Monitoring and Evaluating For Results in Civil Engineering Projects

Engr. Akwenuke O. Moses Fnse, Fnice, Ph.D

P.O.Box 2139 Warri

Submitted: 05-05-2021 Revised: 18-05-2021 Accepted: 22-05-2021

ABSTRACT: Monitoring for results gives the policy and decision makers the necessary better data system for planning and the decision making process. The data will thus provide evidence on performance which will then necessitate any changes that may be observed for a particular project, policy or programme in setting goals and objectives, reporting to parliament and programme all other stakeholders, managing the projects, programmes and policies and finally, the allocation of resources. Monitoring is the process of routine gathering of information on projects, programmes and or policies, it is the collection of information to check performance against outcome and indicators, monitoring is the regular observation of and recording of activities of all the partners taking place in a project, programme or policy.

Evaluation information is needed to address important questions that generate appropriate results such as the basis for attribution and causality for change, how are the evidences of how changes are coming about, what are the strengths and weaknesses in the design of the project, programme, or policy. The intent of evaluation is to incorporate lessons learned into the decision making process.

KEYWORDS: Policy, decision-makers, data system, decision-making process, evidence on performance, allocation of resources, budgetary resources, monitoring activities, periodic assessment, indicator outcome (output impact).

I. INTRODUCTION

Result-based monitoring involves a continuous process of collecting and analyzing of information to establish or weigh how effective or how well a programme, project or policy is performing with respect to an expected result. It demonstrates whether a policy, programme or project is doing well towards achieving its stated

outcomes, targets or goals. Monitoring systems demonstrates whether results have been achieved as compared to an activities-based system (work plan) that looks at whether the activities are or were completed in a timely and appropriate order or manner which do not specify whether or not outcomes have been achieved.

Evaluation by definition is the assessment of a planned, or ongoing or completed intervention in order to find out its relevance, impact or goal, sustainability, effectiveness and efficiency. Evaluation and monitoring support each other. This means that a result-based monitoring and evaluation system requires building an information and analysis system having monitoring and evaluation components.

Monitoring Types and Levels

The whole of the society is experiencing the use of available safe drinking water nonstop for a reasonable long-term, wide spread improvement on the life of the people in the society.

There may not be enough availability of water for use by the stakeholders through functional outputs, that is, there are observed intermediate effects of output on all stakeholders.

Observed or available end products or services as a result of effective and efficient use of inputs via activities such as water work infrastructures. Tasks and strategies to transform inputs on work plans to output leading to achieving results.

- *Financial (government, NGO, Donors, Organizations.
- *Human (all stakeholders, consultants, staff, personnel)
- *Material resources (all materials needed to start activities)
- *Input means to commence activity on a project, programme or policy.

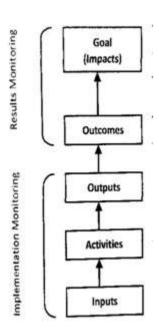


Fig.l Result-based Monitoring Types

Both implementation and results monitoring are important in tracking results. The means and strategies (i.e., the inputs, activities and expected outputs found in annual work plans) to be possibly used to achieve a stated outcome is tracked by implementation monitoring. The use of management tools such as budgetary resources, personnel and activity planning tools, e.g., the giant chart or work programme chart supports the means and strategies. Implementation is all about how well available inputs and activities are used to

achieve expected outputs, but we must align these outputs with the results of the organization hopes to achieve over time. Result-based monitoring on the other hand explains and involves the regular collection of information on how well and effectively a programme, project or policy is performing. It also gives an insight and demonstration as to whether a project or program is tending towards achieving its stated goals and expected impacts.

Table 1: Result Monitoring Example

Outcome Statement	Provision of Water Works Infrastructure	Eradication of Water Borne Diseases
Policy Monitoring	Decreasing the non-availability of water works infrastructures, i.e., increasing availability of water works	All water works must be treated against water borne diseases
Program Monitoring	Stakeholders participation in safe guarding water works infrastructures	Stakeholders' participation in ensuring that all water works are treated otherwise report to the authorities and should not be used.
Project Monitoring	Information on how well, quantity and quality of all water works with respect to implementation and results.	Information on the number of people suffering from water borne diseases.

