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FORWARD

In its quest to enhance prudence and probity in the management of the State and Local Government Resources, the present Administration under the leadership of His Excellency, Dr. Abdullahi Umar Ganduje OFR has evolved a Monitoring and Evaluation Guidelines conforming to the International best practices. The document domiciled in the Due Process Bureau is to assist in ensuring documentation of the activities of the two tiers of Government (State and Local Government)

The document provided the opportunity of ensuring proper documentation and will serve as very important catalyst in planning and budget preparation. It is an avenue of reporting the impact of the Government in the area of services delivery/deliverables.

All MDAs are therefore charged to ensure total compliance in adhering to the Monitoring and Evaluation Guidelines as enshrined in this document.

May Almighty Allah continue to guide us.

Muhammad Awwal Na'iyā
Head of Civil Service, Kano State
March, 2017/01-07-1438

ACKNOWLEDGEMENT

All praise is due to Almighty who taught man how to write and know what he does not know. Peace and blessing be upon His Prophet.

The Monitoring and Evaluation (M&E) Policy is designed to translate the State vision into policies, programmes and actions. The reporting M&E will bring out the people's needs as identified and assessed. While suitable policies will be prepared in response to their needs. Due Process Bureau (DPB) being responsible for M&E portfolio is deemed to ensure the high standard of service delivered in that aspect.

Thankfully the Guidelines has been drawn and adopted from various referred documents with the help of many hands.

Nevertheless, my special appreciation goes to His Excellency, the Executive Governor, Dr. Abdullahi Umar Ganduje OFR of Kano State for his vision and decision to restructure and transform the PMB to DPB for effective and efficient service delivery. Not only that but also for re-invigorating the Monitoring and Evaluation of the State to result based organ.

Also the immense gratitude to the Alhaji Usman Alhaji (SSG) and Muhammad Awwal Na'iyah (HOCS) for the support and cooperation to release the policy and endorsement of the operational guidelines, a working instrument for the State and Local Government Services.

Gratitude is expressed to the Director Monitoring and Evaluation of the PMB for his time to produce the manuscript as well as other Directors for sparing time to go over the script for fruitful suggestion and amendment.

Finally, I thank all the staff of the Bureau for their cooperation more especially the Confidential Secretary who despite his commitment spent extra time to produce the manuscript. May Almighty bless us all, Amin.

Engr. Mohammed Adamu Musa
Permanent Secretary

INTRODUCTION

Monitoring and Evaluation play a key role in bringing change to a government by providing tools that can effectively measure results and help build 'evidence-based policy' and decision-making. The purpose of this is to promote a common understanding and reliable practice of monitoring and evaluation (M&E) for Kano State project/programmes. It is meant to be a desktop reference that supplements the more concise and field-friendly M&E Officer's Pocket Guide. Therefore, this guide is not intended to be read from cover to cover; the reader can refer to specific topics for more detail when needed.

The three key policy initiatives have set the tone for the development of Monitoring and Evaluation are:

- i) Increased demand by government for effective monitoring evaluation, evidenced in the 2004 National Economic Empowerment and Development Strategy (NEEDS), and the Vision 20:2020 in 2009
- ii) Initiatives in strengthening Public Finance Management including the introduction of Medium Term Sector Strategy (MTSS, 2004) as a prerequisite for the development of Medium Term Expenditure Framework (MTEF). 2004
- iii) The Change Program of (2011-2015)

The need to develop M&E systems that adapt with changing priorities and interventions. Dynamic implementation means that project interventions will change, though the overarching goals will not. New pilots represent a common example of the types of changes projects need to absorb, often by setting up mini-M&E systems to track these and assess their appropriateness for scaling up within the broader project. However, this guide was developed recognizing that increasing resources for M&E is not a reliable expectation. The focus of this guide, therefore, is on: improving efficiency wherever possible by being more careful and deliberate about what we choose to measure; thinking more fully at the design stage about who needs information, in what format and when; and using a broader set of criteria to decide how we will gather and process this information in ways that enable us to meet the needs of the greatest number of stakeholders. We have also made recommendations on how technology could be considered to improve M&E effectiveness. While in many cases the up-front investments in technology are higher than the typical initial costs to set up an M&E system, the ultimate pay off in terms of staff time available to use – rather than organize – data is worth the initial investment.

This step of the M&E system design process is best completed initially by a small group, particularly on questions of budget. So, if you are working on a project that has already been awarded, you will need to have the budget available and likely the project manager so that you can look at the financial picture holistically (often times, there is potential M&E money in budget lines that are not clearly categorized as M&E funds, such as consultancies, travel and workshops). In looking at human capacity, you may want to engage field staff and others that you anticipate contributing to the M&E system in an exercise of self-assessment.

HUMAN RESOURCES NEEDS AND CAPACITY FOR M&E

M&E systems do not implement themselves. They require people to carry out information collection, data analysis, report preparation, sharing, and information dissemination. So, as you design your system, you need to understand who these people are, what skills and knowledge they have and the overall level of human resources available – both within the team and externally – to support your M&E system.

PHYSICAL RESOURCES TO IMPLEMENT M&E

Physical resources for M&E include: computers and other hardware; software for data storage and analysis, such as Excel or SPSS; motorized and non-motorized vehicles for transporting personnel to information collection activities; and telephones and/or mobile phones and GIS tools. Although not technically a „physical resource“, internet connectivity and mobile network access are also important resources that facilitate M&E functions, such as data collection, information dissemination and secondary research.

Common difficulties is that MDAs don't adequately budget their M&E, this is perhaps the single greatest drawback MDAs encounter with M&E; habitually underestimate the technical and resources requirements for M&E, MDAs do not manage client expectations, in many cases because they themselves do not understand the capacity and resource demands of M&E, MDAs do not scale down their M&E plans sufficiently when confronted by M&E capacity and resource demands, fail to consider the political aspects of M&E involved in budget performance, use of information, dissemination of information, etc. The potential benefits of information are frequently perceived to be low compared to their potential costs. Supporting M&E in the abstract is easy (most people do), but it is quite another thing to support it in practice, particularly when resources, reputations, and careers are at stake. Clients treat unfavorable information in a way that creates disincentives to generate and disseminate information, which makes it difficult in turn to use information productively. It should be assumed at the outset that actual results will vary at times from expectations given the complex environments in which MDAs operate. While poor results might indeed reflect poor planning or implementation, it should not automatically be perceived as such. The purpose of M&E, after all, is not only to determine what has happened, but why it has happened, management de-emphasizes M&E and/or fails to provide it with consistent and visible support.

M&E involves a lot more than information gathering. A good M&E system includes a number of design features that ensure the smooth functioning of the system and the validity of M&E information. The following nine steps are important in meeting these expectations:

1. Develop information (data) collection instruments.
2. Pilot test information (data) - collection instruments.
3. Arrange information (data) - collection logistics.
4. Establish data quality - oversight procedures.
5. Develop electronic database.
6. Establish data management - procedures.
7. Establish data analysis - procedures.
8. Establish reporting procedures.
9. Assign clearly defined roles to everyone involved.

This guide does not provide detailed guidance on conducting evaluations; emphasis is placed on establishing and implementing a project/programme monitoring and related reporting system. However, as evaluation is integrally linked to monitoring, an overview of evaluation is included for planning evaluation events within the overall M&E system.

PPP is defined as a long-term contract between a government entity and a private company to provide, or contribute to the provision of, a public service. The definition and scope of the PPP program is further specified in the proposed policy by: i) Defining the contractual attributes, size, and duration of PPP

contracts ii) Defining government infrastructure as the priority PPP sectors that can effectively be monitored to ensure compliance with Government agreed arrangements.

Implementation of **Fiscal Responsibility Laws** and **Public Procurement Laws** when concluded in Kano State, will also be effectively monitored, to ensure compliance with Government agreed arrangements.

The intended audience

This guide is intended for people managing Public projects/programmes in Kano State. However, it has been designed to be understood by multiple other users as well, including Local Government M&E staff, volunteers, donors and partners. Although it has been designed for use at the State level, the basic principles can be applied to projects/programmes at Local Government levels.

This guide does not only describe the ways in which an M&E system can be implemented, but it is also meant to function as a specific programme resource containing information on how to plan, organize, carry out and report on the M&E activities. Considering that some of the MDAs staff involved in M&E may be relatively new to the subject, and may lack substantial background in the subject, this manual can also serve as a basic reference on M&E, and serve as the notes for an introductory training course.

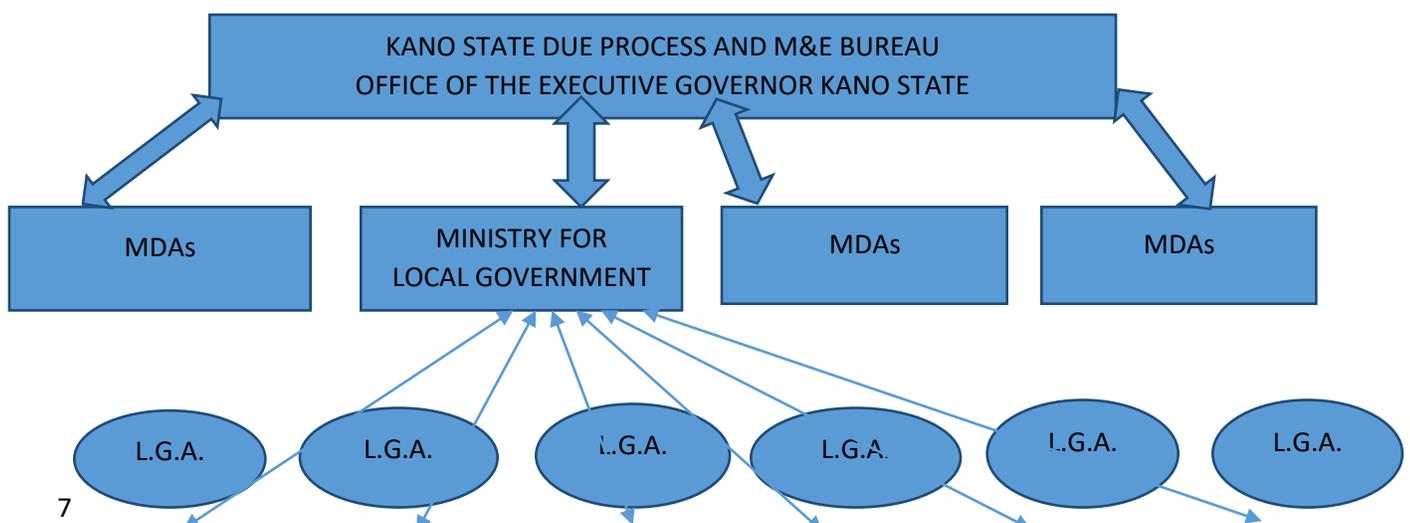
Institutional Framework for M&E in Kano

Federal of Budget and National Planning exercise its legal mandate to effectively coordinate M&E nationwide.

The Kano State Due Process Bureau under the Office of His-Excellency the Executive Governor Kano State is the Lead Agency for M&E in Kano State. Ministries, Agencies and other State & Local Government Institutions with a Department for M&E is responsible for M&E in its organization, while others without M&E department, M&E is housed under the Department of Planning, Research and Statistics (DPRS), at the State and Local Governments Levels The Bureau is the Secretariat for developing the M&E policies and procedures that will guide the implementation of M&E in both the state and the 44 Local Governments.

This M&E Manual was emanated from the Present administration's concern about tracking its activities to ensure compliance with Government approved guidelines. The M&E guide introduces strategic scope, key guidelines, techniques and tools for performance monitoring and evaluating the effectiveness and efficiency of planned programmes. Approaches to principle control metrics, analysis and decision-making to evaluate the outcomes and impact of programmes and projects. The guide also combines theory and practice, using activities to be carried out by the participating public Institutions in the State.

INSTITUTIONAL ARRANGEMENT FOR M&E



Decree 43 of 1988 broadly delineates the functions of Planning, Research and Statistics Department as follows:-

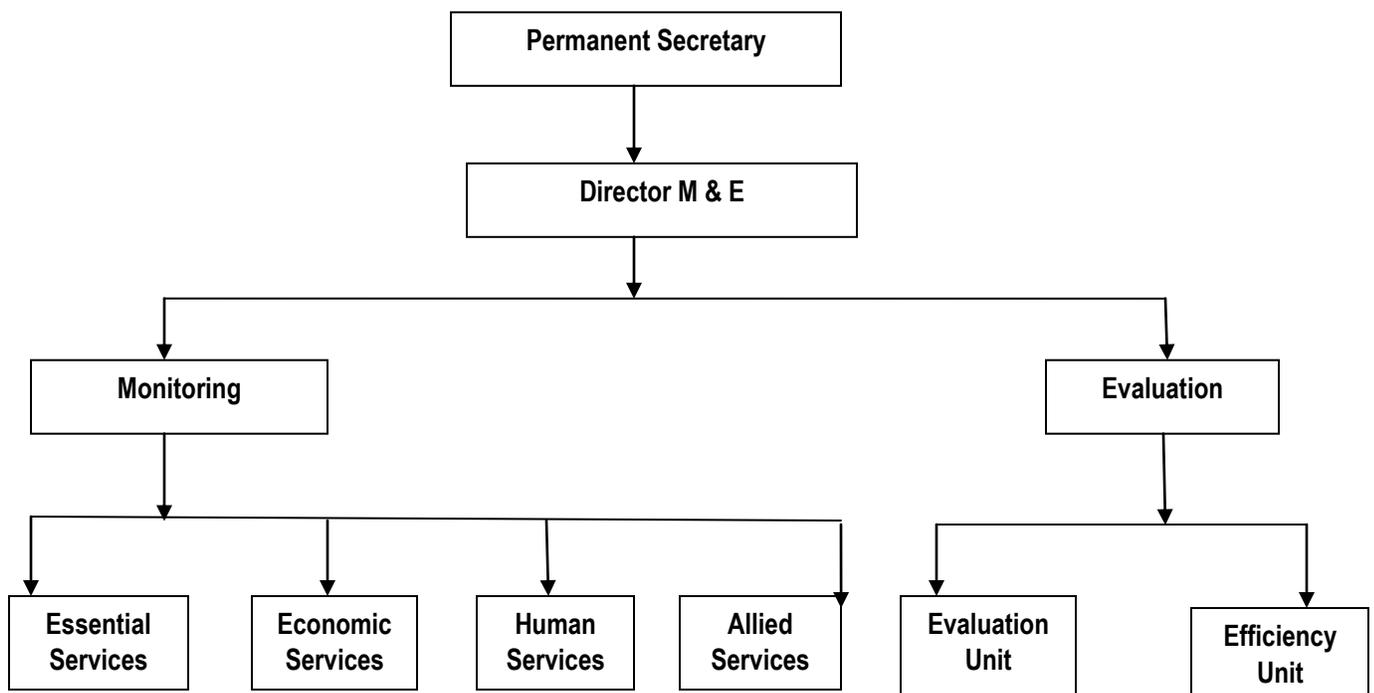
1. The internal PRS department established KPIs, collect statistics, analyze, prepares sector plan, annual budget, monitor and evaluate the Plan.
2. Monitor & Evaluate performance and efficiency targets for the various sectors/sub-sectors.

That is the more reason why M&E is located under DPRS.

STRUCTURE OF THE MONITORING DEPARTMENT

The Department is saddled with the responsibility of Coordination, Monitoring and Evaluation of activities, as it relates to Budget implementation across all the MDA'S and LGAs in the state. The department is presently headed by a Director, deputized by Deputy Directors with six units each headed by an Assistant Director and vehicles allocated for the units outing. The staffers are based on Economics and Statistics based, Social and Management Scientist, Technicians as well as Educationist can be accommodated.

THE ORGANOGRAM OF THE DEPARTMENT IS AS INDICATED BELOW.



The Department's Six (6) units are as follows:

- a) **ESSENTIAL SERVICES UNIT:** The unit covers the necessary enablers that will drive the developmental aspirations of the State. It monitors activities of organizations executing Capital projects covering infrastructures such as Roads, Buildings, Water Supply, etc.

- b) **ECONOMIC SERVICES UNIT**: This unit monitors activities of organizations responsible for the implementation of economic services covering Finance, Agriculture, Revenue Generation, Commerce, Industry, Tourism, etc. The unit is the growth driver of the economy of the State and crucial to interesting investments as well as ensuring sustainable growth and social harmony.
- c) **HUMAN SERVICES UNIT**: This unit monitors the social/human assets that drive other sectors of the economy. Activities of organizations covering Education, Information, Health, Social Services, Social Reorientation, Shari'ah, Zakkat and Hubsu and the General Administration. Being knowledge and technology/skills Human empowerment and capacity building based, it is dealing with generation, penetration and utilization of knowledge to enhance the production of high value goods and services that will boast our global competitiveness.
- d) **ALLIED SERVICES UNIT**: The unit monitors activities of the 44 local government councils of the state as well as federal projects to facilitate synergy/harmony in the development efforts by the three tiers of government. This is with a view to minimizing Duplication/Cost. Balanced and Sustainable development which, will ensure effective coordination of development efforts. The unit similarly coordinates/monitors activities of donor agencies and/or development partners in the state for social equity.
- e) **EFFICIENCY UNIT**: The unit is to render the evaluation of Projects, programmes and Services on their relevance and certificate payments in respect to the Goods supplied and Programmes developed. It also assess and reports on the aspect of Public Private Partnership (PPP) and Donor funding activities for capability, review and policy formulation.
- f) **EVALUATION UNIT**: This unit monitors the appropriations as reported expenditure to generate savings from the State Procurement made. This is with a view to justify the input to output, income to outcome and analyze the possible impact achieved.

Key areas to be cover by the Manual will include among others:

- Strategic Scope of M&E: Structure, Overall and Specific Objectives
- Project Justification, Work Plan Structure, Timing and scheduling, Resource Allocation and Budgeting Monitoring
- The Role of Critical Success Factors (CSF) and Key Performance Indicators (KPI)
- Data Source Collection (primary and secondary), Reliability and Validation
- Barriers to M&E Systems
- Quantitative Methods and Economic Evaluation for M&E
- Qualitative Methods for M&E
- M&E Risk Management
- Editing M&E Reports: External and Internal Evaluation
- The Role of MDAs' focal persons in M&E Systems
- Simulation and Scenario Workshop and Case Studies to be organised at interval
- M&E System and linkages

The essentials of M&E

A well-functioning M&E system is a critical part of good project/programme management and accountability.

