International Journal of Humanities and Social Science Invention (IJHSSI)
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org ||Volume 10 Issue 12 Ser. I ||December, 2021 || PP.46-56

Diagnosis of the Indicator Methodology forZambia's Whole-of-Government Monitoring and Evaluation System

[1]Vincent Kanyamuna (PhD), [2]Derica Alba Kotzé (Prof.), [3]Paul Munsanda, [4]Kangacepe Zulu

[1&3]Department of Development Studies, School of Humanities and Social Sciences, University of Zambia, Lusaka, Zambia
[2]Department of Development Studies, College of Human Sciences, University of South Africa, Pretoria, South Africa
[4]University of Bolton, Greater Manchester, England

Corresponding author: vkanyamuna@unza.zm

ABSTRACT: *Performance indicators have become a success factor in delivery of development interventions, be they projects, programmes or policies. It is common as well as demanded that every intervention within the development arena encapsulates within its design key performance indicators (KPIs) that will be used to track progress and measure any possible changes—positive or negative and these are compared to overall goals and objectives. For that reason, governments, bilateral and multilateral development agencies, including the civil society and the private sector alike invest in formulating credible KPIs. This research study aimed at investigating the indicator methodology architecture for Zambia's whole-of-government M&E system. Thus, as far much as possible, the paper provides a diagnostic analysis, highlighting crucial aspects that require replication (because they are good) and others needing urgent improvement (because they are undesired). Zambia's WoGM&ES will improve by committing focused resources (skills, funds, technology, equipment) towards strengthening the indicator methodology elements of selection, quality, disaggregation, selection criteria, priority setting, causality chain and methodologies used. Once these criterial elements are facilitated well, a country's system for M&E will become transformed to measure development progress and the information from it used to inform decision-and-policy-making processes. In the current state, the Zambian government's M&E system has a predominantly weak indicator methodology architecture but possesses great potential for transformational improvement.*

KEYWORDS:*Indicators, KPIs, results, monitoring, evaluation, whole-of-government monitoring and evaluation system, measurement, Zambia*

Date of Submission: 08-12-2021 Date of Acceptance: 23-12-2021

I. INTRODUCTION

Today, monitoring and evaluation (M&E) of development projects, programmes and policies has become more common as agencies seek to be more accountable, transparent and demonstrate tangible results to the people they serve and represent. It is practically rare to find an intervention without a component of M&E embedded within its designs. With good M&E, implementers and funders as well as beneficiaries believe that achieving the desired changes is made tenable through a process of regular and systematic tracking, measuring, feedback, learning and sustaining of results.

Importantly, M&E uses performance indicators to measure the progress made towards objectives under implementation for a given intervention. An indicator is understood to be the measure of quantity or quality of what is being implemented and provides significant information about how best to execute development interventions. In the absence of indicators, it becomes practically impossible to determine the extent of achievement and one may not be able to make critical decisions pertaining to improvement. Therefore, development projects and programmes are best designed with a clear indicator system which is a critical component of an M&E plan or framework. To that extent, it is important to mention that the process of coming up with performance indicators for any intervention should be prioritised by every organisation or government. There are so many aspects of indicator system management that need to be taken into full account when implementing a successful whole-of-government M&E system (WoGM&ES). The methodology of coming up with national level indicators to help track and measure the extent of development achievement is a mammoth responsibility for agencies.

The Zambian government has been implementing an ambitious WoGM&ES for close to a decade now. Essentially, a WoGM&ES refers to a robust system that not only provides an integrated and all-encompassing framework of M&E practices, principles and standards to be used throughout government institutional structures, but also functions as an apex-level system for information and draws from the component systems in a framework meant to deliver essential M&E products tailored to satisfy information needs of users[1, 6].Zambia articulates and implements its development aspirations through defined planning documents and processes—the 25 year national long-term vision (currently the Vision 2030); five year national development plans (NDPs)(currently the Seventh NDP); 3 year rolling medium term expenditure frameworks (MTEFs); and 1 year annual national budgets. In addition, there are various other decentralised development plans at line ministry, provincial and district levels—these plans help to operationalise the high level long-term plans. In terms of performance indicators, these documents, particularly the NDPs contain M&E frameworks which articulate the indicator system to be used to measure progress against a specific plan.

Given the indicator arrangements for Zambia's WoGM&ES, this research study was premised to assess how the indicators in the NDPs were developed and how credible they were in measuring the development goals for the country. Such an assessment becomes a fundamentally key undertaking towards knowing where gaps are located and channel improvements in identified aspects.

II. METHODOLOGYAND ANALYTICAL FRAMEWORK

The goal of this research study was to determine to what extent the indicator methodology for Zambia's WoGM&ES was developed and how suitable it was in assisting the measurement of progress against the implementation of National Development Plans (NDPs). Two methodological frameworks were adopted for data collection and analysis. Firstly, a diagnostic checklist, comprising of eight (8) components related to the assessment of the status of methodological aspects of Zambia's WoGM&ES was used. The 8 components of the checklist include (i) Selection of indicators, (ii) Quality of indicators, (iii) Disaggregation, (iv) Selection criteria, (v) Priority setting, (vi) Causality chain (vii) Methodologies used, and (viii) Data collection. See Table 1 for details. There are questions for each component.

Secondly, the five-point LEADS scoring system was usedfor results analysis and discussion. The scoring system has five-point categories, namely: L (Little action: 1), E (Elements exist: 2), A (Action taken: 3), D (largely Developed: 4), and S (Sustainable: 5). The diagnostic checklist and the LEADS scoring system were used conjointly. Thus, using the questions from the diagnostic checklist, data collection was done using semi-structured interviews through self-administered (survey) questionnaires, focus group discussions (FGDs) and key informants. Rigorous document review was also used.

