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MONITORING & EVALUATION TRAINING WORKSHOP MANUAL FOR STAFF AND MANAGERS

AGENCY FOR ACCELERATED REGIONAL DEVELOPMENT (AFARD)

PREPARED BY:

JAMES KAMUKAMA (FACILITATOR)

C/O TOPS LIMITED-NTINDA-KAMPALA

Email: topschange@gmail.com | |Tel: +256392944552

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Disclaimer

This training manual was developed for AFARD, with funding from the German Federal Ministry for Economic Cooperation and Development (BMZ) through a partnership project with AWO International. Its contents are solely the responsibility of the author (Mr. James Kamukama) and do not necessarily represent the official views of AFARD, AWO International, BMZ or other partners. Please seek permission from AFARD to copy, modify or transmit this material which was compiled for the purpose of building capacity of Climate Action Model (CAM) project staff in Monitoring and Evaluation.

Acronyms

AAR	After Action Review
AFARD	Agency For Accelerated Regional Development
BMZ	German Federal Ministry for Economic Cooperation and Development
CAM	Climate Action Model
CSCG	Climate Smart Champion Groups
DAC	Development Assistance Committee
DQA	Data Quality Assessment
EOP	End of Project
M&E	Monitoring and Evaluation
MOV	Means of Verification
MSC	Most Significant Change
OVI	Objectively Verifiable Indicator
PME	Participatory Monitoring and Evaluation
QQTL	Quality Quantity Time Location
RELIP II	Strengthening Resilient Livelihood Project (Phase II)
SHEC	School Health and Environment Clubs
тос	Theory of Change
Vit A	Vitamin A

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Introduction

Monitoring and Evaluation (M&E) is continuously recognized as a tool for program management. It is essential that all organisations and projects build necessary M&E capacity in order to respond to increasing demands for accountability and relevance of what they do. Many organisations are slowly recognizing this need, and are setting up monitoring and evaluation functions in their structures. However, most monitoring and evaluation staff lack sufficient knowledge on project design and management, which makes their work burdensome.

The Agency for Accelerated Regional Development (AFARD) is a regional Non-Governmental Organisation based in Gulu Nebbi district. AFARD runs many projects in various thematic areas ranging from nutrition-sensitive agriculture, functional literacy, peaceful coexistence for refugees and host communities, inclusive market participation, voice and accountability, water and sanitation, resilience and climate change management. AFARD in partnership with AWO International, secured funds for the implementation of the Climate Action Model (CAM) project 2022-2026. It is AFARD's intention that all managers and CAM project staff have a common understanding of monitoring and evaluation, can develop and implement project specific M&E Frameworks and are able to use participatory M&E approaches that foster learning and accountability. Therefore, AFARD implemented a staff training workshop targeting project staff and managers. Participants were introduced to project planning management and the project design process before delving into monitoring and evaluation. The intention was to ensure that staff develop a common understanding of monitoring and evaluation principles and concepts, how to develop and implement project result chain and M&E Framework, and how to use different M&E methodologies and approaches so that AFARD can assure accountability to stakeholders.

To guide the training workshop, the consultant developed a training manual. This manual guided the scope of the training in terms of session length, content and approach. The manual is designed to help the facilitator attain the expectations of the training and serve as a reference document for AFARD staff as they carry out project management functions.

This manual is organised in nine (9) sessions. Each session includes at least one practical session. The last session (developing M&E framework) is an output from all the sessions done. This is in line with international best practice of delivering similar capacity building workshops in M&E. Each session includes the objectives and the method that was used to deliver the sessions. It should be noted that various other suitable approaches can be used to deliver this training, although this manual focuses on the specific one that was used to deliver the training to AFARD staff.

This manual is customized for AFARD program staff. However, it can be utilized by project managers at different levels, government officials, decision makers and policy analysts in both private and public sector. It provides an introductory background to project design and monitoring and evaluation, that is needed in contemporary project management.

Workshop Objectives & Scope

At the end of the training workshop, participants will

- a) Be able to make a logical linkage from project design to monitoring and evaluation.
- b) Have an improved and common understanding of the fundamentals of monitoring and evaluation as a project management tool
- c) Be able to develop a results chain and a results framework as tools for monitoring and evaluation
- d) Be able to critique current quality of data collected by AFARD and its flow with a view of improving the quality of data for decision making
- e) Be able to conduct monitoring and evaluation activity from design of tools through reporting and learning.

The following sessions should be covered. Each session outlines the topics and subtopics be covered, as well as the practical exercises to be conducted.



Introduction to project management

- Defining a project and its management
- Defining a project and its management
- The project life cycle
- Project management disciplines
- Needs and objective analysis
- Selecting a project from various options

2

The intervention logic

- The logical framework matrix
- Results chain
- Theory of change

3

Participatory monitoring and evaluation

- Define M&E
- · DAC criteria
- Types of Evaluation
- Results based M&E



Participatory monitoring and evaluation

- Participatory and Conventional M&E
- Downsides and cons of each
- Examples of participatory M&E

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Conducting performance evaluations

- Evaluation design
- Data collection
- Sample size and sampling
- Ethical considerations



Data Quality and Flow

- Data quality dimensions
- Data flow chart and gap analysis

7

Data analysis

- Qualitative and Quantitative analysis
- Drivers of data analysis
- Data analysis with Excel pivot tables



Learning and Reporting

- Learning for improvement
- Possible learning events
- · Quality progress reports
- Taking photographs for reporting



Developing M&E framework

- Use of framework for planning and reporting
- Components of the M&E framework

Session objectives and approach

Session 1: Introduction to project management

Learning objective: By the end of this session, participants will be able to

- Define the concept of "project" and "project management".
- Situate monitoring and evaluation in the project life cycle
- Analyse the problematic situation and come up with an objective tree representing feasible project scenarios
- Apply the various criteria to select a feasible project from many alternatives



Approach:

Through interactive lectures, participants are introduced to the concept of project. Through brainstorming, day to day projects are highlighted. It is acknowledged that although project development and management are professional activities, there are adhoc activities conducted by individuals and companies in everyday life. Participants are introduced to needs assessment to understand the problematic situation. To better appreciate the concept, a rich picture is elaborated and participants are asked to draw a rich picture representing a problematic situation. In groups of 5-6 participants, participants develop a problem tree, objective tree and use them to brainstorm possible interventions. Participants are asked to justify why the selected interventions are the best, the purpose they serve, and the risks associated with implementing them.