Timely and reliable M&E provides information to:

- Support project/programme implementation with accurate, evidence based reporting that informs management and decision-making to guide and improve project/programme performance.
- Contribute to organizational learning and knowledge sharing by reflecting upon and sharing experiences and lessons so that we can gain the full benefit from what we do and how we do it.
- Uphold accountability and compliance by demonstrating whether or not our work has been carried out as agreed and in compliance with Kano State Policy requirements.
- Provide opportunities for stakeholder feedback, especially beneficiaries, to provide input into and perceptions of Budget Implementation, modeling openness to criticism, and willingness to learn from experiences and to adapt to changing needs.
- Promote and celebrate Government achievements by highlighting Government accomplishments and achievements, building morale and contributing to resource mobilization through foreign investments.

This guide is prepared for the M&E Officers in the State, and replace/supersede prior versions if any in the State, for guidance primarily for Monitoring and Evaluation in a Nutshell, using updated terminology and approaches that are consistent with the newly developed State M&E Policy.

We understand that this guide is not exhaustive of M&E within the Kano State Government, project/programme areas. MDAs may develop M&E guidance specific to their technicality; in such cases, this guide is meant to complement such resources. Outside the Kano State Government, there are numerous M&E resources e.g. National M&E Manual, effort should be made to extract some of these additional resources.

How to best use this guide.

This guide is divided into three parts:

Part 1 focuses conceptually on important major M&E considerations;

Part 2 focuses practically on six key steps for project/programme M&E;

Part 3 the Annexes that present additional tools, resources and examples of M&E templates.

Part 1. M&E concepts and considerations

1.1 Results-based management (RBM)

1.2 M&E and the project/programme cycle

1.3 What is monitoring?

1.4 What is evaluation?

1.5 Baseline and end line studies

1.6 Comparing monitoring, evaluation, reviews and audits

1.7 M&E standards and ethics

1.9 Minimize bias and error

Part 1 provides an overview of key M&E concepts and considerations to inform planning and implementing effective monitoring and evaluation.

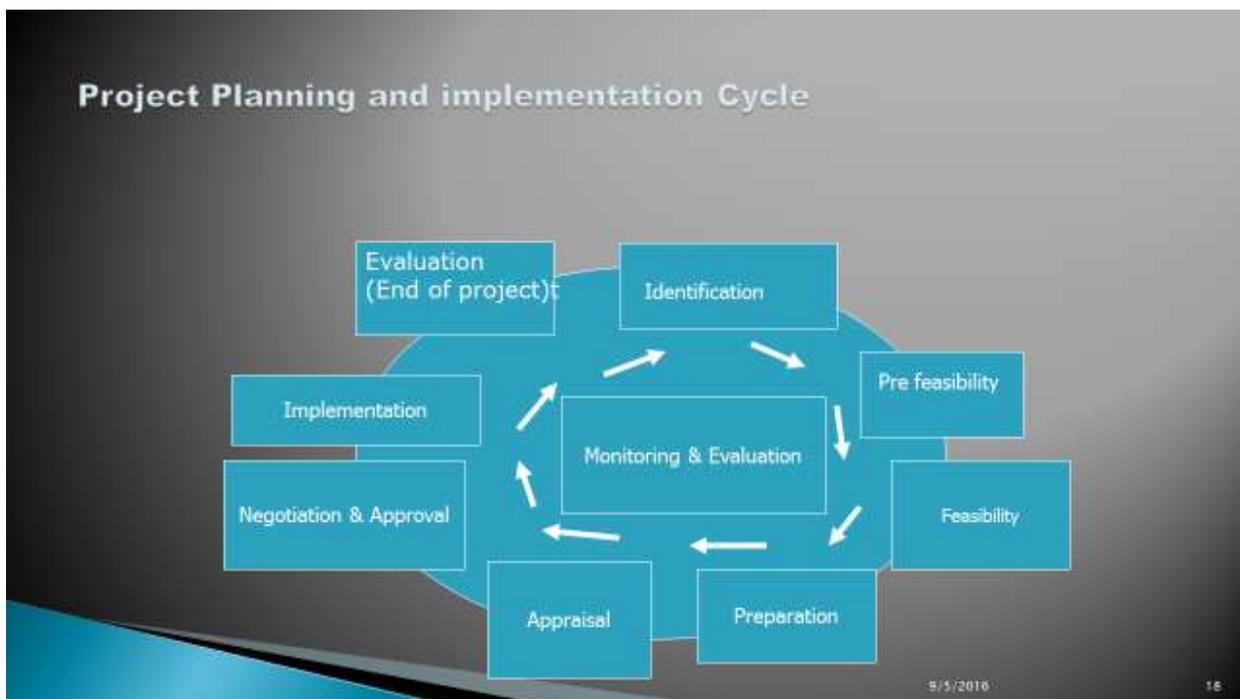
1.1 Results-based management (RBM)

RBM is an approach to project/programme management based on clearly defined results, and the methodologies and tools to measure and achieve them. RBM supports better performance and greater accountability by applying a clear, logical framework to plan, manage and measure an intervention with a focus on the results you want to achieve. By identifying in advance the intended results of a project/programme and how we can measure their progress, we can better manage a project/programme and determine whether a difference has genuinely been made for the people concerned.

Monitoring and evaluation (M&E) is a critical part of RBM. It forms the basis for clear and accurate reporting on the results achieved by an intervention (project or programme). In this way, information reporting is no longer a headache, but becomes an opportunity for critical analysis and organizational learning, informing decision-making and impact assessment.

1.2 M&E and the project/ programme cycle

Diagram below provides an overview of the usual stages and key activities in project/programme planning, monitoring, evaluation and reporting (PMER). We write “usual” stages because there is no one generic project/programme cycle, as each project/programme ultimately varies according to the local context and need. This is especially true of emergency operations for which project/ programme implementation may begin immediately, before typical assessment and planning in a longer-term development initiative



PROJECT START

Implementation Monitoring and evaluation

Initial assessment

Planning

Project end

Project middle

- 1) Initial needs assessment. This is done to determine whether a project/programme is needed and, if so, to inform its planning.
- 2) Log frame and indicators. This involves the operational design of the project/programme and its objectives, indicators, means of verification and assumptions
- 3) M&E planning. This is the practical planning for the project/programme to monitor and evaluate the log frame's objectives and indicators.
- 4) Baseline study. This is the measurement of the initial conditions (appropriate indicators) before the start of a project/programme.
- 5) Midterm evaluation and/or reviews. These are important reflection events to assess and inform ongoing project/programme implementation.
- 6) Final evaluation. This occurs after project/programme completion to assess how well the project/programme achieved its intended objectives and what difference this has made.
- 7) Dissemination and use of lessons. This informs ongoing programming. However, reporting, reflection and learning should occur throughout the whole project/programme cycle, which is why these have been placed in the centre of the diagram.

Definition of monitoring?

Monitoring is the routine collection and analysis of information to track progress against set plans and check compliance to established standards. It helps identify trends and patterns, adapt strategies and inform decisions for project/programme management.

Goal → { Measuring changes at goal-level requires a longer time frame, and is therefore dealt with by evaluation and not monitoring

Outcomes → Are outputs leading to achievement of the outcomes?

Outputs → How do beneficiaries feel about the work?

Activities → Are activities leading to the expected outputs?

{ Are finance, personnel and materials available?

Inputs → { on time and in the right quantities and quality?

A project/programme usually monitors a variety of things according to its specific informational needs.

Common types of monitoring

Results monitoring tracks effects and impacts. This is where monitoring merges with evaluation to determine if the project/programme is on target towards its intended results (outputs, outcomes, impact) and whether there may be any unintended impact (positive or negative).

Process (activity) monitoring tracks the use of inputs and resources, the progress of activities and the delivery of outputs. It examines how activities are delivered – the efficiency in time and resources. It is often conducted in conjunction with compliance monitoring and feeds into the evaluation of impact.

Compliance monitoring ensures compliance with donor regulations and expected results, grant and contract requirements, local governmental regulations and laws, and ethical standards.

Context (situation) monitoring tracks the setting in which the project/programme operates, especially as it affects identified risks and assumptions, but also any unexpected considerations that may arise.

Beneficiary monitoring tracks beneficiary perceptions of a project/programme. It includes beneficiary satisfaction or complaints with the project/programme, including their participation, treatment, access to resources and their overall experience of change. Sometimes referred to as beneficiary contact monitoring (BCM), it often includes a stakeholder complaints and feedback mechanism.

Financial monitoring accounts for costs by input and activity within predefined categories of expenditure. It is often conducted by the Bureau's Projects Valuation Department.

Organizational monitoring tracks the sustainability, institutional development and capacity building in the project/programme and with its partners. It is often done in conjunction with the monitoring processes of the larger, implementing organization. For example, an implementing MDA's headquarters may use organizational monitoring to track communication and collaboration in project implementation among its extra-ministerial departments and agencies involved.

Monitoring best practices;

- Monitoring data should be well-focused to specific audiences and uses (only what is necessary and sufficient).
- Monitoring should be systematic, based upon predetermined indicators and assumptions.
- Monitoring should also look for unanticipated changes with the project/ programme and its context, including any changes in project/programme assumptions/risks;
 - This information should be used to adjust project/programme implementation plans.
- Monitoring needs to be timely, so information can be readily used to inform project/programme implementation.
- Whenever possible, monitoring should be participatory, involving key stakeholders – this can not only reduce costs but can build understanding and ownership.
- Monitoring information is not only for project/programme management but should be shared when possible with beneficiaries, donors and any other relevant stakeholders.

Definition of evaluation?

The Evaluation is “an assessment, as systematic and objective as possible, of an ongoing or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance

and fulfillment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of a Government or an organization.

Evaluations involve identifying and reflecting upon the effects of what has been done, and judging their worth. Their findings allow project/programme managers, beneficiaries, partners, donors and other project/programme stakeholders to learn from the experience and improve future interventions

Objectives Evaluation questions

Goal →	Impact	<ul style="list-style-type: none"> • what changes did the project bring about? • Were there any unplanned or unintended changes?
Outcomes →	Sustainability	<ul style="list-style-type: none"> • Are the benefits likely to be maintained for an extended period after assistance ends?
Outputs →	Effectiveness	<ul style="list-style-type: none"> • were the operation's objectives achieved? • Did the outputs lead to the intended outcomes?
Activities → needs	Relevance	<ul style="list-style-type: none"> • were the operation's objectives consistent with beneficiaries' and with Red Cross Red Crescent policies?
Inputs →	Efficiency	<ul style="list-style-type: none"> • were stocks of items available on time and in the right quantities and quality? • Were activities implemented on schedule and within budget? • Were outputs delivered economically?

It is best to involve key stakeholders as much as possible in the evaluation process, community members, local authorities, partners, donors, etc. Participation helps to ensure different perspectives are taken into account, and it reinforces learning from and ownership of the evaluation findings.

There is a range of evaluation types, which can be categorized in a variety of ways. Ultimately, the approach and method used in an evaluation is determined by the audience and purpose of the evaluation.

Summary of major evaluation types

According to evaluation timing

Formative evaluations occur during project/programme implementation to improve performance and assess compliance.

Summative evaluations occur at the end of project/programme implementation to assess effectiveness and impact.

Midterm evaluations are formative in purpose and occur midway through implementation. For secretariat-funded projects/programmes that run for longer than 24 months, some type of midterm assessment, evaluation or review is required. Typically, this does not need to be independent or external, but may be according to specific assessment needs.

Final evaluations are summative in purpose and are conducted (often externally) at the completion of project/programme implementation to assess how well the project/programme achieved its intended objectives. All secretariat funded projects/programmes should have some form of final assessment, whether it is internal or external.

According to who conducts the evaluation?

Internal or self-evaluations are conducted by those responsible for implementing a project/programme. They can be less expensive than external evaluations and help build staff capacity and ownership. However, they may lack credibility with certain stakeholders, such as donors, as they are perceived as more subjective (biased or one-sided). These tend to be focused on learning lessons rather than demonstrating accountability.

External or independent evaluations are conducted by evaluator(s) outside of the implementing team, lending it a degree of objectivity and often technical expertise. These tend to focus on accountability.

Real-time evaluations (RTEs) are undertaken during project/ programme implementation to provide immediate feedback for modifications to improve ongoing implementation. Emphasis is on immediate lesson learning over impact evaluation or accountability.

Meta-evaluations are used to assess the evaluation process itself. Some key uses of meta-evaluations include: take inventory of evaluations to inform the selection of future evaluations; combine evaluation results; check compliance with evaluation policy and good practices; assess how well evaluations are disseminated and utilized for organizational learning and change, etc.

According to evaluation timing

Ex-post evaluations are conducted sometime after implementation to assess long-term impact and sustainability.

According to who participate in the evaluation?

Participatory evaluations are conducted with the beneficiaries and other key stakeholders, and can be empowering, building their capacity, ownership and support.

Joint evaluations are conducted collaboratively by more than one implementing partner, and can help build consensus at different levels, credibility and joint support.

According to evaluation technicality or methodology

Thematic evaluations focus on one theme, such as gender or environment, typically across a number of projects, programmes or the whole organization.

Cluster/sector evaluations focus on a set of related activities, projects or programmes, typically across sites and implemented by multiple organizations (e.g. National Societies, the United Nations and NGOs).

Impact evaluations focus on the effect of a project/ programme, rather than on its management and delivery. Therefore, they typically occur after project/ programme completion during a final evaluation or an ex-post evaluation. However, impact may be measured during project/ programme implementation during longer projects/ programmes and when feasible.

Framework for evaluation – criteria and standards

Kano State Government's standards and policies. The extent that the Kano State Government's work supports the state M&E policies and guidelines;

- **Relevance and appropriateness.** The extent that the Kano State Government's work is suited to the needs and priorities of the target group and complements work from other actors.
- **Efficiency.** The extent that the Kano State Government's work is cost-effective and timely.
- **Effectiveness.** The extent that the Kano State Government's work has or is likely to achieve its intended, immediate results.
- **Coverage.** The extent that the Kano State Government's work includes (or excludes) population groups and the differential impact on these groups.
- **Impact.** The extent that the Kano State Government's work affects positive and negative changes on stakeholders, directly or indirectly, intended or unintended.
- **Coherence.** The extent that the Kano State Government's work is consistent with relevant policies (e.g. humanitarian, security, trade, military and development), and takes adequate account of humanitarian and human-rights considerations.
- **Sustainability and connectedness.** The extent the benefits of the Kano State Government's work are likely to continue once the Kano State Government's role is completed.

Baseline and end line studies

A **baseline study** (sometimes just called "baseline") is an analysis describing the initial conditions (appropriate indicators) before the start of a project/programme, against which progress can be assessed or comparisons made. An end line study is a measure made at the completion of a project/programme (usually as part of its final evaluation), to compare with baseline conditions and assess change. We discuss baseline and end line studies together because if a baseline study is conducted, it is usually followed by another similar study later in the project/programme (e.g. an end line study) for comparison of data to determine impact.

Baseline and end line studies are not evaluations themselves, but an important part of assessing change. They usually contribute to project/programme evaluation (e.g. a final or impact evaluation), but can also contribute to monitoring changes on longer-term projects/programmes. The benchmark data from a baseline is used for comparison later in the project/programme and/or at its end (end line study) to help determine what difference the project/programme has made towards its objectives. This is helpful for measuring impact, which can be challenging,

The challenge of measuring impact

The measurement of impact is challenging, can be costly and is widely debated. This does not mean we should not try to measure impact; it is an important part of being accountable to what we set out to achieve.

How to analyze why an investment succeeded or failed.

Tasks

- Review and test the accuracy of assumptions.
- Review your results in context of your model.
- Assess if goals and objectives were met and if these truly had impact.
- Determine if thresholds of goals and objectives were adequately set.

- Isolate gross impact observed from net impact attributable to the program.

Guidance

- Choose analytical methods that are more efficient in isolating program effects from other influences.
- When possible, use rigorous analytical designs and/or statistical analyses. Randomized experiments and quasi-experimental design are the best methods for establishing causality.
- Approach interpretation with caution. Avoid declaring causality when methods do not warrant such claims.
- Refine analysis by discussing results with stakeholders
- Do not overstate conclusions.
- Make sure you have exhausted inquiry to determine causation.
- Analyze the effectiveness of your monitoring system as you analyze the effectiveness of your program interventions.
- Clearly document the limitations of the M&E design as they become apparent.
- Analyze your results in a systematic but creative fashion.
- Use trend data and projections to illustrate changes over time – and potential changes for the future.
- Don't get sidetracked on interesting but programmatically irrelevant analyses.
- In interpreting your data, keep in mind the difference between statistical significance and practical meaning.

However, we should be cautious and understand some of the challenges in measuring impact. Typically, impact involves longer-term changes, and it may take months or years for such changes to become apparent. Furthermore, it can be difficult to attribute observed changes to an intervention versus other factors (called “attribution”). For example, if we measure changes (or no changes) in psychological well-being following a psychosocial project, is this due to the project/ programme, or other factors such as an outbreak of dengue fever or an economic recession? Despite these challenges, there is increasing demand for accountability among organizations working in humanitarian relief and development. Therefore, careful consideration should be given to its measurement, including the required time period, resources and specialized skills.

All funded projects/programmes are required to have some form of **baseline study**. Often a survey is used during a baseline, but a baseline does not always have to be quantitative, especially when it is not practical for the project/ programme budget and time frame. Sometimes it may be more appropriate to use qualitative methods such as **interviews** and **focus groups**, or a combination of both quantitative and qualitative methods. Occasionally the information from a **needs assessment or vulnerability capacity assessment (VCA)** can be used in a baseline study. Whatever method is used, it is critical that both the **baseline and end line studies** use the same indicators and measurement methodologies so that they can be consistently and reliably measured at different points in time for comparison.

Comparing monitoring, evaluation, reviews and audits

The main difference between monitoring and evaluation is their timing and focus of assessment. Monitoring is ongoing and tends to focus on what is happening. On the other hand, evaluations are conducted at specific points in time to assess how well it happened and what difference it made. Monitoring data is typically used by managers for ongoing project/programme implementation, tracking outputs, budgets,

compliance with procedures, etc. Evaluations may also inform implementation (e.g. a midterm evaluation), but they are less frequent and examine larger changes (outcomes) that require more methodological rigour in analysis, such as the impact and relevance of an intervention.