Table 1: Monitoring and Evaluation Methodology Assessment Framework for country level

	Topic	Component Question
1	Selection of indicators	Is it clear what to monitor and evaluate? Is there a list of indicators? Are sector indicators harmonised with the PRSP indicators?
2	Quality of indicators	Are indicators SMART (specific, measurable, achievable, relevant, time-bound)? Are baselines and targets attached?
3	Disaggregation	Are indicators disaggregated by sex, region, socio-economic status?
4	Selection criteria	Are the criteria for the selection of indicators clear? And who selects?
5	Priority setting	Is the need acknowledged to set priorities and limit the number of indicators to be monitored?
6	Causality chain	Are different levels of indicators (input-output-outcome-impact) explicitly linked (program theory)? (vertical logic)
7	Methodologies used	Is it clear how to monitor and evaluate? Are methodologies well identified and mutually integrated?
8	Data collection	Are sources of data collection clearly identified? Are indicators linked to sources of data collection? (horizontal logic)

Adapted from Holvoet and Renard, 2005, 2011

Further, Table 2 below is the detailed presentation of the LEADS scoring system. Note that the five components under the diagnostic checklist correspond to the LEADS scoring system. Equally, the questions for both matrices are also corresponding. This made the data collection, collation, analysis and discussion possible.

Table 2: LEADS scoring system for assessing indicator methodology for country level M&E system

Component	Question	Scores				
		1	2	3	4	5
Selection of	Is it clear what	- No list of	- Different lists	- A list of	- A list of	- A list of

Component	Question	Scores				
		1	2	3	4	5
indicators	to monitor and evaluate? Is there a list of indicators? Are sector indicators harmonised with the NDP indicators?	indicators is available.	of indicators circulate. - Indicators are not harmonised with the PRSP indicators.	indicators is available, but changing regularly. - Indicators are not harmonised with the PRSP indicators.	indicators is available, but changing regularly. - Indicators are harmonised with the PRSP indicators. or - A list of indicators is available and does not change yearly. - Indicators are not harmonised with the PRSP indicators.	indicators is available and does not change yearly. - Indicators are harmonised with the PRSP indicators.
Quality of indicators	Are indicators SMART (specific, measurable, achievable, relevant, time-bound)? Are baselines and targets attached?	- Indicators are not SMART. - Baselines and targets are not attached (or only baselines or targets).	- (Most of the) indicators are not SMART. - Baselines or targets are attached. or - (Most of the) indicators are SMART. - Baselines or targets are not attached (to all indicators).	- (Most of the) indicators are SMART. - Baselines and targets are attached, but not to all indicators.	- Most of the indicators are SMART. - Baselines and targets are attached.	- All indicators are SMART - Baselines and targets are attached.
Disaggregation	Are indicators disaggregated by sex, region, socio-economic status?	- None of the indicators are disaggregated	- Some indicators are disaggregated by sex, region, socio-economic status, but not in annual progress reports.	- Some indicators are disaggregated by sex, region, socio-economic status, also in annual progress reports.	- Indicators are disaggregated by sex, region, socio-economic status, but not (all of them) in annual progress reports.	- Indicators are disaggregated by sex, region, socio-economic status, also in annual progress reports.
Selection criteria	Are the criteria for the selection of indicators clear? And who selects?	- Selection criteria are not clear. - It is not clear who was involved in the selection process.	- The criteria for selection are not clear. - It is clear who is involved in the selection process.	- The criteria for selection are clear. - It is not clear who is involved in the selection process.	- The criteria for selection are clear. - It is clear who is involved in the selection process. - Not all relevant data collectors and users are involved in the selection process.	- he criteria for selection are clear. - It is clear who is involved in the selection process. - Relevant data collectors and users are involved in the selection process.
Priority setting	Is the need acknowledged to set priorities and limit the number of indicators to be monitored?	- The need to set priorities and limit the number of indicators to be monitored is not acknowledged . - The number of indicators is not limited.	- The need to set priorities and limit the number of indicators to be monitored is acknowledged . - The number of indicators is not limited.	- The need to set priorities and limit the number of indicators to be monitored is not acknowledged . - The number of indicators is limited.	- The need to set priorities and limit the number of indicators to be monitored is partly acknowledged . - The number of indicators is limited.	- The need to set priorities and limit the number of indicators to be monitored is acknowledged . - The number of indicators is limited.

Component	Question	Scores				
		1	2	3	4	5
Causality chain	Are different levels of indicators (input-output-outcome-impact) explicitly linked (program theory)? (vertical logic)	- Different levels of indicators are not specified	- Different levels of indicators are specified, but these are not linked.	- Different levels of indicators are specified and linked, but not explicitly.	- Different levels of indicators are explicitly linked, but not for all indicators.	- Different levels of (all) indicators are explicitly linked.
Methodologies used	Is it clear how to monitor and evaluate? Are methodologies well identified and mutually integrated?	- Methodologies are not identified - Methodologies are not mutually integrated.	- Some methodologies are identified. - Methodologies are not mutually integrated.	- Methodologies are well identified - Methodologies are not mutually integrated.	- Methodologies are well identified. - Methodologies are mutually integrated, but not satisfactorily.	- Methodologies are well identified. - Methodologies are mutually integrated and integration is satisfactorily.
Data collection	Are sources of data collection clearly identified? Are indicators linked to sources of data collection? (horizontal logic)	- Sources of data are clearly identified. - Indicators are not linked to sources of data collection.	- Sources of data are clearly identified. - Some indicators are linked to sources of data collection.	- Sources of data are clearly identified - Indicators are not linked to sources of data collection	- Sources of data are clearly identified. - Some indicators are linked to sources of data collection.	- Sources of data are clearly identified. - All indicators are linked to sources of data collection.

III. PRESENTATION OF FINDINGS

Table 3presents a summary of results of the methodology issues for Zambia's whole-of-government monitoring and evaluation system (WoGM&ES).The diagnostic results are presented showing the LEAD scores according to the eight (8) components of assessing the methodological appropriateness of a country level M&E system.

Table 3: Summary presentation of diagnostic results

COMPONENT	TOPIC	SCORES
METHODOLOGY		**2.9**
	Selection of indicators	2 Elements exist
	Quality of indicators	3 Action taken
	Disaggregation	3 Action taken
	Selection criteria	3 Action taken
	Priority setting	2 Elements exist
	Causality chain	3 Action taken
	Methodology used	3 Action taken
	Data collection	4 Largely developed

Source: Diagnostic study score results compiled by author(2019)

Overall, the diagnostic results indicated that the methodology component of Zambia's WoGM&ES is fairly more developed with a score of 2.9 (rounded to 3) out of a possible total of 5.Notably, five sub-topics scored 3 points each (i.e. quality of indicators, disaggregation, selection criteria, causality chain and methodologies), signifying that important M&E actions had been taken in this dimension across the WoGM&ES. The data collection sub-component scored the highest (4 points), meaning it was the most developed under the methodology dimension, while the selection of indicators and priority setting sub-components scored 2 points, meaning that only elements of M&E existed for those aspects of the methodology dimension.

