



Assessment of Zambia's agriculture sector monitoring and evaluation system

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Abstract

Monitoring and Evaluation (M&E) has become the 'buzz' word in the development arenas of both the developed and developing countries. Proponents of M&E within the field of development have contended that well-functioning M&E systems can contribute highly to the provision of necessary information for use at all levels of the policy cycle. More specifically, M&E is acclaimed for improving policy and planning, enhances accountability as well as supports various management functions. Nevertheless, the advocates are also aware that M&E does not have an intrinsic value but rather the benefits have to be sought for in the context of how much M&E information is being used by decision-makers and in influencing policy. After conducting an M&E diagnosis of the agriculture sector, it has become apparent that there are many factors that affect the operation of sector M&E systems even when implemented within the general framework of government M&E arrangement. For instance, the different linkages and relationships with CSOs, donors, parliament, private sector, national statistics institution and the national-level M&E. Whether there are champions to lead the process of M&E reform in the agriculture sector is another factor that may determine and separate success from failure. On the whole, the agriculture sector M&E system has been found with better ability to supply relevant information to several of its stakeholders. Equally, the M&E system of the agriculture sector has a comparatively well-developed demand side, thereby able to stimulate different actors to ask and use its M&E outputs. Finally, for the agriculture sector M&E system to be used as an instrument of managing the implementation of sector strategies and contribute to the national poverty reduction agenda, it is crucial to focus on strengthening both its supply and demand sides. But like it is currently done, there will be need to ensure that the demand side is organized quickly while the supply side is also being developed.

Keywords: Agriculture, Monitoring, Evaluation, Supply-side, Demand-side, M&E system, Zambia

Introduction

Monitoring and Evaluation (M&E) has been considered by many development proponents as a fundamental component in public resource management and is acclaimed for fulfilling accountability, feedback and learning needs of organisations and governments (Phiri, Lemba, Chomba & Kanyamuna, 2022; Castro, 2009; Gorgens and Kusek, 2009) ^[2, 5, 7]. Following the controversial outcomes of the Structural Adjustment Programmes (SAPs) of the 1980's and early 1990's, other mechanisms and strategies of development have been elaborated and mostly spearheaded and supported by the donor community. These mechanisms put the developing countries in charge of articulating their development agendas through their own prioritized development plans. These strategies are mostly held in what are called the Poverty Reduction Strategy Papers (PRSPs) or National Development Plans (NDPs). Zambia was among the first countries to develop and adopt the PRSP policy approach and her first PRSP in 2002 was implemented alongside other reforms and reached the Heavily Indebted Poor Country (HIPC) Initiative completion point in 2004 (GRZ, 2002) ^[13].

The World Bank and the International Monetary Fund (IMF) guided the country during the PRSP and HIPC processes. Linked to the PRSP framework, sectoral plans have since been developed in order to involve line ministries and other major development stakeholders in elaborating the national poverty reduction agenda. Through this public policy reform process in Zambia, subsequent strategic plans for the agriculture sector have been elaborated and planned as a direct input into the NDPs. In the same view, the agriculture sector is currently implementing a strategic plan for the period 2013 to 2015 (MAL, 2013) ^[23]. All the strategic plans that were implemented have been developed to follow the implementation period ranges of their successive NDPs (FNDP, SNDP, 7NDP & now 8NDP).

Like in the NDP, the MAL strategy has an M&E section that derives its principles from a Results Based Management approach, whose focus is on a management strategy that is aimed at performance as well as achievement of outputs, outcomes and impacts (Mackay, 2006) ^[18]. The M&E section of the strategy of MAL describes in detail how all the MAL programmes and activities were going to be implemented, monitored and evaluated throughout the life of the sector strategy. In addition, the section elaborates on which specific stakeholders were responsible for what roles and generally how the operational coordination was arranged. In other words, the M&E system is functionally expected to hold and disseminate all the relevant data and information with regards to the MAL programmes and activities.

Thus, in an attempt to bring into context, the M&E function within the MAL, this paper provides an overview of the current M&E arrangements in the sector. Ultimately, the paper will argue that when the strengths and weaknesses of what stimulates the demand-side are identified and improved, there could be an upswing in the demand for a better developed sector M&E system. This, in return, becomes a useful motivation for the supply-side to devise ways of satisfying the demand-side of the M&E system.

Methodology of the study

This paper employed a desk-based-research study and relied mainly on the review of various documents including key Government of Zambia reports (published and unpublished) and other policy related literature. The MAL strategic documents and reports were of significance in this study as well as some scholarly journals, articles and research papers relevant to the topic were consulted. To guide the assessment and analysis, the study used a diagnostic checklist elaborated by Holvoet and Inberg (2011) ^[15] which is based on six criteria namely (i) policy, (ii) methodology, (iii) organization, (iv) capacity, (v) participation of actors outside government, and (vi) use of M&E information.

