know the information needs and use of stakeholders?

Ideally during stakeholder and partner meetings at the inception and implementation phase you are supposed to ask for this information needs for each audience. Otherwise, once you have identified them you need to ask for this information. My experience is that getting feedback from stakeholders is challenging but if you have a consistent habit of sending the audience reports (just one to two pages) and you consistently follow-up on feedback you will be getting feedback. The key issue is commitment to sending reports and seeking feedback from stakeholders.

## 5.0. M&E MATRIX



### Annotation

Only the goal, one objective, one output and one activity will be presented here just as examples of how to write and present them in a matrix. Ideally all objectives, outputs and activities should be presented. The matrix is a useful tool for conducting formative evaluation

Hierarchy of Objective	Performance questions	Baseline or benchmark	Information needs and indicators	Milestone		Target	Means of Verification	Assumptions/risks	Sample/data source	Evaluation design	Data collection method/tool	Data analysis and reporting	Person responsible
				Event	Achievement								
<b>Goal:</b> To improve access and equity to quality basic education of 80% of eligible children by 2019	Has the project achieved its goal of improving access and equity to basic education by 80%? Why or why not	Only 43% of eligible children were in school	Levels of enrollment % of pupil and type of their SES background accessed basic education	Midterm review & end evaluation	50%	80%	School enrollment books	Families will register their children	School enrollment books	Before and after	Document review	Descriptive report to Director and Ministry of General Education	M&E consultant
	To what extent has the project intervention improved equity in basic education? Why or why not?	Of the 43% only 17% were girls	Girls enrollment levels % of girls in school			35%	70%	School enrollment books	Families will register their girls and cultural practices that stop girls from attending school will stop.	School enrollment books	Before and after	Document review	Thematic content analysis

	Has quality in education improved? Why or why not?	Poor assessment of education quality	Quality of education Perception of stakeholders	Quarterly progress assessment Mid-term and end evaluation	30% incremental per year	700	School books	Parents will register their children and dropouts will be willing to re-enter school	School records	Before and after	Document review classroom observations Interviews	Thematic content analysis	M&E consultant
	What unanticipated positive or negative consequences did the project have? Why or why not?		Project consequences of stakeholders						Project beneficiaries and stakeholders				M&E consultant
<b>Purpose 1:</b> To increase the number of children completing basic education	Has the project increased the number of pupils registering to start or re-enter school? Why or why not?	763 of those eligible not in school and 207% supposed to be in school dropped out	Figures of school pupils # of pupils entering and re-entering school						School records	Before and after	Document review	Descriptive statistics	Project coordinator

	Is the increase and retention of pupils attending basic education as a result of the project intervention? Why or why not? on how	The chief MPs have been advocating for basic education in the area	<i>Relationship between enrolment or re-entry and project intervention</i> Assessment of stakeholders of the cause in increase in pupils' enrolment?	Monitoring visit				Testimonies of project beneficiaries	Project beneficiaries will be honest in assessing the cause of increase in enrolment	Project beneficiaries and stakeholders	Thematic content analysis	Interviews	Thematic content analysis	M&E coordinator
<b>Output 1:</b> Increased enrolment	Have numbers increased in enrolment? Why or why not?		<i>Enrolments</i> # of pupils	Monitoring visit	20%/year			Registers	Register pupils will not dropout	Register	Descriptive	Monitoring form	Descriptive	M&E officer
	Are pupils attending classes regularly?		<i>Class attendance</i> % of class attendance per month					Registers	Teachers will be consistent in keeping registers	Register				
<b>Activity 1:</b> Sensitising communities on the importance of education	Were communities sensitized on the importance of school?		<i>Sensitisation</i> # and type of sensitisations done	Monitoring visit	80% of the community			Community confirmation and photos		Beneficiaries and key Stakeholders	Descriptive	Monitoring form	Descriptive statistics	M&E officer
	What the sensitization done on time and within budget? Why or why not?		<i>Time and costs of sensitisation</i> Date and cost of sensitization					Implementation logs and expenditure logs		Implementation logs and expenditure log	Descriptive	Monitoring form	Descriptive	

	What are the perceptions of stakeholders of the sensitization delivery quality?		<i>Quality of sensitization programme</i>						Stakeholders' reports	Stakeholders will be open and honest	Key stakeholders	Descriptive	Monitoring form	Thematic content analysis	
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## 6.0 CORE M&E QUESTIONS AND CROSS-CUTTING ISSUES MATRIX



### Annotation

This matrix is very useful for summative evaluation. To be effective, the user must be aware of baseline information or any other basis for comparison. Cross-cutting issues are those that the project feels may affect intervention if not addressed or controlled. While much of the working pertaining to this matrix is done and sometimes developed by an external consultant to evaluate a project, programme or policy, the contracting organisation should have one for guidance.