In all, the presentation of these results opened up a number of discussion points. The positive aspects and the gaps would both stimulate opportunities to identify and strengthen aspects of Zambia's WoGM&ES—especially with respect to improving the methodological dimension. Taking time to discuss these aspects in the assessment would generate critical action points in the bid to implement a successful WoGM&ES for the Zambia's public sector. In that regard, the following section attempts to address that concern in a more coherent and consistent, yet analytically in-depth way.

IV. DISCUSSION AND ANALYSIS

To appreciate the details of the findings, a full discussion and analysis of the results follows in this section. For consistency and in conformity with the study design, the eight (8) components are used as headings. The scores from the LEADS system are also used in the analytics.

Selection of indicators

A score of 2.0 was given to this sub-dimension, entailing that elements existed for the selection of indicators. In the NDPs and Annual Progress Reports (APRs), what to monitor was clear from programmes that used stipulated performance indicators. However, what to evaluate was clear only from the indicator information level, and which programmes and projects were earmarked for evaluation was not indicated in the NDPs or other plans. At national level, a list of indicators was available and it was reported that these indicators were not easily changed yearly. Those national-level indicators were said to be embedded in NDPs. However, at line ministry, provincial and district level, the availability of indicators was fragmented. In some cases, performance indicators were missing altogether. Further, changes in indicators were reported to arise at times owing to continuous data unavailability. The Revised Sixth National Development (R-SNDP) and Seventh National Development Plan (7NDP) contained clearly selected and prioritised indicators in their implementation plans (IPs), especially for output level indicators. Key Performance Indicators (KPIs)were reported to have been agreed upon by stakeholders and documented in NDPs.

IPs (usually referred to as volume II of NDPs) are documented indicators that cut across all development spheres of focus in the NDP. Lists of indicators in the 7NDP IP were on KPI, outcome and output level. These were generated from programmes and projects. The unapproved draft national performance framework (NPF) also had listed KPIs linking NDP level indicators with Vision 2030 strategic objectives.

Quality of indicators

A score of 3.0 was given for the quality of indicators sub-dimension, denoting that action was taken. In addition, there was a weakness with sector-level indicators. Several line ministries did not have clear lists of indicators, making it difficult to determine what to monitor and evaluate. Equally, there were no clear lists of performance indicators at provincial and district level. Apparently, these were still under development by stakeholders in provinces and districts. Because of the weak indicator system at line ministry level, indicator harmonisation with NDP level indicators seemed problematic. Sector Performance Frameworks (SPFs) were still being developed in a few line ministries (most of them did not have performance frameworks). Until these are well developed, harmonisation of indicators between those in sectors and NDPs will remain a challenge. Thus, the harmonisation of indicators between those in sectors, provinces, districts and NDPs was weak and, in some cases, non-existent. However, efforts were there to strengthen or bridge this gap through encouraging sectors to participate in selecting indicators in NDPs and maintaining some at sector level. Nevertheless, at provincial and district level, apparently no indicators existed. Hence, linking development progress and performance with the NDPs at those levels was reported to be a challenge.

In terms of performance indicators, most of them were SMART, that is specific, measurable, achievable, realistic and time bound. To a large extent, indicators in the NDPs were developed in a SMART way. Those in the IPs of R-SNDP and 7NDP were SMART to some extent. However, some indicators were pitched too low at process (activity) level instead of being pitched to measure high-level development results at outcome and impact. In addition, the availability of baseline information for most indicators in the NDPs was mixed. In most cases, baselines and targets were attached and fairly well articulated, but unfortunately for other indicators no such information was included. In the 7NDP for instance, some indicators did not have baselines, making it difficult to measure NDP progress over time [2]. Most indicators had meaningful baselines and targets. However, there were concerns about the realistic nature of some baseline and target information. In some instances, there was too much under-targeting and in other cases over-targeting. Weak indicator systems were found at line ministry level and this posed challenges in ascertaining whether all the indicators were SMART. Also, the lack of indicators at provincial and district level rendered the review and appreciation of whether the indicators were SMART difficult.

Disaggregation

A score of 3.0 was given, indicating that action was taken in indicator disaggregation. The assessment endeavoured to establish whether the indicators in the WoGM&ES were disaggregated by sex, region, socio-economic status, etc. Some indicators were found to be disaggregated by sex, region, socio-economic status and other categories of measurement. For instance, some indicators in NDPs [Fifth National Development Plan (FNDP), Sixth National Development Plan (SNDP), R-SNDP and 7NDP] were disaggregated by sex and region, and others by socio-economic status. Nonetheless, disaggregated data and information were problematic, despite the availability of disaggregated indicators. Also, those indicators in the NPF were disaggregated in a number of

appropriate forms (that is, sex, region, socio-economic status). However, in the NDPs and NPF, some indicators were not appropriately disaggregated by sex, region and socio-economic status [9,11,16,17]. Specific provincial and district level indicators did not exist, yet they were key to measuring poverty reduction programmes and projects. Therefore, this mixed status of indicator disaggregation in the NDPs and other frameworks made performance measurement and the full appreciation of the impact of development interventions a challenge.

Selection criteria

The selection criteria sub-dimension was given a score of 3.0, meaning action was taken. The diagnostic checklist involves assessing the selection criteria for indicators in the WoGM&ES. This aspect involved these questions: Are the criteria for the selection of indicators clear? And who selects the indicators? The criteria for indicator selection were said to be clear to some extent, while it was not fully clear who was involved in the selection process. Not all relevant data collectors and users were involved in the selection process of indicators at various levels. The criteria, however, were broadly understood to be participatory, inclusive and done at all levels of development results.