Findings of the study

Following the methodology and assessment checklist used, this part of the study gives a diagnosis of the M&E system for the agriculture sector drawing information from a number of key Republic of Zambia policy documents. These include the National Development Plans (NDPs), the Poverty Reduction Strategy Papers (PRSPs), and the National Annual Progress Reports (APRs). In addition, sector specific sources including the Agriculture Management Information System

(MIS) Manual, National Agriculture Policy, Ministry of Agriculture Strategic Plans for different periods were used. Other policy and scholarly sources were also consulted.

Policy

On the whole, Zambia's Ministry of Agriculture and Livestock (MAL) recognizes the significant role of M&E and makes an emphasis that when successfully operationalized, M&E offers the most desired information that can be used to enhance the sector's performance. It is contended that through a well implemented M&E system, the agriculture sector may positively contribute to the realization of poverty reduction goals and improve citizens' well-being (MAL, 2013) ^[23]. Even in the 2008 APR, it was recommended according to the GRZ (2008) ^[10] that the MAL needed to develop an effective and reliable M&E system in order to get information that was going to enhance sector performance.

The MAL (2013) ^[23] explains that all sector strategic plans were designed to be operationalized through stronger M&E arrangements at all levels. Linkages of sector M&E framework to other management functions has also been clarified so that information from M&E is used for accountability, decision making and policy advocacy and improvement. There is notable acknowledgement as well of how and to whom M&E results and findings were meant to help, stressing that policymakers and day-to-day management decision-makers within and outside the sector made the primary users.

The notions of 'monitoring' and that of 'evaluation' are differentiated to some extent. In the MAL Strategic Plan (2013-2016), it is specified that monitoring exercises will be conducted using results frameworks, work plans, field visits, and joint annual reviews, quarterly and annual reports in a continuous process throughout the implementation of the sector plan. Also, for evaluation, a mid-term internal evaluation and a final external evaluation at the end of the implementation of the Strategic Plan shall be conducted. Mention is also made that the purpose of carrying out M&E was to promote informed and results-based management at all levels of the sector. That is why for instance, monitoring results as well as the mid-term internal evaluation findings shall be used as key input into the final external evaluation process (Kanyamuna, Chawapiwa & Bwanga, 2023; MAL, 2013) ^[6, 23].

Even when the autonomy and impartiality of the M&E system is an important element towards building a strengthened sector Management Information System (MIS), there is no mention or acknowledgement of this need throughout the policy documents.

Regarding the reporting and feedback mechanisms, there are clear elaborations of how these are being done. Both the sector strategies and MIS Manual make mention of the important components of reporting, dissemination and integration of M&E information. The Agriculture MIS Manual acknowledges that feedback is crucial and steps have been taken to identify and map-out specific information needs and forms of dissemination for every department in the sector. MAL (2002) ^[21] stipulates that each department shall produce a prioritized number of information outputs such as management reports to be produced on monthly, quarterly, and annual basis. These reports are planned to be generated

at every level of the sector.

In addition, dissemination channels are also specified for different departments, for instance, through the use of Crop Forecasting Survey reports and Agricultural Statistical Bulletins. The MAL has a successful information dissemination arrangement which is institutionalized and this is the National Agricultural Information Services (NAIS). With its presence at national, provincial and district levels, the main responsibility of NAIS is to disseminate agricultural related information throughout the country by use of radio and television programmes. The programmes are presented in both English (official language) and several vernacular languages to reach out to all the intended audience. Popular TV and radio programmes include the 'Rural Notebook' and 'Farm Magazine' which are broadcasted throughout the week on daily basis. However, there are still challenges regarding equipment to gather information from across the country (Kanyamuna & Sibalwa, 2023; MAL, 2006) ^[11, 20].

Further, the information storage systems are equally specified to be both hard and electronic copies. But since there is a poor internet system in government entities generally, there is limited use of this as a medium of dissemination especially as most stakeholders (farmers) are located in under serviced remote places. However, there is acknowledgement by the government (MAL) to expand internet technology to the country sides to enhance free information exchange.

The aspect of alignment of M&E to planning and budgeting is also well elaborated in the MAL Strategic Plans. Shortcomings and limitations concerning the general welfare of the agriculture sector M&E and acknowledged. Some notable challenges according to MAL (2013) ^[23] and Zulu, et.al (2023) ^[14] include limited M&E products like policy briefs and reports whose information could be helpful for policy formulation, planning and resource distribution.

The agriculture sector largely depends on the allocations and disbursements from central government through the Ministry of Finance (MOF, 2008) ^[25]. The sector has a Medium-Term Expenditure Framework (MTEF) in place, a mechanism that attempts to link and harmonize plans and budgets (World Bank, 2013) ^[31]. To that extent, the MAL (2013) ^[23] reveals that an MTEF is being used to operationalize the MAL Strategic Plan by linking the sector strategies and work plans to the annual budgets. Specifically, the sector uses an activity-based approach to budgeting whereby every year the ministry prepares budget framework papers which represents objectives, activities and outputs. In all these exercises, M&E information is expected to be used as a basis to justify intervention priorities. Consequently, the MOF is said to be involved by providing a critical assessment as to whether the agriculture sector priorities are always in conformity with those reflected in the NDPs through the MTEF.