Recognizing their differences, it is also important to remember that both monitoring and evaluation are integrally linked; monitoring typically provides data for evaluation, and elements of evaluation (assessment) occur when monitoring.

A review is a structured opportunity for reflection to identify key issues and concerns, and make informed decisions for effective project/programme implementation. While monitoring is ongoing, reviews are less frequent but not as involved as evaluations. Also, Kano State Government typically uses reviews as an internal exercise, based on monitoring data and reports. They are useful to share information and collectively involve stakeholders in decision-making. They may be conducted at different levels within the project/programme structure (e.g. Contractor Versus Implementing Agency with Bureau to mediate)

An audit is an assessment to verify compliance with established rules, regulations, procedures or mandates. Audits can be distinguished from an evaluation in that emphasis is on assurance and compliance with requirements, rather than a judgment of worth. Financial audits provide assurance on financial records and practices, whereas performance audits focus on the three E's – efficiency, economy and effectiveness of project/programme activities. Audits can be internal or external.

M&E standards and ethics

M&E involves collecting, analyzing and communicating information about people – therefore, it is especially important that M&E is conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by it.

Minimize bias and error

M&E helps uphold accountability, and should therefore be accountable in itself. This means that the M&E process should be accurate, reliable and credible with stakeholders. Consequently, an important consideration when doing M&E is that of bias. Bias occurs when the accuracy and precision of a measurement is threatened by the experience, perceptions and assumptions of the researcher, or by the tools and approaches used for measurement and analysis.

Minimizing bias helps to increase accuracy and precision. Accuracy means that the data measures what it is intended to measure. For example, if you are trying to measure knowledge change following a training session, you would not just measure how many people were trained but also include some type of test of any knowledge change.

Similarly, precision means that data measurement can be repeated accurately and consistently over time and by different people. For instance, if we use a survey to measure people's attitudes for a baseline study, two years later the same survey should be administered during an endline study in the same way for precision.

As much as we would like to eliminate bias and error in our measurements and information reporting, no research is completely without bias. Nevertheless, there are precautions that can be taken, and the first is to be familiar with the major types of bias we encounter in our work: a. Selection bias results from poor selection of the sample population to measure/study. Also called design bias or sample error, it occurs

when the people, place or time period measured is not representative of the larger population or condition being studied. It is a very important concept to understand because there is a tendency to study the most successful and/or convenient sites or populations to reach (which are often the same). For example, if data collection is done during a convenient time of the day, during the dry season or targets communities easily accessible near paved roads, it may not accurately represent the conditions being studied for the whole population. Such “selection bias” can exclude those people in greatest need in social safety net – which goes against Kano State Government’s commitment to provide aid on the basis of need alone. Measurement bias results from poor data measurement – either due to a fault in the data measurement instrument or the data collector. Sometimes the direct measurement may be done incorrectly, or the attitudes of the interviewer may influence how questions are asked and responses are recorded.

It is beyond the scope of this guide to fully cover the topic of bias and error and how to minimize them. However, many of the precautions for bias and error are topics in the next section of this guide. For instance, triangulating (combining) sources and methods in data collection can help reduce error due to selection and measurement bias. Data management systems can be designed to verify data accuracy and completeness, such as cross-checking figures with other data sources or computer double-entry and post-data entry verification when possible. A participatory approach to data analysis can help to include different perspectives and reduce analytical bias. Also, stakeholders should have the opportunity to review data products for accuracy.

PART 2. SIX KEY STEPS FOR PROJECT/PROGRAMME M&E

The six key M&E steps discussed in Part 2 are:

1. Identify the purpose and scope of the M&E system
2. Plan for data collection and management
3. Plan for data analysis
4. Plan for information reporting and utilization
5. Plan for M&E human resources and capacity building
6. Prepare the M&E budget

Part 2 builds upon the key M&E concepts presented in Part 1, outlining six key steps for project/programme M&E. Taken together, these steps are to guide planning for and implementing an M&E system for the systematic, timely and effective collection, analysis and use of project/programme information.

Key reminders for all M&E steps:

- The M&E steps are interconnected and should be viewed as part of a mutually supportive M&E system. We identify separate steps to help organize and guide the discussion. In reality, these steps are not necessarily separate, but interrelated, often happening simultaneously. For example, what data is collected will largely depend on the data needed to be reported – one step is integral to the other step and would be planned at the same time.
- M&E planning should be done by those who use the information. Involvement of project/programme staff and key stakeholders ensures feasibility, understanding and ownership of the M&E system. M&E planning should not be limited to a headquarters’ office, but informed by the

realities and practicalities of the field. The leadership of an experienced project/programme manager, ideally experienced in M&E, is very helpful to ensure M&E activities are well adapted and within the project/programme's time frame and capacity.

- Begin planning for your M&E system immediately after the project/programme design stage (see Diagram 1). Early M&E planning allows for preparation of adequate time, resources and personnel before project/programme implementation. It also informs the project/programme design process itself as it requires people to realistically consider how practical it is to do everything they intend to measure. Sometimes, the timing of the M&E planning is determined by donor requirements (e.g. at the proposal stage), and additional M&E planning may occur after a project/programme is approved and funded.
- A project/programme M&E system builds upon the initial assessment and project/ programme design. At the State level, it is based on the short-term, intermediate and long term objectives and their indicators identified in the project's log frame, the informational requirements and expectations of stakeholders, as well as other practical considerations, such as project/programme budget and time frame.
- When appropriate, it is useful to build on existing M&E capacities and practices. New M&E processes may not only burden the local capacity but they can alienate local stakeholders. If existing M&E practices are accurate, reliable and timely, this can save time/resources and build ownership to coordinate with and complement them.
- Particular attention should be given to stakeholder interests and expectations throughout the M&E process.
- M&E should be tailored and adjusted to the real-world context throughout the project/programme's life cycle. Projects/programmes operate in a dynamic setting, and M&E activities need to adapt accordingly. Objectives may change, as will the M&E system as it refines its processes and addresses arising problems and concerns. Like a project/programme itself, the M&E system should be monitored, periodically reviewed and improved upon.
- Only monitor and evaluate what is necessary and sufficient for project/programme management and accountability. It takes time and resources to collect, manage and analyze data for reporting. Extra information is more often a burden than a luxury. It can distract attention away from the more relevant and useful information. It can also overload and strain a project/programme's capacity and ability to deliver the very services it is seeking to measure!

2.1 STEP 1 – Identify the purpose and scope of the M&E system

What you will find in Step 1:

- 2.1.1 Review the project/programme's operational design (log frame)
- 2.1.2 Identify key stakeholder informational needs and expectations
- 2.1.3 Identify any M&E requirements
- 2.1.4 Scope of major M&E events and functions

The purpose and scope of the M&E system answers, "Why do we need M&E and how comprehensive should it be?" It serves as a reference point for the M&E system, guiding key decisions such as

informational needs, methodological approaches, capacity building and allocation of resources. The following outlines some key considerations when determining an M&E system's purpose and scope.

2.1.1 Review the project/programme's operational design (log frame)

- For Kano State Government's projects/programmes, the log frame is the foundation on which the M&E system is built. The log frame is a summary of the project/programme's operational design, based on the situation and problem analysis conducted during the project/ programme's design stage by the implementing MDA. It has to summarize the logical sequence of objectives to be achieved and the project/programme's intended results (activities, outputs, outcomes and goal), the indicators and means of verification to measure these objectives, and any key assumptions.

A well-developed log frame reflects the informational needs of the project/programme. For example, the objectives and informational needs of a project/programme during an operation will have very different log frame and related M&E requirements than a longer-term development project/programme

When reviewing the log frame, it is important to check it for logic and relevance. Often, in the rush to start a project/programme, there may be oversights in the development of a log frame. Sometimes it is prepared in an office or by people far removed from the project/programme setting. The log frame is not a static "blueprint", but should be reassessed and revised according to the realities and changing circumstances in the field. This is particularly true in humanitarian responses, where populations and needs can rapidly change in a short time frame. However, changes should only be made after careful consideration and consultation with key stakeholders and in compliance with any donor requirements.

However, there are limitations to how much indicators can be standardized, and they can be inflexible and unrepresentative of the local context. Also, consideration should be given to the project/programme's capacity (financial or human) to measure certain standard indicators according to Kano State agreed methodologies and best practices.

When tracking Project implementation template can be develop for common treatment. Monitors can use the template to record and enable give management updates on projects using the agreed key performance indicator provided by the MDA.

Below is a sample of a template for tracking perform

CAPITAL PROJECT PERFORMANCE TRACKING TEMPLATE.						
Name of the Implementing MDA	Project Name & Location	Cost	Duration	Contractor	KPI	Result

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2.1.2 Identify key stakeholder informational needs and expectations

Planning an M&E system based on stakeholder needs and expectations helps to ensure understanding, ownership and use of M&E information. It is essential to have a clear understanding of the priorities and information needs of people interested in or affected by the project/programme. This includes stakeholder motivations, experience and commitment, as well as the political and other constraints under which various stakeholders operate. It is especially important that local knowledge is sought when planning M&E functions to ensure that they are relevant to and feasible in the local context, and that M&E information is credible, accepted and more likely to be supported.

Typically, a stakeholder assessment is conducted during the planning stage of a project/programme. This initial assessment can inform M&E planning, but for planning the M&E system it is recommended to focus more specifically on the informational needs and expectations of the key stakeholders.

An M&E stakeholder assessment. It is a useful tool to refer to throughout the project/programme cycle, summarizing: who are the key stakeholders, what information they require, why, when, how (in what format) and any role or function they expect or are required to have in the M&E system.

2.1.3 Identify any M&E requirements

Important informational needs worth specific attention of the State Government's requirements, governmental laws and regulations, and internationally-agreed-upon standards. These requirements can include very detailed procedures, formats and resources, and are often non-negotiable. Therefore, it is best to identify and plan for them early in the M&E planning process and criteria are particularly relevant to the M&E's work. The most important of these standards are those of the International Red Cross and Red Crescent Movement.

2.1.4 Scope of major M&E events and functions

The scope of the M&E system refers to its scale and complexity. It can be highly complex with a variety of activities and requiring considerable expertise and resources, or it can be relatively simple, relying on internal resources and capacities.

Each of the topics discussed above plays a key role in determining the scope of the M&E system.

Some other important considerations for the scope (size) of the M&E system include:

- The geographic scale of the project/programme area, including accessibility to programme areas
- The demographic scale of the project/programme, including specific target populations and their accessibility
- The time frame or duration of the project/programme, including any pre- and post-project M&E needs
- The available human resources and budget.

Scoping the M&E system helps to identify major M&E activities and events – the overall scope (size) of the M&E system. While specific M&E functions should be addressed in more detail later in the planning process, an initial inventory of key activities at this stage provides an important overview or “map” to build upon for planning for funding, technical expertise, capacity building, etc.

2.2 STEP 2 – Plan for Data Collection and Management:

2.2.1 Develop an M&E plan table

2.2.2 Assess the availability of secondary data

2.2.3 Determine the balance of quantitative and qualitative data

2.2.4 Triangulate data collection sources and methods

2.2.5 Determine sampling requirements

2.2.6 Prepare for any surveys

2.2.7 Prepare specific data collection methods/tools

2.2.8 Establish stakeholder complaints and feedback mechanisms

2.2.9 Establish project/programme staff/volunteer review mechanisms

2.2.10 Plan for data management

2.2.11 Use an indicator tracking table (ITT)

2.2.12 Use a risk log (table)

Once you have defined the project/programme’s informational needs, the next step is to plan for the reliable collection and management of the data so it can be efficiently analyzed and used as information. Both data collection and management are firmly linked as data management begins the moment it is collected.

2.2.1 Develop an M&E plan table

An M&E plan is a table that builds upon a project/programme's log frame to detail key M&E requirements for each indicator and assumption. It summarizes key indicator (measurement) information in a single table: a detailed definition of the data, its sources, the methods and timing of its collection, the people responsible and the intended audience and use of the data. Below is the summary of an M&E plan.

Develop and implement a formal M&E plan.

Tasks

- Write out your M&E plan including goals, objectives, activities, indicators, methods, and roles and responsibilities of team members.
- Develop a feasible timeline for implementation of your M&E plan.
- Develop a budget for your M&E activities.
- Implement your M&E plan.

Guidance

- To the extent possible, keep your M&E system flexible
- Keep it “open to surprises.”
- Look beyond expected impacts to assess actual, unexpected impacts.
- Follow standards of ethics and propriety in M&E
- Protect “human subjects.”
- Be respectful.
- Be fair, complete, and honest – report both positives and negatives.
- Make finding available to those involved or who were promised results.
- Handle conflict of interest openly.

The M&E plan should be completed during the planning stage of a project/programme (before implementation). This allows the projects/programmes team to cross-check the log frame and ensure that the indicators and scope of work they represent in projects/programmes implementation and data collection, analysis and reporting are realistic to field realities and team capacities.

It is best that the M&E plan is developed by those who will be using it. Completing the table requires detailed knowledge of the project/programme and context provided by the local project/programme team and partners. Their involvement also contributes to data quality because it reinforces their understanding of what data they are to collect and how it will be collected.

Note M&E plans are sometimes called different names by various users, such as an “indicator planning matrix” and a “data collection plan”. While the names (and formats) may vary, the overall function remains the same – to detail the M&E requirements for each indicator and assumption.

The worth of an M&E plan

M&E plans are becoming standard practice – and with good reason. The Bureau's experience with projects and programmes responding found that the time and effort spent in developing M&E plans had multiple benefits. They not only made data collection and reporting more efficient and reliable but also helped project/programme managers plan and implement their projects/programmes through carefully consideration of what was being implemented and measured. M&E plans also served as critical cross-checks of the log frames, ensuring that they were realistic to field realities. Another benefit was that they helped to transfer critical knowledge to new staff and senior management, which was particularly important

with projects/programmes lasting longer than one year. A final point to remember is that it can be much more timely and costly to address poor-quality data than to plan for its reliable collection and use.

2.2.2 Assess the availability of secondary data

An important consideration for data sources is the availability of reliable secondary data. Secondary data refers to data that is not directly collected by Due Process Bureau, but which can nevertheless meet MDAs informational needs. (In contrast, primary data is collected directly by the Due Process Bureau's team.)

Examples of secondary data include:

- Demographic statistics from the National Population Census, Kano State Bureau of Statistics, Ministry of Health statistics, etc.
- School attendance and performance records available from the Ministry of Education,
- Information on health, food security and nutritional level from UNICEF and the United Nations' Food and Agriculture Organization and the World Food Programme external secondary source.

Secondary data is important to consider because it can save considerable time and expense. It can also be used to help triangulate (see below) data sources and verify (prove) primary data and analysis collected directly as part of the project/ programme.

- However, it is critical to ensure that secondary data is relevant and reliable. As secondary data is not designed specifically for project/programme needs, it is important to avoid the trap of using irrelevant secondary data just because it is available. Check the relevance of secondary data for:
 - Population – does it cover the population about which you need data?
 - Time period – does it cover the same time period during which you need data?
 - Data variables – are the characteristics measured relevant for what you are researching? For example, just because the data may be on road safety, if your project/programme focuses on the use of motorcycle helmets, a road safety study on deaths due to drunken driving may not be relevant (unless they separate deaths for those cases in which it involved a motorcyclist with or without a helmet).

Even if the data measures what you need, it is important to ensure that the source is credible and reliable. It is important to check that any data source (primary or secondary) is accurate (measures what it is intended to measure) and precise (the data measurement can be repeated accurately and consistently over time and by different people.)

Two key considerations for secondary data include:

- Reputation – how credible and respected are the people (organization) that commissioned the data and the authors who conducted the research and reported the data? Identify why the secondary data was initially collected and whether there may have been any motive or reason (e.g. political or economic) that it could bias the data. It can be helpful to check with other organizations and stakeholders to assess this. If possible, it can also help to check the credentials of the researchers/authors of the data and report – e.g. their educational background, related reports and systematic assessments, whether they are accredited or belong to industry associations, etc.
- Rigour – were the methods used to collect, analyze and report on the data technically accurate? Check that there is a description of the research methods that provides sufficient information about

the data collection, management and quality control, analysis, and interpretation so that its worth or merit can be determined. (If you do not feel capable to do this, then seek out the expertise of someone competent in research methods to assist you.)

2.2.3 Determine the Balance of Quantitative and Qualitative Data

When planning for data collection, it is important to plan for the extent quantitative and qualitative data will be used.

COMPARING QUANTITATIVE VERSUS QUALITATIVE DATA	
Quantitative data	Qualitative data
Quantitative data measures and explains what is being studied with numbers (e.g. counts, ratios, percentages, proportions, average scores, etc). Quantitative methods tend to use structured approaches (e.g. coded responses to surveys) which provide precise data that can be statistically analyzed and replicated (copied) for comparison.	Qualitative data explains what is being studied with words (documented observations, representative case descriptions, perceptions, opinions of value, etc). Qualitative methods use semi-structured techniques (e.g. observations and interviews) to provide in-depth understanding of attitudes, beliefs, motives and behaviours. They tend to be more participatory and reflective in practice

Quantitative data is often considered more objective and less biased than qualitative data – especially with donors and policy-makers. Because qualitative data is not an exact measurement of what is being studied, generalizations or comparisons are limited, as is the credibility of observations and judgements. However, quantitative methods can be very costly, and may exclude explanations and human voices about why something has occurred and how people feel about it.

Both quantitative and qualitative methods have subjective (biased) and objective (unbiased) characteristics. Therefore, a mixed-methods approach is often recommended that can utilize the advantages of both, measuring what happened with quantitative data and examining how and why it happened with qualitative data. When used together, qualitative methods can uncover issues during the early stages of a project/programme that can then be further explored using quantitative methods, or quantitative methods can highlight particular issues to be examined in-depth with qualitative methods.

2.2.4 Triangulate Data Collection Sources and Methods

Triangulation is the process of using different sources and/or methods for data collection. Combining different sources and methods (mixed methods) helps to cross-check data and reduce bias to better ensure the data is valid, reliable and complete. The process also lends to credibility if any of the resulting information is questioned.

Triangulation can include a combination of primary and secondary sources, quantitative and qualitative methods, or participatory and non-participatory techniques, as follows:

- Example of triangulating data sources: When determining community perception of a cash-for-work project, do not just include participants selected for the project, but also some who did not take part as they may have a different perspective (e.g. on the selection process for participating in the project). Also, include the views of the project staff, partners and other local groups working in the project/programme area.