Below is the notepad to be provided to participants to help them to take notes as the activity progresses. While this was not printed out during the AFARD training, future trainings should consider prior provision of such materials to participants to aid comprehension.

1	TRAINING OBJECTIVES	 Be able to make a logical linkage from project design to monitoring and evaluation Have an improved and common understanding of the fundamentals of monitoring and evaluation as a project management tool Be able to develop a results chain and a results framework as tools for monitoring and evaluation Be able to critique current quality of data collected by AFARD and its flow with a view of improving the quality of data for decision making Be able to conduct monitoring and evaluation activity from design of tools through reporting and learning 	
2	SESSION 1: Introduction to Project Management	 What is a Project? A project is a temporary endeavour, with finite resources and time, to attain an objective. A project is a temporary endeavor undertaken to create a unique product, service and results. It has a beginning and an end. An endeavor in which human material and financial resources are organized in a novel way to undertake a unique scope of work of given specification within constraints of cost and time so as to achieve beneficial change defined by quantitative and qualitative objectives 	
3	INTERACTIVE	 What are some examples of projects? How best can such projects be managed? Project Management: The art of managing and coordinating human and material resources throughout the project life cycle using techniques of modern management to attain the pre-determined objectives, Project Management Disciplines Quality, Schedule, Cost, Risk, Issues, Change, 	

Stakeholders

successful?

• Why do some projects fail while others are



PROJECT DESIGN

- How do you design a project?
- What are some design considerations?
- What is a good project (at least by design and structure)?
- Project design is one of the stages of project life cycle
 - » Project design
 - » Set up
- » Planning
- » M&E
- » Implementation
- » Closure/Exit



PROJECT DESIGN

- Make use of objective oriented project planning and management process
- Basis idea: It's important to start with the needs you want to solve and what you want to achieve rather than with what you want to do (activities)
- Good problem analysis requires needs assessment.
- A need is a discrepancy between current and desired situation. But how suitable, prepared are you to solve it?
- Needs are diverse and their description can depend
- » Less than in other districts (outside Pakwach/Nebbi?)





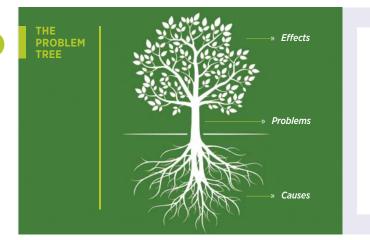




PROBLEM ANALYSIS

- Often, we prescribe solutions without thorough understanding of problem. Treat symptoms to actual problem
- Problem analysis ensures that project focuses on actual problem (to be solved by project)
- Seek for causes of focal problem
- By working on the focal problem, what are we avoiding (effects) Ask the following questions
- » What is the focal/main problem to solve?
- » What change is needed?
- » What are the causes of this focal problem? (the cause problem)
- » Why is it Important to solve this problem? [effects)
- » Who is affected by the problem?







STEP 1

- Either, completely open (no preconceptions. Do not assume you know the problem from start)
- Or, more directed, by specifying a "known" high-level problem based on preliminary analysis
- From Rich picture to problem tree

USE A RICH PICTURE

- A drawing of a situation that illustrates the main elements and relationships that need to be considered in trying to intervene in order to create some improvement
- Consists of pictures, text, symbols and icons, which are all used to illustrate graphically the situation
- It illustrates the richneu and complexity of a situation (a picture tells a thousand words)
- Drawings can both evoke and record insights into a situation. Rich picture helps us to see relationships and connections that we may otherwise miss

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ACTIVITY				
Groups of 5-7 have flip chart each with a marker	Everyone should be free to draw (Draw current situation). Have a facilitator	Focus on a specific case		
Start by drawing, not discussing	Everyone should contribute to the drawing	Who are the stakeholders, and how do they relate to each other		
Draw context, uses and effects	Feel free to include facts and subjective info	Can use legend. Do not use alot of text		

STEP 2: Present the picture, and Select an Individual Starter Problem (Trunk)

STEP 3: Look for problems related to the starter problem

STEP 4: Establish a hierarchy of causes and effects

- » Problems which are directly causing starter problem BELOW
- » Problems which are direct effects of starter problem AROVF
- » If there are two or more causes combining to produce an effect, place them at the same level in the diagram

STEP 5: Connect the Problems with Cause-Effect Arrows



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DETERMINE CAUSES OF STARTER PROBLEM

River water quality is Deteriorating



Levels of households and business refuse in river are high

Population not aware of the dangers of waste dumping



Pollution by fertilizer firms not controlled

DETERMINE CAUSES OF STARTER EFFECTS

Riverine ecosystem under serious threat, including declining fish stocks



River water quality is Deteriorating

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PROBLEM TREE - RIVERLINE VILLAGE High incidence of water borne diseases and illnesses particularly Catch and income Riverline ecosystem under serious threat, including of fishing families declining fish stock among poor families and 5s in decline River water quality is Deteriorating 1 Levels of households Waterwaste treated in Levels of faecal waste in river are high & businesses refuse in river are high plants does not meet enviromental standards Majority of household dispose of faecal waste Population not aware of the dangers of waste dumping Pollution by textile industries not controlled directly in the water Inadequate levels of capital investment and poor planning E.P.A ineffective and closely 70% of Population Public households lack hygienic information education not aware of the dangers of faecal waste aligned with industry interests sanitation facilities for programs unavailable within local government faecal waste dumping

PROBLEM TREE - RIVERLINE VILLAGE

- This is oversimplified problem tree
- Real ones can be complex and expensive to develop
- It facilitates discussions. Possible questions include
- Does this represent reality?
- Which causes and consequences are getting better, worse, or same?
- Which causes or consequences are most easy/difficult to solve
- · Where could intervention of benefit?

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THE OBJECTIVE TREE

Rephrase each of the problems into desirable outcomes/positive achievements

- "River water quality is deteriorating" is converted into 'quality of river water is improved."
- The objective tree roots from "means" to "ends".