In a given scenario of a result monitoring efforts by a government or organization, the lessons that may be drawn from such a scenario experiences could include the following:



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net ISSN: 2395-5252

- A Single unit should be created to be responsible for both performance monitoring and resource allocation to enable a strong link between both to be forged.
- A single unit should be created to be responsible for carrying out activities and monitoring performance if performance is intended to influence management.
- Both units of performance monitoring, management and resource allocation must work together for accountability possibility and enabling improvements in efficiency and effectiveness.

Mortality rate due to use of effected water by reasons of water borne diseases is reduced.

All diseases as a result of water borne are reduced including children mortality hence all end users health is improved.

To reduce incidence of water borne diseases such as gastrointestinal or of any other such as water borne diseases by at least 30% in or over a three years' target plan.

- To improve the availability of safe water for drinking
- Ensure that alt chemicals and processes of water treatment are available
- Encourage boiling of borehole water where water works are unavailable

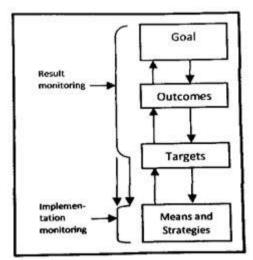


Fig. 2 How are Implementation Monitoring and Results Monitoring Linked?

The Link between Means and Strategies, Targets, Outcome and Impact. Defining specific Links between Implementation Monitoring and Results Monitoring

The above clearly illustrates the links between means and strategies, targets, outcome and impacts and this clearly defines the specific links between implementation monitoring and result-based monitoring.

The means and strategies used by organization to properly and professionally ensure the use of inputs effectively in order to achieve

expected outputs and then outcomes and impacts (goals) is called annual work plans. Fig. 2 below shows how outcomes and targets link to annual work plans including the nonstop continuous flow of information up and down the system.

In the figure, it is observed that since targets are interim, efforts of achieving our outcomes and impacts, implementation monitoring of means and strategies should be effected to help achieve every target.

Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net ISSN: 2395-5252

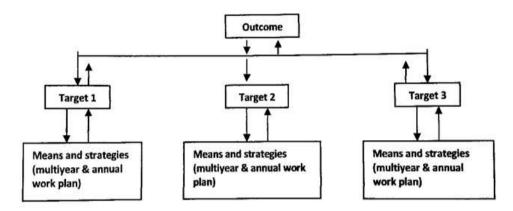


Fig. 3 Relationship between Implementation Monitoring and Results Monitoring

Principles in Building a Monitoring System: Principles involved in building a results-based monitoring system include the following:

- Results information are needed at the project, programme and policy levels.
- Results information must and should move vertically and horizontally in the organization which sometimes presents political challenges.
- Results information demand at each level needs must be identified.
- Responsibility for the system at each level needs must be cleared regarding; what data are collected and from what source, when data are collected and for how frequent, how data are collected and what methodology, who collects data, who reports data and for whom data are collected. In answering these six questions, which are about responsibility for the systems, it is important to be clear and precise as possible.

Every Result-based Monitoring System has Needs

The needs of every monitoring system are four basic elements of OMMC - ownership, management, maintenance and credibility.

 Ownership: These are the people demanding for the project, programme or policy and they are usually the end user beneficiary. Without ownership, stakeholders' willingness to invest time and resources in the system will be pretty difficult and impossible. The system needs strong political champion who can help to ensure ownership of the system and who can stress that good performance data should be and must be initiated/generated, shared, accurately reported and properly reported.

- Management: Management answers and establishes the who manages the system, how will the system be managed, where will the system be managed and which is critical to the sustainability of the system. Management of monitoring and evaluation system requires creating the right incentives and that sufficient financial, human and technicalresource for the organization, managers and staff should be provided to enable the carrying out of monitoring activities and tasks.
- Maintenance: To prevent the system from decaying and collapsing, maintenance of monitoring system is essential and like any other government information system of budgeting and auditing, monitoring system must be continually managed.
- Credibility: Monitoring systems need to report all data whether bad or good for it to be seen to be credible.

Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net IS

ISSN: 2395-5252

Reliability, Validity and Timeless (the Data Quality Triangle)

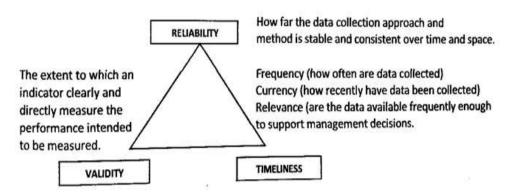


Fig. 4 The Data & Quality Triangle

Implementation and Result indicators' data Collection system is expected to possess the criteria of; reliability, validity and timeless as shown above. The absence of any of these criteria will make or render the monitoring system not to be credible. Modern public management requires good and timely information, real-time, continuous data that decision makers can use to lead/manage projects, programmes, and policies.

Reporting and Analyzing Performance Data: It is certain that the more frequent the data measurement overtime is, the more certain one can be of trends, direction and results in analyzing and reporting data.

It is also certain that analyzing and reporting data leads and yields to important, continuous information about the status of projects, programs, and policies. It leads to clues provisions problems that on are noticed implementation which can then create opportunities to consider improvements in implementation strategies. We must therefore provide answers to: Did the indicator get better or worse? Was there a straight-line progression or wave? This way, the monitoring system strategy must include a very clear data collection and analysis plan explaining details of the following:

- Units of analysis; water-works district, community boreholes, which town or region.
- The sampling procedures.
- Data collection instruments to be used.
- How frequent the data are collected.
- What methods are used for data analysis and interpretation?
- Who are the people responsible for collecting information/data?
- Are there partners in data collection process?

- Who is responsible for analyzing, interpreting and reporting data?
- Who needs the information or data?
- What are the dissemination procedures?
- Are findings followed up?

Data Collection Instruments and Procedure must be Pre-tested or Piloted

In building an effective monitoring system, it is vital and important for data collection instruments and procedures to be pre-tested and piloted. In pretesting or piloting data collection instruments and procedures, key points are:

- To find out how good a data collection approach is, the data collection approach needs to be tested.
- Before data collection is fully commenced, pre-testing provides a way to improve instruments or procedures to be used for the data collection.
- Pilot several strategies in case of doubt over data collection methods and results.
- To avoid mistakes that will make the organization loose time, money and reputation, pre-testing should not be avoided.

Complementarities of Monitoring and Evaluation

Monitoring and evaluation complement each other by their functions:

- Sequential complementarities where monitoring information generates questions to be answered by evaluation.
- Sequential complementarities where evaluation information generates questions to be answered by monitoring which gives rise to



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net ISSN: 2395-5252

- new areas or domains of monitoring to be initiated.
- Information complementarities where both monitoring and evaluation use same available data but posing different questions and framing different analysis.
- Interactional complementarities where resultbased managers use monitoring and evaluation in tandem partnership in directing initiatives.

Monitoring and Evaluation System

 A system to involve PPPP Cycle that begins with situation analysis and needs assessment, identification of key issues, defining goals and objectives, action planning, project implementation, monitoring activities, periodic assessment or evaluation to determine achievement of project goals and objectives and generating lessons for future.

- A process and it involves the use of certain tools and methodologies to gather data for learning. It involves multi-stakeholders, especially the primary stakeholders (communities).
- A tool for PPPP management to ensure that actual or real needs are identified and addressed (assessment and planning), target outputs are accomplished as planned (monitoring) desired outcomes and impacts are attained as expected from goals and objectives and benefits are sustained (evaluation and learning).
- A tool ensuring (PPPP) programme, project, people, policy are Relevant, Appropriate, Efficient, Effective, Impactable and Sustainable (RAEEIS).

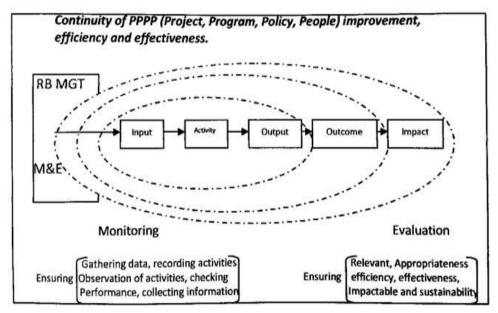


Fig. 5 Implementing Programs/Projects/Policies for RB Management System

Uses of Evaluation

The value of an evaluation comes from its use and so the complementarities roles of monitoring and evaluation systems provided organizations and government's officials the useful and timely information to manage and guide government resources and interventions. This research will be concerned with only the pragmatic uses of evaluation relevant to organization and government only, that is, in considering the uses of evaluation, emphasis here is on the practicable, expedient and convenient uses instead of theoretical, idealistic, matter of fact or realistic

considerations. Some uses of evaluation information for organization and government are:

