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Influence of Baseline Data on Performance of Result Based Monitoring and Evaluation System of Government Projects in Rwanda

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Abstract: ***This study aims at assessing the influence of baseline data on performance of result-based monitoring and evaluation of Kirehe Watershed Management Project. The study used descriptive research design. The target population was 247 project staff and direct beneficiaries. A sample size of 133 respondents was selected. The research used questionnaire for data collection. Data were analyzed quantitatively using descriptive and inferential statistics. Data presentation was done in forms of table in order to produce meaningful results. The study proved a positive and significant relationship between baseline data and performance of Result-Based Monitoring and Evaluation of Kirehe Watershed Management Project. The correlation analysis (0.739) revealed that performance of results-based monitoring and evaluation is influenced at the level of 73.9% by baseline data. The study recommends that the managers and coordinators of government funded projects should establish a system that enables the project team and other users to access baseline data so serve as point of reference for their routine activities; that the project team should take into consideration the baseline data and utilize them so that they may achieve the purpose of result-based monitoring and evaluation; and that the ministries and other government institutions should use baseline data as their basis to assess and measure the performance of the projects they are implementing.***

Keywords: Baseline data, Project, Monitoring, Evaluation, Results-Based Monitoring and Evaluation System

1. Introduction

Result Based Monitoring and Evaluation (BM&E) calls for attention to be given to baseline information before launching a project. The baseline data is built on the performance indicators and outcome of the project. According to Armstrong et al (2013), baseline data serves as the basis for future assessment of how efficiently the activity is being implemented and the subsequent results achieved.
According to Bamberger, baseline data is defined as a set of facts collected to serve as a basis for comparison with what may be collected later. Baseline information is generated from monitoring and evaluation exercises, rapid assessment studies, surveys as well as from secondary data sources. This information becomes crucial to setting realistic targets and in project appraisal. He asserts also that even though it is almost always planned to conduct baseline data for results monitoring and probably impact evaluations, the organizations do not often collect baseline data, or the collectionis done after the project starts or sometimes never conducted (Bamberger, 2010). Mwania (2015), affirms that the results of a baseline survey can show how some aspects of a project need more focus than others.

Krzysztof et al (2011) argues that without a baseline, it is not possible to know the impact of a project.IFRC (2011) states that the challenges related to baseline data collection are in most of times associated with the limited financial resources, thelack of appreciation of the importance of this information or the fatigue caused by the expertise needed to accomplish such data collection.

2. Statement of the Problem

Although it is very critical for any project to start by collecting baseline data, it was demonstrated that a good number of organisations do not embrace this practice as a precondition for their projects. As a result, the achievement of the purpose of Result-Based Monitoring and evaluation is hampered as it is almost impossible to measure changes without reliable information showing the point of departure for a given project.

Globally, Lapointe (2010) observes that there is an absence of baseline information in most of sectors. In some projects baseline data are collected after the project starts or even never conducted at all. Furthermore, baseline findings are rarely used for monitoring and evaluation.

In Rwanda, a study done by ODI (2010) revealed that though there is an improvement in statistical data collection, the quality of baseline information varies among the ministries and are linked with the level of donor's support. The same report found that there is a significant data gap especially related to poverty information as the only survey that provides such kind of information is organized every five years while timely data are required to allow measurement of the progress in specific sectors or regions.

The evaluation report on the performance contracts in Rwanda by African Development Bank, states that thereare inadequate skills in monitoring and evaluation at decentralized level which hamper the performance of the governments programs (AfDB, 2012). This is associated with the identified gap at district levels particularly in developing clear M&E frameworks and limited skills in data collection (GoR, 2015), which consequently results in the absence or limitation of the availability of baseline information.

The existing gaps in baseline data and data management were also confirmed by MINIRENA (2014)which

recognizes that apparent inadequate capacities to collect, analyze and consolidate information across all institutions but particularly in districts as well as limited quality and accuracy of data are among the key challenges that hamper the performance of M&E system in Rwanda.

Furthermore, the available data including the findings and recommendations from different programs/projects evaluations as well as audits are not taken into fully consideration among different government institutions as highlighted by the Office of the Auditor General (AOG reports, 2017 & 2018), while these data should help to take corrective measure or serve as baseline for the future programs.