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OBJECTIVE TREE - RIVERLINE VILLAGE Catch and income Threat to the river Incidence of water borne diseases and illnesses is reduced particularly among poor families and 5s of fishing families is ecosystem is reduced stabilised & increased & fish stock increased River water quality is improved 1 The quantity of faecal Quality of households and business refuse discharged Waterwaste treatment meets enviromental waste dumped in river is reduced directly into the river reduced standards F Increase % of household withaccess to hygenic Population more Decrease % of businessaware of the dangers generated waste sanitation facilities directly dumped in river of waste dumping Latrine building E.P.A is more effective and Improved business Public Public information information program introduced responsive to a broad range planning & increased capital education education programs established programs established of stakeholders investments by interests local government

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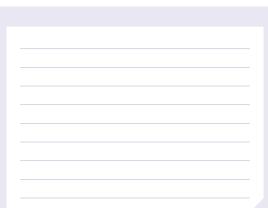
OBJECTIVE TREE - RIVERLINE VILLAGE

- Note that the objective tree is theoretically convincing but might not be practical
- Managers can only pick some elements of it
- The selection criteria can be guided by
 - » Resource availability
 - » Appropriateness
 - » Fits in its vision, mandate
 - » Leads to duplication
 - » Time constraint
 - » Relevance to government policy or priority need



ACTIVITY

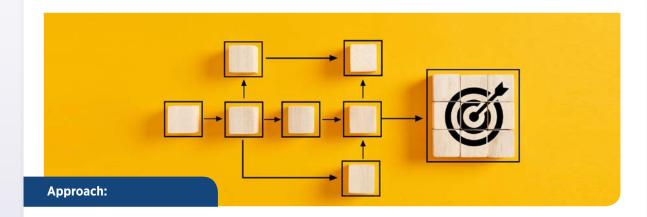
- Identify a starter problem that AFARD is addressing or is likely to address
- Brainstorm causes and effects of the problem
- Write them on cards. Arrange the cards based on cause-effect to form problem tree
- Produce an objective tree (positive statements)
- Propose a project. Define the project by purpose, target group, objectives and interventions, and any risks to success
- Why are you convinced that this project will solve the need?



Session 2: The intervention logic

Learning objective: By the end of this session, participants will be able to

- Define their respective projects in terms of goals, objectives and approaches in use
- Develop a logical framework matrix for a project
- Develop a theory of change for the project (both diagrammatic and narrative)



Through interactive lectures, participants are introduced to the concept of intervention logic. Participants are asked to connect what they do and why they do it in respective projects. The facilitator then takes them through the different concepts useful for coming up with a logical framework. These include the resources, activities, processes, outputs, purpose, goal, means of verification (MOV), objectively verifiable indicators and assumptions. In groups of 5-6 participants, participants are tasked to develop a logical framework matrix that corresponds to the identified levels in the objective tree (session 1). The logical frameworks are presented in plenary for feedback by peers and facilitator. The logical framework is used to demonstrate the concept of results chain, and logic model. Participants are then introduced to the concept of program theory, encompassing theory of change (TOC) for all interventions. Through brainstorming, participants identify the various assumptions responsible for project success and that ensure that the project is a response to the problematic condition. This session referred to current and previous projects. Areas referred to include the activities done, the plausibility of intervention logic and how they could have been improved.

Below is the notepad to be provided to participants to help them to take notes as the activity progresses. While this was not printed out during the AFARD training, future trainings should consider prior provision of such materials to participants to aid comprehension.

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SESSION 2: The Intervention Logic

- Every project has imbedded logic (Theory of Change). We have a task to elaborate the CAM ToC?
- If we supply farmers with improved seeds and put up a credit system in place - And assume there is adequate rainfall
- Then production will be improved
- What example do you offer from your discussion / project so far?

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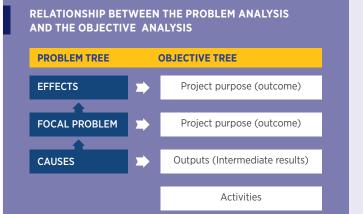
THE LOGIC OF THE RESULTS CHAIN Resources are to undertake mobilised activities... the direct must have and an impact on results of which. effects... development Built buildings, Human, Construction, Improved Physical, training, trained staff, food supply, Financial > organising, implemented > higher level of facilitating, processes, education, longer resources writing written life expentancy, standards increase GDP, common market INPUTS OUTCOMES IMPACT **ACTIVITES** OUTPUTS

Project Description	Indicators	Meana of verification	Assumptions
GOAL	If the OUTCOMES occur: Then this should contribute to the the overall GOAL		
OUTCOME(S)	If the OUTPUTS are produced: Then the OUTCOMES can occur		
OUTPUTS	If the ACTIVITIES are conducted: Then the OUTPUTS can be produced		
ACTIVITIES	If adquate RESOURCES/INPUTS are provided: Then the OUTPUTS can be produced		•

THE LOGIC OF THE RESULTS CHAIN

- The Logical Framework is a management tool to structure the main elements of interiention/ project, highlighting the logical linkages between inputs, activities and results
- Helps to
 - » Identify and assess risks inherent in project design. What assumptions are behind Means to Ends relationship?
 - » Measure progress (MOV and OVIs). What shows that we're progressing from means to ends?

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- **Goal/Overall objective/Impact:** Desired end/long-term result, to which project outcomes contributes.
 - » Not so ambitious that attainment of outcome/purpose won't contribute significantly to its fulfilment.
 - » Like a 'vision' in organisational context.
- Purpose/Outcome: The state of the target population or social condition a program is expected to change.
 - » Characteristics that, in principle, could be observed for individuals or social conditions even when they have not received the intervention.
 - » Outcome level- status of the outcome (irrespective of if it's caused by program or not).
 - » Should be formulated as a desired state not a process
 - » Specify the target group of project (who, what?)
 - » Likely to occur once outputs are produced
 - » Expected to contribute significantly to goal

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- Output: Goods/deliverables and services that implementers are accountable for
 - » Means to attain the purpose/outcome
 - » Should be feasible with the resources available
- Activity: How each output will be attained
 - » Only those essential for producing anticipated outputs
 - » Put as actions undertaken rather than completed (outputs). Use verbs like design, collect, conduct...
- Resources/Inputs:
 - » Should be related directly to specific activities
 - » Be precisely and verifiably defined (quantity, quality, cost)

