RESEARCH PROGRAM ON Livestock

More meat, milk and eggs by and for the poor

Monitoring and evaluation insights for the CGIAR Research Program on Livestock

A Humentum course

Caroline Kanyuuru

International Livestock Research Institute

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CGIAR is a global partnership that unites organizations engaged in research for a food-secure future. The CGIAR Research Program on Livestock provides research-based solutions to help smallholder farmers, pastoralists and agro-pastoralists transition to sustainable, resilient livelihoods and to productive enterprises that will help feed future generations. It aims to increase the productivity and profitability of livestock agri-food systems in sustainable ways, making meat, milk and eggs more available and affordable across the developing world. The Program brings together five core partners: the International Livestock Research Institute (ILRI) with a mandate on livestock; the International Center for Tropical Agriculture (CIAT), which works on forages; the International Center for Agricultural Research in the Dry Areas (ICARDA), which works on small ruminants and dryland systems; the Swedish University of Agricultural Sciences (SLU) with expertise particularly in animal health and genetics and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) which connects research into development and innovation and scaling processes.

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Patron: Professor Peter C Doherty AC, FAA, FRS
Animal scientist, Nobel Prize Laureate for Physiology or Medicine–1996

Box 30709, Nairobi 00100 Kenya
Phone +254 20 422 3000
Fax +254 20 422 3001
Email ilri-kenya@cgiar.org

ilri.org
better lives through livestock

ILRI is a CGIAR research centre

Box 5689, Addis Ababa, Ethiopia
Phone +251 11 617 2000
Fax +251 11 667 6923
Email ilri-ethiopia@cgiar.org

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Introduction

Before I joined the International Livestock Research Institute (ILRI), I worked in the development sector and I had then moved on to research through further studies. A monitoring and evaluation (M&E) position sounded a practical way to apply both my development and research skills in exploring how research products are being taken up by next users and eventually impacting people's livelihoods. My rationale for taking Monitoring, Evaluation, Accountability and Learning for Development Professionals (MEAL D Pro) course offered by Humentum was to engage with a M&E practitioner perspective in contrast to all my research skills built through my academic and research background. The purpose of this course as pitched by its' designers is to help teams design, plan and implement MEAL in their projects. The course orientation is inclined towards development and humanitarian projects and the lessons going forward is to decipher how to apply these concepts in a research for development context. Generally, the principles take same shape and the needed work is in articulating the research for development project logic to measure progress at different scales which would be different to a development/humanitarian project logic. The course met my expectations in that it helped me locate all the pieces of M&E work within project implementation. These are summarized as: a) designing logic models; b) planning MEAL activities; c) collecting MEAL data; d) analysing MEAL data; and e) using MEAL data. This capacity is helpful in assessing if M&E systems and associated data are strong or weak. Strong systems provide the ability to conclude if projects are a success or failure and how they can be improved.

The online course is facilitated by an instructor through eight weekly modules that constitute sub modules, quizzes, assignments and peer interactions, all in form of reading material and sharing through comments. Designing logic models and planning MEAL activities took five modules to complete whilst collecting, analysing and using data was discussed in the three remaining modules. This emphasized that MEAL is very central to understanding how to develop logic models and planning how we will use them to ensure that all the project partners and stakeholders are well informed about the project implementation and progress.

At the end, I make some observations and recommendations for the CGIAR Research Program on Livestock (Livestock CRP) and ILRI.

MEAL in projects and designing logic models

Monitoring, Evaluation, Accountability and Learning is part of the project cycle right from the design of the project until closure of projects. The four processes relate to each other in that monitoring and evaluation information supports the aspects of accountability and learning. Each of these is described below.

