Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, Monitoring and Evaluation

A LEARNING KIT

VOLUME 4

Project Implementation and M&E

REACHING AGENTS OF CHANGE (RAC)

Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, Monitoring and Evaluation: A Learning Kit

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International Potato Center
P.O. Box 1558, Lima 12, Peru
cip@cgiar.org • www.cipotato.org

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Production Coordinator
Hilda Munyua

Design and Layout
Zenete Peixoto Franca and Stephen Parker
Communications and Public Awareness Department

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Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, Monitoring and Evaluation

A Learning Kit

Volumes 1–5

Volume 1. Introduction. A Comprehensive Implementation Plan

Volume 2. Concept Notes, Proposals and Logframe

Volume 3. Writing Full Proposals

Volume 4. Project Implementation and M&E

Volume 5. Workshop Evaluation, PAPA and Annexes

Reaching Agents of Change (RAC) Project

CIP, Nairobi, Kenya

2014

A learning kit adapted from the learning module re-designed in November 2012 by the Reaching Agents of Change (RAC) Project, International Potato Center (CIP) Nairobi, Kenya, April 2014

Engendered Orange-Fleshed Sweetpotato
Project Planning, Implementation, Monitoring and Evaluation

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Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, Monitoring and Evaluation

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Project Implementation Requirements

The Concepts of Monitoring and Evaluation. Developing a Theory of Change

Developing an M&E Plan/Matrix and Implementing an M&E System: responsibilities and processes

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Volume 4

Preface

In 2009, the International Potato Center (CIP) and its partners launched the Sweetpotato for Profit and Health Initiative (SPHI), aiming to improve the lives of 10 million African households in 10 years through effective production and expanded use of sweetpotato.

SPHI contributes to reducing child malnutrition and improving smallholder incomes.

The Reaching Agents of Change (RAC) Project advocates for increased investment in orange-fleshed sweetpotato (OFSP) to combat Vitamin A Deficiency (VAD) among young children and women of reproductive age. RAC also builds institutional capacity to design and implement gender-sensitive projects to ensure wide access and utilization of OFSP in Mozambique, Nigeria, Tanzania, and Burkina Faso and Ghana.

To build institutional capacity in three African countries, in 2012 RAC team designed a six-day Learning Module on 'Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, and M&E', by adapting and complementing the contents and processes from learning plans developed by the International Food Policy Research Institute (IFPRI)/the International Services for National Agricultural Research (ISNAR)/the Agricultural Research and Development Support Facility (ARDSF) to respond to the needs of RAC stakeholders. The RAC team tailored the IFPRI/ISNAR/ARSDF materials to make them relevant to the RAC agenda. This involved adding sections and sessions on mainstreaming gender in project design, project budgets, project implementation, monitoring and evaluation, and including the theory of change.

This learning kit maximizes the use of the RAC learning module by redesigning it into a publication comprising five volumes on 'Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, and M&E'. The learning kit was designed in this new format: (i) to guide the prospective learning facilitators to implement workshops which are composed of sessions based on the needs of the users in a less formal six-day workshop; and (ii) to facilitate wider distribution of the learning plan which was developed and implemented successfully during six-day workshops in Mozambique, Nigeria, and Tanzania. This was to support RAC strategic objective 2 which states: *building capacity of implementing agencies to design and implement technically strong and cost-effective interventions that drive uptake of OFSP.* This objective stresses that capacity must include gender sensitivity in OFSP projects.

The learning kit concentrates on Project planning, Implementation, Monitoring, and Evaluation to promote the development of knowledge, attitudes and skills on: (a) identifying project areas and objectives, and leading project teams; (b) preparing project proposals; (c) reviewing project proposals; (d) approving projects and committing resources; and (e) implementing projects, monitoring and evaluation, that includes theory of change.

The learning kit provides a thorough plan to support the implementation of 14 sessions of a workshop — *at the best time of the users* — to provide the learning facilitators with the sequential information to strengthen capacity of event participants to undertake each phase of the project cycle management, which includes planning, implementation, monitoring and evaluation of identified OFSP-related priority projects.

The learning kit includes instructions to guide learning facilitators to implement events to multiply learning among other professionals in the country, a summary of PowerPoint presentations, brief descriptive presentations and a range of exercises designed for building teams to work together during and after the workshops. The learning module also

provides instruments to collect daily feedback, to record the Participant Action Plan Approach (PAPA) and undertake evaluation.

It is expected that by *implementing each step* of all phases of the project cycle management this learning kit will inspire and motivate participants to use it to plan and lead new workshops or events to promote learning and capacity building to strengthen the quality of OFSP project planning, implementation, monitoring and evaluation. This will not only attract financial support to reduce child malnutrition and improve smallholder incomes, but also ensure that OFSP projects are moving in the right direction towards obtaining effective results.

In preparing to transform the six-day workshop plan into this learning kit, the RAC team, under the leadership of Dr. Adiel Mbabu, RAC Project Manager, and Dr. Zenete Peixoto França, specialist in Learning and Capacity Building, have adapted the contents and design of IFPRI/ISNAR/ARDSF learning modules, and added new sections to better align it with agricultural research for development (AR4D) approach.