Methodology

Essentially, this part considers how the indicators in the agriculture sector have been elaborated and how the M&E system is managing the information collected. The sector Strategic Plans and MIS Manual have elaborated the indicators and explained the importance of measuring them as a basis for strengthening the performance and sustaining the already gained good practices. The MAL (2006:52) ^[20]

asserts that, "the programmes and activities will be monitored based on the indicators developed. Other main monitoring indicators and instruments can be developed or refined as the programme is implemented". For each of the several departments, the agriculture sector has in place clearly defined set of indicators which are harmonized with those in the NDPs. The indicator lists in the matrixes of the sector plans and those in the SNDP are harmonized.

The quality of indicators is considered as an important issue for the agriculture sector and an effort has been made to formulate them in a SMART (Specific, Measurable, Achievable, Relevant and Time-bound) manner. There is mention in the MIS Manual that when formulating and selecting the indicators, they were compared and aligned to meet international standards. To that extent, one would ascertain the fair quality of the agriculture sector indicators in Zambia. All the KPIs for the sector in the SNDP have clear baselines and targets. Mention has however been made in the Strategic Plans that setting baselines has always been a challenge due to limited and usually scattered information concerning most indicators (MAL, 2013) ^[23].

Unfortunately, there is neither mention nor evidence in the documents (Strategic Plans, MIS Manual, APRs) of the need for disaggregation of data in the sector indicators. Being a sector that has huge variances between the participation of people on gender, region as well as socio-economic status, one would expect an effort to measure the differences. Moreover, the MAL (2006) ^[20] reveals that more than 80 percent of rural dwellers in Zambia are involved in agriculture and women and children formed the majority. Agricultural activities make the largest safety net for food security and income generation for most people in Zambia. Further, not so much is highlighted on the process of indicator selection in the sector. There is mention of consulting international standards on best indicator selection but less is given regarding local stakeholder consultations and engagements. Given the nature of the sector, one would expect that farmer groups, co-operatives and research institutions (public and private) would be among those involved to determine the indicators to be measured.

As regards indicator prioritization, both the Agriculture Strategic Plan (2013-2016) and MIS Manual acknowledge the fact that the sector is too broad and designing effective indicators is not an easy undertaking. This concern was emphasized in the 2008 APR when it was identified that a small and relatively easy to measure number of indicators needed to be generated. Particularly, the effort was to adopt more appropriate indicators for reporting on the sector performance and impact (GRZ, 2008) ^[8]. The sector is comprised of complex activities and especially that most programs are far away in remote places, selecting and measuring agriculture indicators could be problematic. Consequently, the MAL (2013) ^[23] recognizes the necessity of having in place a relatively small and manageable number of indicators and that coupled with the understaffing in the sector, a large number of indicators undermines the effective collection and measuring of indicators.

Nevertheless, there is a challenge with the causality-chain. The agriculture sector indicator matrix does not provide a coherent results chain to elaborate how indicators at various

levels (input, activity, output, outcome and impact) were linked to each other. Such a program theory, according to Rossi *et al.* (2004) ^[28] helps to clarify the relationships between the lower and upper level indicators and this can make it easy to appreciate how the impacts of development interventions come about. Thus, the core purposes of M&E that include management, accountability, feedback and learning stand a high chance of being enhanced when the causality chain is clarified (Pritchett *et al.*, 2012; White, 2009) ^[27, 29]. In fact, program theories are inevitable for successful development interventions and especially when trying to measure the impact and relevance of programmes, policies and projects. If causality chains for interventions are not well elaborated or not in place all together, evaluation experts advise that it is better to reconstruct them (Leeuw, 2003; Astbury and Leeuw, 2010; Kanyamuna, Siakalima, Phiri-Mumba & Munsanda, 2022) ^[17, 1, 16].

Furthermore, one other aspect which is well articulated in the agriculture sector concerns the methodologies of indicator-data collection. MAL (2002) ^[21] highlights that for every department in the MAL, relevant indicators have been identified together with key data sources and data collection tools. For example, to capture some data, the sector M&E uses Crop Forecasting Survey (CFS) Questionnaires, Post Harvest Survey (PHS) Questionnaires as well as Crop/Input data collection sheets. A variety of data sources are also stipulated such as reports from farmer groups, Ministry of Commerce, Trade and Industry, Meteorological Department, Central Statistical Office, Food Reserve Agency (FRA) and the Zambia National Farmers' Union (ZNFU). Other sources include the Crop Forecast reports, National Food and Nutrition Commission (NFNC), Zambia Bureau of Standards and the Export Board of Zambia (EBZ) among others.

However, how far these methodologies and data sources are mutually integrated is not clear from the reports reviewed. Nevertheless, there is an attempt to link some indicators to the identified sources of data collection through the indicator matrix provided in the Strategic Plan (2013-2016). But, there is no mention or acknowledgement made concerning the need to use different methods (quantitative and/or qualitative) to gather M&E information. The triangulation of data collection methods is important to increase reliability and credibility of results especially in the presence of various in the sector/country (Bamberger *et al.*, 2010) ^[3].