- Example of triangulating data collection methods: A household survey is conducted to determine beneficiary perception of a cash-for-work project, and it is complemented by focus group discussion and key informant interviews with cash-for-work participants as well as other community members.

2.2.5 Determine sampling requirements

A sample is a subset of a whole population selected to study and draw conclusions about the population as a whole. Sampling (the process of selecting a sample) is a critical aspect of planning the collection of primary data. Most projects/ programmes do not have sufficient resources to measure a whole population (a census), nor is it usually necessary. Sampling is used to save time and money by collecting data from a subgroup to make generalizations about the larger population.

The process of sampling includes the following steps:

1. Define the specific issues that you will be measuring – this will inform what methodology will be used to address the selected issues. For example, in determining a survey on sanitation knowledge, attitude and practice/behaviour could be used to assess the extent to which behaviour has been changed by activities that raise awareness of sanitation.

2. Determine the appropriate sampling method – unless primary data collection includes the total population studied, one of two broad types of samples will be used, depending on the degree of accuracy and precision required:

- Random (probability) samples are quantitatively determined and use statistics to make more precise generalizations about the larger population.
- Purposeful (non-random) samples are qualitatively determined, often based on convenience or some other factor; they typically involve smaller, targeted samples of the population, but because they do not use statistics they are less reliable for generalizations about the larger population. Random samples are more complex, laborious and costly than purposeful samples, and are not necessary for qualitative methods such as focus group discussions. However, random samples are often expected in larger projects/ programmes because they are more precise and can minimize bias – donors frequently require random sampling when using baseline and end line surveys. As discussed above, a mixed-methods approach may be best, combining both sample methods for quantitative and qualitative data collection. In addition to these two broad types of sampling methods, there is a variety of specific sampling designs, such as simple random sampling, stratified random sampling, cluster sampling, multi-stage sampling, convenience sampling, purposeful sampling, and respondent-driven sampling. While we are unable to go into detail about the different sampling designs now, it is important to understand that the design choice impacts the overall sample size. In summary, certain sample designs are selected over others because they provide a sample size and composition that is best suited for what is being studied.

3. Define the sample frame – a list of every member of the population from which a sample is to be taken (e.g. the communities or categories of people – women, children, refugees, etc).

4. Determine the sample size – the sample size is calculated using equations specific to the type of survey (whether descriptive/one-off or comparative/baseline-end line surveys – both discussed below) and to the indicator type used as a basis for the calculation (whether a mean/integer or proportion/percentage). There

are several key design variables for each of these equations that need to be determined, each of which affects sample size. While there are no “right” values for these design variables, there are accepted standards and “rules of thumb”.

The accepted standard varies between 90 and 95 per cent for the confidence level and between 5 and 10 per cent for the margin of sampling error. While calculating sample sizes is a scientific exercise (understanding which equations to use and what values to assign the key design variables), shaping the sample size to “fit” a given project/programme contains a fair amount of art, as manipulating the values of the key design variables involves tradeoffs that affect both survey implementation and analysis. It is strongly recommended that an experienced sampling technician is consulted.

2.2.6 Prepare for any surveys

Surveys are a common method of gathering data for project/programme M&E. Surveys can be classified in a number of ways, such as according to the specific method used – e.g. in person, by mail, telephone, etc. They generally use interview techniques (questions or statements that people respond to), measurement techniques (e.g. infant’s weight to determine nutritional status), or a combination of both. Unless a complete population is to be surveyed, some form of sampling (discussed above) is used with surveys.

One important distinction for surveys can be made by the manner in which the survey questions are asked:

- Semi-structured surveys use open-ended questions that are not limited to defined answers but allow respondents to answer and express opinions at length – e.g. “How useful is the first-aid kit to your family?” Semi-structured surveys allow more flexibility in response, but take more skill and cost in administering – interviewers must be experienced in probing and extracting information.
- Structured surveys use a standardized approach to asking fixed (closed-ended) questions that limit respondents’ answers to a predefined set of answers, such as yes/no, true/false, or multiple choice – e.g. “Did you receive the first aid kit?” While pre-coded questions can be efficient in time and useful for statistical analysis, they must be carefully designed to ensure that questions are understood by all respondents and are not misleading. Designing a questionnaire may seem commonsense, but it involves a subtlety that requires experience.

Another important distinction for surveys can be made based on the timing and function of the survey:

- A descriptive survey seeks to obtain representative data about a population at a single point of time, without making comparisons between groups (such as a one-off needs assessment).
- A comparative survey seeks to compare the results between groups – either the same population at two points in time (e.g. baseline-end line design), or two distinct groups at the same point in time (e.g. treatment control groups).

Whatever survey method is used, it is critical to understand how it affects the way in which sample sizes are calculated.

It is beyond the scope of this guide to adequately cover the topic of surveys, and interested readers are encouraged to refer to other resources. In addition to survey design, implementation and analysis, it is

useful to also have an understanding of sampling (discussed above) and statistical analysis. In short, it may be advisable to seek expert advice/assistance if a survey is to be used in an MDA.

2.2.7 Prepare specific data collection methods/tools

The M&E plan summarizes data collection methods and tools, but these still need to be prepared and ready for use. Sometimes methods/tools will need to be newly developed but, more often, they can be adapted from elsewhere.

The best practices for preparing data collection methods/tools will ultimately depend on the specific method/tool. However, there are some important overall recommendations. The following highlights ways to minimize data collection costs. Some additional practical considerations in planning for data collection include:

- Prepare data collection guidelines. This helps to ensure standardization, consistency and reliability over time and among different people in the data collection process. Double-check that all the data required for indicators is being captured through at least one data source.
- Pre-test data collection tools. This helps to detect problematic questions or techniques, verify collection time, identify potential ethical issues and build the competence of data collectors.
- Translate and back-translate data collection tools. This ensures that the tools are linguistically accurate, culturally compatible and operate smoothly.
- Train data collectors. This includes an overview of the data collection system, data collection techniques, tools, ethics, culturally appropriate interpersonal communication skills and practical experience in collecting data.
- Address ethical concerns. Identify and respond to any concerns expressed by the target population. Ensure that the necessary permission or authorization has been obtained from local authorities, that local customs and attire (clothing) are respected, and that confidentiality and voluntary participation are maintained.

Minimizing data collection costs

Data collection is typically one of the most expensive aspects of the M&E system. One of the best ways to lessen data collection costs is to reduce the amount of data collected (Bamberger et al. 2006). The following questions can help simplify data collection and reduce costs:

- Is the information necessary and sufficient? Collect only what is necessary for project/programme management and evaluation. Limit information needs to the stated objectives, indicators and assumptions in the log frame.
- Are there reliable secondary sources of data? As discussed above, secondary data can save considerable time and costs – as long as it is reliable.
- Is the sample size adequate but not excessive? Determine the sample size that is necessary to estimate or detect change. Consider using stratified and cluster samples.
- Can the data collection instruments be simplified? Eliminate unnecessary questions from questionnaires and checklists. In addition to saving time and cost, this has the added benefit of reducing survey fatigue among respondents.
- Is it possible to use competent local people for the collection of survey data? This can include university students, health workers, teachers, government officials and community workers. There

may be associated training costs, but considerable savings can be made by hiring a team of external data collectors, and there is the advantage that local helpers will be familiar with the population, language, etc.

- Are there alternative, cost-saving methods? Sometimes targeted qualitative approaches (e.g. participatory rapid appraisal – PRA) can reduce the costs of the data collection, data management and statistical analysis required by a survey – when such statistical accuracy is not necessary. Self-administered questionnaires can also reduce costs.

2.2.8 Establish stakeholder complaints and feedback mechanisms

A complaints and feedback mechanism provides a means for stakeholders to provide comment and voice complaints about the MDA's work. It is a particularly important data collection topic worth special mention. Complaints and feedback mechanisms provide valuable insights and data for the ongoing monitoring and periodical evaluation of a project/programme. They can help to anticipate and address potential problems, increase accountability and credibility, and reinforce morale and ownership.

It is important to recognize that stakeholder complaints and feedback can be internal or external – (from those involved in project/programme management and implementation versus those affected by project implementation). Most importantly, beneficiaries (the target population) should have the opportunity to express their perceptions and file any grievances about the services they receive. However, it is also important for other stakeholders, such as project/ programme staff, volunteers and partners, to have the opportunity to file complaints and provide feedback.

It is also important to understand that stakeholder feedback can be positive or negative. It can be just as useful and empowering for stakeholders to express positive feedback, lessons learned, and reflections, as it is grievances. However, at a minimum, projects/programmes should have a formal complaints mechanism for stakeholders to legally file grievances.

A complaints mechanism is an established set of procedures for stakeholders to safely voice grievances or concerns that are addressed objectively against a standard set of rules and principles. It models accountability and commitment to the M&E's stakeholders – especially our moral and legal responsibility to respond to any wrongdoing or misconduct, e.g. issues of abuse of power, and corruption.

There is no one approach (method) for stakeholder complaints and feedback – approaches should be adapted to specific stakeholders. Communicating and dealing with complaints and feedback differ across community and organizational cultures. Complaints and feedback can be written or oral, function directly or through intermediaries (third parties).

2.2.9 Plan for data management

Data management refers to the processes and systems for how a project/programme will systematically and reliably store, manage and access M&E data. It is a critical part of the M&E system, linking data collection with its analysis and use. Poorly managed data wastes time, money and resources; lost or incorrectly recorded data affects not only the quality and reliability of the data but also all the time and resources invested in its analysis and use.

Data management should be timely and secure, and in a format that is practical and user-friendly. It should be designed according to the project/programme needs, size and complexity. Typically, project/programme

data management is part of an organization's or project/programme's larger data management system and should adhere to the state M&E policy and other requirements of the Kano State Governments.

The following are seven key considerations for planning a project/programme's data management system:

1. **Data format.** The format in which data is recorded, stored and eventually reported is an important aspect of overall data management. Standardized formats and templates (as provided in this guide) improve the organization and storage of data. Generated data comes in many forms, but are primarily:

- Numerical (e.g. spreadsheets, database sets)
- Descriptive (narrative reports, checklists, forms)
- Visual (e.g. pictures, video, graphs, maps, diagrams)
- Audio (recordings of interviews, etc).

Data formats can be physical, such as written forms stored in an office filing cabinet, or electronic, such as a spreadsheet stored in a computer database (discussed below). Sometimes, donors or key partners, such as government ministries, may define how the data should be recorded and stored. Whatever format, it is important that it is user-friendly, whether its user is a community member, field staff member or project manager.

Formats can reinforce critical analysis and use

How data reporting is formatted can have a considerable influence on how it is used. For example, an indicator tracking table can be designed to record not only the actual indicator performance but also the planned target for the indicator, as well the percentage of target achieved. This reinforces critical analysis of variance. Similarly, indicator formats can be disaggregated (separated) by important groups or differences essential for project/programme implementation and assessment, such as by gender, age, ethnicity, location, socioeconomic status, etc.

2. **Data organization.** A project/programme needs to organize its information into logical, easily understood categories to increase its access and use. Data organization can depend on a variety of factors and should be tailored to the users' needs. Data is typically organized by one or a combination of the following classification logic:

- a. Chronologically (e.g. month, quarter, year)
- b. By location
- c. By content or focus area (e.g. different objectives of a project/ programme)
- d. By format (e.g. project reports, donor reports, technical documents).

3. **Data availability.** Data should be available to its intended users and secure from unauthorized use (discussed below). Key considerations for data availability include:

- a. Access. How permission is granted and controlled to access data (e.g. shared computer drives, folders, internets). This includes the classification of data for security purposes.
- b. Searches. How data can be searched and found (e.g. according to keywords).

c. Archival. How data is stored and retrieved for future use.

d. Dissemination. How data is shared with others.

4. Data security and legalities. Projects/programmes need to identify any security considerations for confidential data, as well as any legal requirements with governments, donors and other partners. Data should be protected from non-authorized users. This can range from a lock on a filing cabinet to computer virus and firewall software programs. Data storage and retrieval should also conform with any privacy clauses and regulations for auditing purposes.

5. Information technology (IT). The use of computer technology to systematize the recording, storage and use of data is especially useful for projects/programmes with considerable volumes of data, or as part of a larger programme for which data needs to be collected and analysed from multiple smaller projects/programmes.

Some examples of IT for data management in M&E include:

- Handheld personal digital assistants (PDAs) to record survey findings
- Excel spreadsheets for storing, organizing and analyzing data
- Microsoft Access to create user-friendly databases to enter and analyze data
- Share-point, a web-based internet to store, share and discuss M&E data
- An integrated planning management system with an internet platform for inputting, organizing, analyzing and sharing information.

IT can help to reorganize and combine data from various sources, highlighting patterns and trends for analysis and to guide decision-making. It is also very effective for data and information sharing with multiple stakeholders in different locations. However, the use of IT should be balanced with the associated costs for the computers and software, resources to maintain and safeguard the system, and the capacity among intended users.

6. Data quality control. It is important to identify procedures for checking and cleaning data, and how to treat missing data. In data management, unreliable data can result from poor typing of data, duplication of data entries, inconsistent data, and accidental deletion and loss of data. These problems are particularly common with quantitative data collection for statistical analysis (also discussed in Section 1.9). Another important aspect of data quality is version control. This is how documents can be tracked for changes over time. Naming a document as “final” does not help if it gets revised afterwards.

7. Responsibility and accountability of data management. It is important to identify the individuals or team responsible for developing and/or maintaining the data management system, assisting team members in its use and enforcing any policies and regulations. Also, for confidential data, it is important to identify who authorizes the release/access of this data.

2.2.11 Use an Indicator Tracking Table (ITT)

Indicators

Introduction

When we prepare a plan to implement a project, we can look at this as the theory of what we intend to do. Once we start the implementation of the project in practice, there will be problems and issues arising. So in

practice most of the time it will be impossible to do exactly what we said we would do in theory. To be able to see in practice whether the project is achieving what it said it would achieve in theory, or how far it has deviated, it requires indicators.

Indicators are realistic and measurable criteria of project progress. They should be defined before the project starts, and allow us to monitor or evaluate whether a project does what it said it would do. In project planning; indicators form the link between theory and practice. Indicators are either quantitative, or qualitative.

Quantitative Indicators can be expressed as a number. For example, the number of people attending a training, the weight of fish caught, the average rice harvest per hectare, the cost of transport to market. Qualitative Indicators on the other hand, indicate the quality of something, and they cannot normally be expressed as a number. For example, 'Women's participation in decision making in the Village Development Committee (VDC)', or 'improved working relations among staff'. Proxy Indicators Since qualitative indicators are hard to measure directly, we often measure something else instead. For example, instead of measuring 'improved participation' directly, we look at the number of meetings organized by the VDC, how many people attended, how many women were there, what decisions were made, and who made them. This kind of information then gives us an idea of the increase in participation in decision making. (The indicators we measure instead of the qualitative information are then called 'proxy indicators' or 'indirect indicators').

An **Indicator Tracking Table (ITT)** is an important data management tool for recording and monitoring indicator performance to inform project/programme implementation and management. It differs from an M&E plan because, while the M&E plan prepares the project/ programme for data collection on the indicators, the ITT is where the ongoing measurement of the indicators is recorded. The project/programme management report then explains the performance of the indicators reflected in the ITT.

The ITT has three primary sections:

1. Project/programme background information, such as name, location, dates, etc.
2. Overall project/programme indicators are indicators that may not specifically be in the project/programme's log-frame but are important to report for strategic management and as part of the State-Wide Reporting System.
3. Log frame indicators are aligned with their respective objectives from the log frame, and are the greater part of the ITT.

Example of indicator tracking table – for one quarter only											
Indicator	Project baseline		Life of project target	Life of project to date	% of annual target to date	Annual project target	Year to date	% of annual target to date	Q1 reporting period		
	Date	Value							Target	Actual	% target

Number of Farmer's group participating in Kano state rice farming /scheme quarterly.	May 2016	0	50	5	25%	20	5	25%	10	5	50%
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An important function of the ITT is that it helps to determine variance, a key measure of indicator performance. Variance is the difference between identified targets and actual results – the percentage of target reached. For instance, in the example above, 10 farmer's group were targeted to conduct rice farming during the first reporting quarter. However, the actual group conducting the farming was only five. Therefore, the percentage of target, variance, was 50 per cent.

Paying attention to variance encourages critical analysis of and reporting on project/programme performance. It also entails setting targets, a good practice in programme management. Knowing whether your indicator exceeds or underperforms its target helps to determine if your project/programme is progressing according to plans, or whether there may need to be adjustments to the implementation or time frame. Generally, a good rule of thumb is that variance greater than 10 per cent should be explained in project/programme reports.

In our example above, the variance of 50 per cent is well above the 10 per cent rule and therefore needs an explanation in the project/programme report – which can prove useful for future programming. For instance, the explanation may be that low farmer's group participation in the scheme was because they were planned in these communities at times that coincided with a religious holiday (e.g. Ramadan), or during political parties rally for the coming election, e.t.c. Such information provides valuable lessons for community participation in the ongoing project/programme or future ones.

Selecting Indicators

There are a number of methods for developing indicators, but whatever system is chosen, it helps to go through a structured procedure.

The critical step in this approach is to work with performance questions which will not only allow selection of indicators that show objectives are being met, but also can explain why and if this is in fact attributable to the project activities. Performance questions do not have to be complicated. The most basic types of questions to be asked are shown below.

Activities: what have we actually done?

Outputs: what have we delivered (produced) as a result of project activities?

Outcomes: what has been achieved as a results of the outputs?

Impacts: what has been achieved as a result of the outcomes?

- what contribution is being made to the overall goals;

- are there unanticipated positive or negative impacts?

Lessons: what has been learned from the project that can contribute to improved project Implementation or to building relevant fields of knowledge?

You can then determine what sort of information is needed to answer these questions. For activities and outputs, the question can probably be answered with a simple, reliable indicator. But when you move to outcomes and impacts a single indicator may not in itself provide enough information.

The type of information you need at the higher levels is generally about change brought about through project activities. Often it is comparative, a with/without project, or a before/after project situation. It might include questions such as: e.g. before the construction of the flyover and after, with security and without, with revenue consultant and without, presence of KAROTA and absence, number of farmers with support to rice farming and number without support, number of poor families receiving cash transfers for Girls education and number of families not receiving the cash transfers for Girls education, number of families using mosquito net and not using mosquito net, number of household with portable water supply before the construction of additional pipeline/borehole and after, number of hours spend in hospital for treatment before the establishment of SERVICOM and after etc.