- Making Resource Allocation Decisions: Successful or unsuccessful programmes, project, or policies in terms of output or outcomes are established through evaluation information and hence the answers to what extent of redesigning or whether to drop an initiative are provided.
- Solving Causes of a Problem: Evaluation information is used to correct the application of a wrong programme, project or policy in solving an existing problem, or poorly design project or programme or when a project,

DOI: 10.35629/5252-030511971210 Impact Factor value 7.429 | ISO 9001: 2008 Certified Journal Page 1202



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net

em.net ISSN: 2395-5252

programme or policy is wrongly implemented. Evaluation information may also reveal that the intervention is of no relevant consequence to the existing problem. In summary, evaluation information reveals the need to reexamine a presumed cause of a PPPP problem and what alternative counter measures could be needed.

- Highlights and identify likely emerging problems that require the attention of government and organizations as in the case of communities' without safe drinking water.
- Evaluation information supports decision making on competing or best alternatives through options of more than one strategy for and by organizations and governments. An instance is that an organization could address the problem of youth unemployment through engaging them as security personnel for ensuring safety of water works infrastructures and equipments and special apprentice programmes that qualified them as operation and maintenance technicians of water works structures and equipments.
- Evaluation information supports public sector reform and innovation which can provide evidence to citizens and all stakeholders that reform efforts are working. An instance is that as a result of engaging the youths in securing the water works structures, vandalization of water works structures is drastically reduced, water is now seen to be more available for use, youths restiveness is reduced.
- Evaluation information builds consensus on the causes of a problem and how to respond to the causes of the conditions leading to how to create an appropriate response. Evaluation information can provide evidence of the difference between causes and effects (causality), and the evidence of the relevance, appropriateness, efficiency, effectiveness and impacts of previous responses and that everything that happened has a cause.

In a summary, evaluation information uses are:

Are we doing the right thing? Organizations, government officials and their partners can use evaluation information to focus on broad political strategy and design issues of PPPP.

Are we doing things right? Operational and implementation issues and procedures.

What are we learning? Are there better ways of approaching or solving the problems revealed by evaluation information?

Evaluation Information for Result-based Management Experts

- In strategizing, are we considering or doing the right things as in the justification or rationale for and behind the decisions. Do we have a clear idea of the theory of why we are deciding to have a change?
- During operations, are things or activities being done the right way regarding effectiveness in achieving expected outcomes, efficiency in optimizing resources and stakeholders' satisfaction at the end of the operation?
- At the end of the operation or of an assessment, what better ways have we learned regarding alternative options, best most allowable practices and lessons learned?

Result-Based Management Questions that Evaluation is used to Provide Answers

- An outcome of evaluation exercise can help provide answers to different types of questions asked by Result-based Management practitioners. The questions are not limited to the following:
- Descriptive: Here, a situation, process or an event is carefully described, for instance, describing the content of the information regarding the prevention of water borne diseases program in all oil producing communities of the BRACED States of Balyesa, Rivers, Akwa-lbom, Cross River, Edo and Delta States.
- Normative or Compliance: The expert in result-based management wants to know if a project, programme or policy has met the approved criteria. For instance, have we met national drinking water standards and if yes, how many days of the year?
- Correlational: here the RBM practitioner wants to know the link between two situations, conditions or scenarios but may not necessarily specify difference between causes and effects (causality) as may be in the case of the relationship between the water borne diseases rate in a particular community and whether water works are chemically or otherwise treated against water borne diseases.
- Impact or Causality or Cause and Effect: The experts want to know and establish a causal relation between two situations or conditions. For example, has the provision of water works infrastructure brought about the availability of safe drinking water to the citizens and all stakeholders in the region.