Organizational structure and linkages

▪ Structure

In line with the question on whether or not the agriculture sector has an appropriate institutional structure for coordination, support, oversight, analysis of data and feedback, the Agriculture Strategic Plan (2013-2016) gives a good overall impression. M&E is explicitly acknowledged as phenomenally crucial for the success of the sector's programmes by creating an opportunity to analyze the implementation of the strategy. It is also recognized that doing so requires a clearly elaborated and functional organizational structure in place.

The Policy and Planning Department (PPD) located at the ministry head office (HQ) is the one mandated to carry out the M&E function. The department's principal roles according to MAL (2013) ^[23] among others include the

provision of overall sector planning, monitoring and evaluation of the strategic plans and all forms of oversight and coordination including those M&E activities involving budgeting and donors. In addition, the overall national level structure for implementing, monitoring and evaluating the agriculture sector programs as planned in the Strategic Plans is coordinated within the broader context of the National Decentralization Policy and PRS.

On the aspect of Joint Sector Reviews, it is mentioned in the current MAL Strategic Plan that Joint Annual Reviews (JARs) were going to be used as part of M&E exercises and provide feedback on the performance of the sector. However, there is no comment regarding the current operational status of the JARs. Although on paper JARs are considered to be tools for M&E, there is no evidence about their (JARs) activities in the sector documents reviewed (Strategic Plans, NDPs, MIS Manual, and APRs).

The agriculture sector however has a Sector Working Group called the Sector Advisory Group (SAG) whose overall function is to provide implementation, monitoring and evaluation feedback on the performance of the sector through recommendations and suggestions. Typically, the SAG thrives to ensure that priority programmes were implemented and performance issues against the KPIs are addressed satisfactorily. Although the background pertaining to how active the agriculture SAG has been in the earlier year is reportedly poor, there has been some improvements over the last few years. According to GRZ (2009) ^[10], the SAG met as planned, once every three months and reviewed a number of performance challenges. These meetings for example led to the review and revision of the PAF and some Key Performance Indicators (KPIs).

Although the SAG is active, the quality of both systemic and substance issues discussed during the meetings have been questioned by some stakeholders (MOF, 2008) ^[18]. For instance, the 2009 Mid-Term Review (MTR) found that the quality of contents concerning most meetings for SAGs fell short of the expected standards especially with regards to the aspects of budgets and information on KPIs (GRZ, 2006; GRZ, 2009) ^[9, 10].

Further, the issues concerning the ownership of the M&E function particularly with regards to the demand of M&E is fairly articulated in the Agriculture Strategic Plan (2013-2016). There are three priority objectives in the strategy that are aimed at strengthening M&E and general information status of the sector. To that extent, the MAL is committed to improve M&E through the provision of appropriate policies, legal framework and to effectively plan, monitor and evaluate the implementation of sector policies and programmes in order to assess their contribution to set objectives (MAL, 2013; Siakalima & Kanyamuna, 2022) ^[16, 35].

With regards to the use of incentives to stimulate data collection and utilization, there is weak evidence of such practices and arrangements in the sector. Particularly, what is mentioned is the availability of plans to strengthen the links of using M&E information in processes such as the MTEF, policy and decision-making. To that effect, GRZ (2010) ^[12] appeals to all sectors to formulate strong initiatives that ensure the use of evidence when developing MTEFs and when performing other PFM functions.

▪ Linkages

The agriculture sector M&E system is connected to a number of structures and stakeholders who share different forms of information. The Central Statistical Office, the MOF M&E Department, Development Partners (DPs), NGOs, the provinces and district sector offices are among the actors who collaborate with the sector M&E system.

It is good to note that the linkages between the agriculture sector M&E and the Central Statistics Office are recognized and appreciated in the sector. The Statistics Office is acknowledged as being among the primary sources of agricultural information and directly feeds into the M&E system of the sector. Through national and selected sector surveys, the Statistics Office generates data that is used by the agriculture M&E system (MAL, 2013; Moyo, Kanyamuna & Mubita, 2023; Zulu, *et al*, 2022) ^[16, 33, 34]. However, there is no mention of how the sector M&E collaborates with the Statistics Office outside of the survey data. To that extent, there is limited elaboration as regards to the full role of the Statistics Office in working with the M&E within the ministry of agriculture. One would hope to find M&E backstopping activities such as data collection, analysis, interpretation, storage and use being highlighted. The role of the Statistics Office needed to be broader than limiting it to the few surveys.

Horizontal integration between the sector M&E and other sub-sectors and semi-governmental institutions is developed and functional to some extent. The MAL has several departments (agribusiness and marketing, policy and planning, agriculture, co-operatives development, fisheries, veterinary services and livestock development), each focused on a relatively different mandate. There are also stakeholders like the Food Reserve Agency (FRA), Zambia Bureau of Standards (ZBS), Meteorological Department, NGOs, private sector, DPs and others who continuously have linkages with the agriculture sector. The MIS Manual and Strategic Plans acknowledge these divergent M&E information needs and attempt to elaborate how integration could be attained. At every level, there is an information office or point persons in charge of compiling and reporting agriculture information and these are used as integration points (MAL, 2002) ^[21].