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- **Assumptions:** Positive statements about the uncertain external factors between levels of results.
 - » Do not include those likely to occur
- Indicators (OVIs): They show if there is progress or no progress towards results
 - » "I will know it when I see it" is avoided
 - » Can have targets imbedded e.g 20% of farmers...
 - » Should be realistic, measurable, timebound...
 - » How do you know if CAM has "Transformed communities of Nyaravur Subcounty (Nebbi district) and Alwi sub-county (Pakwach district) into Climate Active Model Villages through the establishment of Climate Smart Champion Groups (CSCGs) and School Health and Environmental clubs (SHECs)"
 - » Good indicators are tied to a specific result

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QQTL dimension of indicators

- Percent of youth headed households eating atleast 3 meals a day in Pakwach district reduce by 20% by 2025
- Quantity: reduced by 20%
- Quality: meals eating.
- Target Group: Youth headed households
- Time: by 2025
- Location: Pakwach district

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Criteria for decision on intervention

- Note that the objective tree is theoretically convincing but might not be practical
- Managers can only pick some elements of it
- The selection criteria can be guided by
 - » Resource availability
 - » Appropriateness
 - » Fits in its vision, mandate
 - » Leads to duplication?
 - » Timeconstraint
 - » Relevance to government policy or priority need



	Description	OVI	MOV	Assumption
Goal				
Outcome				
outputs				
Activities				

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Activity

- With reference to the objective tree and selection criteria, draw up a 4 by 4 logical framework matrix for a project of your choice
- Use nomenclature of your respective projects

Theory of Change

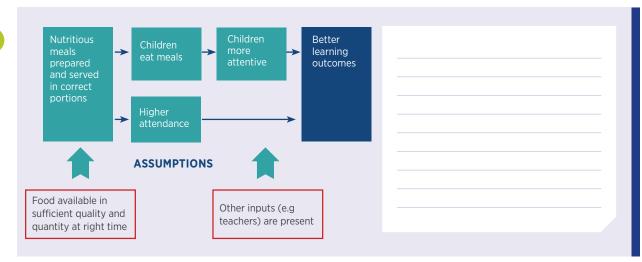
- Every Project has underlying logic (ToC)/Pathway of change
- Can be demonstrated graphically or in narrative or both
- Most times not written down. But can be espoused and documented.
- This can help to communicate project to stakeholders, as part of design, for evaluation (tell whether project worked or not and what went wrong).

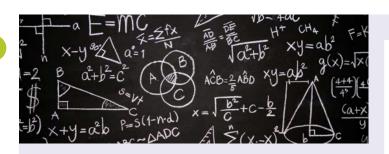
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- The belief we hold guide our analysis of problems (see rich picture, problem tree) and how we think they can be solved [see objective tree and logframe)
 - » Beliefs on what are the needs of targets? How can they be overcome?
 - » ToC- describes how an intervention is believed to deliver desired results. Documents the causal link between inputs, activities, outputs, outcomes [results chain] and the underlying assumptions.
- Program theory defines (Theory of change + Implementation theory) guides our understanding of how interventions should, and do cause change.
- This is possible under sets of assumptions

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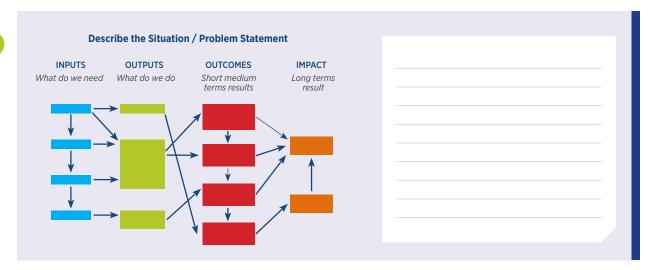


- Even with all the time, not possible to formulate an accurate ToC. Good practice to redraw and revise
- Present both diagram and narrative text. Provides more detail on results, causal links and assumptions
- Logframe is a good starting point for ToC development It's a simplistic logic model.

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Components of ToC

- Diagram (showing arrow linkages). Box and arrow ToC.
- Narrative (contains the following)
 - » Problematic context (current state of problem)
 - > What is the nature and magnitude of the problem to be addressed?
 - > What are the needs of the population? What has created those needs?
 - » Long term change (goal)
 - » Results chain
 - > What kind of assistance might address those needs? What outcomes might be desirable?
 - » Who are the stakeholders, who will be involved, beneficiaries
 - > What are the characteristics of the population in need?
 - » Assumptions (also in diagram)

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Activity

- Base on the Log frame matrix, draw and narrate the project Theory of Change (ToC)
 - » NB: Do not repeat any mistakes you find
 - » Use the project terminology
 - » Feel free to include new levels (e.g Use of outputs)
 - » Refer to components above. Include the assumptions
 - » How does the ToC help in project management?

Session 3: Introduction to Monitoring and Evaluation

Learning objective: By the end of this session, participants will be able to

- Define Monitoring and Evaluation and make a case for its rationale in project management.
- Apply the Development Assistance Committee (DAC) evaluation criteria in planning a monitoring and evaluation activity.
- Differentiate traditional from results-based monitoring and evaluation

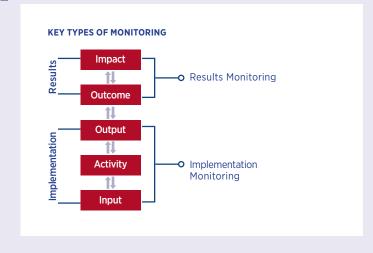


Through a brainstorming exercise, participants are asked what they understand by the concept of 'monitoring' and 'evaluation' separately. Their responses are situated to a project context, at different stages. This offers the facilitator a chance to introduce the different types of evaluation and the many terminologies that surround the M&E discipline. After clarifying on what M&E is, and what it entails, participants are referred to the results chain (session 2). The results chain is used to differentiate between traditional and results based M&E. In groups of 5-6 participants, identify relevant questions and sources of responses in line with the DAC criteria. They report to plenary for further support.

Below is the notepad to be provided to participants to help them to take notes as the activity progresses. While this was not printed out during the AFARD training, future trainings should consider.

Session 3: Introduction to Monitoring and Evaluation **Monitoring and Evaluation and control** Project End of identification Project setup Planing project Implementation and design Transition

Results/Results Based Monitoring



Results/Results Based Monitoring

- Traditional Monitoring focuses on implementation monitoring
 - » Tracks inputs (money, strategies), activities, outputs
 - » Focuses on how well a project is being implemented
 - » Focus on compliance with workplans and budgets
- Results based monitoring focuses goes a notch higher to focus on outcomes and impacts.