In developing the IPs for the NDPs, mention was made in NDPs, interviews and FGDs that only ad hoc arrangements existed in terms of who was involved in the selection of indicators. Line ministries, research institutions, Central Statistical Office (CSO), civil society, donors, academia, etc, were among the instrumental stakeholders in indicator selection for the NDPs [18,20,29]. Similarly, several consultations were undertaken in developing and selecting indicators in the NPF [34,40]. Further, the review established that the participation of non-state actors was only 'fair' and not too clear. For instance, a few non-state actors, predominantly the UN system in Zambia, were involved in the indicator selection process for the 7NDP. The UN's main interest was to ensure that 7NDP domesticated the Sustainable Development Goals (SDGs) by including indicators for tracking in the entire implementation process [70, 81]. There was also mention among respondents that development partners (DPs) or donors who participated (especially the UN group) in the 7NDP process put too much emphasis on the adoption of SDG indicators and less demand on unique country-specific indicators. Further, the lack of or weak participation of provincial and district level stakeholders in indicator selection remained a significant gap in Zambia's WoGM&ES.

Priority setting

A total score of 2.0 was given for the priority setting sub-dimension, denoting that elements exist. Priority setting in the development and selection of indicators to be included in the WoGM&ES and NDPs was another critical aspect. The key question was: Is the need acknowledged to set priorities and limit the number of indicators to be monitored in Zambia's WoGM&ES? These were partly acknowledged in the documents and in the interviews and FGDs. However, the number of indicators in 7NDP for example was found to be too high, even when it was said to be a prioritised list (that is, 848 at output level, 144 at outcome level & 75 KPIs). It is unlikely that large numbers of indicators could be monitored by overstretched public systems. In most cases, however, it was not really clear whether all the indicators were effectively monitored, and what was done with the monitoring information [13, 19, 35, 52, 71]. However, sector, provincial and district level indicator systems remained weak owing the lack of specific or disaggregated indicators at those levels.

Causality chain

For the causality chain sub-dimension, a score of 3.0 (action taken) was given. The existence of a clear causality chain in the methodology component of the WoGM&ES was assessed. This characteristic forms the basis on which Theory of Change (ToC)is anchored. A diagnosis was made to ascertain the levels of indicators (input-activity-output-outcome-impact) and how they were explicitly and logically linked (or not) horizontally and vertically using programme theory [14-15, 25, 27, 32]. Thus, it was found that various levels of indicators were specified and linked to some extent, but not explicitly so. Succinctly, indicators in 7NDP were defined at three levels of the results chain, that is, output, outcome and impact, with prioritised KPIs. At the same time, sector/institutional indicators were specified at input and activity/process levels (though evidence was weak) with less attention at outcome and impact levels. In addition, the NPF promoted the setting of indicators following the ToC, particularly the complete causality-chain. Thus, the linkages and harmonisation of indicators at various levels was not consistently and coherently presented [2, 8, 33].

However, at provincial and district level, no indicators existed (at least in the context of NDPs). In the 7NDP, the ToC was acknowledged as having informed the plan preparation process. However, there was a lack of details on the complete use of the entire causality chain.

Methodology

The sub-dimension of the methodology was scored with a 3.0, representing that action was taken. Further, the checklist looked at methodologies to determine whether how to undertake monitoring exercises and evaluation processes was clear. Similarly, the identification of appropriate methodologies and determining how these methodologies were mutually integrated was important in the assessment. Clearly identified methodologies to use when undertaking monitoring and evaluation processes, were mentioned to some extent – although this remained mixed. It was acknowledged in 7NDP IP that appropriate methodologies needed to be devised at every level of the causality chain to collect data and information. For example, monitoring methodologies such as field visits, daily entries of data, meetings and reports were proposed as key for success. Others included administrative data collection tools for monitoring information and censuses, surveys and reviews for evaluation findings. Although various methodologies were mentioned, it was not clear whether there was a preference for qualitative or quantitative methods or, better still, mixed approaches. However, the challenge was with the integration of methodologies which was less emphasised, uncoordinated and mixed.

Data collection

A score of 4.0 was given to the data collection sub-dimension. This high score means that the aspect was largely developed. It was gathered from the documents and interviews that clearly identified sources of data were in place – in some cases with indicators linked to sources of data collection. Population-based surveys and day-to-day administrative data from Ministries, Provinces and other Spending Agencies (MPSAs)were identified as sources of data and information for measuring indicators in the NDP and other institutional performance measurements. The main sources of data for the WoGM&ES, among others, were administrative records, budgets, population censuses and household surveys. Administrative data was reported as the most used source because household surveys were expensive and conducted irregularly [3-7, 21-24, 32, 40, 45, 46].

Further, the assessment involved checking whether the WoGM&ES was able to supply quality data and analysis needed by users and to what extent the M&E framework could provide adequate resources and other capacities (finances, skills, etc.) for M&E processes. In addition, the diagnosis assessed the frequency and periodicity of data collection on particular issues. The WoGM&ES was reported not to be fully able to supply the data and analysis needed by users. This was because the national system was not yet developed to those levels (it was still in its infancy). For instance, the system was not available in some MPSAs (no structures, staff, etc.) and Internet connectivity in some parts of Zambia was poor. Equally, the system was reported not to have the capacity to provide resources (finances, skills, equipment, etc.). More training was needed for M&E officers in MPSAs. There were still challenges of low staffing and weak institutional capacities, which the Ministry of National Development Planning (MNDP) expected to be resolved once the National M&E Policy (NM&EP) was approved by cabinet. Also, there was currently too much dependence on DPs for financial and technical support. The periodicity of data collection on particular issues was conducted at different moments. For example, population censuses were held every ten years, various surveys were done every two, four and five years, while the consumer price index (CPI), inflation and trade data were being conducted every month. As for the gross domestic product (GDP), it was collected and computed quarterly and annually.