For the two kinds of vertical integration (upward and downward), the results are mixed for the agriculture sector. The terms of reference (TOR) drawn and specified for the development of the M&E section of the current Strategic Plan strongly recommended that the national M&E located at MOF needed to function in constant collaboration with the M&E system for the agriculture sector. It is further explained that the two M&E levels (sector and central) needed so share information and as much as possible backstopping exercises needed to be planned in order to help strengthen the sector M&E (MAL, 2012; Kanyamuna & Kone, 2023; Bwanga, Kanyamuna & Qutieshat) ^[24, 30, 32]. There is however, unclear practical evidence of what linkages are currently in place for the vertical upward linkages.

Nevertheless, there is hope for the 'vertical downward integration'. Although not fully operational, there is evidence of information linkages between the sector M&E at central sector level and the lower structures at provincial and district

levels. Since there are M&E units at these levels, basic information concerning the operations of the sector is available. The challenge however remains with the analytical quality gaps and lack of space to debate tough accountability issues. The APRs have raised this concern across consecutive years (2008, 2009, 2010 and 2011).

With regard to efforts of coordinating DPs' M&E mechanisms for projects and vertical funds in the sector, there is limited mention about this aspect. This could be due to the limited number of donors in the agriculture sector. Nevertheless, there is mention that information concerns for all donors were being addressed within the sector structures (Kanyamuna, Kone & Mubita, 2026; MAL, 2006) ^[26, 20]. But again, how far this was being achieved practically remains unclear.

Capacity

In the agriculture sector Strategic Plans and MIS Manual, the issue of M&E capacity is addressed. There is recognition that M&E capacities are necessary for the sector to be able to generate credible information that could be considered useful for improving both policy and decisions in government as well as other stakeholders' performances. Nevertheless, the M&E capacity for the agriculture sector is still weak with lots of gaps in skills, infrastructure and general coordination. Actually, to some extent, "the MAL has a fragmented M&E system coupled with a lack of capacity to collect, analyze and interpret data from the field" (MAL, 2013:17) ^[23].

In an apparent strife to resolve the human capacity challenge faced by the agriculture sector, the MAL (2013) ^[23] reveals that the Ministry was going to support the existing staff by facilitating their training in M&E skills and assign them with M&E functions in addition to their core responsibilities while creating a more permanent structure across all the levels of the sector.

However, one of the undermining problems in the sector is low staff motivation due to very poor working conditions. The Agriculture Strategic Plan (2006-2010) indicated that the poor conditions of service mainly in form of salaries have resulted in the de-motivation of staff who no longer fully applied themselves to their work. There is acknowledgement that the sector needed to implement an incentive scheme that sought to encourage and motivate officers to perform to their full potential. However, the poor M&E capacity is compounded by the scarce financial resources for the agriculture sector in general and M&E activities in particular (MAL, 2006; GRZ, 2008; Kanyamuna, KONE & Mubita, 2022) ^[20, 8, 19].

Participation of non-government actors

For sector M&E to be strong, the active participation of various stakeholders outside government is crucial. Particularly why and how the parliament, civil society and development partners are involved in the M&E activities of the agriculture sector are significant aspects to assess when attempting to understand the status of a system.

The role of Parliament in the agriculture sector M&E is not mentioned in all the reviewed documents (Strategic Plans, MIS Manual, APRs, and others). However, the only linkage

acknowledged is through the unstructured and irregular parliamentary debates and question and answer sessions normally presented by the MAL Minister. These linkages are however too general in nature and do not categorically address M&E issues. There is no other institutionalized arrangement in place, be it Joint Annual Reviews (JARs) or Sector Advisory Group (SAG).

As for the civil society, the only linkage mentioned is through the SAG. But as indicated already, there is limited evidence regarding the current activeness of the SAG and by implication this might mean that CSOs' participation in strengthening the agriculture sector M&E is not fully incorporated. Along the same line, the M&E role of donors is also not clarified and is limited only to their membership to the less active SAG. The role of DPs is only acknowledged but the procedures regarding their participation in the SAG are not elaborated. Most NGOs for instance have ad hoc links with the agriculture sector M&E system.

Use of Monitoring and Evaluation outputs

Bedi *et al.* (2006) ^[4] emphasizes that before disseminating M&E outputs to stakeholders, there is need to ensure that the analytical quality of the information is good and relevant. Further, to increase the use of M&E outputs, a wide range of products targeted at different audiences is imperative for success. Notwithstanding, a dissemination strategy equally requires to be effective and flexible enough to make sure products reach out to both government as well as the actors outside of government. The utilization of M&E system results and findings by different stakeholders is a significant success factor. In fact, the usefulness of M&E systems can be anchored on the relevance and usefulness of the products in informing management decisions as well as policymaking processes. Therefore, the M&E reports and various outputs are important because they carry M&E information.