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What is project evaluation?

- It's the determination of the value or worth of a project- based on benchmarks like efficiency, relevance, effectiveness, impact, sustainability, coherence[DAC]
- A program must
- » correctly diagnose the problems it's intended to address [Relevance],
- » adopt a feasible design capable of ameliorating the problem [appropriateness of theory and design],
- » be well implemented in a manner consistent with the design [Program process], and actually
- » improve the outcomes for the target population [Impact],
- » at acceptable cost [Efficiency].
- » A program ought to promote synergies/interlinkages with existing interventions [Coherence].
- Program evaluation involve assessing one or more of these domains.

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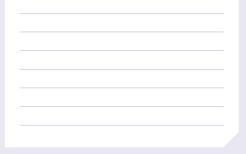
What is project evaluation?

- Unlike monitoring that is continuous, evaluation is periodic.
- Types of evaluation include
- » Summative (aimed on what has been achieved)
- > Often at project end, although can be in middle.
- » Formative (focus on processes and the how's)
- Others [names] include
- » Baseline, Endline & Midterm
- » Ex-post Vs Ex-ante
- » Process evaluation
- » Performance evaluation Vs Impact evaluation
- » Outcome monitoring
- » Cost-Effectiveness Analysis
- » Post Distribution Monitoring
- » Data Quality Assessment
- » Others?



Activity

- The Development Community bases on DAC criteria to evaluate programs.
- For each criterion, suggest 2-3 questions that would make it to the end of project evaluation of the project suggested by your logframe.
- For each question, what would be the sources of data?



Participatory Vs Conventional M&E



Session 4: Participatory Monitoring and Evaluation

Learning objective: By the end of this session, participants will be able to

- Differentiate participatory M&E from conventional M&E practices and the resulting value
- Appreciate the various participatory M&E approaches in use at AFARD and elsewhere
- Come up with potential participatory M&E practices that can be adopted by AFARD



Through interactive lectures, participants are introduced to participatory M&E and stakeholder involvement in monitoring and evaluation processes. Participants are taken through the various participatory methods in use, and through pair-wise role-play they do the Most Significance Change (MSC) one with appreciative inquiry inclination Change, which makes everyone to speak out. Participants in groups of 5-6 are asked to visit their program documents, reporting processes and field activities at AFARD. They are asked to report back in plenary on the current and potential practices that the organisation can take up for increasing ownership and sustainability of results. Participants also take note of some practices where conventional M&E will likely prevail due to the objectivity that they deserve.

Below is the notepad to be provided to participants to help them to take notes as the activity progresses. While this was not printed out during the AFARD training, future trainings should consider prior provision of such materials to participants to aid comprehension.

1	Session 4: Participatory M&E	
	 A process through which key project stakeholders are actively engaged in assessing progress, and achievement of results. They share control over evaluation process, tools and participate in identifying corrective action. 	
	 Broad range of stakeholders included viz development partners, policy makers, beneficiaries. 	
	This attracts diversity of views—thus better churned decisions	
	Members identify own indicators of success. Process is empowering to local people	
2	Participatory M&E	
	The outsiders are just facilitators of the process	
	 Focus is on learning, and utilizes participatory methods. Based on handing over the stick (from expert- to stakeholders). However, consensus building can be time-consuming 	
	Local participants likely to develop M&E skills	
	Downsides of PMF	
	Downsides of PME Seen as less objective Less useful to address technical aspects	
	Seen as less objective Less useful to address technical aspects	

Relies on experts to measure performance against pre-set indicators, using standardized procedures and tools. Focus is on accountability, relying on formal strict accountability procedures and methods Normally initiated by external parties like donors. The ToR is set by donor with little or no input from implementers. The implementer receives copies of report. The outsiders are planners, study implementers and actual evaluators

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PM&E Methods

- Participatory Impact assessment
 - » E.g proportional piling
- Self evaluations
 - » Evaluate own programs
- Peer evaluations
 - » Participate in evaluating programs implemented by peers. Avoids positive bias.
- Most Significance Change (MSC)
 - » Collect personal stories on most significant change. Vote for the most significant.
- Photo voice
 - » Take pics of what's considered important changes. Pick stories around it.
- Appreciative Inquiry
 - » What you focus on becomes realty. Seek for positive and factors that led to it.

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Activity

- What participatory M&E activities has AFARD used in the past or current projects
- What PME methods (new or in use) can potentially be upheld/ adopted by AFARD, or its projects and operations?
- How can participatory M&E approaches improve the quality of progress reporting?
- Suggest why conventional M&E approaches are still much used at AFARD and still counting

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Conclusion: Why M&E

- Program management and improvement
- Knowledge generation
- Institutional knowledge
- Improve evaluability
- Find unexpected results

Session 5: Conducting a performance evaluation

Learning objective: By the end of this session, participants will be able to

- Plan and design an evaluation activity by undertaking the core functions
- Employ appropriate sampling strategies to reach an estimated sample size for both qualitative and quantitative studies
- Identify the key evaluation questions, sources and types of data to be collected given a relevant project indicator.



Participants are referred to session 4 on the different types of evaluations. Its emphasized that evaluations share common aspects although their intended use is an overriding criteria in their design. Emphasis is put on performance evaluations where management wants to establish the status of results at different stages of the project cycle. Through interactive lectures, participants are taken through the typical steps in planning and executing an evaluation activity. The steps covered include setting the purpose and evaluation questions, selecting a suitable design that responds to the questions, identifying sources and methods of collecting data, sampling and sample size determination and ethical issues that might affect the quality and integrity of evaluations. Mention is made of the other necessary steps to be covered in other sessions. These include data entry and analysis and reporting findings.

Below is the notepad to be provided to participants to help them to take notes as the activity progresses. While this was not printed out during the AFARD training, future trainings should consider prior provision of such materials to participants to aid comprehension.