Dr. Adiel Mbabu
Regional Director, Sub-Saharan Africa &
Project Manager, Reaching Agents of Change (RAC) Project
CIP, Nairobi

Acknowledgments

We acknowledge the generous support of the Bill & Melinda Gates Foundation which has enabled the International Potato Center (CIP) to create the Reaching Agents of Change (RAC) Project: Catalyzing African Advocacy and Development Efforts to Achieve Broad Impact with Orange-Fleshed Sweetpotato to reach out to five African countries: Mozambique, Nigeria, Tanzania, Burkina Faso and Ghana.

Special thanks go to Dr. Jan Low, Program Leader for Sweetpotato for Profit and Health Initiative (SPHI), for support and commitment to the RAC agenda.

We owe a very special thank you to the RAC Team, Dr. Hilda Munyua, Mr. Godfrey Mulongo, and Mr. Frank Ojwang, for sharing the delivery of sessions in three workshops, which took place in April and May 2013 in Tanzania, Mozambique and Nigeria. In Mozambique, we thank Mr. Elias Munda for his participation as a RAC team member.

This special thank you is extended to the Helen Keller International (HKI) team, Dr. Sonii David and Dr. Adekeye Marion (who participated in the Nigeria workshop) and to Mr. Dércio Matale and Ms. Gabriela Teixeira (who participated in the Mozambique workshop). In addition, RAC is grateful to Mr. Frank Ojwang and other colleagues from the three countries for providing necessary logistics for the workshops.

We are pleased to express a deep thank you to all participants of the workshops in Mozambique, Nigeria and Tanzania, whose names are listed in the respective workshop reports for each country. The workshops were carried out during six consecutive days following the learning module, which was specifically designed to adapt the contents to reflect the RAC objectives and the felt needs of the respective partners in the collaborating African countries.

The commitment and interest of the participants in providing feedback on the high value of the learning module triggered the decision to transform this learning plan into this publication, comprising five volumes, to promote higher distribution and increase its impact among needy communities.

This learning kit is expected to contribute to equipping professionals to access financial support for their orange-fleshed sweetpotato (OFSP) projects.

We are grateful to Dr. Zenete Peixoto França of Zenete França & Associates for joining the RAC team to transform the learning module design into this learning kit. RAC wanted to ensure that this new publication guarantees effective learning by maintaining guidance for the ideal sequence and details to implement the sessions, which follow the principles of adult learning as defined in the previous learning plan. We are also grateful to Mr. Stephen Parker for his support in designing the covers and CD-ROM for this publication.

Volume 4: Introduction

Volume 4 of this learning kit is composed of three sessions which guide the users on (1) project implementation requirements; (2) concepts of monitoring and evaluation and developing a theory of change; and (3) developing an M&E plan/matrix and implementing an M&E system.

Volume 4 presents a comprehensive plan to implement the following three sessions:

Session 11. Project implementation requirements

This session emphasizes that project implementation is a critical phase as it determines how well the planned results will be operationalized. Project implementation is considered the main phase of project management because it *turns the plan into reality*. This session analyzes and lists the project implementation requirements to facilitate learning among participants. It also identifies key project implementation requirements in a case study. The aim is to discuss lessons learned and describe implications to implement key requirements of project implementation in the work environment. This session invites participants to undertake practical exercises to develop project implementation related skills.

Session 12. The concepts of monitoring and evaluation. Developing a theory of change

This session analyzes and discusses (1) *The concept of monitoring;* (2) *The concept of evaluation;* (3) *The functions/significance of M&E in project management; and* (4*) The reasons why M&E tends to fail in its objectives.* It emphasizes that the terms *monitoring and evaluation* are used in many different ways and that it is important to stress that *monitoring and evaluation* (M&E) is part of a continuum of observation, information gathering, supervision and assessment. This session also exposes the participants to the development of a theory of change, which is a visual depiction of the pathway of change (how the project anticipates change/results will occur) and is also a more comprehensive conceptual framework than the Logical Framework. Practical exercise is undertaken on the objective trees – developed during Session 4 of Volume 1 of the learning kit.

Session 13. Developing an M&E plan/matrix and implementing an M&E system: responsibilities and processes

This session uses the RAC M&E framework/matrix to introduce to the participants what a good M&E framework looks like. It provides opportunity for the participants to analyze the importance of timely, reliable and credible data/information for evidence-based decision-making at the management and service delivery level. The session also discusses monitoring and reporting responsibilities including data management, reporting systems, types of reports and reporting responsibilities. Practical exercises are part of this session 13 to enable the participants to state clear actions regarding how to improve the design of M&E systems for their projects.

While implementing Volume 4, it is recommended that the leading facilitators carry out the following actions and/or activities:

1. Pre-session. Review the previous sessions' activities through the identified participants (see Volume 1, Pre-Workshop Plan section, item 4) to assess the progress

of the workshop. At the same time, the facilitator should summarize and present the results of the participants' feedback on the previous day to the audience.