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net

- ISSN: 2395-5252
- **Program Logic:** The RBM practitioner wants to assess whether the programme, project or policy designed has correct causal sequence as may be in the case of thequestion, has the provision of water scheme in DESOPADEC mandate areas of oil producing communities yielded the effect of safe drinking water?
- Implementation or Process: Here the reality of whether implementation occurred as planned is addressed, for instance, it could give an answer to the question; was a programme. project or policy to improve the quality of water supplies in the mandate areas of DESOPADEC been implemented as intended?
- **Performance:** Result-based management experts want to know and establish links between inputs, activities, outputs, outcomes and impacts by asking to know/establish if planned outcomes and impacts from a water provision policy are being achieved.
- Relevant Appropriate use of Policy, Project or Programme Tools: This is when the

manager want to establish whether the appropriate instruments are or were selected or was used to achieved aims or goals, for instance, an expert result-based manager wants to know if government or organization provided the right tool for participatory community monitoring (PCM) stakeholders to monitor for outcome in a water provision project, policy or programme.

At What Time Evaluation Needed?

At certain periods or when problems are being envisaged is when to gather evaluative information at all phases of management of policies, programmes and projects. Without obvious concern on ground, evaluation may be periodical for purposes of answers to "how far" or budgetary or resource allocation and to support management decision making. When to deploy resources to gather evaluation information may include the following periods apart from the above stated times.

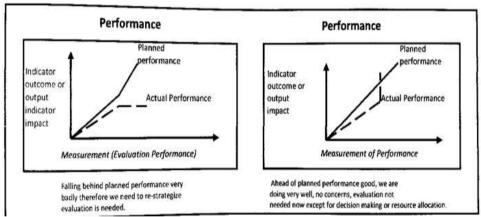


Fig. 6 Diverging Differences between Planned performance and Actual Performance

Source: Graph from Jody Zall Kusek and Rayc, Rist's ten steps to a result-based Monitoring and Evaluation System, 2004 Page 118, fig. 7.2 and detailed explanation by this research.

Is the Design and Implementation Outcome Friendly?

The contributions of programme, project or policy's design and implementation of outcomes can be established or differentiated by the use of evaluation information.



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net ISSN

ISSN: 2395-5252

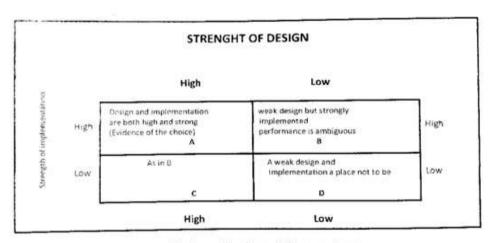


Fig. 7

Impacts of Design and Implementation on outcomes which evaluation is used to determine

Resource Allocation: When government is in need of performance-based budget system evaluation of all ongoing projects, programmes or policies are needed though it is important and ideally realistic to accept the fact that evaluation information may not override and negate institutional, personal or political agendas that will surely play out across policies, programmes or projects but allowance must be made by management to analyze what is or is not working efficiently and effectively, even as trade-offs in budget personnel allocations, and political conflicts among competing demands are real and many.

Confusing Conflicts and Outcome Evidence: Among the questions that evaluation can help answer when similar projects, programmes or policies are reporting different outcomes are inclusive of:

- Are there strong variations in implementation which is resulting in divergence?
- = Are individuals not understanding the intentions and rationale of the effort, therefore different guidance are provided leading to different approaches?

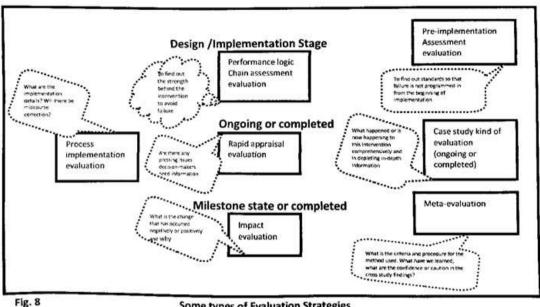
 Are measures in reporting having so much differences hence comparisons are invalid.

How many Types of Evaluation Exist?

In responding to different kinds of evaluation information questions concerning projects, programmes and policies of organizations and governments, since there are different types of evaluation, the appropriate particular evaluation type will be needed to provide answers to the asked questions. It is important to have understanding of what is required to know from evaluation because there is no 'one particular most accurate' evaluation template equating various types of questions. It is neither beneficial nor advantageous for any participatory monitoring and evaluation crew to get involved with a mismatch between the question asked and the information provided. Hence each type of evaluation is appropriate to a specific type of evaluation questions. Below are some broad evaluation strategies that can be used to generate evaluation suitable information against matching suitable evaluation questions regarding plans, design and implementation of projects, programs and policies of governments and organizations.

Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net

ISSN: 2395-5252



Some types of Evaluation Strategies

Performance Logic Chain Assessment

This evaluation strategy when used, determines the strength and logic of the causal model behind the policy, programme, and project. The deployment and sequencing of the activities, resources or policy initiatives that can be well used to bring about a demand change in an existing condition is addressed by the causal model. The major purpose for this type of evaluation is to avoid failure that will occur from a possible weak design that will not be of any success contributing in achieving the desired outcomes.

The Pre-Implementation Assessment

This evaluation strategy addresses the issue of construction or project, program and policy implementation standards before mobilization to site. The following may reveal the standards envisage:

- A well-articulated definition of the objectives so that outcome can be stated in measurable
- A coherent and very credible implementation plan that provides clear evidence of how implementation is to proceed and how successful implementation can distinguished from poor implementation.
- Clear rationale for the deployment of resources and to be commensurate with the requirements for achieving stated outcomes.
- The intention of pre-implementation assessment evaluation is in ensuring that failure is not programmed in right from the beginning of implementation.

Process Implementation Evaluation

Evaluation here is about implementation details. It reveals what is implemented or not implemented but planned for either at milestone, phase or output or outcome levels. It reveals whether what was planned for is eventually what took place or there were adjustments in the intervention. It reports what happened to costs and budgetary provision as to whether they were appropriate as provided. Is stipulated time of completion period on board? What was or what are the staff capacity, capability and technical strength? How appropriate is the availability of required financial resources, facilities, staff and most importantly, political support? were or are there unanticipated or untended outputs or outcomes emerging from the implementation's milestone or phase completion levels of project, programme or policy. The information from process implementation evaluation can be used to make any mid-course amendment or corrections towards achieving desirable outputs, outcomes, eventually goals.

Rapid Appraisal Evaluation

In the result-based monitoring and evaluation system, rapid appraisal is definitely invaluable and immeasurable to development practitioners because it allows for quick, real-time assessment and reporting which provides decision makers with immediate feedback on the progress of given intervention by organizations governments whether a project, programme or



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net

ISSN: 2395-5252

policy. Rapid appraisal is used to provide timely, relevant information to decision-makers on very pressing issues faced by the organization or government regarding a programme, project or policy by using data collections methods that may include the following: key information interviews, focus group interviews, community interviews, structured direct observation and inspection and surveys. This type of evaluation may not be entirely reliable, credible or validitable due to individual bias, preconception, lack of quantitative, data that can be readily verified. But in all these disadvantages, rapid appraisals can make rapid reporting possible and help flag the need for continuous corrections.

Case Study Evaluation

This is a type of evaluation which depicts in-depth information concerning a project, programme or policy. This can be achieved by using the following ways:

- * Case studies can illustrate a more general condition of an intervention.
- * Case studies can be exploratory when little is known about an intervention problem.
- * Case studies can focus on critical instances where high and strong success or very terrible failure of programme or project are possible.
- * Case study can also examine selected instances of implementations in-depth.
- * Case study can look at programme effects that emerge from an initiative.
- * Case study can provide for a wider understanding of a condition if the results of multi-case studies over time are summarized and cumulative understanding emerges.

Impact Evaluation

An impact evaluation exercise intends to find out the changes that occurred and who or what this change can be ascribed or attributed to. Impact evaluation is aimed at the attribute of documented change but it is a pretty difficult type of evaluation more so that it is an exercise that takes place at the end of a milestone, phase or completion of an output, outcome or goal intervention.

It is advised that it will be better to plan for impact evaluations before the intervention begins because of the fact that units that will receive the intervention and those that will not and the establishing of baseline information on all units must be determined.

Meta-Evaluation

It is the cross-study findings by establishing the criteria and procedures for systematically looking across existing evaluations by way of summarizing trends and to generate confidence or how to be careful or be cautious. It is a learning exercise that establishes the level of confidence and present knowledge of an intervention whether project, programme or policy.