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Session 5: Planning a survey/evaluation

- Evaluation Purpose/Questions? This limits the scope
- Study design- Dependent on the type of questions
 - » Qualitative
 - » Quantitative
 - » Mixed methods/Multi-methods
- Data sources
- Data collection methods (FGD, KIIs, Survey)
- Sample size and sampling
 - » Target population Vs accessible population
 - » Sampling frame
- Data entry and analysis
- Dissemination and utilization of results



Sampling

- It's a process of selecting elements from the target population, that are representative.
- The larger the sample the better. Then why do we sample?
- M&E data collected from samples.
- Samples collected for qualitative data and quant data
 - » Qual sample smaller than Quant sample
- Some samples give questionable results, and may not pass Data Quality Assessment (DQA)
- The size of sample and sampling process are equally important in data quality management





Sampling techniques

- Probability (scientific)
 - » Simple random
 - » Systematic random
 - » Cluster random
 - » Stratified random
- Non-probability (subjective judgement by researcher)
 - » Convenient
 - » Purposive
 - » Snowball
 - » Quota

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How many units are sufficient (n)?

- Qualitative study: Its quality and depth of data collected that matters most. Diversity of views.
- Quantitative data:
 - » Larger n than for qualitative
 - » Use formula (Many available on market)
 - » Slovin (1960); $n= N/(1+N.e^2)$; when population behavior is unknown.
 - » Sample size calculators (know assumptions)
 - » (http://www.raosoft.com/samplesize.html)
 - $\,$ » Krejcie & Morgan (1970) tables. Use table to determine sample size for CAM N=?

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Table for determining sample size from a given population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size

"S" is sample size

Krejcie, Robert V., Morgan, Daryle W., "Determing sample size for Research Activities", Educational and Phychological Measurement, 1970.



Activity

- Consider a project you are implementing for each project (15 projects), what is the sample size for a baseline study (Both qualitative and Quantitative sides). Justify how you arrive at N. Use the following
 - » Slovin formular
 - » Calculator
 - » Tables

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Data source and data collection methods

- Where will you get the data for your indicators?
- Already being collected (existing)/secondary or new/primary data?
 - » Limitations and advantages of each
- Characteristics of Good Data source
 - » Reliable. Reflect stable and consistent data collection process
 - » Easy to collect
 - » Relevant. To the purpose to which its collected
 - » Verifiable
 - » Timely. Captured quickly preferably after event and available within reasonable time period for the purpose its required.



Data collection methods

- Qualitative
- » Focus groups
- » Key informants
- » Observation
- Quantitative
 - » Survey
 - » Record abstraction (from existing records, progress reports..)
 - » Might need a records abstraction form
 - » Low cost. Low burden on respondents.
 - » Incomplete records. Question not asked the same way you wanted.



Sampling techniques

- » Checklist
 - > Easy to develop and complete (Yes or No items). Does not ask about quality
- » Observation [to avoid: "I will record when I see..."]
 - Recording behavior and characteristics of living beings, objects and phenomenon
 - More accurate than interviews. But has ethical issues, and is prone to reactivity.
 - > Can be qualitative too
- > Requires observation form

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Ethical issues in data collection

- Privacy and Confidentiality. Discuss limits
- Voluntary participation
- Informed consent
- Impartiality
- In your experience, what have you found ethical/unethical?

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Choice of data collection method-Key questions

- Why do you want the data? Purpose of data
- Where will we collect the data?
- What type of data will we collect?
- Who will collect the data?
- How do we collect the right data?

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Activity

- Identify 1 indicator in your project.
- What type of data will be collected?
- » Primary or secondary- which specifically?
- » Quantitative or Qualitative which specifically?
- What are the most appropriate methods to collect the data and why?

Session 6: Data Quality and Flow

Learning objective: By the end of this session, participants will be able to

- Define the dimensions of data quality as they apply to AFARD projects and portfolio.
- Create a data flow chart for different projects as the basis for identifying gaps and finding solutions to improve data management processes at AFARD.
- Appreciate and document best practices in movement of data and improving overall data quality management processes.



Through interactive lectures, participants are introduced to the concept of data quality. There is brainstorming on what participants perceive to be good quality data and whether AFARD data should be seen to be of good quality. The facilitator presents True or False statements on characteristics/properties of quality data with intention to judge their current conceptualization and biases on data. With examples, the facilitator illustrates how errors get introduced at different stages of the data value chain (collection, entry, storage, transmission/dissemination). In groups of 5-6 participants, participants draw a schematic data flow chart representing the current practices in data management. The chart is used to identify the current gaps in internal and external data flow. In plenary, participants present the flowchart, suggest solutions for the identified gaps in a view of increasing the quality of data collected and used for decision making, both internally and externally.

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Session 6: Data Quality and Flow

- Data should be of acceptable quality, so that it can be used/usable for policy making/decisions.
- Data quality assurance ensuring that data meets all attributes of good data for decision making. This can be through
 - » Standardizing forms and processes
 - » Reviewing data periodically
 - » Data cleaning
 - » Review and update data management processes
 - » Removing duplicates



Common errors that impact data quality

- Data collection
 - » Incomplete forms
 - » Unintended respondents
 - » Not asking as trained
- Data entry
 - » Human errors; duplicates
- Data storage
 - » Incorrect labelling
 - » Unsecured files/documents
- Data analysis
 - » Data not suitable for required analysis



Common errors that impact data quality

- Data dissemination
 - » Disseminated with incorrect formats
 - » Data reported compromises client confidentiality
- The data quality dimensions
 - » Validity (measures what it purports to. Requires qualified and supervised collectors)
 - » Reliability (consistent data collection process in use?)
 - » Timeliness
 - » Precision (agreement among repeated measurements of same item?)
 - » Integrity (safeguards to prevent manipulation)

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True or False

- Education level is not necessary. What is important is well trained data collectors
- No need to worry about errors in data collection. All can be detected and rectified at data analysis
- Data quality checks are not needed. People know what they are doing and sources can reasonably be trusted
- We already have too much on table. The cost of poor data quality is not as important as delayed delivery on other aspects

Techniques to ensure data quality

- Train staff in use of data collection tools
- Create opportunities for staff members to provide suggestions for improving data collection and management processes
- · Pilot data collection tools
- Monitor data collection activities
- Take proactive steps to correct problems that compromise data quality
- Where possible, use technology to improve accuracy and efficiency
- Pay attention to the design and implementation of data management systems.
 - » Does it accommodate the type and volume of data?
 - » Data management system inspires confidence in the quality of data it manages

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Data flow

The process of moving data from where they were collected (data source) to the point where they will be processed into formats that are usable by stakeholders

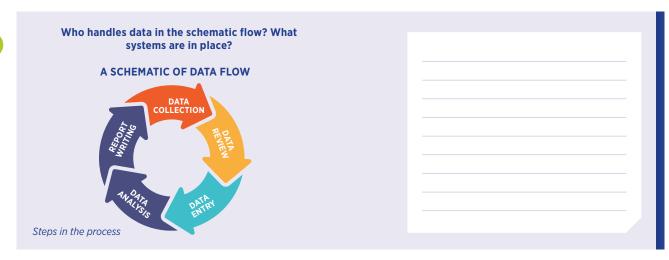
Also describes how information moves within a national/regional system. How does AFARD project data move? What value is added at each stage?