Although there is mention of various reports which the agriculture sector M&E produces, it is done in a rather generalized manner without specifically and coherently linking them to structural levels and stakeholders. The indicator matrix of the Strategic Plan (2013-2016) shows that several sector reports were going to be generated by the M&E section and disseminated to various stakeholders working with the sector. Not much detail is given on what kinds of reports are produced except mentioning that they were management reports (monthly, quarterly, semi-annual and annual) (MAL, 2013, Banda, Chanda & Kanyamuna, 2022) ^[23, 22].

For the donors, it is not clearly explained how they use the sector M&E outputs. In any case, what is mentioned in the sector's Strategic Plan (2013-2016) is only about APRs which are shared through the MOF to DPs. It is however not clear how they further make use of these outputs especially, to influence their own management decisions as well as aid related policies.

However, mention is made in the Strategic Plans and MIS Manual that the MAL uses the M&E outputs for management decisions. The MAL (2013) ^[23] asserts that sector M&E information was going to continue to be used to inform decisions to improve the implementation of the Strategic Plan

and as much as possible also used to advocate for policy shifts in order to bring about an effective agriculture sector. To that extent however, no specific evidence was found on how the actual implementation was being done.

Discussion of findings

Policy

1. M&E Plan

The MAL has a well acknowledged role of M&E. The sector's key documents including the Strategic Plans (both the 2006-2010 and 2013-2016) and the Agriculture Policy explicitly recognize M&E as a crucial determinant of sector performance. The sector has an extra policy document on information management called the Agriculture Management Information System Manual which is specifically elaborated for the sector M&E. M&E is understood in these documents as an instrument used to oversee the overall planning, implementation and the final results achieved by the sector's intervention. It seeks to interpret the activities under the sector's Strategic Plans. Thus, to some extent possible, it is clear what to evaluate, why, how and for whom. But it is relatively less clear on why and for whom M&E is conducted

2. M versus E

The notions of 'monitoring' and that of 'evaluation' are clearly differentiated and are separately used. In the sector documents (strategic plans and MIS manual), it is explained how the different methods and tools for M and for E were to be used. A great deal of details is also given with regard to how monitoring results were to be used as input in the evaluation processes and vice versa. In short, the two terms are understood as being complementary.

3. Autonomy & impartiality (accountability)

For unexplained reasons, the importance and need for the M&E system to be autonomous and impartial is not mentioned in all agricultural policy documents. Neither is there mention of how tough issues such as those around accountability were being discussed and resolved. The agriculture sector M&E has no independent budget; this means for the funding, M&E activities have to compete with other activities in the Department of Policy and Planning and there are possibilities of being crowded out to the detriment of the whole purpose of having the M&E function.

4. Feedback

The feedback mechanisms of the agriculture sector are not very consistent. However, the sector has a clearly elaborated approach to reporting and dissemination. The presence of the National Agriculture Information Services (NAIS) and its use of radio and TV programmes are relevant especially for the farmers who mostly depend on radio communication. There is limitation on the clarity of feedback integration. It is not well explained in the sector policies how the M&E information was for instance integrated into decision making and policy influence. As far as possible nevertheless, there is a good attempt towards explaining the type of reports and dissemination strategies for different stakeholders placed at various locations in the structure of the sector.

5. Alignment planning & budgeting

The alignment of the M&E system to the processes of planning and budgeting in the agriculture sector is clearly explained in the sector strategy (2013-2016). The sector implements an MTEF which is a product of the sector strategy and upon which the M&E information is used (to some extent). It is also mentioned that the MOF critically reviews the agriculture MTEF during disbursements to ensure that all activities conform to the priorities as identified in the SNDP. However, these acknowledgements are clear on paper yet reality/practice on the ground might be different.

Methodology

1. Selection of indicators

The agriculture sector M&E has elaborated the indicators for the sector in the strategic plans (2013-2016) as well as in the SNDP. A less harmonized but comprehensive list of indicators exist for all the programmes under each department and these are essentially aligned with the indicators of the agriculture sector in the matrix of the SNDP. However, it is also acknowledged that the current indicators were still undergoing some further changes to try and get a set that was comprehensive enough to the satisfaction of stakeholders' needs.

2. Quality of indicators

An effort has been made to formulate all performance indicators in a SMART way (specific, measurable, achievable, relevant and time-bound). Similarly, all the sector indicators in the SNDP matrix are linked to identified baselines and multi-year targets. There is also recognition in the Sector Strategy (2013-2016) that challenges were faced when trying to measure and set baselines. In some cases, information was not available and intelligent guesses were used to come up with proxy indicators and baselines and in some cases targets.

3. Disaggregation

No indicator is segregated in any form, but only aggregates. However, there is acknowledgement in the Strategic Plan (2013-2016) of the need to segregate data.

4. Selection criteria

The selection criteria are vaguely elaborated. Apart from the involvement of the technocrats at MAL, the other consultation mentioned is the references to international indicator standards on agriculture. There is no mention of local stakeholders' consultations especially the private sector, a practice which is crucial for successful data collection, reporting and use. Such omissions can have adverse effects on both the supply and demand side of an M&E system.