2. This learning plan suggests time frame for all sessions of this learning kit. It aims to facilitate the implementation of activities by the learning facilitators. Remember to consider the suggestions of time frame in the plan of respective sessions.

3. The learning plan recommends including 15 minutes — during the morning and afternoon sessions — for the participants to have tea/coffee breaks, which promotes socialization and consequently a great opportunity for learning.

4. In addition, the learning plan strongly recommends that the participants undertake PAPA and Feedback exercises daily, at the end of the sessions. The total amount of 15 minutes will be enough to complete the two forms to carry out this exercise. This learning kit provides specific forms to complete PAPA and Feedback, at the end of each Volume.

5. The facilitators must be aware that if the workshop is planned to end at the conclusion of Volume 4, the PAPA and feedback exercises presented in this Volume 4 must be skipped and replaced by the workshop evaluation and PAPA — Second Phase presented in Volume 5. This change would provide the facilitators with the opportunity to assess all the sessions (which were carried out) and related aspects of the entire learning workshop.

Note on figures

Figures are numbered as in the original documents

SESSION 11 Project implementation requirements: scheduling, work plans, activities, etc.

Instructions to Learning Facilitators

PRE-SESSION

Opening of the Session's Activities

- Review of the previous session's activities
- Summary of the evaluation of the previous day
- Overview of the session's activities

OBJECTIVES

By the end of the pre-session, the participants will be able to do the following:

- Assess the progress of the workshop (*10 minutes*)
- Summarize the evaluation of the previous day (*10 minutes*)
- Present the objectives and describe the agenda for the day's activities (*10 minutes*)

Use PowerPoint to present the objectives of the day. Distribute Handouts 4.11.1 and 4.11.7.

TIME-FRAME

Presentation and Exercise: *2 hours 30 minutes*
Tea/Coffee Break: *15 minutes*

OBJECTIVES

By the end of this session, the participants will be able to do the following:

- Analyze the project implementation requirements
- List project implementation requirements
- Identify key project implementation requirements in a case study
- Discuss lessons learned
- Describe implications to implement key requirements of project implementation in the work environment

PROCEDURES

Learning strategies or facilitation techniques: presentation, interdisciplinary group work and plenary discussion.

PRESENTATION

(experience) Give a brief presentation focusing on the Project Implementation Requirements, using the PowerPoint to facilitate learning among participants. At the end of the presentation be sure to ask the participants if they have any comments or questions, or if they need clarifications (*30 minutes*).

EXERCISE 11

Identifying the implementation requirements in the case study: 'Research and development of an orange-fleshed sweetpotato in Kenya' *(2 hours)*

(experience) Invite participants to form three

interdisciplinary groups with colleagues and elect a rapporteur. Remember this exercise is composed of *Part A* and *Part B*.

(experience) Remind them to use Worksheet Handout 4.11.7 to record the results of the group exercise. Rapporteurs are also invited to record the group results on the flipchart or PowerPoint to present to the audience during Phase 2 of this exercise.

Phase 1. Interdisciplinary group work *(60 minutes)*

(experience process) Invite participants to reflect on the explanation provided by you on the *implementation requirement issues* and to follow the exercise guidance (Handout 4.11.5)

(experience process) In ***Part A*** participants will read the case study 'Research and development of an orange-fleshed sweetpotato in Kenya' to identify the *major implementation requirements* which are stated in the document.

(experience process) In ***Part B***, after completing the items (a), (b) and (c) of the exercise under item 6 (handout 4.11.5), participants will describe *two most important lessons learned* by their groups during this exercise and respond to other questions. Remind the rapporteurs to summarize the group's results on flipcharts or PowerPoint.

Phase 2. Reporting and discussion *(55 minutes)*

(process generalization) Invite the rapporteurs to present the results to the audience. Finally, ask a few volunteers to state some lessons learned after the group results.

(generalization) Provide feedback on the exercise and ask few participants to express *how they plan to support the organization* (*clear actions*) in relation to the issue of improving quality of Project Implementation within their organizations.

(generalization) Summarize the content of the session and close the session.

CLOSURE

Closure (*5 minutes*)

(application) Ask the participants to tell one of their neighbors two things they might do differently as a result of what they have learned. Choose some volunteers to give examples.

Make a transition to the next session.

Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, Monitoring and Evaluation

Volume 4 — Sessions Overview

Objectives

By the end of this Volume 4, the participants will be able to do the following:

- Analyze the project implementation requirements
- List project implementation requirements
- Identify key project implementation requirements in a case study
- Discuss lessons learned
- Describe implications to implement key requirements of project implementation in the work environment
- Discuss the concepts of monitoring and evaluation
- Describe the major uses of M&E
- Distinguish between monitoring and evaluation
- List activities related to process monitoring
- Identify output, outcome and impact indicators based on 'Research & development of an orange-fleshed sweetpotato' case study
- Analyze the approaches to performance monitoring and evaluation
- Develop a project's theory of change (ToC)
- Explain the importance of an M&E plan/matrix
- Analyze a project's M&E framework/matrix
- Practice developing an M&E plan/matrix
- Demonstrate monitoring and reporting responsibilities as processes of an M&E system
- Present a Toolbox to identify day-to-day output and outcome monitoring process
- Discuss the importance of Data Management Flow