- **Monitoring**: *the continual and systematic collection of data to provide information about project progress.*
- **Evaluation***: the user-focused, systematic assessment of the design, implementation and results of an ongoing or completed project.*
- **Accountability***: a commitment to balance and respond to the needs of all stakeholders (including project participants, donors, partners and the organization itself) in the activities of the project.*
- **Learning***: having a culture and processes in place that enable intentional reflection. The aim of learning is to make smarter decisions.*

The MEAL cycle has five phases namely: a) designing logic models; b) planning for MEAL; c) collecting MEAL data; d) analysing MEAL data; and e) using MEAL data. This is a continuous loop that allows new information to feed learning and decision-making processes. The ethical aspect of MEAL systems is that well designed and implemented systems enable projects track progress, make better decision and increase chances of impact whilst poor MEAL systems waste project resources and participants time, compromise security and welfare of participants and reduce projects impact or even worse take the project in the wrong direction.

Good MEAL systems also ensure participation and critical thinking are at the core of project design and implementation. Through participation, external stakeholder perspectives are incorporated in project implementation. Better understanding of the project and increased local capacity of MEAL allows for project ownership by project participants. Resources are also efficiently used as a result of better communication and collaboration amongst project partners. Data collected during MEAL processes can often lead to bias because people are not machines and that is why critical thinking is an imperative that allows questioning throughout the process.

Logic model is a systematic, visual way to present a summarized understanding of a project and how it works. It helps one understand what the desired impact is, how you believe change will take place, the assumptions that need to hold true for project success and how you measure and track progress. Common logic models are the theory of change, results framework and log frames, which can all be aligned to map out how the project is supposed to happen. Defining assumptions that need to hold true for project success and appropriate indicators to measure progress is key. Assumptions are the conditions or resources outside the direct control of project management, but that nevertheless must be met for progress to be made toward the eventual achievement of the long-term goal. Identifying the right indicators is a critical step in the MEAL process, because the indicators become the building blocks of your MEAL planning and implementation. An Indicator is a measure used to track progress, reflect change or assess project performance.

Planning for MEAL

When a project is successfully funded, the teams next step is to put together a concrete and comprehensive plan answering the question how MEAL information will be collected, analysed, interpreted and used in the life of a project. Tools used in planning for MEAL depend on the size and complexity of the project, the risks in the operating environment, number of stakeholders involved, available budget for MEAL activities and the donor requirements.

Commonly used tools in planning are:

- Performance management plan
- Indicator performance tracking tables
- Feedback and response flow charts
- Learning plan
- Communication plans
- Evaluation plans

When planning using these tools, it is important that these plans are aligned and embedded in the larger project budget, timeline and staffing. Lack of this alignment can lead to lack of budgets, staff and time for MEAL activities or be a source of scheduling conflicts between MEAL activities and other project activities. Planning tools are useful when developing MEAL activities with these activities already implicitly mentioned in the tools. It is considered good practice for project teams to develop MEAL activities collaboratively with stakeholders.

When drafting a budget at proposal writing stage, MEAL budgets are high level estimates based on likely activities. Once a project is approved, more refined MEAL budgets, that are activity based are created, listing, quantifying and costing activities in staffing, materials, equipment and travel. Clearly outline MEAL staffing strategy when budgeting by answering the following questions:

- Do we intend to hire MEAL specialists that are primarily responsible for implementing our project MEAL activities?
- Will we share responsibility for MEAL activities among and between multiple project team members?
- Will our project require the support of MEAL technical advisors on an occasional basis to support critical MEAL activities?
- Do we need enumerators, survey facilitators and other staff to conduct surveys, questionnaires, focus group discussions and other MEAL data collection tools?
- Do we intend to hire an external, independent consultant or company to conduct evaluation activities?

Collecting MEAL data

Timely, high quality data emanating from sound MEAL plans is the foundation of any project ability to successfully measure progress, make decision and learn. Quality data is commonly measured by five standards namely:

- **Validity**: when data accurately represent what you intend to measure
- **Reliability**: when data collection methods used are stable and consistent
- **Precision**: when data have a level of detail that gives you an accurate picture of what is happening and enables you to make good decisions.
- **Integrity:** when data are considered accurate.
- **Timeliness**: availability of data when you need it for learning to inform decisions and for communication purposes.