How Do We Trust an Evaluation? What are the Characteristics of a Quality Evaluation?

If we must rely on result-based monitoring and evaluation system information from an evaluation exercise, the information must be qualitative, quantitative, trustworthy, accurate, not poor or seen to be biased, reliable and must be near error free or impeccable. The discussed below are some of the characteristics of quality evaluation:

No Impartiality: Evaluation information must be free from political or any bias and deliberate distortions. All relevant information but not just that information that will impress management or one specific toga' and the information's weakness and strength should be so well described.

How well is its Usefulness: the information should not only be relevant, it should also be timely, must address the question where answers are needed, the packaging should be that to be understood and desired by management.

Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net ISSN: 2395-5252

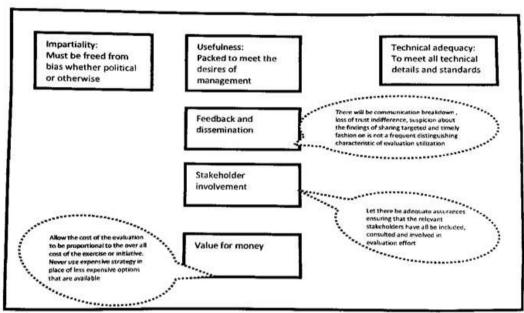


Fig. 9

Features of Quality Evaluation

Technical Details and Adequacy: All relevant and useful details and standards must be met by the information due to an evaluation exercise and should include accurate design; appropriate correct sampling procedures, the questionnaires and interview guides should be accurately worded, appropriate statistical content complete or psychoanalysis. Conclusion and recommendation of any outcome of evaluation package should be adequately and convincingly supported.

Stakeholder Inclusion: All relevant stakeholders should be inclusive of the all political and technical details of the evaluation exercise if they are to trust the information, take ownership of the findings of the exercise, agree with management to incorporate what has been learned into all ongoing and to be proposed or proposed new projects, programmes and policies of the organization.

Cost consciousness: There must be value for money. Costs involvement must be within what is needed to gain information that is desired and the data to be gathered must not be expensive and must be what will be used appropriately.

Feedback: There must be feedback and dissemination of information arising from an evaluation exercise. For findings not to be doubted, suspected, or for findings to be trusted and accepted by all stakeholders, the following must be adhered to:

- Valuation information must be appropriately shared and made available to all that need to use it and have relevance for it.
- Evaluation must be planned to systematically disseminate information but not to assume that by making available the report without defence, the work is done.
- Effort must be made to target the information accordingly and appropriately to the right audiences where the information is usefully needed and intended.

The Role of Evaluation in the Result-based Monitoring and Evaluation System wrapped up with Examples of Evaluation in the Water Sector

The role of evaluation in the development of a result-based monitoring and evaluation system includes but not limited to the following:

- Evaluation information is relevant in all phases of design through planning, input, activities, output, outcome and impact of a policy, programme, or project cycle life.
- Evaluation information can be very well useful to the needs of the public sector and private sector if it is trustworthy, technically adequate; questions are adequately addressed, timely, made available and appropriately presented.
- Evaluation and monitoring are both complementary are both needed in a resultbased management system.



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net

Table: 2 Evaluation Examples in the Water Sector

Outcome Statement	Water systems privatization	Water works infrastructural development and provision
Policy Evaluation	Comparing Performance Model approaches to privatizing public water supplies and demand.	Establishing and assessing the spread or otherwise, the provision of water works models.
Programme Evaluation	Comparing and assessing corruption for financial or fiscal management of government systems.	Assessing how safe are water works infrastructures and equipments in the community and to find out why?
Project Evaluation	Assessment of improvement in water free collection rates and also consequent improvement in corruption as it relates to fee collection in at least two regions or nationality.	Assessment of improvement in safe water drinking and consequent reduction of water borne diseases.

II. CONCLUSION

Monitoring and evaluating for results in civil engineering projects is more than the usual traditional input-output. It gives guide to policy and decision-makers on how to analyze outcomes and impacts. Even as important as the traditional monitoring and evaluation approach is, it still remain a part of the result base chain, it tells about the inputs and outputs of a project, programme or policy but not the effectiveness of a known project, policy or programme. Governments, stakeholders and the citizenry have their interest and concerns on whether goals, impacts and outcomes are being achieved and hence etc. such as institutions, governments, legislators, the private sector, NGO citizens' group, civil servants, stakeholders in the engineering development programmes or policies are interested and concerned with monitoring and evaluating for results that will normally bring about tangible accountability, transparency and expected desired outcomes and impacts from government and civil engineering organization's projects, programmes and policies.