Handouts

4.11.1 Volume 4. Sessions overview
4.11.2 Volume 4. Sessions time frame
4.11.3 PowerPoint presentation
4.11.4 Summary of presentation. Project implementation requirements
4.11.5 Exercise 11. Identifying the implementation requirements in the Kenya case study
4.11.6 Exercise 11. Case study: 'Research & development of an orange-fleshed sweetpotato' in Kenya
4.11.7 Exercise 11. Worksheet
4.12.1 PowerPoint presentation
4.12.2 Summary of presentation. The concepts of monitoring and evaluation and developing a theory of change
4.12.3 Exercise 12. Defining monitoring and evaluation. Developing a project's theory of change (ToC)

4.12.4 RAC's M&E plan. A model for the exercise
4.13.1 PowerPoint presentation
4.13.2 Summary of presentation: Developing an M&E plan/matrix and implementing an M&E system: responsibilities and processes
4.13.3 Exercise 13. Developing an M&E plan/matrix and identifying types of reports for an M&E system
4.13.4 Exercise 13. Worksheet
4.13.5 Feedback of the day
4.13.6 PAPA – First stage

Engendered Orange-Fleshed Sweetpotato Project Planning; Implementation, Monitoring and Evaluation
Volume 4 — Sessions Time Frame

Opening of the Day's Activities: ***30 minutes***

Session 11. Project Implementation Requirements: ***2 hours 30 minutes***

(Presentation and Exercise 11)

Tea/Coffee Break: ***15 minutes***

Session 12. The Concepts of Monitoring and Evaluation and Developing a project's theory of change (ToC): ***4 hours***

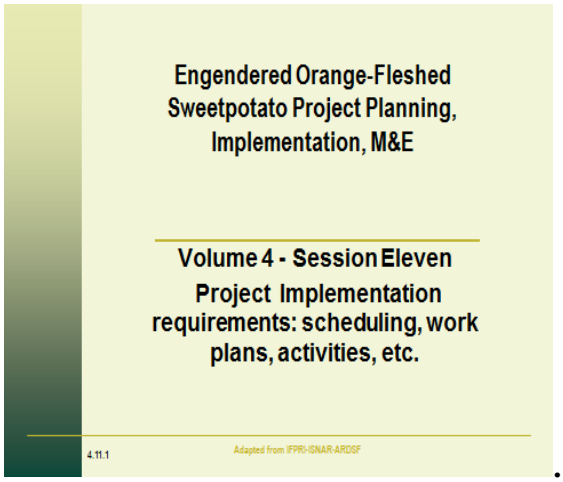
(Presentation and Exercise 12)

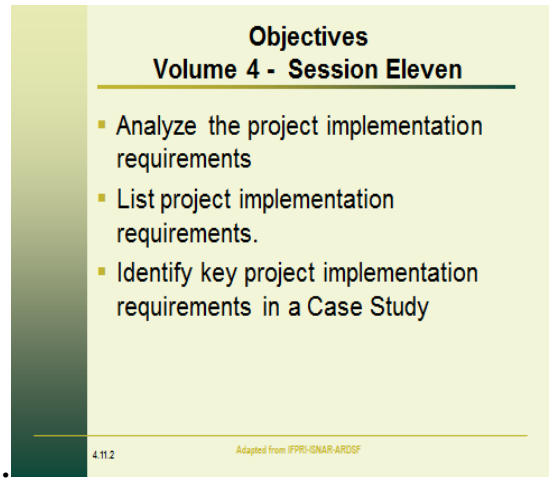
Session 13: Developing an M&E Plan/Matrix and Implementing an M&E System: responsibilities and processes: ***4 hours 30 minutes***

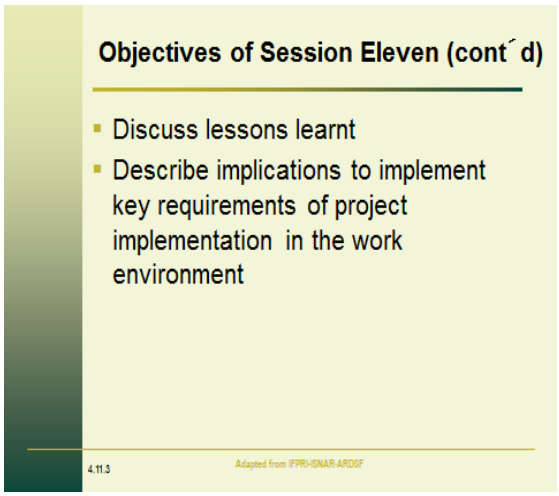
(Presentation and Exercise 13)