Other aspects of assessment involved checking the length of time between the reference period and the distribution and use of the data and information. The focus was to ascertain whether this lag was too long, limiting the utilisation of the data for decision making and improvement. Further, checking whether processes and procedures in data compilation adhered to professional and ethical standards was of interest in the assessment. Research data revealed that the time lag between the reference period of data collection and its use was still quite long with some data, taking almost two years from its reference period to the publication time. However, inflation data were published within the month that they were produced. Although a time lag was experienced, there were efforts to improve, since time lags were usually due to delays by MPSAs to provide data. Further, processes and standards in data compilation adhered partially to professional and ethical standards. Often, internationally agreed recommendations and principles were used to compile and analyse data. In those efforts, CSO was reported to be responsible for enforcing the standards. However, Part IV of the 1964 Census and Statistics Act, Chapter 425 (Chapter 127 in the 2016 amended constitution) of the Laws of Zambia was said to be weak and outdated on this aspect of providing enough powers to CSO to enforce adherence by actors to data standards. For that reason, it was reported to be under revision.

The methodological component included the assessment of the availability of arrangements within the WoG-M&E to track poverty-related expenditures. In that regard, government had systems in place to track poverty-related expenditures through the implementation of the Integrated Financial Management and Information System (IFMIS) through the Ministry of Finance (MOF.) To some extent, government institutions had additional forms of public expenditure tracking. The statistical institution (that is, CSO) had a unit that was responsible for tracking public expenditure-based information. Line ministries and other government agencies also had functions of tracking their own expenditure information quarterly and annually. Further, the Office of

the Auditor General (OAG) was reported as being vital to monitoring, tracking and reporting public expenditures.

The roles of central, sector, provincial and district level governments in monitoring and evaluation of decentralised services were also assessed. Focus was on the sorts of data that were collected by each actor at these levels. Administrative data was collected by MPSAs as they undertook their day-to-day activities. Population censuses and household surveys were mostly undertaken by the national statistical institution (that is, CSO). However, some MPSAs were allowed to spearhead undertakings of surveys in collaboration with CSO. Further, the MNDP was reported as doing much of the consolidation and analysis (though this function remained weak within the ministry of planning because of incapacities – financial, skills, staffing levels, etc.).

A number of roles in M&E were played by the central, sector, provincial and district governments as well. Districts were reported as being responsible for monitoring development implementation at district level, and their reports were submitted to provincial level. Likewise, provinces consolidated district-level information and transmitted it to sectors and central government agencies (Cabinet Office, MNDP, etc). Similarly, line ministries compiled the information and sent it to central government, where it was aggregated to obtain a national picture and used by stakeholders. In short, sector, provincial and district governments undertook mostly monitoring exercises, while in a few cases evaluations and their findings or reports were fed into central government, which consolidated and used the results for decision making and to improve further evaluations although evidence of this was weak in the study. Each actor was collecting certain data. District and provincial officers collected mainly performance data (process indicator level information), while sector and national level actors collected indicator data at output, outcome and impact level, mainly through surveys. In other ways, at sector and national level it was mostly administrative and survey data from lower structures, while at province and district levels mostly administrative data was collected. Lack of indicators at provincial, district and to some extent sectors presented a practical challenge to data collection, disaggregation and integration at all levels.

Data aggregation and analysis occurred at various levels – national, sector, provincial and district. MNDP and CSO mainly aggregated national level data in national reports (for example APRs). Aggregation of data was done using statistical software. Some level of analysis was done in relation to the achievement of goals and objectives in the NDP and other national priorities. Methodological aspects included assessing whether there were multiple systems for monitoring and reporting at national, sector, provincial and district level and whether there were incentives to encourage or distort the data. The availability of data deficiencies or gaps was also assessed. There was acknowledgement that multiple systems for monitoring and reporting existed at various levels of government. Since the WoGM&ES was still in its embryonic stage, there were a number of parallel M&E systems with such actors as DPs and individual government agencies (sectors, provinces and districts). These parallel and fragmented stand-alone M&E arrangements were not always compatible with each other. Although this was the case, these systems did not conflict in other aspects (they complemented each other). In some instances, duplications and redundancies were reported. These were coupled with fragmented M&E and statistical arrangements, providing inadequate data and information to users. Further, the current M&E mechanisms were not effective owing to lack of management information systems (MISs) in the institutions that provided data and also irregular surveys for analysis of outcome and impact level performance. Worse still, the data from the WoGM&ES was apparently not available for the complete elaboration and monitoring of the NDP.

There was no evidence of incentives being used to disperse data and M&E information across the WoGM&ES. Instead, linkages between the WoGM&ES and budgetary and public expenditure management systems were weak or, worse, non-existent. At the most, budget performance was currently being analysed annually and of previous year's performance informed the formulation of the subsequent budgets –though reported to be a weak link currently. Data generated from the WoGM&ES was acknowledged as being deficient and gaps existed in many ways: i) Management Information System (MIS) were non-existent in most government institutions, ii) data collection and compilation was not done regularly, and iii) lack of resources to conduct some surveys regularly. Information at KPI and impact levels was available only after major and expensive surveys were undertaken by CSO. Further, the gaps were usually for outcome and impact level indicators, though even for outputs, data took more time to be mobilised by most data providers, which made national reporting challenging and delayed in many instances.

Owing to differences in methodologies and approaches by agencies, data inconsistencies characterised the statistics in the country. However, CSO usually employed intensive training for data collectors, field spot checks, monitored field work, and assessed data during field work. There was acknowledgement that whenever discrepancies in data were found, investigations were effected. This was done through going back in the field or revisiting the definitions, using or consulting other staff or experts that had undertaken similar activities.

V. CONCLUSION

Using the LEADS scoring system, the methodology componentwas rated with a score of 3, signifying action had been taken. It is important to mention that the methodology component of Zambia's whole-of-government M&E system had a number of positive elements. From the diagnosis of the indicator system of the WoGM&ES; the selection of indicators, indicator disaggregation, the selection criteria, causality chain and the use of the methodology were all found to possess characteristics of functional M&E. In fact, the element on data collection was even found to be largely developed, with a score of 4. However, the selection of indicators as well as the indicator priority elements were not fully developed (with a score of 2). The study therefore, has brought out some insights that are critical to informingZambia'spublic sector results-based managementreform agenda. Particularly, the indicator system of any M&E mechanism remains core to the successful crusade of enhancing the accountability and information needs of the country. The findings of this research will be useful to inspire improvements in the identified aspects to an extent where Government and its partners can start resolving many of the issues without waiting any longer.