Support for governments or organizations' programmes or projects whether political or financial are now tied to how well they are able to monitor and implement expected good programmes and policies, very effective use of resources and delivering real desired results to the people. Therefore, to be able to initiate acceptable and

appropriate policies, to be able to manage resources and finance, and to be able to fulfill their campaign promises and mandates to the people, organizations and governments are now more than ever before keying into results-based monitoring and evaluation systems monitoring for results in one hand entails both implementation monitoring and results monitoring which involves the putting together of partnerships of attaining common outcomes through data collection and analysis of performance data. On the other hand, evaluating for results information inform policy makers and programmes or project managers whether intervention is or are leading to the expected desired results.

ISSN: 2395-5252

III. RECOMMENDATIONS

- 1. In order to achieve a strong link between performance monitoring evaluation and resource allocation only one uniform department of the MDA or organization should be responsible for both performance monitoring for results and reserve allocation.
- Only the approved unit or department of the organization should be involved in carrying out activities and monitoring or evaluation performance if performance is intended to influence policy makers, decision makers and management of the MDA, government or organization.

DOI: 10.35629/5252-030511971210 Impact Factor value 7.429 | ISO 9001: 2008 Certified Journal Page 1209



Volume 3, Issue 5 May 2021, pp: 1197-1210 www.ijaem.net ISSN: 2395-5252

- 3. The units or departments that are responsible for performance evaluation and monitoring / resource allocation and management must work together to enable monitoring efficiency and effectiveness and for transparent accountability.
- 4. Encourage credibility of monitoring and evaluation systems.
- 5. Encourage achieving monitoring and evaluating for results through formation of partnership and stakeholder involvement.
- 6. The monitoring and evaluating for results system strategy should include data collection and analysis plan which must also include follow up on findings.
- 7. Characteristics of quality evaluation must be free from impartiality, must be relevant / timely, must be technically adequate and must be that with information needed so as to have value for money spent or to be spent.

REFERENCES

- [1]. Emosaire, M. (2009) "Monitoring and Evaluation being Paper Presented on the Occasion of A 2-Day Workshop on Public Accounts Management"...
- [2]. Micro-Projects Programme (MPP3) in the Niger Delta: Rivers, Bayelsa and Delta States (2004) "Final Report of the Mid-Term Review".
- [3]. The European Commission (2012) "From Policy to Action: An Outline of EU External Aid for Sustainable Development.
- [4]. The Administrative Staff College of Nigeria; Workshop on Government Budgeting (2012).
- [5]. Gravevine Consulting Ltd. (2011)
 "Executive Training on Result —Based
 Monitoring and Evaluation"
- [6]. Viessman, W. Jnr. And Welty, C. (1998) Water Management Technology and Institution.
- [7]. Africa Network for Environment and Economic Justice (ANEEJ) (2011) "Strengthening Monitoring, Evaluation and Reporting System for DESOPADEC Staff"
- [8]. Woodward, J. (1985) "International Project Management Year Book 1985 L— Project Management Education and Training"
- [9]. Bauni, W. (1985) "International Project Management year Book 1985 — Project Cycle"
- [10]. Gabriel, E. (1985) "international Project Management Year Book 1985 — Project Management in Contracting and Consulting"

- [11]. Richman, L. (2002) "Project Management Step-by-Step".
- [12]. Closing the Gaps in Project Management Systems — Systems Gap Working Party Report of the Association of Project Management (1994).
- [13]. Meredith, J. IR., Samuel, and Mantel, J. R. (2003) "Project Management A Management Approach".
- [14]. Lewis, J. P. (2001) "Fundamentals of Project Management".
- [15]. Oxley, R. and Poskitt, J. (1980)
 "Management Techniques applied to the Construction Industry".

DOI: 10.35629/5252-030511971210 Impact Factor value 7.429 | ISO 9001: 2008 Certified Journal Page 1210