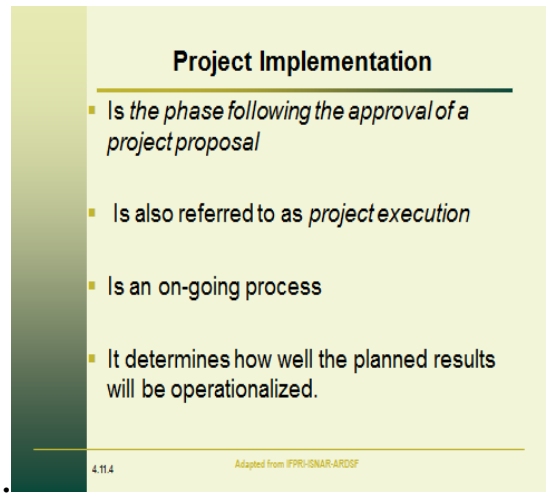
Feedback on the Day's Activities and PAPA: ***15 minutes***

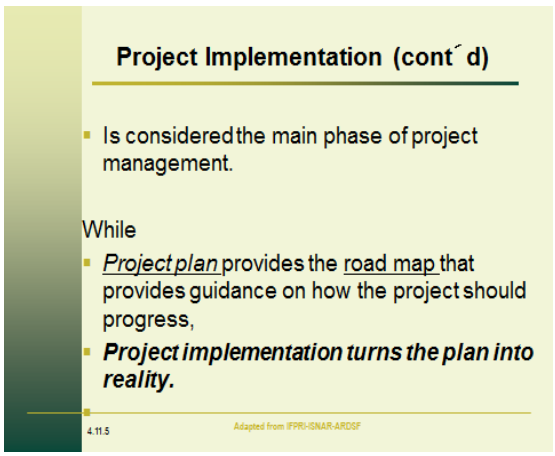
Session 11 PowerPoint Presentation

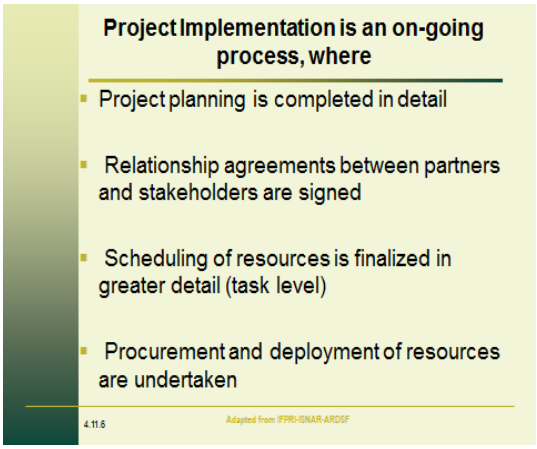












Project Implementation is an on-going process, where (cont´d)

- Activities and delivery of results are established
- Monitoring is carried out to review progress, revise operational plans
- Reporting progress is done

In summary, project implementation

- is a continuous learning process where lessons learned and intermediate results are documented & fed back to planning to ensure control of the project.

4.11.7 Adapted from IFPRI-ISNAR-ARDSF

Implementation: major project requirements that must be well defined

1. **Outputs** (*what will be delivered by the project?*)
2. **Project activities** (*what will actually be done*)
3. **Beneficiaries and impacts** (*who will benefit from the project and how?*)
4. **Project management** (*how will the project be managed – organized to deliver results*)

4.11.8 Adapted from IFPRI-ISNAR-ARDSF

Implementation: major project requirements well defined

5. **Work plan** (*timeframe, schedule, a description of the logical order of activities*)
6. **Human Talents and Resources** (*how to mobilize, motivate and inspire human talent and appropriate allocation of physical resources*)
7. **Budget** (appropriate allocation of financial resources – to planned activities in a timely manner)

4.11.9 Adapted from IFPRI-ISNAR-ARDSF

Implementation: major project requirements well defined

8. **Monitoring and Evaluation** (tools and process, including performance reporting)

9. **Agreements** (*between partners and stakeholders*)

10. **Quality control** (setting standards and performance management)

4.11.10 Adapted from IFPRI-ISNAR-ARDSF

Phases of project implementation

1. Inception phase

2. Main implementation phase

3. Project phase-out phase

4.11.11 Adapted from IFPRI-ISNAR-ARDSF

1. Inception phase

- Conclude contracting arrangements
- Mobilize resources
- Establishing working relationships with stakeholders
- Review and revise project plan
- Establish M&E systems

4.11.12 Adapted from IFPRI-ISNAR-ARDSF

2. Main implementation phase

- Set up cost accounts
- Procure and deploy human talents and physical & financial resources
- Operationalize M&E system and monitor and review progress
- Revise operational plans in light of experience
- Report on progress

4.11.13 Adapted from IFPRI-ISNAR-ARDSF

3. Project phasing out

- Handing over all responsibilities to local partners
- Ensure maintenance plans are in place
- Ensure relevant skills are effectively transferred
- Help ensure recurrent cost requirements are secured

4.11.14 Adapted from IFPRI-ISNAR-ARDSF

Purpose of Work Plan & Scheduling of Operations

- After developing a Project Design Matrix, ***a work plan and schedule of operations*** facilitates project implementation and management.