5. Priority setting

Having in place a limited number of performance indicators are acknowledged in the Strategic Plan (2013-2016). With the wide coverage and large number of stakeholders, MAL puts indicator prioritization among the key. However, the current indicator lists are still considered transitional, meaning some changes are still possible depending on the shifts stakeholder information needs.

6. Causality chain

The indicators are well identified at input, output, outcome and impact levels in the indicator matrixes of the Sector Strategy Plan (2013-2016) and SNDP but they are not linked in any logic. Yet, a causality chain is crucial in elaborating causal relationships between the development interventions, intermediate and final results/impact. There is however an acknowledgement of the need for linking indicators at various levels

7. Methodologies used

Lots of details are given on the identified methodologies to be used to collect indicator data. There is good attempt to elaborate what methods were appropriate for monitoring exercises as well as evaluation processes. For instance, some surveys are preferred for evaluation while daily input data forms and exercises have been generated to capture monitoring data. What remains unclear however is how integrated these methodologies were.

8. Data collection

Data sources are linked as much as possible to the data collection tools. As explained above, the methodologies and data sources for agriculture have been well elaborated to some extent. The significance of selecting the sources of data as well as data collection tools is well acknowledged in the sector documents but limited examples of the methods and tools and given.

3.A Organization: structure

1. Coordination and oversight

Although the MAL has a well elaborated organizational structure upon which M&E is undertaken, there have been lots of changes in the sector. The latest one being the re-emerging of the general agriculture and livestock components in 2011 after the new government assumed power. These changes have come with M&E functional challenges in the sector. Nevertheless, it is well mentioned in the Strategic Plans that the Ministry HQ is in charge of all M&E coordination and oversight. MAL has decentralized structures across the country at national, provincial and district levels

2. Joint Sector Review

Despite the mere mention of the need to use Joint Annual Reviews (JARs) as M&E exercises, the agriculture has no active JARs.

3. Sector Working groups

The agriculture sector has a SAG with membership coming from different organizations (NGOs, CSOs, CPs and other government affiliated agencies). It is mentioned in the Strategic Plan (2013-2016) and some APRs that the SAG is active to some extent. Meetings of the SAG are sometimes irregular and this has impacted negatively on the SAG's responsibility to offer appropriate M&E oversight.

4. Ownership

Three key objectives of the current MAL Strategic Plan (2013-2016) border on improving sector M&E information. There is commitment from within the MAL to develop a system whose outputs are credible and useful to informing

policy and decision making across government and beyond. It is not clear whether there is any M&E champion within the MAL to stimulate the need to build a stronger system.

5. Incentives

Only uncoordinated elements of the use of incentives are mentioned in the agriculture sector documents. The MTEF is the only major mechanism/incentive that seeks to use M&E information.

3b. Organization: linkages

1. Linkage with Statistical office

The linkage between the MAL M&E system and the Central Statistical Office is acknowledged as important in the sector policy documents. Through agriculture surveys, the statistics office works with the sector M&E system to generate data that feeds into performance reports for the sector. However, the role of the statistics office is not fully elaborated, for instance, there is no reference to other backstopping exercises to the sector M&E system. One would expect that there are some training in data collection and M&E information use.

2. 'Horizontal' integration

The agriculture sector M&E is linked with different sub-sectors and semi-governmental institutions although the linkages are not so strong. There are point persons in most of the institutions responsible for gathering data and sharing it with the agriculture sector M&E. Equally, the agriculture sector has a relatively large presence of private sector actors (being a growth sector) whose M&E arrangements work in collaboration with the sector M&E. However, the coordination is not too strong as well.

3. 'Vertical' upward integration

On paper, the links between the agriculture sector M&E and the central M&E system located at MOF is recognized. Structurally, the central M&E system is supposed to play the role of oversight and coordination for the government-wide M&E arrangements. Both the NDPs and Sector Strategic Plans have elaborated the ideal linkages that needed to exist between the central and sector M&E. But practically, this is not the case. APRs have revealed that rarely is there coordination between the two levels.

4. 'Vertical' downward integration

The linkages between the decentralized M&E units and that of the sector M&E are elaborated. These links are well developed to some extent with information flows between the national level (sector M&E at HQ), provinces, districts and many times even up to the community level (farmer groups and co-operatives). For instance, information about crop harvesting and marketing, animal husbandry and farming methods flows well. The agriculture extension officers located in the rural areas work as M&E point persons and attempt as much as possible to share reports and information from higher levels.

5. Link with projects

Not too many private donor projects and vertical funds are present in the agriculture sector. However, there is mention of some limited efforts to link these DPs' M&E with the

sector M&E. Some NGOs (e.g. World Vision International, CARE International, PAM, FAO, etc) for instance who provide agricultural services in Zambia provide the sector M&E (at all levels) with various output and impact level information regarding their interventions. In fact, during some monitoring exercises and even evaluations, the MAL M&E participates as a key partner. However, these linkages seem to be more ad hoc in design and may require a well institutionalized arrangement.