REFERENCES

[1]. Kanyamuna, V. (2021) "Towards Building a Functional Whole-of-Government Monitoring and Evaluation System for Zambia: The Demand Side." World Journal of Social Sciences and Humanities, vol. 7, no. 3: 83-105. doi: 10.12691/wjssh-7-3-2.

[2]. GRZ. Ministry of Finance and National Planning. 2006. *Fifth National Development Plan 2006-2010: Broad based wealth and job creation through citizenry participation and technological advancement*, Lusaka: Ministry of Finance and National Planning.

[3]. Arora, D. 2013. *Good Governance: A Study of the Concept in Indian Context–Origin of the Concept of Good Governance, Good Governance*, 37(1): 1–16.

[4]. World Bank. 2012. *Improving the Quality of Public Expenditure through the use of Performance Information in Mexico*. IEG, The World Bank, Washington, D.C.

[5]. Hardlife, Z. & Zhou, G. 2013. Utilisation of monitoring and evaluation systems by development agencies: The case of the UNDP in Zimbabwe. *American International Journal of Contemporary Research*, 3(3): 70–83.

[6]. Republic of South Africa. 2008. *Basic Concepts in Monitoring and Evaluation*. Public Service Commission, Pretoria, South Africa.

[7]. Adrien, M.H. 2003. *Evaluation Capacity Development: Guide to Conducting Reviews of Organisations Supplying M&E Training*, ECD Working Paper Series No. 9, The World Bank, Washington, D.C.

[8]. Kanyamuna, V., Phiri, M., Kanenga, H. & Mulonda, M. (2020). "Role of Actors Outside Government in Strengthening the Country Monitoring and Evaluation System in Zambia." *World Journal of Social Sciences and Humanities,* vol. 6, no. 1: 22-29.

[9]. GRZ. Ministry of National Development Planning. *2014 Annual Progress Report for the Revised Sixth National Development Plan 2013-2016: People Centred Economic Growth and Development. Lusaka*: Ministry of National Development Planning.

[10]. Ostrom, E., Gibson, C., Shivakumar, S. & Andersson, K. 2002. *Aid, Incentives, and Sustainability: An Institutional Analysis of Development Cooperation, Workshop in Political Theory and Policy Analysis*, Indiana University, Sida Studies in Evaluation 02/01.

[11]. GRZ. Ministry of National Development Planning. 2016. 2015 *Annual Progress Report for the Revised Sixth National Development Plan 2013-2016: People Centred Economic Growth and Development. Lusaka*: Ministry of National Development Planning.

[12]. Booth, D. 2005. *Missing links in the politics of development: Learning from the PRSP experiment*, ODI Working Paper No. 256. Overseas Development Institute, London.

[13]. Chabane, C. 2013. *The Role of Monitoring and Evaluation in the Public Service, Republic of South Africa—The Presidency Department of Performance Monitoring and Evaluation*. Pretoria, South Africa.

[14]. El Baradei, L. Abdelhamid, D. & Walley, N. 2014. Institutionalising and streamlining development monitoring and evaluation in post-revolutionary Egypt: A readiness Primer. *African Evaluation Journal*, 2(1): 1-16.

[15]. Engela, R. & Ajam, T. 2010. *Evaluation Capacity Development: Implementing a Government-Wide Monitoring and Evaluation System in South Africa*, Working Paper Series No. 21 No. 21. OED, The World Bank, Washington, D.C.

[16]. GRZ. Ministry of Finance and National Planning. 2002. *Zambia poverty reduction strategy paper (2002–2004)*, March 2002. Lusaka: Ministry of Finance and National Planning.

[17]. GRZ. Ministry of Finance and National Planning. 2009. *Mid-Term Review of the Fifth National Development Plan 2006-2010: Broad based wealth and job creation through citizenry participation and technological advancement. Lusaka:* Ministry of Finance and National Planning.

[18]. GRZ. Ministry of Finance and National Planning. 2014. *National Planning and Budgeting Policy: Responsive, transparent, accountable and results-oriented Development Planning and Budgeting processes*. Lusaka: Ministry of Finance and National Planning.

[19]. Brousselle, A. & Champagne, F. 2011. *Program theory evaluation: Logic analysis. Evaluation and Program Planning*, 34(1): 69–78.

[20]. GRZ. Ministry of National Development Planning. *National Monitoring and Evaluation Policy (2019-2023): Results-oriented, evidence-based, integrated and well-coordinated Government-wide Monitoring and Evaluation System for improved development results.* Lusaka: Ministry of Finance and National Planning, 2019.

[21]. Kusek, J.Z., Rist, R.C. & White, E.M. 2004. *How will we know Millennium Development Results when we see them? Building a Results-Based Monitoring and Evaluation System to Give us the Answer*. The World Bank, Washington, D.C.

[22]. Görgens, M. & Kusek, J. 2009. *Making Monitoring and Evaluation Systems Work: A Capacity Development Toolkit*. IBRD World Bank, Washington DC.

[23]. GRZ. Ministry of Finance and National Planning (MOF–Zambia). 2013. *Report on the Performance of the Sector Advisory Groups (SAGs),* Lusaka: Ministry of Finance and National Planning.

[24]. Hickey, S. & Mohan, G. 2008. *The Politics of Establishing Pro Poor Accountability: What can Poverty Reduction Strategies Achieve? Review of International Political Economy*, 15(2): 234–258.

[25]. Holvoet, N., Gildemyn, M. & Inberg, L. 2012. Taking Stock of Monitoring and Evaluation Arrangements in the Context of Poverty Reduction Strategy Papers: Evidence from 20 Aid-Dependent Countries in Sub-Saharan Africa. *Development Policy Review*, 30(6): 749–772.

[26]. Holvoet, N., Inberg, L. & Sekirime, S. 2013. *Institutional analysis of monitoring and evaluation systems: Comparing M&E systems in Uganda's health and education sectors. Working Paprer*, Institute of Development Policy and Management, University of Antwerp.