They

- ensure that project delivers expected results,
- help one to know when the key milestones will be implemented (start date and finish date)

4.11.15 Adapted from IFPRI-ISNAR-ARDSF

Purpose of Work Plan & Scheduling of Operations (cont´d)

They
•spell out the major implementation assumptions
•create a framework which helps to coordinate, plan and communicate with implementing partners
•help manage human talents and resources efficiently
•provide data to monitor, report progress and evaluate the project

4.11.16 Adapted from IFPRI-ISNAR-ARDSF

Key components of a project implementation schedule

- Number and description of project phases
- Deliverables to be achieved after successful completion of each phase
- Outline of key activities for each deliverable and time-frame
- Key milestones to be accomplished
- Responsible employees for each deliverable
- Dependencies

4.11.17 Adapted from IFPRI-ISNAR-ARDSF

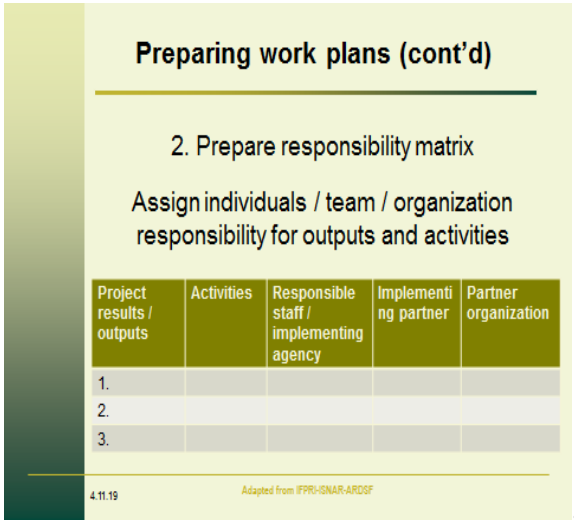
Preparing work plans

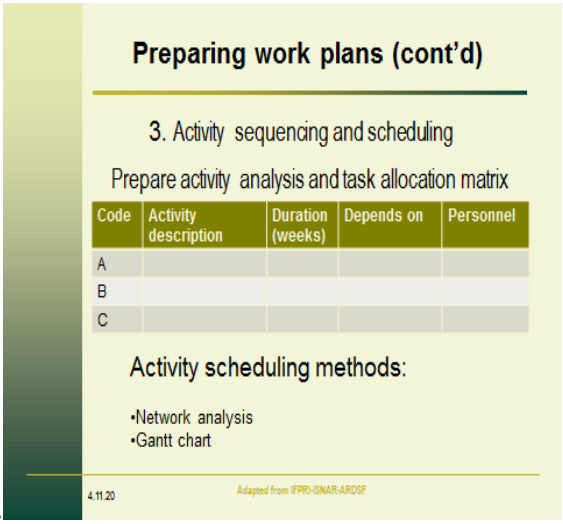
1. Prepare work breakdown matrix

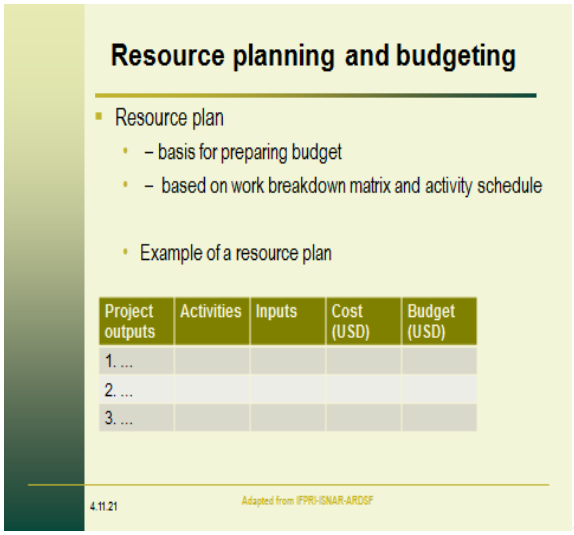
Activity analysis and task allocation

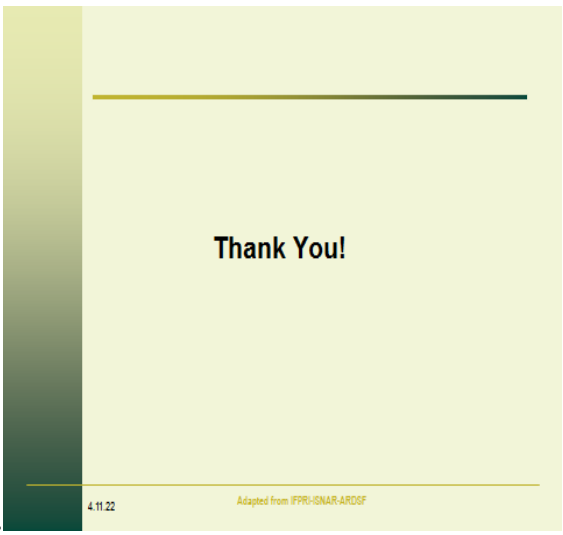
Project results / outputs	Activities	Sub-activities	Tasks
1. …			
2. …			
3. …			