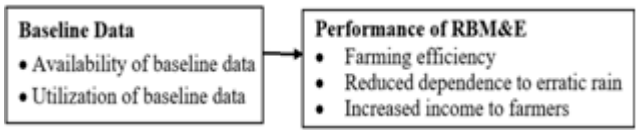
Since in Rwanda, there are few reports have been talking about baseline data issues and as there are no many studies done previously in the area of baseline data and performance of M&E, it is against this background that this study seeks to assess the influence of baseline data on the performance of Results-Based Monitoring and Evaluation of Government Projects in Rwanda by considering the case of Kirehe Watershed Management Project in Eastern Province of Rwanda.

3. Literature Review

The study was based on theory-based evaluation. This theory allows for profound understanding of the workings of a program or project. However, this does not necessarily imply that it assumes simple linear cause-and effect relationships. It is the most used directions in evaluation among other with the capacity to recognize the program or project elements and their coherence (Cojocaru, 2013). This theory is mostly used while performing an analysis in an evaluation.

Theory Based Evaluation is described as an approach which gives specific attention to theories of policy makers, programme managers and stakeholders that are logically linked together for instance assumptions and hypotheses, etc. These theories can express an intervention logic of a program, project or policy. It emphasises articulating the intervention theory, to test it, to improve it if needed, and to analyse whether, why or how programmes and projects or policies cause anticipated or realized outcomes (Leeuw, 2012). In other words, the theory gives the answer to what worked by determining the changes caused from an intervention and why and how by analysing the process that allowed the changes to happen. Moreover, the theory-based evaluations can be utilized together with any other type of evaluation such as impact evaluation, case study evaluation or realistic evaluation. (INTRACT, 2017).

4. Conceptual Framework



5. Empirical review

Baseline data refer to the initial collection of data which serves as a basis for comparison with the subsequently acquired data. It is very critical for any project to begin by carrying out a baseline survey which can be either a large general community contextual analysis or a specific small group survey. Baselines generate information that becomes a starting point in measuring the performance and setting realistic targets (Kusek, 2014). To measure the extent to which changes have been achieved in the target beneficiaries, baseline information of their needs is a must. Shapiro (2014) confirmed that it is difficult to measure the impact of a project if there were no data showing how the situation looked like at the beginning of the project.

RBM&E calls for attention to be given to baseline information before implementing a project. The baseline data is based on the performance indicators and outcome of the project. However, most of organizations do not embrace this practice as a precondition for their projects; instead they start project implementation without it. Jones et all (2013) reported that many organizations do not carry out baseline survey at the beginning of the project. It is done after the project starts or even never conducted at all. Conincket al(2013) supports that claim by stating that baseline surveys are expensive, and organizations consider them to have little value. He further states that baseline findings are rarely used for monitoring and evaluation. Instead, many organizations conduct baseline surveys in compliance with donor requirements but do not apply the data for project monitoring and evaluation purposes. If the baseline has not been carried out, Kamau et al (2015) advises that it can be reconstructed but it is challenging. Shapiro (2014) suggests two measures which may be considered as damage control. Either selecting and continuing to monitor control group simultaneously with target beneficiaries or carrying out a retrospective or backward survey. Connick (2013) suggests that for organizations to make use of baseline data, it should always be updated to reflect the current situation. This way, it can be useful for monitoring results and gives staff a fresh look, periodically, at their situations, enabling them to make necessary adjustments.

6. Research Methodology

The researcher used descriptive research design. The study population was 200 direct beneficiaries and 47 project staff under Kirehe Watershed Project which in total equaled to 247 people. A sample size of 133 respondents was used since it cannot be easy to collect data from all beneficiaries and staff of the project. In collection of primary data, questionnaires were used as main instruments of data collection. The questionnaires were designed and distributed to the respondents by the researcher himself. Data presentation were done in forms of table in order to produce meaningful results.

7. Results and Findings

This study sought to assess the influence of baseline on performance of result-based monitoring and evaluation system of Kirehe Watershed Management Project.

The study results in Table 1, on the collection and avail baseline data to be the basis of result based monitoring and evaluation revealed that, 67.7% of respondents strongly agreed that in Kirehe Watershed Management Project they collect and avail baseline data to be the basis of result based monitoring and evaluation, 28.6% of respondents agreed that in the Kirehe Watershed Management Project they collect and avail baseline data to be the basis of result- based monitoring and evaluation while 3.8 % of the respondents were undecided to the statement.