Having gone through all the steps to select indicators, some important final checks need to be made, namely:

- Does each output, outcome and impact have at least one indicator?
- Does each indicator measure some important aspect that no other indicator measures?(few good indicators are better than a lot that have no focus).
- Does each indicator meet the five criteria given - ROARS or SMART?

Another to remember indicator characteristics is to think of them being SMART.

Characteristics of a Good Indicator Relevant - it measures an important part of an objective or output; Objective - if two people measure the same indicator using the same tool, they should get the same result. The indicator should be based on fact, rather than feelings or impressions (another way to say this, is to say that it should be Measurable); Available - indicators should be based on data that is readily available, or on data that can be collected with reasonable extra effort as part of the implementation of the (sub-)project. Realistic - it should not be too difficult or too expensive to collect the information (related to the next one in the list); specific - the measured changes should be attributable to the project, and they should be expressed in precise terms

An easy way to remember this is to say that each indicator 'ROARS' (like a lion).

Good Indicators are SMART

Specific - the measured changes should be expressed in precise terms and suggest actions that can be taken to assess them

Measurable - indicators should be related to things that can be measured in an unambiguous way

Achievable – indicators should be reasonable and possible to reach, and therefore sensitive to changes the project might make

Replicable- measurements should be the same when made by different people using the same method

Time-bound – there should be a time limit within which changes are expected and measured

In summary, indicators should be limited in number (you CAN have too many), comprise a mix of both quantitative and qualitative, be practical to collect and not dependent upon experts, and most importantly, tell us something about the project.

The selection of indicators is critical, and there is clearly a range of criteria for their selection. However these are just guides, in the end implementing MDAs must make decisions and select indicators that will serve them well by providing information to better manage the project in order to achieve its objectives.

Indicators for Monitoring or Evaluation

In the logic that is contained in the logframe, inputs are used to implement activities, activities produce specific outputs, the outputs contribute to the immediate objective, and the immediate objective contributes to the goal. This is shown schematically in the drawing below. In the context of M&E we might vary to the terms so that inputs produce outputs, outputs lead to outcomes and outcomes result in impacts.

Some specific generic indicators for governance constituted by the NGF for achieving common goals across the States in Nigeria.

1. Policy & Strategy and Monitoring & Evaluation
 - Number and quality of policies, strategies and plans which are informed by evidence based analysis
 - Extent and quality of regular cross- government (e.g. State Development Plans) and sector (e.g. MTSS) review processes.
 - Extent to which the budget performance reviews are linked to results in the plans and MTSSs.
 - Number of skilled staff for the performance of M&E/statistics functions in the State disaggregated by sex and level of qualification.
2. Economic Development
 - State level GDP, Agricultural sector's share of state level GDP, Manufacturing sector's share of state level GDP and Oil sector's share of state level GDP.
 - State Human Poverty Index, Human Development Index and Unemployment Rate.
3. Public Finance Management
 - Percentage of State budget allocation to the MDAs (e.g Education, Health, Environment, Agriculture and Infrastructure).
 - Level of citizens'/stakeholders' (including women and vulnerable groups) participation and engagement in budget process
 - Level of Budget Deviation and/or Variance.
 - Percentage of State total IGR to Total Revenue for the past two years.
 - Percentage of contracts in excess of N5,000,000 awarded on the basis of open competitive process.
 - Percentage of available Federal Grants such as UBEC and CGS accessed by the State.

- Percentage of LG fund transferred to LGs on transparent and rule- based systems (federation accounts and State IGR).
- Debt to GDP ratio.
- Percentage of debt financing annual budgets.

4. Human Resource Management

a. Well Managed

- Staff on duty (available):staff in post
- Vacancies: establishment
- Establishment: staff in post
- % budget on staff: total budget
- Staff reviews completed: total staff
- Post vacancy time: staff available time

b. Properly trained

- Number of staff receiving training: total staff
- Planned staff mix: actual staff mix
- Staff with job description: total staff
- Number of job descriptions revised: total jobs
- Total training time:
- Total working time

c. Motivated

- No. of staff leaving: total staff
- No. of outside visits: total staff
- No. of days of uncertified absence: total staff days
- No. of hours worked: official hours

5. Education Sector Indicators

a. Access and Equity

- Gross and Net enrolment rates and completion rate by gender, level, location and economic status.
- Youth and adult literacy rate by gender, location and economic status.

b. Teaching and Learning Environment

- Percentage of classrooms in need of major repairs.
- Level of Community participation in school management.
- Pupil per functional toilets.
- Pupil per functional classroom.
- Percentage of schools with portable water.
- Proportion of schools with secure environment.
- Pupil to teacher ratio.
- Pupil per qualified teacher ratio
- Percentage of teaching staff that received in-service training.

6. Quality

- Percentage of schools inspected using quality assurance instruments.
- Percentage of students who obtained pass certificate in standard examinations.
- Per pupil teaching cost by level of education.

Health Sector

a) Service Delivery & Performance

- Health spending per capita,

- Number of tertiary, secondary and primary health care facilities by ownership and bed per population (rural and urban).
 - Proportion of wards with functioning public health facility providing minimum health care package according to quality of care standards; including availability of safe water and sanitation.
 - Number and type of health management and integrated supportive supervision mechanism put in place and implemented.
 - Prevalence of Tuberculosis.
 - Number of health facilities and services with client/patient feedback and Complaint mechanism and structures existing at all levels of care.
 - HIV prevalence rate and number of People Living with HIV and AIDS (PLHA) with access to Antiretroviral drugs (ART) and the range of services rendered to them.
 - Coverage of National Health Insurance Scheme or its equivalent in the State.
 - Number of reported cases of new Wild Polio Virus.
- b. Service Delivery & Performance
- b) Extent of collaboration with the Primary HealthCare Development Agency.
 - c) Health Sector indicators such as Health spending per capita,
 - d) Number of tertiary, secondary and primary health care facilities by ownership and bed per population (rural and urban).
 - e) Proportion of wards with functioning public health facility providing minimum healthcare package according to quality of care standards including availability of safe water and sanitation.
- c. Immunization, Child and Maternal Mortality
- Proportion of 12 -23 months - old children fully immunized
 - Number of wards and LGAs with functional, well equipped and staffed immunizable diseases surveillance system and structures.
 - Percentage of children 6 - 59 months - old receiving Vitamin A supplements.
 - Malaria Incidence among under- five children.
 - Total fertility Rate.
 - Number of newly reported Wild Polio Virus cases.
 - Infant, Child and Maternal mortality ratio.
 - Contraceptive prevalence rate.
 - Percentage of pregnant women with 4 ANC visits performed according to national standards.
- d. Staffing
- Proportion of health professionals per population (physician, nurses and health workers per population (rural/urban).
 - Number and types of plans and programmes for strengthening and motivating the human resource capacities in the health sector implemented.
 - Quantity and quality of schools for training health professionals in the state.
 - diseases

Environment Sector

- Percentage frequency of waste evacuation.
- Number of illegal refuses disposal sites and black spots.
- Number of wildlife parks.

- Percentage of hectares of natural forest improved or retained.
- Number of environmental studies carried out.
- Low level of untreated industrial effluents.
- Number of companies with Environmental Audit Report (EAR) processed.
- Number of industries with abatement measures.
- Reduction of Air quality index (AQI).
- Level of implementation of National Council on Environment (NCE) resolution
- Availability of erosion rehabilitation sites in the state.
- Frequency of monitoring development at erosion site.
- Number of identified erosion sites and bad land topography in the state.

Agricultural Section

Food and Agricultural Raw Material Supply (Framework put in place to ensure and stimulate an increase in food and agricultural raw material supply (crops ,livestock ,fisheries and forestry products etc.)

- Percentage change in the quality and quantity of farm inputs (e. g. fertilizer, seed, livestock/ fisheries production inputs etc.) delivered to farmers by government and/or private companies.
- Annual count of private organizations/companies involved in the farm inputs (e.g. fertilizer, seed etc.) market and number/volume marketed.
- Annual count of Public Private Partnership and government investment directed at financing and maintaining inputs and their supply (e.g. tractors).
- Percentage Growth in Agricultural Production.
- Percentage Growth in Agricultural Production resulting from FGN/states partnership Extent of farmers output commercialization.
- Extent of farmers' output commercialization for export.

Agricultural Research and Extension Systems

- Annual count of new varieties (by commodities) and technologies made available for transfer.
- Ratio of farmers to extension agents.
- Proportion of farmers getting information from extension services and frequency of information supply measured as a % of the baseline
- Percentage Growth in Agricultural Production resulting from FGN/States partnership% of the baseline

Land management and tenure systems

- Proportion of land area with Sustainable Land Management (SLM) practices measured as a percentage of the baseline.
- Annual count of Training mounted for extension agents in SLM techniques.
- Proportion of land area demarcated/gazette as grazing reserves/stock routes

Market Access

- Proportion of certified service providers' and Price information systems measured as % of the baseline.
- Proportion of men and women small-scale producers and farmers 'association linked to value chains and marketing companies/organizations

Water and irrigation supply and control

- Volume and value of irrigated water capacity developed or rehabilitated.
- Proportional increase in yield of crop / fish and farm income measured as a % of the baseline.

Credit Supply and Insurance

- Annual count of financial institutions (e.g. insurance, savings, loan) and products offered in rural areas.
- Proportion of farmers with access to credit and insurance measured as a percentage of the baseline.

Infrastructure Sector

Basis for Undertaking Infrastructural Investments

- Extent to which the State has laws, regulations and policies to regulate investments in infrastructure, including private and public/private partnerships.
- Evidence that locations for infrastructure investment were in areas of greatest need.
- Extent to which stakeholders, including women and vulnerable groups were involved in project identification /selection and implementation.
- Evidence that community concerns were addressed before, during and after project implementation.

Level of Public Access to Infrastructure (i.e Roads, Water and Power)

- Good Paved Asphalt Road link from state capital to all local governments' headquarters.
- Connectivity to Power (National Grid and Rural Electrification).
- Telecommunications coverage in the State

Sustainability and Maintenance

- Percentage of state budget earmarked for sustainability and maintenance of investments in infrastructure.

Deployment of Computer based ICT in the State

- Level of deployment of ICT in the State (Internet, cyber space and the World Wide Web (WWW)).

Citizen Participation, Social Inclusion and Protection

Promoting Civil & Political Rights

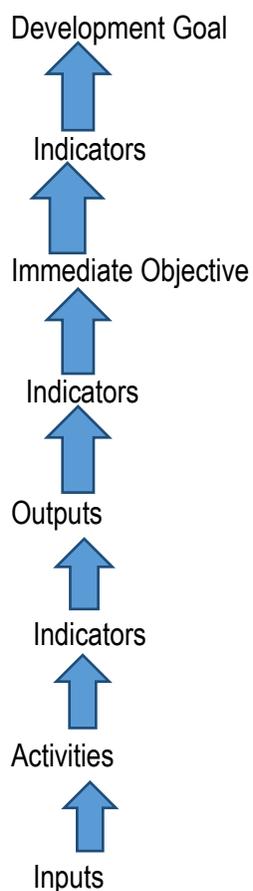
- Results accruing from police-community relationship
- Proportion of population with access to Alternative Dispute Resolution Mechanisms to resolve their legal complaints.
- Crime incidence rate that threaten or violate civil and political rights of the citizen at State Level disaggregated by type (i. e. theft ,murder, assault, kidnapping, rape and robbery).
- Gender disaggregated data available to facilitate effective analysis and monitoring of gender balance in appointive and elective positions.
- The Gender Gap Index as measured by Economic participation, Economic opportunities, Political Empowerment, Educational attainment and Health and Wellbeing.

Promotion and Protection of the Rights of Vulnerable Groups, particularly: Existence of laws on disability rights in the State.

- Extent to which the state has domesticated international Convention son the rights of the physically challenges
- State budget support to MDAs, CSOs, including community-based and faith -based organizations, working to promote and protection right for vulnerable groups in the state

- Outline the Youth unemployment rate in the state and disaggregate it (i) as a percent of the national unemployment rate ; and (ii) into protect the rights of comparative figure of urban and rural unemployment rate, i. e. what percent of the youth unemployment rate is urban , and what percent rural.

Schematic Logic (start at the bottom)



Indicators for Goal and Objectives are mainly used for evaluation.

Indicators for Outputs are mainly used for monitoring. No separate indicators are set for activities or inputs.

Monitoring should tell us whether activities are being implemented as planned, and whether the outputs that result from the activities are being produced. This means that monitoring concentrates on the indicators set for outputs, and tells us about the quantity, quality and timeliness of project outputs as well as the disbursement of funds used to achieve the outputs.

Evaluation tells us what the effects of the project are, and so concentrates more on indicators set at the objective level (although monitoring information can be input for evaluation as well).

The indicators written in the log frame at the time of project design usually are the same as the indicators used for monitoring and evaluation. But sometimes, the indicators are being refined to better reflect the programme activities and the way of measuring the success of implementation. It is an evolving process, not a static thing.

LOGICAL FRAMEWORK (LOGFRAME) – DEFINITION OF TERMS			
OBJECTIVES (What we want to achieve)	INDICATORS (How to measure change)	MEANS OF VERIFICATION (Where/how to get information)	ASSUMPTIONS (What else to be aware of)
Goal The long-term results that an intervention seeks to achieve, which may be contributed to by factors outside the intervention	Impact indicators Quantitative and/or qualitative criteria that provide a simple and reliable means to measure achievement or reflect changes connected to the goal	How the information on the indicator will be collected (can include who will collect it and how often)	External conditions necessary if the goal is to contribute to the next level of intervention
Outcomes The primary result(s) that an intervention seeks to achieve, most commonly in terms of the knowledge, attitudes or practices of the target group	Outcome indicators As above, connected to the stated outcomes	As above	External conditions not under the direct control of the intervention necessary if the outcome is to contribute to reaching intervention goal
Outputs The tangible products, goods and services and other immediate results that lead to the achievement of outcomes	Output indicators As above, connected to the stated outputs	As above	External conditions not under the direct control of the intervention which could restrict the outputs leading to the outcomes
Activities The collection of tasks to be carried out in order to achieve the outputs	Process indicators As above, connected to the stated activities	As above	External factors not under the direct control of the intervention which could restrict progress of activities

The importance of target setting

Target setting is a critical part of M&E planning and responsible project/programme management. In order to determine variance (the percentage of target reached), it is necessary to not only measure the indicator but identify beforehand a target for that indicator. Project/programme teams may hesitate to set targets, afraid that they may not accomplish them, or sometimes it is just difficult to predict targets. However, target setting helps to keep the project/programme's expected results realistic, to plan resources, track and report progress (variance) against these targets, and to inform decision-making and uphold accountability. Do targets change? Absolutely. Data collected during project/programme M&E often leads to reassessing and adjusting targets accordingly. Certainly, such changes should follow any proper procedures and approval.

2.2.12 USE A RISK LOG (TABLE)

While the ITT tracks planned indicator performance, it is also important to track any risks that threaten project/programme implementation. Such risks can include those identified and expressed as assumptions in the project/programme log frame, as well as any unexpected risks that may arise.

2.3 STEP 3 – Plan for Data Analysis

What you will find in Step 3:

2.3.1 Develop a data analysis plan, identifying the:

- A. Purpose of data analysis
- B. Frequency of data analysis
- C. Responsibility for data analysis
- D. Process for data analysis.

2.3.2 Follow the key data analysis stages:

- 1) Data preparation
- 2) Data analysis (findings and conclusions)
- 3) Data validation
- 4) Data presentation
- 5) Recommendations and action planning.

Data analysis is the process of converting collected (raw) data into usable information. This is a critical step of the M&E planning process because it shapes the information that is reported and its potential use. It is really a continuous process throughout the project/programme cycle to make sense of gathered data to inform ongoing and future programming. Such analysis can occur when data is initially collected, and certainly when data is explained in data reporting.

Data analysis involves looking for trends, clusters or other relationships between different types of data, assessing performance against plans and targets, forming conclusions, anticipating problems and identifying solutions and best practices for decision-making and organizational learning. Reliable and timely analysis is essential for data credibility and utilization.

2.3.1 Develop a data analysis plan

There should be a clear plan for data analysis. It should account for the time frame, methods, relevant tools/templates, people responsible for, and purpose of the data analysis. A data analysis plan may take the form of a separate, detailed written document, or it can be included as part of the overall project/programme management and M&E system – for instance, it can be captured in the M&E plan. In whatever way it is stated, the following summarizes key considerations when planning for data analysis.

A. Purpose of data analysis what and how data is analyzed is largely determined by the project/programme objectives and indicators and ultimately the audience and their information needs. Therefore, data analysis should be appropriate to the objectives that are being analyzed, as set out in the project/programme log frame and M&E plan.

For example:

- Analysis of output indicators is typically used for project/programme monitoring to determine whether activities are occurring according to schedule and budget. Therefore, analysis should occur on a regular basis (e.g. weekly, monthly and quarterly) to identify any variances or deviations from targets. This will allow project/programme managers to look for alternative solutions, address any delays or challenges, reallocate resources, etc.
- Analysis of outcome indicators is typically used to determine intermediate and long-term impacts or changes – e.g. in people’s knowledge, attitudes and practices (behaviours).

B. Frequency of data analysis Data analysis has to be given sufficient time. The time frame for data analysis and reporting should be realistic for its intended use (discussed above). Accurate information is of little value if it is too late or infrequent to inform project/programme management; a compromise between speed, frequency and accuracy may be necessary. An important reminder is to avoid allocating excessive time for data collection (which can lead to data overload), while leaving insufficient time for analysis.

The frequency of data analysis will largely depend on the frequency of data collection and the informational needs of users – typically reflected by the reporting schedule. A schedule for data analysis can coincide with key reporting events, or be done separately according to project/programme needs. Whenever data analysis is scheduled, it is important to remember that it is not an isolated event at the end of data collection, but is ongoing from project/ programme start and during ongoing monitoring and then evaluation events.

C. Responsibility for data analysis Roles and responsibilities for data analysis will depend on the type and timing of analysis. Analysis of monitoring data can be undertaken by those who collect the data, e.g. field monitoring officers or other project/programme staff. Ideally there would also be an opportunity to discuss and analyse data in a wider forum, including other project/programme staff and management, partner organizations, beneficiaries and other stakeholders.