4.11.18 Adapted from IFPRI-ISNAR-ARDSF


Preparing work plans (cont'd)
2. Prepare responsibility matrix
Assign individuals / team / organization responsibility for outputs and activities
Project results / outputs
Activities
Responsible staff / implementing agency
Implementing partner
Partner organization
1.
2.
3.
4.11.19
Adapted from IFPRI-ISNAR-ARDSF


Preparing work plans (cont'd)
3. Activity sequencing and scheduling
Prepare activity analysis and task allocation matrix
Code
Activity description
Duration (weeks)
Depends on
Personnel
A
B
C
Activity scheduling methods:
•Network analysis
•Gantt chart
4.11.20
Adapted from IFPRI-ISNAR-ARDSF


Resource planning and budgeting
Resource plan
– basis for preparing budget
– based on work breakdown matrix and activity schedule
Example of a resource plan
Project outputs
Activities
Inputs
Cost (USD)
Budget (USD)
1. ...
2. ...
3. ...
4.11.21
Adapted from IFPRI-ISNAR-ARDSF


Thank You!
4.11.22
Adapted from IFPRI-ISNAR-ARDSF

Project implementation requirements: scheduling, work plans, activities, etc., resource planning and budgeting, performance reporting, and quality control[1]

(Summary of Presentation)

Introduction

Project implementation is *the phase following the approval of a project proposal*.

It is a critical phase as it determines how well the planned results will be operationalized. Project implementation is considered the main phase of project management. While the project plan provides the road map that gives guidance on how the project should progress, project implementation turns the plan into reality.

Projects need to have a well-designed implementation schedule to help clarify and describe *what* the project needs to deliver over the various phases of the project within a given time frame. The project team thus needs to plan and anticipate challenges during implementation to avoid surprises. This module focuses on project scope planning, activity sequencing, schedule development, resource planning, cost estimating, cost budgeting, performance reporting and quality control in project implementation.

Project implementation and scheduling overview

During implementation, project managers need to pay attention to monitoring and regular review of resource use and expenditure, implementation of activities, results and risks; planning and re-planning where the logframe, activity, and resource schedules are reviewed based on experience, and reporting progress to stakeholders — especially the financing partners. An activity analysis and task allocation table, network analysis diagram, Gantt chart, and schedule are prepared to ensure timely completion of the project activities.

Phases of project implementation

Figure 4.1 presents the main implementation periods.

- Inception phase
- Main implementation phase
- Project phase-out phase

[1] *By RAC Team, CIP Nairobi, Kenya, 2012*

Inception	Implementation	Phasing out
• Conclude contracting arrangements	• Set up cost accounts • Procure and deploy resources (human and infrastructure)	• Handing over all responsibilities to local partners
• Mobilise resources	• Implement activities and deliver results	• Ensure maintenance plans are in place
• Establish working relationships with stakeholders	• Operationalise M&E system and monitor and review progress	• Ensure relevant skills are effectively transferred
• Hold inception workshop	• Revise operational plans in light of experience	• Help ensure recurrent cost requirements are secured
• Review and revise project plan	• Report on progress	
• Establish M&E systems		

Figure 4.1: Main implementation periods *(Source: European Commission. 2004. Aid delivery methods: Volume 1 project cycle management guidelines, Brusells: EC)*

The purpose of project implementation and scheduling

After the development of the project design matrix, a project work plan or plan and schedule of operations is prepared to facilitate project implementation and management. The purposes of project scheduling and implementation are to:

- ensure that the project delivers expected results, achieves the project purpose and contributes to the project/program goal;
- outline when the key milestones will be implemented (start date and finish date);
- spell out the major implementation assumptions;
- create a framework for the whole project implementation plan which helps to coordinate, plan and communicate with implementing partners;
- help manage resources efficiently;
- provide data that help to monitor, report progress, and evaluate the project.

Key components of a project implementation schedule:

- Number and description of project phases;
- Deliverables to be achieved after successful completion of each phase;
- Outline of key activities for each deliverable and the time-frame;
- Key milestones to be accomplished;
- Responsible employees for each deliverable;
- Dependencies (interaction between project phases and how they influence each other).

Scope planning

Project scope

A project scope refers to the process of developing a detailed description of the project results or outputs that the project will deliver to stakeholders at the end of the project; and what they will deliver at various steps of implementation (intermediate deliverables). The project team needs to be clear about the project objectives and assumptions and limitations to the success of the project. Further detailed planning and implementation is based on the scope. Scope planning processes include identifying the project's objectives and activities breakdown, project stakeholders, project staff team, and project requirements.

Preparing work plans

A plan is the step-by-step approach to guide the project team in the execution and control of the implementation process. A project plan shows key results or outputs, milestones, activities and resources required for project implementation. Activity definition is the process of identifying specific work, actions, activities and tasks that need to be performed in order to realize the project results. Some project activities are:

- dependent on others, hence the need to be completed first before subsequent activities begin (sequential tasks);
- not dependent, hence may be implemented at any time (parallel tasks);

The logframe is often used to operationalize the project plan. Key activities for every output are identified and listed down in their logical sequence, taking account of any dependencies between the tasks; inputs required to complete each activity; person(s) responsible for carrying out respective activities; cost (budget) and time schedules – start time, duration and end time for each activity. Activities are usually presented in 'verb-noun' format e.g. train farmers; process tubers; prepare advocacy materials etc.