Table 1: Collection and avail baseline data

Statement	Frequency	Percentage	Cumulative Percentage
Strongly Agree	90	67.7	67.7
Agree	38	28.6	96.2
Undecided	5	3.8	100.0
Total	**133**	**100.0**	**100.0**

Source: Field Data (2019)

The results in Table 2 indicate that 37.6% of respondents agreed that in Kirehe Watershed Management Project; they always utilize the baseline data to achieve the purpose of result based monitoring and evaluation, 22.6% of respondents strongly agreed that in Kirehe Watershed Management Project; they always utilize the baseline data to achieve the purpose of result based monitoring and evaluation, 21.1% of respondent disagreed that in Kirehe Watershed Management Project; they always utilize the baseline data to achieve the purpose of result based monitoring and evaluation while 18.8% of respondents strongly disagreed that in Kirehe Watershed Management Project; they always utilize the baseline data to achieve the purpose of result based monitoring and evaluation.

Table 2: Utilization of the baseline data

Statement	Frequency	Percentage	Cumulative Percentage
Strongly Agree	30	22.6	22.6
Agree	50	37.6	60.2
Disagree	28	21.1	81.2
Strongly Disagree	25	18.8	100.0
Total	133	100.0	100.0

Source: Field Data (2019)

Study results on using baseline data to assess and measure performance, as shown in Table 3below, demonstrated that 52.6% of respondents agreed that this in Kirehe Watershed Management Project, baseline data are used as basis to assess and measure the performance of the project; 37.6% strongly agreed while only 9.8% of respondents were undecided.

Table 3: Use of baseline data to assess and measure performance

Statement	Frequency	Percentage	Cumulative Percentage
Strongly Agree	50	37.6	37.6
Agree	70	52.6	90.2
Undecided	13	9.8	100.0
Total	133	100.0	100.0

Source: Field Data (2019)

The results in Table 4, demonstrate that the mean value for the first, second and third statements are 1.36; 2.76 and 1.72 which are respectively rounded off to 1 (the code for strongly agree) for the collection and avail baseline data, 2 (the code for agree) on the utilization of baseline data to assess and measure performance and 3 (the code for undecided) on the use of baseline data. The standard deviation of all statements is above 0.5 meaning that respondents' answers on these statements were far different from the mean, which implies that the respondents' answers to the statements were heterogamous. This signifies that respondents' views on the above statement were independent.

Table 4: Descriptive Statistics on baseline data and its effect on performance of results-based monitoring and evaluation

Indicators	N	Mean	Std. Deviation
Collect and avail baseline data	133	1.36	.555
Utilize the baseline data	133	2.76	1.483
Usage of baseline data to assess and measure performance	133	1.72	.632
Valid N (list wise)	133		

Source: Field Data (2019)

The study findings in table 5 below revealed that the correlation between baseline data and performance of RBM&E of Kirehe Watershed Management Project was at 0.739 meaning that there is influence of baseline data at the level of 73.9% which prove a significant relationship between baseline data and the performance of RBM&E of Kirehe Watershed Management Project. If the researcher considers the level of significance which is 0.05, there is a significant relationship between these variables because their p-value (0.000) is statistically significant at 5% level of significance.

Table 5: Correlation between baseline data and performance of RBM&E

Variable		Baseline data	Performance of RBM&E
Baseline data	Pearson Correlation	1	.739*
	Sig. (2-tailed)		.000
	N	133	133
Performance of RBM&E	Pearson Correlation	.739*	1
	Sig. (2-tailed)	.000	
	N	133	133

Source: Field Data (2019)

8. Discussion of the results

The study findings demonstrated that there is a high and positive influence of baseline data on performance of results based monitoring and evaluation of Kirehe Watershed Management Project as the results of correlation revealed that, the correlation between baseline data and performance of RBM&E of Kirehe Watershed Management Project was at 0.739 meaning that baseline data influence performance of results based monitoring and evaluation at the level of 73.9% which prove a significant relationship between baseline data and performance of RBM&E of Kirehe Watershed Management Project.

The findings agree with Phiri (2015), who found that baseline surveys are rewarding on project performance in the

sense that they give motivation to the project team to move the status quo towards the set targets.

9. Conclusion and Recommendations

The study found that in Kirehe Watershed Management Project baseline data are collected and availed to be the basis of RBM&E, baseline data are utilized to serve the purpose of RBM&E and are used as basis to assess and measure the performance of the project. The study concluded a significant relationship between baseline data and performance of RBM&E.

The research recommends that the managers and coordinators of government funded projects should establish a system that enables the project team and users to access baseline data so that they may be a point of reference for their routine activities, that the project team should also take into consideration the baseline data and utilize them so that they may achieve the purpose of result-based monitoring and evaluation and that the ministries and other government institutions should use baseline data as their basis to assess and measure the performance of the projects they are implementing.

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