For evaluation data, analysis will depend on the purpose and type of evaluation. However, whenever possible, it is advisable to involve multiple stakeholders in data analysis. Evaluations may also use independent consultants to initially analyse statistical data, which is then discussed and analysed in a wider forum of stakeholders.

D. Process for data analysis Data analysis can employ a variety of forums tailored to the project/programme needs and context, including meetings, e-mail correspondence, and dialogue through internet. However it occurs, it is important that data analysis is structured and planned for and not conducted as an afterthought or simply to meet a reporting deadline.

Another important consideration is the need for any specialized equipment (e.g. calculators or computers) or software (e.g. Excel, SPSS, Access, Visio) for data analysis. Also, if the project/programme team is to be involved in any data entry or analysis that requires specific technical skills, determine whether such

experience exists among the staff or if training is necessary. These factors can then be itemized for the M&E budget and human resource development.

(Avoid over-analysis Over-analysing data can be costly and may complicate decision making. Therefore, do not waste time and resources analysing unimportant points. Instead, focus on what is necessary and sufficient to inform project/ programme management. Therefore, it is useful to refer to project/programme objectives and indicators from the log frame to guide relevant analysis and specific lessons, recommendations and action points that have been identified and reported.)

2.3.2 Follow the key data analysis stages

There is no one formula for data analysis, but five key stages can be identified: 1) Data preparation; 2) Data analysis; 3) Data presentation; 4) Data verification; and 5) Recommendations and action planning. The remainder of this section discusses these five stages. One common consideration throughout all stages of data analysis is to identify any limitations, biases and threats to the accuracy of the data and its analysis. Data distortion can occur due to limitations or errors in design, sampling, field interviews and data recording and analysis. Therefore, it is best to monitor the research process carefully and seek expert advice when needed.

1. Data preparation **Data preparation**, often called data “reduction” or “organization”, involves getting the data into a more usable form for analysis. Data should be prepared according to its intended use, usually informed by the log frame’s indicators. Typically, this involves cleaning, editing, coding and organizing “raw” quantitative and, as well as cross-checking the data for accuracy and consistency.

As quantitative data is numerical, it will need to be prepared for statistical analysis. It is also at this stage that quantitative data is checked, “cleaned” and corrected for analysis. A number of tools and guidelines are available to assist with data processing, and are best planned for with technical expertise.

The six useful steps for preparing quantitative data for analysis:

1. Nominating a person and setting a procedure to ensure the quality of data entry
2. Entering numerical variables in spreadsheet or database
3. Entering continuous variable data on spreadsheets
4. Coding and labeling variables
5. Dealing with missing values
6. Data cleaning methods.

For qualitative data (descriptive text, questionnaire responses, pictures, maps, videos, etc.), it is important to first identify and summarize key points. This may involve circling important text, summarizing long descriptions into main ideas (writing summaries in the paper’s margin), or highlighting critical statements, pictures or other visuals. Key points can then be coded and organized into categories and subcategories that represent observed trends for further analysis.

A final point worth noting is that data organization can actually begin during the data collection phase. The format by which data is recorded and reported can play an important role in organizing data and reinforcing critical analysis. For example, an indicator tracking table (ITT) can be designed to report not only the actual indicator performance but also its planned target and the percentage of target achieved. This reinforces critical reflection on variance (the difference between identified targets and actual results).

2. Data analysis (findings and conclusions) Data analysis can be descriptive or interpretive. Descriptive analysis involves describing key findings – conditions, states and circumstances uncovered from the data – while interpretive analysis helps to provide meaning, explanation or causal relationship from the findings. Descriptive analysis focuses on what happened, while interpretive analysis seeks to explain why it occurred – what might be the cause(s). Both are interrelated and useful in information reporting as descriptive analysis informs interpretive analysis.

Data cleaning is the process by which data is cleaned and corrected for analysis. A number of tools and guidelines are available to assist with data processing, and are best planned for with technical expertise.

Data analysis questions to help describe the data

- Are there any emerging trends/clusters in the data? If so, why?
- Are there any similarities in trends from different sets of data? If so, why?
- Is the information showing us what we expected to see (the log frame's intended results)? If not, why not? Is there anything surprising and if so, why?
- In monitoring progress against plans, is there any variance to objective targets? If so, why? How can this be rectified or do plans need to be updated?
- Are any changes in assumptions/risks being monitored and identified? If so, why? Does the project/programme need to adapt to these?
- Is it sufficient to know the prevalence of a specific condition among a target population (descriptive statistics), or should generalizations from a sample group be made about the larger population (inferential statistics)?
- Is any additional information or analysis required to help clarify an issue?

It is important when describing data to focus on the objective findings, rather than interpreting it with opinion or conclusion. However, it is also important to acknowledge that how the data is described, e.g. what comparisons or statistical analysis are selected to describe the data, will inevitably have its implied assumptions and affect its interpretation. Therefore, it is best to acknowledge any assumptions (hypotheses/limitations) as best as possible during the analysis process.

It is also important when analysing data to relate analysis to the project/programme's objectives and respective indicators. At the same time, analysis should be flexible and examine other trends, whether intended or not. Some common types of analysis include the following comparisons:

- Planned versus actual (temporal) comparison: variance is the difference between identified targets and actual results, such as data organized to compare the number of people (households) targeted in a disaster preparedness programme, versus how many were actually reached. When doing such analysis it is important to explain why any variance occurred.
- Demographic comparison, such as data separated by gender, age or ethnicity to compare the delivery of services to specific vulnerable groups, e.g. in a poverty-lessening/livelihoods project.
- Geographical comparison, such as data described by neighborhood, or urban versus rural, e.g. to compare food delivery during an emergency operation. This is particularly important if certain areas have been more affected than others.
- Thematic comparison, such as data described by donor-driven versus owner-driven housing interventions to compare approaches for a shelter reconstruction programme.

In data description, it is often helpful to use summary tables/matrices, graphs, diagrams and other visual aids to help organize and describe key trends/findings – this can also be used later for data presentation. While this will require different types of analysis for quantitative versus qualitative data, it is important to take into consideration both quantitative and qualitative data together. Relating and comparing both data types helps to best summarize findings and interpret what is being studied, rather than using separate sets of data.

As quantitative data is numerical, its description and analysis involves statistical techniques. Therefore, it is useful to briefly discuss the use of statistics in data analysis. Simple statistical analysis (such as percentages) can be done using a calculator, while more complex statistical analysis, such as survey data, can be carried out using Excel or statistical software such as SPSS (Statistical Package for Social Sciences) – often it may be advisable to seek expert statistical advice.

A basic distinction to understand in statistics is the difference between descriptive and inferential statistics:

- Descriptive statistics: Descriptive statistics are used to summarize a single set of numerical results or scores (e.g. test result patterns) or a sample group; this method helps to set the context. As the name implies, these statistics are descriptive and include total numbers, frequency, averages, proportions and distribution.
- Inferential statistics: Inferential statistics are more complicated, but allow for generalizations (inferences) to be made about the larger population from a sample. Two main categories of inferential statistics are: 1) examining differences between groups (e.g. differences in outcome indicators between groups that participated in the same project/programme activities and control groups outside the project/programme area); 2) examining relationships between variables, such as cause and effect relationships.

An important part of inferential analysis is establishing the representativeness of the sample population from which generalizations (conclusions) are based. Random sampling is often used with quantitative data to allow for more precise statistical analysis and generalizations than purposeful sampling. Surveys are a common method used with random sampling. However, even with the statistical precision of quantitative data, conclusions such as causality and attribution may be limited.

For instance, when comparing baseline conditions prior to the intervention of a livelihoods project with those measured three years later during a final evaluation, can you be sure that the measured change in living standards is due to the project or some other intervening factors (variable), such as an unforeseen natural disaster or outbreak of disease. Similar challenges emerge also with the use of comparison groups – comparing conditions of populations that have received services with those that have not. Such challenges contribute to make the measurement of impact a difficult and widely debated effort among evaluators.

Triangulation is an important practice to help strengthen conclusions made during the data interpretation stage. Data collected should be validated by different sources and/or methods before being deemed a “fact”. These separate facts do not in themselves add much value in project planning or decision-making

unless put in context and assessed relative to each other and the project objectives. Interpretation is the process of extracting and presenting meaning for these separate facts.

3. Data validation

It is important at this point to determine if and how subsequent analysis will occur. This may be necessary to verify findings, especially with high-profile or controversial findings and conclusions. This may involve identifying additional primary and/or secondary sources to further triangulate analysis, or comparisons can be made with other related research studies. For instance, there may need to be some additional interviews or focus group discussions to further clarify (validate) a particular finding. Subsequent research can also be used in follow-up to identified research topics emerging from analysis for project/programme extension, additional funding or to inform the larger development community.

4. Data presentation

Data presentation seeks to effectively present data so that it highlights key findings and conclusions. A useful question to answer when presenting data is, “so what?” What does all this data mean or tell us – why is it important? Try to narrow down your answer to the key conclusions that explain the story the data presents and why it is significant.

Some other key reminders in data presentation include:

- Make sure that the analysis or finding you are trying to highlight is sufficiently demonstrated.
- Ensure that data presentation is as clear and simple as accuracy allows for users to easily understand.
- Keep your audience in mind, so that data presentation can be tailored to the appropriate level/format (e.g. summary form, verbal or written).
- Avoid using excessively technical jargon or detail.

There are numerous examples/formats of how data can be presented. Some examples include written descriptions (narratives), matrices/tables, graphs (e.g. illustrating trends), calendars (e.g. representing seasonal performance), pie and bar charts (e.g. illustrating distribution or ranking, such as from a proportional piling exercise); mapping (e.g. wealth, hazard, mobility, social, resource, risk, influence and relationships); asset wheels (a variation of pie charts representing allocation of assets); Venn diagrams (usually made up of circular areas intersecting where they have elements in common); timelines/histories; and causal flow diagrams. Whatever format is used, be sure that what you are trying to show is highlighted clearly.

5. Recommendations and action planning: Recommendations and action planning are where data is put to use as evidence or justification for proposed actions. It is closely interrelated with the utilization of reported information, but it is presented here because the process of identifying recommendations usually coincides with analysing findings and conclusions.

It is important that there is a clear causality or rationale for the proposed actions, linking evidence to recommendations. It is also important to ensure that recommendations are specific, which will help in data reporting and utilization (discussed below). Therefore, it is useful to express recommendations as specific action points that uphold the SMART criteria (specific, measurable, achievable, relevant and time-bound)

and are targeted to the specific stakeholders who will take them forward. It is also useful to appoint one stakeholder who will follow up with all others to ensure that actions have been taken.

An essential condition for well-formulated recommendations and action planning is to have a clear understanding and use of them in relation to other data analysis outputs, findings and conclusions.

2.4 STEP 4 – PLAN FOR INFORMATION REPORTING AND UTILIZATION

Develop a clear dissemination strategy aimed at your audience.

Tasks

- Identify your audience from the very beginning of the project.
- Determine the best way to communicate with your audience (part of your audience analysis).

Guidance

- Tailor your results to your audience and how they like to learn.
- Communicate in language and style that is appropriate to your audience. Avoid use of discipline-specific language, such as statistical terms or social science terminology.
- Continually consult your audience throughout the M&E process to make sure you know what they want.
- Disseminate results to users in a timely fashion.
- Prepare your audience to understand the meaning, limitations, and interpretation of results prior to their actual release.
- Frame the findings and implication in a context relevant to your audience's situation.
- Present your results graphically and in text.
- Don't present more detail than your audience wants.

Develop communications products that focus on management issues.

Tasks

- Provide clear management recommendations based on your M&E analysis.
- Provide all necessary details to help interpret results.
- Provide alternatives based on the results.

Guidance

- Throughout the project, work closely with decision makers and program staff so as not to surprise them with your findings or recommendations.
- Determine the appropriate level of specificity for your recommendations.
- Consider your program context when formulating recommendations.
- Provide highlights of important issues.
- Be constructive in the way you communicate results.
- Phrase results in action-oriented terminology.

Reporting

Reporting is the most visible part of the M&E system, where collected and analysed data is presented as information for key stakeholders to use. Reporting is a critical part of M&E because no matter how well data may be collected and analysed, if it is not well presented it cannot be well used – which can be a considerable waste of valuable time, resources and personnel. Sadly, there are numerous examples where valuable data has proved valueless because it has been poorly reported on.

Anticipate and plan for reporting

Reporting can be costly in both time and resources and should not become an end in itself, but serve a well-planned purpose. Therefore, it is critical to anticipate and carefully plan for reporting. Key reporting criteria to help ensure its usability:

Criteria of good reporting

- Relevant and useful. Reporting should serve a specific purpose/use. Avoid excessive, unnecessary reporting – information overload is costly and can burden information flow and the potential of using other more relevant information.
- Timely. Reporting should be timely for its intended use. Information is of little value if it is too late or infrequent for its intended purpose.
- Complete. Reporting should provide a sufficient amount of information for its intended use. It is especially important that reporting content includes any specific reporting requirements.
- Reliable. Reporting should provide an accurate representation of the facts.
- Simple and user-friendly. Reporting should be appropriate for its intended audience. The language and reporting format used should be clear, concise and easy to understand.
- Consistent. Reporting should adopt units and formats that allow comparison over time, enabling progress to be tracked against indicators, targets and other agreed-upon milestones.
- Cost-effective. Reporting should warrant the time and resources devoted to it, balanced against its relevance and use (above).

A valuable tool when planning for reporting is a reporting schedule, matching each reporting requirement with its frequency, audience/purpose, format/outlet and person(s) responsible

A. Identify the specific reporting needs/audience Reports should be prepared for a specific purpose/audience. This informs the appropriate content, format and timing for the report. As already noted, it is best to identify reporting and other informational needs early in the M&E planning process, especially any reporting requirements.

A particularly important consideration in planning for reporting is the distinction between internal and external reporting. Internal reporting is conducted to enable actual project/programme implementation; it plays a more crucial role in lesson learning to facilitate decision-making – and, ultimately, what can be extracted and reported externally. External reporting is conducted to inform stakeholders outside the project/programme team and implementing organization; this is important for accountability.

Day-to-day operations depend upon a regular and reliable flow of information. Therefore, special attention should be given to the informational needs of the implementing MDAs. They will need timely information to analyse project/programme progress and critical issues, make planning decisions and prepare progress reports for multiple audiences, e.g. to the Director, Permanent Secretary, Honorable Commissioner, Executive Governor, EXCO, House of Assembly and donors.

Warning Reporting should limit itself only to what is necessary and sufficient for its intended purpose. The decisions made about what to report on will have an “exponential” effect that can increase the workload on the whole M&E system and the overall project/programme capacity because it determines time, people and resources needed to collect, manage and analyse data for reporting. Information overload strains the project/programme team’s capacity and can actually burden the flow (effectiveness) of information. This

distracts not only resources but also attention away from the more relevant and useful information. Extra information is more often a burden than a luxury.

Internal reporting

- Primary audience is the project/ programme team and the organization in which it operates.
- Primary purpose is to inform ongoing project management and decision-making (monitoring reporting).
- Frequency is on a regular basis according to project monitoring needs.
- Content is comprehensive in content, providing information that can be extracted for various external reporting needs.
- Format is typically determined by the project team according to what will best serve the project/ programme needs and its organizational culture.

External reporting

- Primary audience is stakeholders outside of the immediate team/ organization (e.g. state government, beneficiaries, and partner organizations, federal and other state governments).
- Primary purpose is typically for accountability, credibility, to solicit funds, celebrate accomplishments and highlight any challenges and how they are being addressed.
- Frequency is less often in the form of periodic assessments (evaluations).
- Content is concise, typically abstracted from internal reports and focused on communication points (requirements) specific to the targeted audience.
- Format is often determined by external requirements or preferences of intended audience.

B. Determine the reporting frequency

It is critical to identify realistic reporting deadlines. They should be feasible in relation to the time, resources and capacity necessary to produce and distribute reports including data collection, analysis and feedback.

Some key points to keep in mind in planning the reporting frequency:

1. Reporting frequency should be based upon the informational needs of the intended audience, timed so that it can inform key project/programme Budget planning, decision-making and accountability events.
2. Reporting frequency will also be influenced by the complexity and cost of data collection.
3. Data may be collected regularly, but not everything needs to be reported to everyone all the time.

For example:

- A security officer might want monitoring situational reports on a daily basis in a conflict setting
- A field officer may need weekly reports on process indicators around activities to monitor project/programme implementation
- A project/programme manager may want monthly reports on outputs/services delivered to check if they are on track
- Project/programme management may want quarterly reports on outcome indicators of longer-term change
- An evaluation team may want baseline and end line reports on impact indicators during the project start and end.

C. Determine specific reporting formats

Once the reporting audience (who), purpose (why) and timing (when) have been identified, it is then important to determine the key reporting formats that are most appropriate for the intended user(s). This can vary from written documents to video presentations posted on the internet. Sometimes the reporting format must adhere to strict requirements, while at other times there can be more flexibility.

The M&E has defined reporting templates for many technical areas, as well as for many donor reports and communications, with related links to the donor reporting web pages. Different types of reports (and formats) that may be used for reporting, and below we specifically discuss a recommended M&E format for a project/programme management report.

Example reporting formats

- Project management reports (Annex 19)
- Evaluation reports
- Programme updates, mid-year and annual reports
- Operational updates
- Donor-specific reports
- Situation reports, e.g. information bulletin, security updates, etc.
- Activity/event reports
- Memos
- Pictures/videos
- Brochure, pamphlets, handouts, posters
- Newsletters, bulletins
- Professional performance reports
- Press releases
- Public presentations – conferences or community meetings
- Success stories, case studies
- Popular publications, e.g. magazine, newspaper, or web site
- Scientific publications in a referred article, paper or book

It is important that report formats and content are appropriate for their intended users. How information is presented during the reporting stage can play a key role in how well it is understood and put to use.

Reporting should be translated in the appropriate language and in a culturally appropriate format.

Report writing tips

- Be timely – this means planning the report-writing beforehand and allowing sufficient time.
- Involve others in the writing process, but ensure one focal person is ultimately responsible.
- Translate reports to the appropriate language.
- Use an executive summary or project overview to summarize the overall project status and highlight any key issues/actions to be addressed.
- Devote a section in the report to identify specific actions to be taken in response to the report findings and recommendations and the respective people responsible and time frame.
- Be clear, concise, avoiding long sentences – avoid jargon, excessive statistics and technical terms.