Monitoring of Data quality should occur at every step in the data flow process

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Quantitative	Qualitative
Data collection, Data sources	Data collection, Data sources
Data Review	Data Transcript
Data Entry	Data Organization identification of codes and themes by data source
Data cleaning/ quality check	Triangulation, member checking
Data analysis, dissemination	finalize themes, dissemination

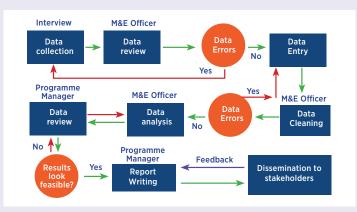
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Internal and External Flow

- Internal: Pathways in which data moves in an organisation (see below chart).
- External : How the information you collect is part of a larger data collection and reporting system





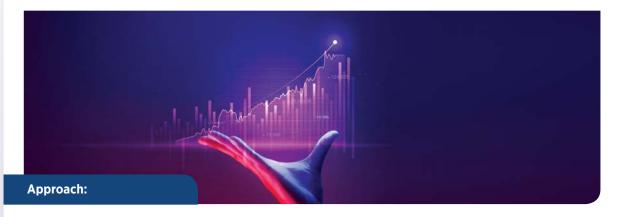
Activity

- List ways in which data is currently being collected, reported and utilized in your project/AFARD
- Develop a data flow chart representing movement of data throughout the system (internally and externally)
- Get input from persons involved/consult
- Identify gaps with current data flow and suggest ways of improvement

Session 7: Data Analysis

Learning objective: By the end of this session, participants will be able to

- Understand the rationale for project-based data analysis
- Appreciate the connection between data analysis, reporting needs, the quality and type of data at hand
- Use Excel pivot tables to perform descriptive and relational analysis
- · Use thematic analysis for qualitative data and explore other ways to visualize qualitative data



The facilitator introduces the concept of data analysis, making reference to session 5. Session five explored the different types of data (qualitative and quantitative). The facilitator uses the class as subjects to collect mock qualitative and quantitative, before working with the class to design relevant data capture screens and interfaces. The facilitator uses the opportunity to introduce the different software where this data can be entered, stored, retrieved, exported/imported and how different data formats can be integrated for mixed methods analysis purposes. The facilitator does not complete the data collection and entry process but introduces pre-prepared quantitative and qualitative data for analysis. These are shared with all participants, to be used for further analysis. Qualitative data analysis follows thematic analysis, but the consultant informs participants of other ways. Quantitative analysis focuses on conditional formatting for data entry screen preparation and the basic mathematical formula for descriptive analysis before introducing pivot tables in Microsoft excel that performs two-way analysis. Participants are grouped in 2-3 people to be able to help each other as they work on their worksheets. The facilitator keeps moving around to help participants troubleshoot any challenges they encounter, especially those with different versions of computer and excel than what was being used for demonstration purposes.

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Session 7: Data Analysis

- Its the process of converting raw data into meaningful statistics and themes
- It helps to make data talk! Helping to tell a story of how an intervention is performing.
- The questions you set, the reporting requirements should guide the analysis.
 What is the intention of analysis? Is the data at hand suitable for the type of questions at hand? Are you comparing with baseline values? (Bring both stats side by side)
- What are beneficiaries saying about outcomes (Vit A resilience?), what has happened to communities as a result of intervention (what does data say?).
- Let your logical framework guide your questions and analysis



Data analysis-Qualitative

- Unlike quantitative analysis, the software for qualitative is under-developed to
 do all the sophisticated analysis. Somehow, there is always a human hand in all
 analysis even when assisted with software. Available software include Atlast.ti,
 MaxQDA, Nvivo
- Analysis can also be done manually (100%) with computer used for organizing text, voice, transcriptions
- The view of the nature of data and information determines the kind of analysis
- The types of analysis can be categorized as
- Thematic
 - » Start with themes or let them emerge. Have a codebook
 - » Content
 - » Pay attention to tone, text matches and frequency

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- 2 out of 6 focus groups mentioned that beneficiaries spend more time on tree planting than they used to before the project. Avoid ambiguous statements like ...Most, Many, at least
- The top 5 benefits mentioned were improved interactions among communities (), taking children to school (13), more choice in food consumed (09)...
- Seek for common words used
 - » Word cloud can speak volumes too. Many nonproprietary versions but with limits on breadth of analysis.
 - » https://www.jasondavies.com/wordcloud/
 - » Try this out in activity,

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Data analysis-Quantitative

The following steps are involved (Quantitative)

- 1. Clean and organize Data
 - » Check for errors, missing info, outliers
 - » Consider deleting or flagging bad data points
- 2. Keep back-ups, that are orderly named
 - » Generate summary statistics
 - » Mean/average, median, mode, range, min, max, frequencies
 - » Too much information, masks key information
- 3. Produce visuals
 - » Charts, Plots, Tables (one-way, two-way)
 - » Too large or packed tables not recommended
- Note: There are software packages in place like SPSS, Stata, R etc. For simplicity, we can
 use Microsoft Excel for data entry and analysis. Excel is already being used for organizing
 your tools. Add tabs to accommodate analysis



Working with Excel

- Explore excel (rows, columns, cell reference, tabs....)
- Design data entry screen. Helps to create a database in Excel
 - » Use unique variable names (ID, Name, married, educ, region
 - » All names being smaller or First name capital OR Sentence case
 - > LOWER (B2)
 - > UPPER (B3)
 - > PROPER (B4)
 - » Bring Two names in one Cell: Concatenate (a, b). A, " ", B.
 - » Data->Validation (e.g lists, error message, text length/ID...).
 - > For lists, highlight the list. Put name in namebox. Enter. Use this as source of list; =ListName.
 - > Copy and paste all validation.
- Subcounties depend on district
 - > Populate all sub counties on every district. Have a name for each sub-list of subcounties....e.a Pakwach. Nebbi. Lira....
 - On dependent cell, use validation source = INDIRECT (C2), Where C2 is the parent.
- Data cleaning
 - » To avoid time spent before



Common commands

- Sum
- Product
- Sumproduct e.g Total income (P1.Q1 + P2.Q2+....)
- Min, Max
- Mode
- Average
- · Conditional formatting
 - » Highlight cells for (Numbers and Text)
 - » Colour scale (Detect min, max etc). Can edit colours (Manage-edit rules)
 - » Icon sets (Red flags, Traffic robots,....)