Core M&E Questions	Performance questions	Information needs	Indicators	Milestone moment	Sample/data source	Data collection tool	Evaluation design	Data analysis	Person responsible
Impact	To what extent has the project intervention contributed towards increased access of 80% to basic education? Why or why not?	Access to education levels	% of enrollment, retention and re-entry	Mid-term and end evaluation	School registers	Document review	Before and after	Descriptive	M&E consultant and director
	To what extent has the project intervention contributed to improved equity to education on the targeted percentage? Why or why not?	Gender equality levels OVCs in school Education quality	# of girls in school # and type of OVCs in school % of stakeholders assessment		School registers School register and CBM forms Key stakeholders	Document review Semi-structured interview	Before and after Before and after		

	What is the assessment of stakeholders of the quality of education in targeted school? What unanticipated positive or negative consequences did the project have? Why or why not?	Project consequences	of quality categories Perception of stakeholders Perceptions of stakeholders		and primary beneficiaries Key stakeholders and primary beneficiaries		Descriptive exploration	Thematic content analysis	
Relevance	Was the intervention strategy the best way to maximise impact? Why or why not? Did the project deal with the target group priorities? Why or why not?	Relevance Target group priorities	Assessment of stakeholders and key informants Opinions of stakeholders and key informants	Mid-term and end evaluation	Key informants and project documents	Semi-structured interview and document review	Descriptive exploratory	Thematic content analysis And document analysis	M&E consultant
Effectiveness	Were the planned objectives, outputs and activities achieved? Why or why not? Is the intervention	State of project components Correctness of intervention Action alternatives	Assessment of evaluator and key stakeholders Perception of stakeholders and key informants	Mid-term and end evaluation	Key informant and project documents	Semi-structured interview and document review	Descriptive exploratory	Thematic content analysis and document analysis	M&E consultant



	<p>logic correct? Why or why not?</p> <p>What can be done differently to improve action?</p> <p>Were inputs used in the best possible way? Why or why not?</p> <p>What could be done differently to improve implementation, thereby maximising impact, at an acceptable and sustainable cost?</p>	<p>Utilisation of resources</p> <p>Alternative ways to utilising resources</p>	<p>Opinions of stakeholders and key informants</p> <p>Perception of stakeholders and stakeholder's Planned figures relative to expenditure</p> <p>Opinions of stakeholders</p>	<p>Mid-term and end evaluation</p>	<p>Key informant and project documents</p>	<p>Semi-structured interview and document review</p>	<p>Descriptive exploratory</p>	<p>Thematic content analysis and document analysis</p>	<p>M&amp;E consultant</p>
<p>Efficiency</p>									
<p>Sustainability</p>	<p>Will there be continued impact as a result of the project once it has been finished? Why or why not</p> <p>What are some facilitators and</p>	<p>Sustainability chances</p> <p>Barriers and facilitators of sustainability</p>	<p>Perceptions of stakeholders</p> <p>Perceptions of stakeholders</p>	<p>Mid-term and end evaluation</p>	<p>Key informants</p>	<p>Semi-structured interview</p>	<p>Descriptive exploratory</p>	<p>Thematic content analysis</p>	<p>M&amp;E consultant</p>

	barriers of sustainability? How was the project implemented? Was the M&E county-led or was it influenced by secondary stakeholders? Why or why not?	Implementation process System independence	Perceptions of stakeholders	Mid-term and end evaluation	Key informants	Semi-structured interview	Phenomenology	Thematic content analysis	M&E consultant
<b>Cross-Cutting Issues</b>									
Gender	How has the project improved gender participation in school attendance and project?  How has the involvement of girls and women contributed towards the projects goal?	Gender participation  Impact of gender consideration on project	Perception of stakeholders  # of males and females  Perception of stakeholders	Mid-term and end evaluation	Key informants  Project and school registers  Key informants	Focus group and document review	Descriptive exploratory	Thematic content analysis  Descriptive Analysis	M&E consultant
Poverty	How has the project contributed towards poverty alleviation  How has poverty alleviation contributed	Poverty levels  Effect of poverty of project goal	Assessment of stakeholders  Perceptions of stakeholders	Mid-term and end evaluation	Key informants	Focus group discussion and document review	Thematic content analysis	Thematic content analysis	M&E consultant

	towards the project goal? How has the project contributed towards community participation in education? What is the effect of participation on the goal?	Participation levels  Effect of participation	Perceptions of stakeholders  # of volunteers  opinions of stakeholders	Mid-term and end evaluation	Key informants  Project records	Focus group discussion and document review	Thematic content analysis  Descriptive	Thematic and descriptive analysis	M&E consultant
Cultural practices	Are there cultural beliefs affecting the project intervention	Effects of cultural beliefs	Perception of stakeholders	Mid-term and end evaluation	Key informants and primary beneficiaries	Focus group discussion and document review	Thematic content analysis	Thematic content analysis	M&E consultant