- Use formatting, such as bold or underline, to highlight key points.
- Use graphics, photos, quotations and examples to highlight or explain information.
- Be accurate, balanced and impartial.
- Use logical sections to structure and organize the report.
- Avoid unnecessary information and words.
- Adhere to the agreed M&E formats, writing style guidelines and appropriate use of the M&E's logo.
- Check spelling and grammar.

Monthly reporting allows for a more regular overview of activities which can be useful, particularly in a fast-changing context, such as during an emergency operation. However, more frequent data collection and analysis can be challenging if monitoring resources are limited. Quarterly reports allow for more time between reports, with less focus on activities and more on change in the form of outputs and even outcomes.

Key components of the recommended state project/programme management report, and full template with detailed instructions for completing it.

Number them pls

- 1) **Project/programme information.** Summary of key project/programme information, e.g. MDA, Project name, date of award, Contractor, Budget codes, etc.
- 2) **Executive summary.** Overall summary of the report, capturing the project status and highlighting key accomplishments, challenges, and planned actions. Also includes indicators for beneficiary.
- 3) **Financial status.** Concise overview of the project/programme's financial status based on the project/programme's monthly finance reports for the reporting quarter.
- 4) **Situation/context analysis** (positive and negative factors). Identify and discuss any factors that affect the project/programme's operating context and implementation (e.g. change in security or a government policy, etc), as well as related actions to be taken.
- 5) **Analysis of implementation.** Critical section of analysis based on the objectives as stated in the project/programme's log frame and data recorded in the project/programme indicator tracking table (ITT).
- 6) **Stakeholder participation and complaints.** Summary of key stakeholders' participation and any complaints that have been filed.
- 7) **Partnership agreements and other key actors.** Lists any project/programme partners and agreements (e.g. project/programme agreement, MoU), and any related comments.
- 8) **Cross-cutting issues.** Summary of activities undertaken or results achieved that relate to any cross-cutting issues (any activity that involved more than one MDA).
- 9) **Project staffing** – human resources. Lists any new personnel or other changes in project staffing. Also should include whether any management support is needed to resolve any issues.
- 10) **Exit/sustainability strategy summary.** Update on the progress of the sustainability strategy to ensure the project objectives will be able to continue after handover to local stakeholders.
- 11) **Concise update** of the project/programme's key planning, monitoring, evaluation and reporting activities.
- 12) **Key lessons.** Highlights key lessons and how they can be applied to this or other similar projects/programmes in future.
- 13) **Report Project ITT** and any other supplementary information.

D. Identify people responsible for reporting products

It is important to specifically identify the people who will be responsible for each type of report. This can be the same person identified in the M&E plan who collects indicator data or it may be another person who specifically prepares the data to communicate to others, e.g. the person(s) who prepares a monthly project report, donor progress report or press releases. It also includes people who present and share M&E data at forums such as community meetings, conference calls with headquarters, partnership presentations, etc. It does not need to include everyone involved in the reporting process, but the key person with overall responsibility for each reporting product/type.

It is worth remembering that whoever is reporting, it is important that they do so according to requirements, and that reported information is timely and reliable. This may seem obvious but, highlights below, are often complex difficulties or “roadblocks” that need to be addressed to achieve timely and reliable reporting.

Reporting roadblocks and solutions

Project/programme progress and problems need to be reported to identify solutions and lessons to inform current and future programming. However, sometimes there can be some complex barriers to timely and effective data analysis and reporting as follows:

- **“We do not have the time.”** This attitude can occur when the project team focuses on the goal and a perceived shortage of time rather than on assessing the processes needed to attain the goal. A solution is to help people understand how timely analysis and reporting can help save time, improve processes, uphold accountability and better reach goals.
- **“It doesn’t make a difference anyhow.”** There can be a sense that reporting is a bureaucratic exercise and the reporting data is not fully put to use. A solution is to help people understand how the reporting information is worthwhile and used, and to involve the team members more actively in the data analysis and reporting so they contribute to and have more ownership in the process.
- **“Data analysis is for experts, not us.”** This misperception occurs because people perceive they lack the technical skills to do the data analysis. A solution is to help people better understand data analysis and that it does not necessarily require complex statistical methods, and to provide them with appropriate tools, guidelines and training (as discussed in this section) to better analyse data.
- **Fear of variance.** This can occur when people do not want to be perceived as doing a poor job if variance reflects underperformance. A solution is to help them understand that it is rare for a project to meet all of its targets, all of the time. Model openness to feedback and demonstrate a partnership attitude that does not frame underperformance as bad news but an opportunity to learn. Remind them that it is only a failure if they fail to learn.

2.4.2 Plan for information utilization

The overall purpose of the M&E system is to provide useful information. Therefore, information utilization should not be an afterthought, but a central planning consideration. For this reason, identifying stakeholder informational needs (initially discussed in M&E planning Step 1, Section 2.1) have been a recurring topic throughout all M&E planning steps.

Below is the summary of the four primary ways in which M&E information is used. There are many factors that determine the use of information. First are the actual selection, collection and transformation of data into usable information, which has been the topic of this guide so far. Ideally, this process produces information that is relevant, timely, complete, consistent, reliable and user-friendly

The remainder of this section will briefly look at key considerations for information distribution, decision-making and planning.

Key categories of information use

- Project/programme management – inform decisions to guide and improve ongoing project/programme implementation.
- Learning and knowledge-sharing – advance organizational learning and knowledge-sharing for future programming, both within and external to the project/programme’s implementing organization.
- Accountability and compliance – demonstrating how and what work has been completed, and whether it was according to the state M&E policy.
- Celebration and advocacy – highlight and promote accomplishments and achievements, building morale and contributing to resource mobilization and donor’s support.

A. Information dissemination

Information dissemination refers to how information (reports) is distributed to users. This can be seen as part of reporting, but we use dissemination here to mean the distribution of the information (reports) rather than the actual preparation of the information into a report.

There is a variety of mediums to share information, and as with the reporting formats themselves, how reporting information is disseminated will largely depend on the user and purpose of information.

Below are some different mediums for sharing information:

Key mediums of information dissemination

- 1. Print materials distributed through mail or in person.
- 2. Internet communication, e.g. e-mail (and attachments), web sites, blogs, etc
- 3. Radio communication includes direct person-to-person radio, as well as state own broadcasting radio.
- 4. Telephone communication includes voice calls, text-messaging, as well as other functions enabled on a mobile phone.
- 5. Television and filmed presentations.
- 6. Live presentations, such as project/programme team meetings and public meetings.

Selection of the reporting medium should be guided by what is most efficient in time and resources, and suitable for the audience – a process that should ideally be completed with a reporting schedule. For instance:

- An internet-based reporting system may be best for communication between a project/programme management team and its headquarters.

- Community meetings may be appropriate to report on data to beneficiaries who lack access to computers or are illiterate.
- Mobile phone texting may be most timely and efficient for volunteers to report on safety conditions from the field.

It is also important to remember that information dissemination should be multidirectional. This means that in addition to distributing information upwards to management, senior management and donors, information flows should also be directed to field staff, partners and the beneficiaries themselves.

Another important consideration when distributing information is the security of internal or confidential information. As discussed with data management, precautions should be taken to protect access to confidential information.

B. Decision-making and planning

Decision-making and planning really form the heart of data utilization. But no matter how well the information is prepared or disseminated, it will ultimately be up to the user to decide when and how to put it to use. This is where M&E planning merges with project/programme management, and the manner in which decisions are made and information is used will vary according to project/programme, context and organizational culture. However, while information use is largely in the area of project/programme and organizational management, there are two key considerations that can aid the use of information in decision-making and planning:

- Stakeholder dialogue. Stakeholder discussion and feedback on information is critical for building understanding and ownership, and informing the appropriate response. This process can begin during the analysis, review and revision of reporting information, and can correspond with information dissemination outlets, such as meetings, seminars and workshops, web-based forums, teleconferences and/or organizational reporting and follow-up procedures. For instance, the findings of an evaluation report are more likely to be understood and used if they are not limited to a printed report, but presented to key stakeholders in a face-to-face forum that allows them to reflect and give feedback. Ideally, this can be done before the final draft of the report to confirm key lessons and inform realistic recommendations.
- Management response. Specific procedures for documenting and responding to information findings and recommendations (often called “management response”) should be built into the project/programme management system. At the project/programme level, this can be a management action plan with clear responses to key issues identified in a management or evaluation report. This should specifically explain what actions will be taken, including their time frame and responsibilities; it should also explain why any recommendation or identified issue may not be addressed. Follow-up should be systematic and monitored and reported on in a reliable, timely and public manner. There is a variety of tools to support action planning and follow-up.

2.5 STEP 5 – Plan for M&E Human Resources and Capacity Building

An effective M&E system requires capable people to support it. While the M&E plan identifies responsibilities for the data collection on each indicator, it is also important to plan for the people responsible for M&E processes, including data management, analysis, reporting and M&E training. This

section summarizes key considerations in planning for the human resources and capacity building for a project/programme's M&E system.

2.5.1 Assess the projects/programme's human resources capacity for M&E

A first step in planning for M&E human resources is to determine the available M&E experience within the project/programme team, partner organizations, target communities and any other potential participants in the M&E system. It is important to identify any gaps between the project/programme's M&E needs and available personnel, which will inform the need for capacity building or outside expertise.

Key questions to guide this process include:

- Is there existing M&E expertise among the project/programme team? How does this match with the M&E needs of the project/programme?
- Is there M&E support from the organization implementing the project/programme? For instance, is there a technical unit or individuals assigned with M&E responsibilities to advise and support staff, and if so, what is their availability for the specific project/programme?
- Do the target communities (or certain members) and other project/programme partners have any experience in M&E?

It can be useful to refer to the discussions about the M&E stakeholder assessment and the M&E activity planning to guide this process. When available, any larger organizational assessment that has included M&E should be referred to for projects/programmes belonging to the organization.

For example, the state Due Process Bureau's secretariat offers a planning, monitoring, evaluation and reporting assessment tool for Public Organisations and other donor project/ programme teams, which can help assess the institutional understanding and practice of M&E for Budget implementing or for the project/programme team itself.

2.5.2 Determine the extent of local participation

Ideally, data collection and analysis is undertaken with the very people to whom these processes and decisions most relate. This is an important principle for sustainability, which prioritizes the involvement of local volunteers and communities. Often, local participation in M&E is expected or required, and building local capacity to sustain the project/programme is identified as a key objective of the project/programme itself.

Participation can happen at multiple levels in the M&E system.

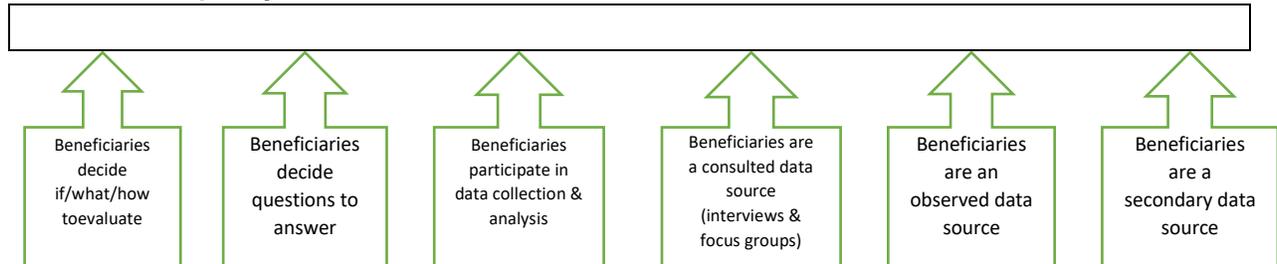
As Diagram illustrates below, participation happens on a continuum: at one end of the spectrum the M&E system can be completely participatory, where local stakeholders actively participate in all processes and decision-making, while at the other end it can be top-down, in which local stakeholders are restricted to subjects of observation or study. Ultimately, the degree of participation will vary according to the project/programme and context.

Some examples of M&E participation include:

- The use of participatory assessments, e.g. vulnerability capacity assessments (VCAs) or community SWOT (strength-weakness-opportunity-threats) analysis

- Involvement of local representatives in the project/programme design (log frame) and identification of indicators
- Participatory monitoring where elected community representatives reporting on key monitoring indicators
- Self-evaluations using simple methods adapted to the local context, e.g. most significant change and participatory project reviews (refer to Annex 2, M&E Resources)
- Sharing monitoring and evaluation findings with community members for participatory analysis and identification or recommendations
- Utilization of feedback mechanisms for beneficiaries, volunteers and staff.

Participatory



There are many benefits to local participation in M&E, but it is also important to recognize some of the potential drawbacks – It is important to note that participatory approaches should not exclude or “sideline” outsiders and the technical expertise, insights and perspectives they can provide and recommends the use of a balance of participatory and non-participatory M&E according to the project/programme needs and context.

CONSIDERING PARTICIPATORY M&E	
Potential advantages	Potential disadvantages
<ul style="list-style-type: none"> ➤ Empowers beneficiaries to analyse and act on their own situation (as “active participants” rather than “passive recipients”) ➤ Builds local capacity and ownership to manage and sustain the project. People are likely to accept and internalize findings and recommendations that they provide ➤ Develops collaboration and consensus at different levels – between beneficiaries, local staff and partners, and senior management ➤ Reinforces beneficiary accountability, preventing one perspective from dominating the M&E process ➤ Can save money and time in data collection compared with the cost of using project/programme staff or hiring outside support ➤ Provides timely and relevant information directly from the field for management decision-making to execute corrective actions 	<ul style="list-style-type: none"> ➤ Requires more time and cost to train and manage local staff and community members ➤ Requires skilled facilitators to ensure that everyone understands the process and is equally involved ➤ Can jeopardize the quality of collected data due to local politics. Data analysis and decision-making can be dominated by the more powerful voices in the community (related to gender, ethnic, or religious factors) ➤ Demands the genuine commitment of local people and the support of donors, since the project/programme may not use the traditional indicators or formats for reporting findings

2.5.3 Determine the extent of outside expertise

Outside specialists (consultants) are usually employed for technical expertise, objectivity and credibility, to save time and/or as a donor requirement. Clearly, and especially for external evaluators, experience, reliability and credibility are essential when considering whether or not to use outside expertise.

Examples of when outside expertise is used include:

- For the independent, final evaluation of all Government-funded projects/ programmes it has to be carry out in accordance with the state M&E policy for evaluations
- participating International partners,
- To administer random samples for household surveys during a baseline or end line study
- For project/programme data entry and statistical analysis
- For the translation of project/programme documents.

Sometimes, a project/programme or implementing organization may need to hire a specific person to oversee M&E processes – e.g. an M&E officer or advisor.

Example of an M&E job description are as follows

key steps in the hiring process:

- Identify M&E needs for the staff position
- Create a job description
- Establish a hiring committee and outline the hiring process
- Advertise for the position
- Sort, short-list, and pre-screen applicants
- interview the candidates
- Hire and train new staff.

2.5.4 Define the roles and responsibilities for M&E

It is important to have well-defined roles and responsibilities at each level of the M&E system. The M&E plan identifies people responsible for the specific collection of data on each indicator, but there are other responsibilities throughout the M&E system, from data management and analysis to reporting and feedback. This will ultimately depend on the scope of the project/programme and what systems are already in place within the project/programme and/or the implementing organization.

Typically, there is a wide range of people with some kind of monitoring responsibilities within their job descriptions – including not only project/programme staff but maybe volunteers, community members and other partners. When identifying roles and responsibilities for M&E it is worth considering using the M&E stakeholder assessment table, or an organizational diagram for the project/programme. Specific consideration should be given to the M&E qualifications and expectations, including the approximate percentage of time each person is expected to allocate to M&E. This will help with practical work planning, as well as in the preparation of project/programme job descriptions and terms of reference (ToR).

One key planning consideration is who will have overall management responsibility for the M&E system. It is important to clearly identify who will be the primary resource person that others, internal and external to the project/ programme, will turn to for M&E guidance and accountability. This person (or their team) should oversee the coordination and supervision of M&E functions, and “backstop” (screen) any problems that arise. They need to have a clear understanding of the overall M&E system, and will likely be the person(s) leading the M&E planning process.

Specific roles and responsibility of M & E section

- a. Oversees the application of the policy framework, identifies bottlenecks and constraints and makes recommendations for updating the requirements or other elements of the framework, in line with international good practice, lessons learned as well as and the evolving programming and operational needs and characteristics of the Institute;
- b. Facilitates regular interaction in-house with managers and other staff, collects feedback and facilitates learning on the framework;

- c. Conducts research and engages in critical and analytical reflection as well as issues recommendations to management for compliance with the framework;
- d. Prepares and circulates guidelines, checklists, templates and other tools to facilitate the application of the framework;
- e. Develops and promotes standards for evaluation and quality assurance;
- f. Undertakes reviews of decentralized evaluations on periodic and selective basis for quality assurance purposes;
- g. Prepares and maintains a depository of annual work plans;
- h. Prepares, maintains and monitors the implementation of an annual evaluation plan based on scheduled corporate and decentralized evaluations;
- i. Prepares a synthesis and maintains a compilation of Programme Performance Reports based on submissions from programme management;
- j. Maintains a public depository of evaluation reports with a view to ensure transparency and facilitate the integration of lessons learned and best practices into the broader concept of knowledge management.

2.5.5 Plan to manage project/programme team's M&E activities

Whether project/programme staff, volunteers, community members, or other partners involved in the M&E system, it is important to develop tools and mechanisms to manage their time and performance. The M&E plan helps define these roles and the time frames. It is also important to include this planning as part of the overall performance monitoring system for staff/volunteers. Finally, as with beneficiaries themselves, it is critical to uphold sound, ethical HR practices in the management of staff and volunteers

2.5.6 Identify M&E capacity-building requirements and opportunities

Once roles and responsibilities have been determined, it is important to specify any M&E training requirements. For longer-term projects/programmes, or those with significant training needs, it may be useful to create an M&E training schedule (planning table), identifying key training sessions, their schedule, location, participants and allocated budget.

M&E training can be formal or informal. Informal training includes on-the-job guidance and feedback, such as mentorship in completing checklists, commenting on a report or guidance on how to use data management tools.

Formal training can include courses and workshops on project/programme design (logframes), M&E planning, data collection, management, analysis and reporting, etc. Formal training should be tailored towards the project/programme's specific needs and audience. This can involve an outside trainer coming to the project/programme team/site, sending participants to training/ workshops, online training or academic courses.