[27]. Zambia *Monitoring and Evaluation Association. National Evaluation Advocacy and Strategy–2018-2021.* Lusaka, 2018.
[28]. Holvoet, N. & Renard, R. 2005. *Putting the New Aid Paradigm to Work, Challenges for Monitoring and Evaluation, Discussion Paper No. 2.* Institute of Development Policy and Management, University of Antwerp, Antwerp.
[29]. GRZ. Ministry of Finance and National Planning. 2010. *Sixth National Development Plan 2011-2015: Sustained Economic Growth and Poverty Reduction.* Lusaka: Ministry of Finance and National Planning.
[30]. Kanyamuna, V., Mubita, A., Ng'andu, E., Mizinga, C. & Mwale, A. 2018. An Assessment of the Demand-Side of the Monitoring and Evaluation System of the Health Sector in Zambia. *World Journal of Social Sciences and Humanities*, 4(2): 75–86.
[31]. Smith, P. C., Nutley, S. M., Davies, H. T. O., Nutley, S. M. & Smith, P. C. 2009. *What works?: evidence-based policy and practice in public services. What works?: evidence-based policy and practice in public services.* Bristol: The Policy Press.
[32]. Mubita, A., Mulonda, M., Libati, M., Mwale, N. & Kanyamuna, V. Urban Informality and Small Scale Enterprise (SME) Development in Zambia: An Exploration of Theory and Practice, *Journal of Behavioural Economics, Finance, Entrepreneurship, Accounting and Transport*, 2017. 5(1): p.19-29.
[33]. Kanyamuna, V., Mulonda, M. & Mulele, C.S. 2019. Monitoring and Evaluation Legislation in Zambia–Gap Analysis. *International Journal of Humanities, Art and Social Studies*, 4(1): 15-25.
[34]. GRZ. Ministry of Finance and National Planning. 2011. *Fifth National Development Plan 2010 Annual Progress Review: Broad Based Wealth and Job Creation through Citizenry Participation and Technological Advancement.* Lusaka: Ministry of Finance and National Planning.
[35]. Lopez-Acevedo, G., Rivera, K., Rivera, L. 2010. *Challenges in Monitoring and Evaluation: An Opportunity To Institutionalize M&E Systems. Fifth Conference of the Latin America and the Caribbean Monitoring and Evaluation (M&E) Network*.
[36]. Lopez-Acevedo, G., Krause, P. & Mackay, K. (Eds.). 2012. *Building Better Policies.* Washington, D.C. The World Bank.
[37]. Mackay, K. 2007. *How to Build M&E Systems to Support Better Government. The International Bank for Reconstruction and Development and World Bank.* The World Bank, Washington D.C.
[38]. Bamberger, M. 2006. *Evaluation Capacity Building, In: Segone and Ocampo (Ed.), Creating and Developing Evaluation Organizations) – Lessons learned from Africa*, Americas, Asia, Australasia and Europe.
[39]. Holvoet, N. & Rombouts, H. 2008. The challenge of monitoring and evaluation under the new aid modalities: Experiences from Rwanda. *Journal of Modern African Studies*, 46(4): 577–602.
[40]. GRZ. Ministry of Finance and National Planning. 2014. *Report of the Final Evaluation of the Fifth National Development Plan 2006-2010*. Lusaka: Ministry of Finance and National Planning.
[41]. Bedi, T., Coudouel, A., Cox, M., Goldstein, M. & Thornton, N. 2006. *Beyond the numbers : Understanding the institutions for monitoring poverty reduction strategies.* The World Bank.Washington, D.C.
[42]. Mackay, K. 2010. *Conceptual Framework for Monitoring and Evaluation. The Nuts & Bolts of M&E Systems*—The World Bank, 1, 8.
[43]. Mackay, K. 2006. *Institutionalizing of Monitoring and Evaluation Systems to Improve Public Sector Management*, ECD Working Paper Series No. 15. IEG World Bank, Washington D.C.
[44]. Kusek, J. Z. & Rist, R. C. 2004. *Ten Steps to a Results-Based Monitoring and Evaluation Systems. A Handbook for Development Practitioners.* The World Bank. Washington D.C.
[45]. Kanyamuna, V. 2013. Sector Monitoring and Evaluation Systems in the context *of Poverty Reduction Strategies: A comparative case study of Zambia's Health and Agriculture sectors.* MSc–dissertation, University of Antwerp, Antwerp, Belgium.
[46]. GRZ. Ministry of Finance and National Planning. 2014. *Revised Sixth National Development Plan 2013-2016: People Centred Economic Growth and Development* – Volume I. Lusaka: Ministry of Finance and National Planning.
[47]. Mark, M. M. 2008. *Building a better evidence base for evaluation theory: Beyond general calls to a framework of types of research on evaluation.* In N. Smith & P. R. Brandon (Eds.), *Fundamental issues in evaluation* (pp. 111–134). New York: Guilford.
[48]. May, E., Shand, D., Mackay, K., Rojas, F. & Saavedra, J. (Eds.). 2006. *Towards the Institutionalization of Monitoring and Evaluation Systems in Latin America and the Caribbean: Proceedings of a World Bank Conference*. The World Bank, Washington D.C.
[49]. Mehrotra, S. 2013. *The Government Monitoring and Evaluation System in India: A Work in Progress*, ECD Working Paper series 28. IEG, The World Bank, Washington, D.C.
[50]. Kusek, J.Z. 2011. *Assessing Country Readiness for Results-Based Monitoring and Evaluation to support Results Informed Budgeting*. The World Bank, Washington, D.C.
[51]. Booth, D. & Lucas, H. 2002. *Good Practice in the Development of PRSP Indicators and Monitoring Systems*, ODI Working Paper 172. Overseas Development Institute, London.
[52]. Kanyamuna, V., Mumba, M.H., Mkandawire, A., Munalula, M. & Kalonje, V. (2021). "Opportunities and Challenges in Using Information from Zambia's Government Monitoring and Evaluation System". *World Journal of Social Sciences and Humanities*, vol. 7, no. 1: 23-33.
[53]. Morra Imas, L. G. & Rist, R. C. 2009. *The Road to Results: Designing and Conducting Effective Development Evaluations.* The World Bank, Washington, D.C.
[54]. Mulonda, M., Kanyamuna, V. & Kanenga, H. 2018. State–Civil Society relationship in Zambia, *International Journal of Humanities, Art and Social Studies*, 3(4): 17-26.
[55]. Bamberger, M. 2008. *Enhancing the utilisation of evaluations for evidence-based policy- making.* In M. Segone (Ed.). *Bridging the Gap*. Switzerland: UNICEF.
[56]. Naidoo, I. 2011. *The role of monitoring and evaluation in promoting good governance in South Africa : A case study of the Department of Social Development:* PhD–Thesis submitted to the Graduate School of Public & Development Management in fulfilment of the requirements for doctorate degree. University of Witwatersrand.
[57]. Kanyamuna, V., Mulonda, M. & Mulele, C.S. Monitoring and Evaluation Legislation in Zambia–Gap Analysis. *International Journal of Humanities, Art and Social Studies*, 2019. 4(1): 15-25.
[58]. Kanyamuna, V., Phiri, M., Kanenga, H. & Mulonda, M. (2020). "Role of Actors Outside Government in Strengthening the Country Monitoring and Evaluation System in Zambia." *World Journal of Social Sciences and Humanities*, vol. 6, no. 1: 22-29.
[59]. OECD/DAC. 2005. *Aid Effectiveness 2005-10 : Progress in Implementing the Paris Declaration*. Paris.OECD Publications.
[60]. Porter, S. & Goldman, I. 2013. A Growing Demand for Monitoring and Evaluation in Africa. A*frican Evaluation Journal*.1(1): 1–9.
[61]. Porter, S. 2012. *'The Growing Demand for Monitoring and Evaluation in Africa', in Centre for Learning on Evaluation and Results CLEAR (ed.), African Monitoring and Evaluation Systems: Exploratory Case Studies* (Johannesburg: University of the Witwatersrand).
[62]. Raimondo, E. 2016. *What Difference Does Good Monitoring and Evaluation Make to World Bank Project Performance? Policy Research Working Paper.* IEG. The World Bank, Washington, D.C.