**8.0. DATA COLLECTION PLAN**

Data collection method or measurement tools	Description	Target objective /indicator	Date of data collection	Person responsible
Questionnaire	Tool used to gain data from a larger number of people in a structured way and allows for statistical analysis	To assess equity and quality of education	Mid and end of the year	M&E manager and consultant
Semi-structured interview	Tool used to gain information face-to-face from an individual using a series of questions to guide conversation, but allow for new probes	To answer the five core M&E questions on impact relevance, efficiency, effectiveness, sustainability	Mid-term and end of the project	M&E manager and consultant
School registers	A tool for capturing student information includes data of entry, attendance, gender, grade etc.	To increase the number of children completing basic education.  To increase the number of girls and OVCs completing basic education	At end of the project year	M&E manager and consultant
Project reports	Documents on project or component progress and lessons learnt	For objective and other project components attainment	During evaluation	M&E manager and consultant
photos	Visual of some objects or events in a project	To build class rooms in target school		M&E officer
Monitoring form	Form that captures progress on activities, and whether outputs and outcomes have been attained. It also documents lessons learnt per visits and recommendations made	For all activities, inputs and outputs e.g: <ul style="list-style-type: none"> <li>Sensitising communities on importance of education</li> <li>Sponsoring girls and OVCs with fees and learning materials</li> <li>Providing reading and teaching materials to schools</li> </ul>	Inception of project implementation	M&E officer

## 9.0. CRITICAL REFLECTION AND LEARNING PLAN

Reflection and learning events	Description/Purpose	Whom to involve	Planned date	Training required
Participatory project review strategy	Assess the relevance and achievements, draw lessons and make recommendations on the sustainability of the project	Pupils, parents, teachers and community leaders, staff and cooperating partners	Mid of the project years	In documenting lessons learnt and best practices
Developing M&E plan	The event draws lesson from other projects on how to develop robust M&E systems	Project staff and cooperating partners	Inception of the project and during M&E system adjustment	None
Weekly staff meetings	Discuss implementation problems, how to correct them and identify best practices	Project and M&E staff	Every Friday of the weeks	None
Monthly partner meetings	Discuss responsibilities and schedules and any implementations problems	Community-based partners, staff and beneficiaries	The last Friday of the week	None
Monitoring	Assesses progress on activities inputs and outputs	M&E staff and CBM staff	Quarterly	CBM
Annual participatory review	Discuss relationships and impact of reviews, problems discussed and corrected	Staff and key stakeholders	End of project year	Impact management
Supervision mission	Focus on procedures and progress in the project	Staff and stakeholders	TBA	Non
Mid-term review	Review progress towards impact, strategic direction assessed and significant changes needed to be made	Staff, primary beneficiaries and other stakeholders	Mid of the project cycle, 2017	Non
Completion report	Key success celebrated and mistakes identified –both are basis for lessons learnt	Staff, primary beneficiaries and other stakeholders	End of project 2019	Non



### Annotation

Critical reflection and learning events are only effective if they are consistent and apply the steps of documenting lessons learnt and best practices and reports are sent to all stakeholders for their feedback and implementation. My experience is that most organizations do not take critical reflections serious, yet it is the bedrock of managing for impact and decision-making.

## 10.0. M&E CONDITIONS AND CAPACITIES

Requirements	Targeted for:	Deadline	Outputs/results	Terms of reference (if human resource requirement)	Person responsible
<b>Internal</b>					
Training PMER	Project staff	1 <sup>st</sup> Quarter of 1 project year	Improved PM&E report writing		M&E manager
M&E Unit	Project staff	Project inception	Established Unit in charge of M&E activities		Director
Training in CBM&E	Community partners	Project inception	Participating monitoring and evaluation		M&E coordinator
<b>External</b>					
Consultant M&E system	Project	Inception of the project	Functional M&E system	Attach detailed ToR from HR	M&E manager
Consultant mid-term evaluation	Project partners	End of project	Impact evaluation report	Attach detailed ToR from HR	M&E manager





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“Africa hosts a plethora of development projects being implemented on various thematic areas. Yet, context relevant literature on performance management of these projects has lagged behind. The body of literature that interrogates the effectiveness of methods used to engage the beneficiaries of development projects remains seriously stunted. This is a timely contribution to this dearth of literature in ensuring context relevant and beneficiary focused effective results management. As the development sector focuses on leaving no one behind in the achievement of the agenda 2030, this book will go a long way in equipping the development and academic sector in ensuring the end users are not left behind. I congratulate the editor and the different contributors on the publication. I highly recommend the book to readers interested in results based management that empowers the end user in a sustainable manner.”

**Douglas Tendai Phiri**

*Adviser, Norwegian Agency for Development Cooperation (Norad)*