Capacity

1. Present capacity

Currently, the M&E capacity for the agricultural sector is limited. The Strategic Plans, MIS Manual, NDPs and APRs have acknowledged this gap. At all levels (sector M&E unit, provinces, districts and community), there are limited skills and financial resources to enhance M&E functions. Nonetheless, there are efforts to address this weakness through facilitating the training of existing staff members in M&E while organizing for a permanent solution.

2. Problem acknowledged

The problems that are identified in the sector documents (Strategic Plans, APRs, NDPs) include the M&E skills, infrastructure (computers, databases and data management software programs) and financial constraints. Nevertheless, these problems have not been identified using a systematic diagnosis, which can be so useful to map out all the lacking areas.

3. Capacity building plan

Plans to build the M&E capacity of the MAL staff at all levels are present and these are mainly trainings. Some efforts are also being made to stock M&E units with computers and data management software programs. The biggest challenge however is that these activity plans are highly uncoordinated.

5. Participation of actors outside government

27. Parliament

The role of parliament is not mentioned or recognized and no other platform exists for parliament to link with the agriculture sector M&E system. To that extent, there is no alignment whatsoever with the parliamentary control and oversight procedures. This leaves the accountability role of parliament very weak. Parliament is not mentioned as a member of the SAG.

4. Civil Society

Through the agriculture SAG, the CSOs are mentioned to be participants in the management, monitoring and evaluation of the sector strategies and plans. But with the noted inactiveness of the SAG, CSOs' participation in providing sector M&E feedback/oversight is limited. Procedures about CSOs' participation on the SAG are not articulated clearly.

5. Development Partners (DPs)

DPs are members of the SAG which meets irregularly according to sector documents (Strategic Plans, MIS Manual, APRs). Although the role of DPs is acknowledged as far as the SAG is concerned, the procedures for their participation are not clear. The arrangements are rather ad hoc.

Use of information from M&E

1. M&E Outputs

The agriculture sector M&E produces a number of M&E outputs. Many reports are mentioned in the Strategic Plans under the umbrella of management reports and only identified as monthly, quarterly, semi-annual and annual. The sector also conducts surveys in conjunction with the Central Statistical Office. However, these reports are not prepared to cater for all stakeholders in the sector. For instance, most of them only end up with the sector HQ, meanwhile the districts, communities and other horizontal actors usually have nothing tailored to fit their specific information needs. As revealed by most APRs, the analytical quality of most reports is generally poor. Vague analytical comparisons are made between targets and results.

2. Effective use of M&E by donors

The arrangements that exist for donors using the sector M&E outputs are rather ad hoc. Only the APRs are shared through the MOF (M&E Department). Although this is so, evidence is not there from the sector documents reviewed (Strategic Plans, APRs, NDPs) on how the information is being integrated into management and policy decisions.

3. Effective use of M&E at central level

Results are used for internal purposes but the practice is rather ad hoc. Claims are there in the Strategic Plans that M&E outputs were to be used to inform management decisions and policy influences but no practical example on how this was being achieved.

4. Effective use of M&E at local level

The M&E outputs at local level are used mainly for their information. Through extension officers and radio and TV programmes, farmers use M&E information to make their plans (especially on crops and animal husbandry) as well as engaging the sector on various issues.

5. Effective use of M&E by outside government actors

The strategic plans and the MIS Manual mentions that the NGOs, CSOs and other actors outside of government access sector M&E reports and incorporate them in their decisions. However, there is only a running commentary about an example in one APR (2009) but all this happens in ad hoc arrangements. Thus, only elements of the use of M&E information by actors outside of government exist.

Conclusion

The study was an assessment of the Monitoring and Evaluation System of Zambia's Agriculture sector. Essentially, the paper delves into what works, what does not work and reasons why for the M&E system for the Ministry of Agriculture. Monitoring and Evaluation (M&E) has become the 'buzz' word in the development arenas of both the developed and developing countries. Proponents of M&E within the field of development have contended that well-functioning M&E systems can contribute highly to the

provision of necessary information for use at all levels of the policy cycle. More specifically, M&E is acclaimed for improving policy and planning, enhances accountability as well as supports various management functions.

Nevertheless, the advocates are also aware that M&E does not have an intrinsic value but rather the benefits have to be sought for in the context of how much M&E information is being used by decision-makers and in influencing policy. After conducting an M&E diagnosis of the agriculture sector, it has become apparent that there are many factors that affect the operation of sector M&E systems even when implemented within the general framework of government M&E arrangement. For instance, the different linkages and relationships with CSOs, donors, parliament, private sector, national statistics institution and the national-level M&E. Whether there are champions to lead the process of M&E reform in the agriculture sector is another factor that may determine and separate success from failure. On the whole, the agriculture sector M&E system has been found with better ability to supply relevant information to several of its stakeholders. Equally, the M&E system of the agriculture sector has a comparatively well-developed demand side, thereby able to stimulate different actors to ask and use its M&E outputs.

Finally, for the agriculture sector M&E system to be used as an instrument of managing the implementation of sector strategies and contribute to the national poverty reduction agenda, it is crucial to focus on strengthening both its supply and demand sides. But like it is currently done, there will be need to ensure that the demand side is organized quickly while the supply side is also being developed.

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