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Common commands

- Count
 - » If function. To generate new variables. e.g Countifs
 - » If age>35 young otherwise adult. IF(Age>36, "Young", "Adult")
 - » Nexted IF: IF (F2<10, "Baby", If (F10<20, "teen", if (F2<69, "adult", "Elderly"). Close as many times as you have opened or until get colour which started.</p>
 - » Doesn't restrict errors e.g text age, big age....So use error.
 - » IF (F10<0, "error", If(F2<10, "Baby", If (F10<20, "teen", if(F10<101,"adult",if(F10 "Elderly", "error")))))
- Concatenate



Other skills

- Freeze panes e.g toprow
- · Use of filters
- Colour and choice
- Paste data without formats
- Transpose (Data)
- The equal sign (=), transfer a figure to a different location
- Conditional formatting
 - » Detecting duplicates. Highlight the column of interest----cond forma—
 - » Data----Remove duplicates. Be sure they are duplicates (People of similar names, age exist)
 - > Continue with current selection
 - > Expand selection (only for duly duplicate)
 - > Remove with more than 1 criteria (Remove, uncheck non criteria after expansion). More duplicates might mean no duplicate at all.



Pivot tables

- Consider the dataset
- What percentage are in each district?
- Which district is performing better in earnings?
- Which district is relatively better without the training?
- How many females interviewed? What's the percentage of males?
- Whats the gender composition per value chain? Does the answer differ depending on the district?
- Mean of age, Income (Other stats?)
- Detect and remove any duplicates in data

Session 8: Learning and Reporting

Learning objective: By the end of this session, participants will be able to

- Foster learning within projects by benchmarking best practice learning techniques
- Prepare for and write informative progress reports.
- Take good quality photographs for various uses in the reporting process



The facilitator gives a short presentation on program learning, and later on reporting. The facilitator emphasizes the need for learning to avoid old challenges and improve chances of project success. The gist of the session is that learning and reporting are essential for project management. Best practice learning activities are presented. Participants are asked about various activities they consider as learning platforms at AFARD and how these can be boosted up to encourage project and organisation-wide learning. On the issue of reporting, emphasis is put on progress reports. This considers the role of timelines, content and quality of reports. Various participants are asked to present sample progress reports showcasing the richness of content and format. This attracts questions and feedback on how to improve the reports, and thus insights on good quality reporting. Participants also get to practice how to take quality photos for reporting purposes. The best photos were recognized.

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Session 8: Learning and Reporting

- M&E without learning is not very useful. There should be efforts to adapt processes, practices in response to learning gained + foster a learning culture
- Need to mentor partners, staff, platforms on knowledge and experience sharing. What provisions does AFARD have for this?
- After Data analysis- so what? How can change be enacted to affect improvements in DAC dimensions

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Possible learning events

- Regular calls/meetings to discuss status of implementation
- Periodic "Pause and Reflect" sessions focussed on refining particular components of project.
- Collaboration with stakeholders to share knowledge and reduce duplication
 of effort
- After Action Reviews (AARs)- Led by Coordinators of each implementing unit to reflect on what went well, bad
- Quarterly Status updates e.g
- Annual work planning learning and ToC review. This can benefit from all learning events over the year to make planning for next years more relevant.
- Tracer studies, with intention to learn
- M&E Data review. This can be done semi-annually. To squeeze out the learning, when its HOT!



Project Report

- Show what you have achieved, or plan to achieve
- Its important to plan for reporting
 - » Reporting is part of management, and monitoring
 - » Does it respond to expectations (Logframe indicators, results chain)
 - » Align it with reporting template/if mandatory
 - » Collect relevant qualitative and quantitative information
 - » Plan data analysis ahead of reporting. Do not clog report with data/tables etc
 - » Formatting: White space, font, colours, alignment, margin....
 - » Use a mix of pictures, illustrations, text. Should not be boring.
 - » Not everyone can take nice pictures. Not every picture can make it to a report. Ask Tobias!

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Activity 1

- Take three different pictures of this training event.
- Critique the pictures of peers.
- What are the qualities of good photos for reporting



Activity 2

- Present 3 different reports for different projects
- Take us through the whys and why nots some sections were included, written that way or not
- What is making reporting a challenge at AFARD? How can this be resolved?

Session 9: Monitoring and Evaluation Framework

Learning objective: By the end of this session, participants will be able to

- Develop an M&E framework for a new project.
- Critique and improve the existing project M&E frameworks.



This session makes use of knowledge from the previous sessions to come up with a monitoring and evaluation framework. While there are new concepts to define, the rest of the components of the framework are already defined, some of which are deliverables for sessions completed. The framework for instance makes use of indicators and targets (session 2), baseline values (session 3), data collection methods and sources of data (session 5), data analysis and plan (session 7), reporting (session 8). Participants are also referred to an existing M&E framework like that of RELIP II project. In groups of 5-6 participants, participants develop M&E frameworks using components already seen on the logical framework matrix (session 2) and much more. Groups present their frameworks in plenary for improvement. The groups continue working to improve the M&E frameworks to suit the expectations of the project conceptualized since session 2. The facilitator continues to offer virtual support to participants until the frameworks are of acceptable quality.

Session 9: M&E Framework

- It's the hierarchy of results and corresponding guidance on how data can be collected, results measured for M&E purposes.
- · Components include
 - » Intervention logic
 - » Indicators
 - » Indicator definitions
 - » Baseline
 - » Targets (EOP)
 - » Sources of data
 - » Data collection and analysis
 - » Reporting
 - » Responsible person/partner
 - » Others (Refer to RELIP II template)
- Refer to an existing M&E framework
 - » Develop M&E frameworks for the projects you have been working with...e.g RODILAN
 - » Suggest ways in which your current project M&E frameworks can be improved