[63]. Kanyamuna, V., Mubita, A., Ng'andu, E., Mizinga, C. & Mwale, A. 2018. An Assessment of the Demand-Side of the Monitoring and Evaluation System of the Health Sector in Zambia. *World Journal of Social Sciences and Humanities*, 2018. 4(2): p. 75–86.
[64]. Segone, M. (Ed), 2010. *From policies to results. Developing capacities for country monitoring and evaluation systems.* UNICEF, DevInfo, IDEAS, ILO, IOCE, UNDP, UNIFEM, WFP and World Bank.
[65]. Kanyamuna, V. (2021). Towards Building a Functional Whole-of-Government Monitoring and Evaluation System for Zambia: The Supply Side. Advances in Social Sciences Research Journal, 8(8). 163-195.
[66]. Shepherd, G. 2011. *Conducting Diagnosis of M&E systems and Capacities. Prem Notes, Special series on the Nuts and Bolts of M&E systems.* The World Bank, Washington, D.C.
[67]. Kanyamuna, V. *Sector Monitoring and Evaluation Systems in the context of Poverty Reduction Strategies: A comparative case study of Zambia's Health and Agriculture sectors.* MSc–dissertation, University of Antwerp, Antwerp, Belgium, 2013.
[68]. UNAIDS. 2009. *12 Components of Monitoring and Evaluation System Assessment: Guidelines to Support Preparation, Implementation and Follow-up Activities.* Geneva.
[69]. Kanyamuna, V., Kotzé, D. A. & Phiri, M. "Monitoring and Evaluation Systems: The Missing Strand in the African Transformational Development Agenda." *World Journal of Social Sciences and Humanities*, 2019. 5(3): 160-175.
[70]. GRZ. Ministry of National Development Planning. 2017. *Seventh National Development Plan (7NDP 2017-2021), Accelerating Development Efforts towards Vision 2030 without Leaving Anyone Behind (Vol. 1)*. Lusaka: Ministry of National Development Planning.
[71]. Kanyamuna, V., Katowa, T., Mubita, A., Kanenga, H., Simui, F., & Kotze, D. A. (2020). Analysis of Structural and Organisational Arrangements of Monitoring And Evaluation Status For The Public Sector In Zambia. *Advances in Social Sciences Research Journal*, 7(6) 504-527.
[72]. World Bank. 2004. *Assessing country readiness for results-based monitoring and evaluation systems. Prem Notes, Special series on the Nuts and Bolts of M&E systems.* The World Bank, Washington, D.C.
[73]. World Bank. 2007. *A Diagnosis of Colombia's National M&E System, SINERGIA. Evaluation Capacity Development. Working Paper Series No. 17. IEG*. The World Bank, Washington, D.C.
[74]. Mulonda, M., Kanyamuna, V. & Kanenga, H. State–Civil Society relationship in Zambia, *International Journal of Humanities, Art and Social Studies*, 2018. 3(4): p. 17-26.
[75]. Wotela, K. 2017. A proposed Monitoring and Evaluation Curriculum based on a model that institutionalises monitoring and evaluation. *African Evaluation Journal*, 5(1): 1-8.
[76]. Lopez-Acevedo, G., Krause, P. & Mackay, K. (Eds.). 2012. *Building Better Policies: The Nuts and Bolts of Monitoring and Evaluation Systems*. The World Bank, Washington, D.C.
[77]. Zaltsman, A. 2006. *Experience with Institutionalizing Monitoring and Evaluation Systems In Five Latin American Countries: Argentina, Chile, Colombia, Costa Rica and Uruguay* (ECD Working Paper 16 No. 16). Washington, D.C. The World Bank.
[78]. Kanyamuna, V., Mubita, A., & Kotzé, D. A. Is the policy environment for Zambia supportive of a thriving whole-of-government monitoring and evaluation system? *Advances in Social Sciences Research Journal*, 2020. 7(1) 542-554.
[79]. Zambia Monitoring and Evaluation Association. 2018. *National Evaluation Advocacy and Strategy*–2018-2021. Lusaka.
[80]. Kanyamuna, V. *Analysis of Zambia's Whole-of-Government Monitoring and Evaluation System in the context of National Development Plans*. Doctorate Thesis. University of South Africa, 2019.
[81]. GRZ. *Ministry of National Development Planning. 2017a. 2016 Annual Progress Report for the Revised Sixth National Development Plan 2013-2016: People Centred Economic Growth and Development*. Lusaka: Ministry of National Development Planning.