When developing data collection tools, one should be guided by the question "what do I need to know". MEAL data is usually both qualitative and quantitative and thus need different collection tools. A questionnaire is commonly used for quantitative data while semi structured and focused group discussions are used when collecting qualitative data. Though different, these tools have a similar outline—introduction, questions and conclusion. Quantitative tools will take the form of closed ended questions whilst qualitative tools are open ended. Quality open ended questions require the skill to frame questions that will allow conversation through probing.

A sample is a subset of the population or community that one chooses to study to understand the whole population. An appropriate sampling method will facilitate obtaining the right amount of data from the right people to gather the necessary information. There are two types of sampling methods: random sampling which is used when collecting quantitative data and purposive sampling used when collecting qualitative data. Good sampling allows the ability to generalize data over the general population of study. This is applicable for quantitative methods but not qualitative methods, which are often used with triangulation of data in mind.

Depending on the region where the project is working, translating data collection tool is useful to avoid introducing a bias. Further, data collectors need to be well trained and refresher provided if they are not new data collectors. Training will build the skills of data collectors and ensure the tool is working as it should. Physically testing the tools with potential respondents and revising accordingly ensures tools are quality. Planning for implementation of data collection will also allow one to think through time taken per interview, venue of data collection and data management.

Four components of data management are entry, cleaning, storage and security, and retention and disposal. Type of data i.e. quantitative or qualitative will determine the kind of database software to use in data entry, and the database will inform the Information Communication Technology for the MEAL data. Digital devices that synchronize the data collected in the field with the databases used to analyse MEAL data have shortened the data entry process. The digital services reduce the risk of errors during transcription however it is still key that data is cleaned to reduce errors. Some methods used in data cleaning are conducting quality checks, identifying outliers and removing duplicate entries.

Data storage and security measures put in place depend on level of risk assessed, the nature and sensitivity of data and local security and logistical conditions. When data is no longer needed i.e. due to project closure, all records should be disposed or de-identified.

Analysing MEAL data

Collected data in its raw form does not mean much to the owner or the stakeholders. The next processes once data is collected are analysis, visualization and interpretation of the data. These processes are not linear rather they support, inform and influence each other. Quantitative data is analysed using quantitative statistical methods that give numerical results easily visualized using graphs, chart and maps, whilst qualitative data is analysed using a process called content analysis that can also be aided by softwares where the amounts of data are big. The timing of data analysis depends on when it is collected and the timing of stakeholder information needs. As such it is important to coordinate data analysis with the overall project calendar. Two types of quantitative data analysis are descriptive and inferential data analysis. Descriptive analysis summarizes data in a meaningful way so that trends emerge whilst inferential data help make statistical generalizations about the population. Qualitative analysis identifies key themes and findings from all the notes collected from interviews and focused group discussion. Multiple reviews of qualitative data help to generate reliable themes and interpretations and allows inclusion of multiple perspectives in the analysis.

Human brain processes information more easily through visuals. For effective communication, it is therefore much easier to package data in the form of pictures, maps, charts or graphs rather than presenting it in form of spreadsheets or reports. When deciding how to visualize data consider the audience you are communicating to. Different audiences/stakeholders have different learning styles. To develop appropriate visuals, the communication plan earlier developed will guide content development based on stakeholder needs. Examples of data visualizing tools include bar charts, stacked column chart, pie chart, line chart, scatter chart, heat map, line histogram and dashboards.

Quantitative and qualitative data analysis need to be interpreted to make sense of the information they offer. This is where both the team and other important stakeholders give meaning to the data, forming the story of the project that is used to make decisions and share results with others. Some good practices around interpreting data are:

- Creating visuals of results to support interpretation
- Triangulating data by using both quantitative and qualitative results
- Convening stakeholder meetings to interpret data
- Planning adequate time to analyse and interpret data
- Being clear on roles and responsibilities when interpreting data

While interpreting data, it is good to consider that there could be limitations and biases that may have been caused by data types or sampling methods. Validating data analysis themes and conclusions with stakeholders helps address such limitations. This can be done by asking data sources if you have captured their opinions and thoughts through the themes generated.