2.6 STEP 6 – Prepare the M&E Budget

It is best to begin systematically planning the M&E budget early in the project/programme design process so that adequate funds are allocated and available for M&E activities. The following section summarizes key considerations for planning the project/programme's M&E budget.

2.6.1 Itemize M&E budget needs

If the M&E planning has been approached systematically, identifying key steps and people involved, detailing budget items should be straightforward. Start by listing M&E tasks and associated costs. If a planning table for key M&E activities has been prepared, this can be used to guide the process. If there is a required format for itemizing budget items – e.g. within the implementing organization or from the donor – adhere to the format or an agreed-upon variation. Otherwise, prepare a spreadsheet clearly itemizing M&E expenses. It is particularly important to budget for any “big-ticket items”, such as baseline surveys and evaluations.

Examples of budget items include:

- **Human resources.** Budget for staffing, including full-time staff, external consultants, capacity building/training and other related expenses, e.g. translation, data entry for baseline surveys, etc.
- **Capital expenses.** Budget for facility costs, office equipment and supplies, any travel and accommodation, computer hardware and software, printing, publishing and distributing M&E documents, etc.

In addition to itemizing expenses in a spreadsheet, a narrative (description) justifying each line item can help guard against unexpected budget cuts. It may be necessary to clarify or justify M&E expenses, such as wage rates not normally paid to comparable positions, fees for consultants and external experts, or the various steps in a survey that add up in cost (e.g. development and testing of a questionnaire, translation and back-translation, training in data collection, data collectors' and field supervisors' daily rates, travel/accommodation costs for administering the survey, data analysis and write-up, etc).

2.6.2 Incorporate M&E costs into the project/programme budget

Costs associated with regular project/programme monitoring and undertaking evaluations should be included in the project/programme budget, rather than as part of the organization's overhead (organizational development or administrative costs). Therefore, the true cost of a project/programme will be reflected in the budget. Otherwise, including M&E costs as an administrative or organizational development cost may incorrectly suggest inefficiencies in the project/programme and the implementing organization, with donors reluctant to cover such costs when in reality they are project-related costs. Ideally, financial systems should allow for activity-based costing where monitoring costs are linked to project/ programme activities being monitored.

If the budget has already been completed with the project/programme proposal, determine whether there is a separate/appropriated budget for M&E purposes. Ongoing monitoring expenses may already be built into staff time and expenditure budgets for the overall project/programme operation, such as support for an information management system, field transportation and vehicle maintenance, translation, and printing and publishing of M&E documents/ tools. Certain M&E events, such as a baseline study or external evaluation, may not have been included in the overall project/programme budget because the budget was planned

during the proposal preparation period, before the M&E system had been developed. In such instances it is critical to ensure that these M&E costs are added to the project/programme budget.

2.6.3 Review any donor budget requirements and contributions

Identify any specific budgeting requirements or guidance from the funding agency or implementing organization. If multiple funding sources are utilized, ensure that the budget is broken down by donor source. Determine if there are any additional costs the donor(s) will or will not cover, such as required evaluations, baseline studies, etc. Check with the finance unit or officer to ensure the budget is prepared in the appropriate format.

2.6.4 Plan for cost contingency

Contingency costs refer to unexpected costs that may arise during project/programme implementation – in this case the M&E system. It is important to plan for unexpected contingencies such as inflation, currency devaluation, equipment theft or the need for additional data collection/analysis to verify findings. Although budget planning seeks to avoid these risks, unexpected expenses do arise.

How much money should be allocated for M&E?

There is no set formula for determining the budget for a project/programme's M&E system. During initial planning, it can be difficult to determine this until more careful attention is given to specific M&E functions described in the following steps. However, an industry standard is that between 3 and 10 per cent of a project/programme's budget be allocated to M&E. A general rule of thumb is that the M&E budget should not be so small as to compromise the accuracy and credibility of results, but neither should it divert project/programme resources to the extent that programming is impaired. Sometimes certain M&E functions, especially monitoring, are included as part of the project/programme's activities. Other functions, such as independent evaluations, should be specifically budgeted.

Glossary of key terms for M&E

This glossary is not comprehensive, but only defines key terms as they are typically used in the Kano State M&E manual for guidance during the implementation of project/programme and services in the State.

- **Accountability.** The obligation to demonstrate to stakeholders to what extent results have been achieved according to established plans.
- **Accuracy.** The extent that collected data measures what they are intended to measure.
- **Activities.** As a term used in the hierarchy of objectives for the M&E logframe, activities refers to the collection of tasks to be carried out in order to achieve an output.
- **Actual.** As a term used in M&E indicator performance measurement, it is the actual measurement of an indicator for the period reporting on indicator performance.
- **Appraisal.** An overall assessment of the relevance, feasibility and potential sustainability of a development intervention prior to a decision of funding.
- **Appropriateness.** The extent to which an intervention is tailored to local needs and context, and complements other interventions from other actors. It includes how well the intervention takes into account the economic, social, political and environmental context, therefore contributing to ownership, accountability and cost-effectiveness.
- **Assessment.** The systematic collection, review and use of information about projects/programmes undertaken for the purpose of improving learning and implementation. "Assessment" is a broad term, and can include initial assessments, evaluations, reviews, etc.
- **Assumption.** As a term used in the M&E log frame, it refers to a condition that needs to be met for the successful achievement of objectives. Assumptions describe risks that need to be avoided by restating them as positive conditions that need to hold. For instance, the risk, "The political and security situation gets worse," can be restated as an assumption: "The political and security situation remains stable." An assumption should restate a risk that is possible, but not certain to happen, and therefore should be identified and monitored.
- **Attribution.** The degree an observed or measured change can be ascribed (attributed) to a specific intervention versus other factors (causes).
- **Audit.** An assessment to verify compliance with established rules, regulations, procedures or mandates. An audit can be distinguished from an evaluation in that emphasis is on assurance and compliance with requirements, rather than a judgment of worth.
- **Baseline.** A point of reference prior an intervention against which progress can later be measured and compared. A baseline study is an analysis or study describing the initial conditions (appropriate indicators) before the start of a project/programme for comparison at a later date.
- **Benchmark.** A reference point or standard against which progress or achievements may be compared.
- **Beneficiaries.** The individuals, groups or organizations, whether targeted or not, that benefit directly or indirectly from an intervention.
- **Beneficiary monitoring.** Tracks beneficiary perceptions of a project/programme – includes beneficiary satisfaction or complaints with the project/programme, including their participation, treatment, access to resources and their overall experience of change.

- **Bias.** Occurs when the accuracy and precision of a measurement is threatened by the experience, perceptions and assumptions of the researcher, or by the tools and approaches used for measurement and analysis. Selection bias results from the poor selection of the sample population to measure/study, so that the people, place or time period measured is not representative of the larger population or condition being studied. Measurement bias results from poor data measurement – either due to a fault in the data measurement instrument or the data collector. Analytical bias results from the poor analysis of collected data.
- **Cluster/Sector evaluation.** Focuses on a set of related activities, projects or programmes, typically across sites and implemented by multiple organizations.
- **Compliance monitoring.** Checks compliance with donor regulations and expected results, grant and contract requirements, local governmental regulations and laws, and ethical standards.
- **Context (situation) monitoring.** Tracks the setting in which a project/programme operates, especially as it affects identified risks and assumptions, but also any unexpected considerations that may arise. It includes the field, as well as the larger political, institutional, funding and policy context that affect the project/ programme.
- **Contingency costs.** Refer to unexpected costs that may arise during project/programme implementation against which progress or achievements may be compared.
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- **Contingency costs.** Refer to unexpected costs that may arise during project/programme implementation.

- **Cost-benefit/Benefit-cost analysis.** Analysis that compares project/programme costs (typically in monetary terms) to all of its effects and impacts, both positive and negative.
- **Coverage.** The extent population groups are included in or excluded from an intervention, and the differential impact on these groups.
- **Data management.** Refers to the processes and systems for how a project/programme will systematically and reliably store, manage and access M&E data.
- **Direct recipients.** Countable recipients of services from a Federation provider at the delivery point.
- **Effectiveness.** The extent to which an intervention has or is likely to achieve its intended, immediate results.
- **Efficiency.** The extent to which results have been delivered in the least costly manner possible – a measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.
- **End line.** A measure made at the completion of a project/programme (usually as part of its final evaluation), to compare with baseline conditions and assess change.
- **Evaluation.** An assessment that identifies, reflects upon and judges the worth of the effects of what has been done. “An assessment, as systematic and objective as possible, of an ongoing or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfillment of objectives, developmental efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision-making process of both recipients and government.”
- **Ex-post evaluations.** Conducted sometime after implementation to assess long-term impact and sustainability.
- **External or independent evaluation.** Conducted by evaluator(s) outside of the implementing project/programme team, lending it a degree of objectivity and often technical expertise.
- **Final evaluation.** A summative evaluation conducted (often externally) at the completion of project/programme implementation to assess how well the project/programme achieved its intended objectives.
- **Financial monitoring.** Tracks and accounts for costs by input and activity within predefined categories of expenditure.
- **Formative evaluations.** Occurs during project/ programme implementation to improve performance and assess compliance.
- **Generalizability.** The extent to which findings can be assumed to be true for the entire target population, rather than just the sample population under study.
- **Goal.** As a term used in the hierarchy of objectives for the M&E log frame, a goal refers to the long-term result that an intervention seeks to achieve (even if it may be beyond the scope of an individual project/programme to achieve on its own).
- **Impact.** The positive and negative, primary and secondary long-term effects produced by an intervention, directly or indirectly, intended or unintended.
- **Impact evaluation.** Focuses on the effect of a project/programme, rather than on its management and delivery. Therefore, they typically occur after project/programme completion during a final evaluation or an ex-post evaluation.

- **Independent evaluation.** See “external evaluation”.
- **Indicator.** As a term used in the M&E log frame, an indicator is a unit of measurement that helps determine what progress is being made towards the achievement of an intended result (objective).
- **Indicator tracking table (ITT).** A data management tool for recording and monitoring indicator performance (targets, actual performance and percentage of target achieved) to inform project/programme implementation and management.
- **Indirect recipients.** Recipients that cannot be directly counted because they receive services apart from the provider and the delivery point.
- **Information dissemination.** Refers to how information (reports) is distributed to users.
- **Inputs.** As a term used in the hierarchy of objectives for the M&E log frame, inputs refer to the financial, human and material resources needed to carry out activities.
- **Internal or self-evaluation.** Conducted by those responsible for implementing a project/programme, typically being more participatory and reinforcing ownership and understanding among the project/programme team.
- **Joint evaluation.** Conducted collaboratively by more than one implementing partner, and can help build consensus at different levels, credibility and joint support.
- **Logical framework (log frame).** A table (matrix) summarizing a project/programme’s operational design, including: the logical sequence of objectives to achieve the project/programme’s intended results (activities, outputs, outcomes and goal), the indicators and means of verification to measure these objectives, and any key assumptions.
- **M&E plan.** A table that builds upon a project/programme’s log frame to detail key M&E requirements for each indicator and assumption. Table columns typically summarize key indicator (measurement) information, including: a detailed definition of the data, its sources, the methods and timing of its collection, the people responsible, and the intended audience and use of the data.
- **Meta-evaluation.** Used to assess the evaluation process itself, such as: an inventory of evaluations to inform the selection of future evaluations; the synthesis of evaluation results; checking compliance with evaluation policy and good practices; assessing how well evaluations are disseminated and utilized for organizational learning and change, etc.
- **Midterm evaluation.** A formative evaluation that occurs midway through implementation.
- **Monitoring.** The routine collection and analysis of information to track progress against set plans and check compliance to established standards. It helps identify trends and patterns, adapt strategies and inform decisions for project/programme management.
- **Objective.** As a term used in the log frame, objectives refer to the terms used in the left column of the log frame summarizing the key results (theory of change) that a project/programme seeks to achieve: inputs, activities, outputs, outcomes and goal.
- **Organizational monitoring.** Tracks the sustainability, institutional development and capacity building in the project/programme and with its partners.
- **Outcome.** As a term used in the hierarchy of objectives for the M&E log frame, outcomes refer to the primary results that lead to the achievement of the goal (most commonly in terms of the knowledge, attitudes or practices of the target group).

- **Output.** As a term used in the hierarchy of objectives for the M&E log frame, outputs are the tangible products, goods and services and other immediate results that lead to the achievement of outcomes.
- **Participatory evaluations.** Conducted with the beneficiaries and other key stakeholders, and can be empowering, building their capacity, ownership and support.
- **People reached.** Direct and indirect recipients and people covered by the services, separated by service areas.
- **Precision.** The extent that data measurement can be repeated accurately and consistently over time and by different people.
- **Primary data.** Data is collected directly by the project/programme team or specifically commissioned to be collected for the project/programme.
- **Problem analysis.** Used to get an idea of the main problems and their causes, focusing on cause-effect relationships (often conducted with a problem tree).
- **Process (activity) monitoring.** Tracks the use of inputs and resources, the progress of activities and the delivery of outputs. It examines how activities are delivered – the efficiency in time and resources.
- **Programme.** A set of coordinated projects implemented to meet specific objectives within defined time, cost and performance parameters. Programmes aimed at achieving a common goal are grouped under a common entity.
- **Project.** A set of coordinated activities implemented to meet specific objectives within defined time, cost and performance parameters. Projects aimed at achieving a common goal form a programme.
- **Qualitative data/methods.** Analyses and explains what is being studied with words (documented observations, representative case descriptions, perceptions, opinions of value, etc). Qualitative methods use semi-structured techniques (e.g. observations and interviews) to provide in-depth understanding of attitudes, beliefs, motives and behaviours. They tend to be more participatory and reflective in practice.
- **Quantitative data/methods.** Measures and explains what is being studied with numbers (e.g. counts, ratios, percentages, proportions, average scores, etc). Quantitative methods tend to use structured approaches (e.g. coded responses to surveys) that provide precise data that can be statistically analysed and replicated (copied) for comparison.
- **Real-time evaluations (RTEs).** These are undertaken during project/programme implementation, typically during an emergency operation, to provide immediate feedback for modifications to improve ongoing implementation.
- **Relative.** The extent to which an intervention is suited to the priorities of the target group (i.e. local population). It also considers other approaches that may have been better suited to address the identified needs.
- **Reporting.** The process of providing analysed data as information for key stakeholders to use, i.e. for project/programme management, donor accountability, advocacy, etc. Internal reporting is conducted to actual project/ programme implementation; it plays a more crucial role in lesson learning to facilitate decision-making – and, ultimately, what can be extracted and reported externally. External reporting is conducted to inform stakeholders outside the project/programme team and implementing organization; this is important for accountability.

- **Results.** The effects of an intervention (project/ programme), which can be intended or unintended, positive or negative. In the M&E log frame, the three highest levels of results are outputs, outcomes and goal.
- **Results-based management (RBM).** An approach to project/programme management based on clearly defined results and the methodologies and tools to measure and achieves them.
- **Results monitoring.** Tracks the effects and impacts – determines any progress towards intended results (objectives) and whether there may be any unintended impact (positive or negative).
- **Review.** A structured opportunity for reflection to identify key issues and concerns, and make informed decisions for effective project/programme implementation.
- **Risk analysis.** An analysis or an assessment of factors (called assumptions in the log frame) that affect the successful achievement of an intervention's objectives. A detailed examination of the potential unwanted and negative consequences to human life, health, property or the environment posed by development interventions.
- **Sample.** A subset of a whole population selected to study and draw conclusions about the population as a whole. Sampling (the process of selecting a sample) is a critical aspect of planning the collection of primary data. Random (probability) samples are quantitatively determined and use statistics to make more precise generalizations about the larger population. Purposeful (non-random) samples are qualitatively determined and do not use statistics; they often involve smaller, targeted samples of the population and are less statistically reliable for generalizations about the larger population.
- **Sample frame.** The list of every member of the population from which a sample is to be taken (e.g. the communities or categories of people – women, children, refugees, etc).
- **Secondary data.** Data that is not directly collected by and for the project/programme but which can nevertheless meet project/programme information needs.
- **Source.** The origin (i.e. people or documents) identified as the subject of inquiry for monitoring or evaluation.
- **Stakeholder.** A person or group of people with a direct or indirect role or interest in the objectives and implementation of an intervention (project/programme) and/or its evaluation.
- **Stakeholder complaints and feedback analysis.** A means for stakeholders to provide comment and voice complaints and feedback about services delivered.
- **Summative evaluation.** Occurs at the end of project/programme implementation to assess its effectiveness and impact.
- **Sustainability.** The degree to which the benefits of an intervention are likely to continue once donor input has been withdrawn. It includes environmental, institutional and financial sustainability.
- **SWOT analysis.** Conducted to assess the strengths, weaknesses, opportunities and threats of an organization, group or people (i.e. community), or an intervention (project/programme).
- **Target.** As a term used in M&E indicator tracking, a target is the intended measure (quantity) set to achieve an indicator.

- **Target group/population.** The specific individuals or organizations for whose benefit an intervention (project/programme) is undertaken.
- **Terms of reference (ToR).** Written document presenting the purpose and scope of the evaluation, the methods to be used, the standard against which performance is to be assessed or analyses are to be conducted, the resources and time allocated and reporting requirements.
- **Thematic evaluation.** Focuses on one theme, such as gender or environment, typically across a number of projects, programmes or the whole organization.
- **Total people covered.** People that are targeted by a programme for which the benefit is not immediate but from which the target population can benefit if an adverse event occurs (e.g. early warning system).
- **Triangulation.** The process of using different sources and/or methods for data collection. Combining different sources and methods (mixed methods) helps to reduce bias and crosscheck data to better ensure it is valid, reliable and complete.
- **Validity.** As a term used in evaluation methodology, it refers to the extent to which data collection strategies and instruments measure what they intend to measure. Internal validity refers to the accuracy of the data in reflecting the reality of the programme, while external validity refers to the generalizability of study results to other groups, settings, treatments and outcomes.
- **Variance.** As a term used in M&E indicator performance measurement, it is the difference between identified targets and actual results for the indicator – the percentage of target reached (actual/target). For example, if ten communities were targeted to participate in a community assessment but the actual communities conducting an assessment were only five, the variance would be 50 per cent (five communities/ten communities = 50 per cent).
- **Volunteering.** An activity that is motivated by the free will of the person volunteering, and not by a desire for material or financial gain or by external social, economic or political pressure.
- **Volunteers.** People that have volunteered at least four hours during the annual reporting period