Use of MEAL data

The ability to use MEAL data is the most important part of the MEAL cycle. These data are critical for project and MEAL management and for the communication of project results to stakeholders through adaptive management. This is achieved when project staff make collaborative, timely and informed decisions that ensure project activities deliver intended impact to participants within the right time, scope and approved budget. Adaptive management contributes both to internal and external learning and is not a standalone activity, rather it is part of project implementation.

To contrast adaptive management from traditional management, firstly in traditional management, leadership encourages standardization and control whilst in adaptive management, interaction and change is valued. Change direction is driven from the top in traditional management unlike in adaptive management where change emerges in the process of implementation and relies on the context of operation. Management planning and execution of repeatable tasks is a feature of traditional management in contrast to organizations having capacities and processes to generate innovation in day to day performance. One can tell if a project promotes adaptive management if they can respond to the questions below.

- Does your project have resources to support learning?
- Are project decisions informed by evidence-based data?
- Does your project accept and encourage change?

Progress reporting is one way we use MEAL data but not the only way as discussed above. Good reporting lays out both the successes and failures of a project based on sound evidence following evaluative thinking. Reporting and communication are the culminating result of data analysis and interpretation thus are critical. Thinking about communication plans developed at the start of the project and consulting the right reporting templates will ensure that reports communicate effectively.

Recommendations for Livestock CRP and ILRI

Monitoring, Evaluation, Accountability and Learning for Development Professionals course was a useful journey of building capacity in my role as a monitoring and evaluation officer for the Livestock CRP. The course is designed for a development and humanitarian kind of work but with principles of monitoring and evaluation remaining the same, there was a lot of insight that can be applied to Livestock CRP and ILRI project/program management work.

CRP program level M&E is captured in the Managing Agriculture Research for Learning Outcomes (MARLO) database. This is achieved through participatory development of plans of work and budget and annual reports by the CRP Program Management Unit in collaboration with research programs (Flagships). The work demonstrates a research for development type of M&E whose principles are aligned to insights of the MEAL D pro course. Whilst MARLO system is clearly able to show the scientific achievement through the output indicators (innovations, policies, publications, altimetrics, partnerships and capacity building), it also shows the existing gap in the measurement of outcomes and impacts. This is evidenced by few Monitoring, Evaluation, Learning and Impact Assessment studies reported in the plans of work and budget and annual reports in MARLO. The underlying challenge could possibly be a lack of clear M&E systems at ILRI bilateral project level or low capacity of CRP planning and reporting requirements, considering Monitoring, Evaluation, Learning and Impact Assessment guidance is new and has been applied towards the end of the CRP phase two. Country level work though coming late in the life of the CRP and impacted negatively by COVID-19, is designed to help demonstrate outcomes and impact and might draw some lessons on how to incorporate M&E at project level.

Based on Humentum course insights, Livestock CRP and ILRI will benefit from having a M&E system and team dedicated to incorporate M&E at project level implementation in the lifespan of projects. The team will require competency and capacity in the design and use of logic models and planning for MEAL. This course defines these two elements as the foundations of any strong M&E system as evidently shown by a dedication of five weeks out of the total eight weeks to designing logic models and planning for MEAL. Success in designing the right research for development project logic and a M&E system to track it's progress lies in my view to a continued understanding of the actors and responsibilities within the Consultative Group for International Agriculture Research (CGIAR) spheres of control, influence and interest in the new research for development modalities within ONE CGIAR. Clarity on the project logic and planning tools showing how information is used, will then guide data collection and management strategies. This concept is what I understand to differentiate M&E activities and research activities, whose boundaries can sometimes be blurred in a research for development organization unlike a development organization.