A work plan answers the questions why, what, who and when and is developed by the project team and stakeholders. A project work plan sets out the work breakdown structure, responsibility matrix, schedule of activities and resource plan. It also documents the major assumptions and decisions of a project. The logframe, activity and resource schedules are thus plans that need to be re-planned, refined, reviewed and updated from time to time to ensure they are relevant and current.

A work plan is prepared according to the following steps:

- **Project activity analysis and task allocation**

The major activities highlighted in the logical framework are detailed to sub-activity or smaller components and definable task level. A work breakdown matrix (see Table 4.1) is used to prepare the plan in the sequence the activities and tasks can be easily managed.

Table 4.1: Example of a work breakdown matrix

Project results/outputs	Activities	Sub-activities	Tasks
1 *Improved health of children*	1.1 *Provide training for farmers in nutritive value of OFSP*	1.1.1 *(not always required)*	Task: *Identify the location (area you need to work in)* Task: *Identify a local CBO to work with* Task: *Identify appropriate OFSP varieties for the area* Task: *Decide on source of clean material and start multiplying material* Task: *Identify potential group members* Task: *Identify and hire a trainer* Task: *Develop a training manual* *Task: Hire training facilities with catering facilities* Task: *Hold 5 two-day training courses for 20 farmers* Task: *Plant, harvest, process, consume/market roots and products*
2	2.1 2.2	2.1.1 2.1.2 2.2.1 2.2.2	Task Task Task Task
3	3.1 etc.		

Responsibility matrix

Assign individual, team or organizational responsibility for outputs and activities by assigning duties to different project team members (Table 4.2). The duties assigned are those from the job description of individuals or terms of reference of teams. This approach facilitates planning and enables one to assign explicit roles of people who have cross cutting functions.

Table 4.2: Example of a responsibility matrix

Project results/outputs	Activities	Responsible staff (implementing agency)	Implementing partner	Partner organization
1 *Improved health of children*	1.1 *Provide training for farmers in nutritive value of OFSP*	Training Specialist (CIP)	Helen Keller International	Sokoine University of Agriculture
	1.2 1.3			
2	2.1 etc.			

- Estimate the type and quantity of resources (material, people, equipment, supplies) required for each activity
- Develop a schedule by analyzing the sequence of activities, durations, resources required and constraints
- Develop a control schedule for monitoring the status of project progress

Activity sequencing and scheduling

Activity sequencing

Project scheduling is described as the sequencing of project activities. A schedule consists of a breakdown of tasks, available resources for each item and the estimated dates (need to be updated regularly). Leave days for the project team should also be incorporated in the schedule. Scheduling is thus a managerial tool for focusing on project priorities, critical events or milestones, and the time factor. An activity schedule is therefore a graphical presentation of all project activities, their logical sequence, expected duration and interdependencies between activities. For each activity, the duration is estimated and specific personnel are allocated to activities and these are all linked to delivery of project results. An activity analysis and task allocation matrix is then prepared (Table 4.3). A project schedule helps to answer questions like (Kloppenborg 2012:171):

- When will the project be completed?
- What is the earliest date a particular activity can start and when will it end?
- What activity must begin before other activities can take place?
- What would happen if the delivery of material was one week late?
- Can a key worker take a week of vacation the first week of November?
- If one worker is assigned to do two activities, which one must go first?
- How many hours do we need from each worker next week or month?
- Which worker or other resource is a bottleneck, limiting the speed of our project?
- What will the impact be if the client wants to add another training module?
- If I am willing to spend an extra US$10,000, how much faster can the project be completed?
- Are all of the activities completed that should be by now?

The project schedule is thus developed from the information in the activities which have a clear start and end point, have verifiable tangible outputs, manageable scope, costs and schedule that can be controlled, and a person responsible and accountable for each activity. Project schedules should also include key milestones to manage stakeholder expectations and to provide minimal controls in the project. Project staff need to have technical and behavioral skills. Where staff do not have specific skills, project managers should ensure they develop the skills.

Table 4.3: Example of an activity analysis and task allocation matrix

Code	Activity description	Duration (weeks)	Depends on	Personnel
A	Identify the location (area you need to work in)	1		CIP and HKI
B	Identify a local CBO to work with	1		CIP and HKI
C	Identify appropriate OFSP varieties for the area	1		CIP, local research institution, and local CBO
D	Decide on source of clean material and start multiplying material	1	C	CIP, local research institution, and local CBO
E	Identify potential group members	1	-	CIP and local CBO
F	Recruit trainer	1	-	CIP
G	Develop training manual	2		CIP and HKI
H I J K L	Conduct trainings: - Introduce project and conduct training needs assessments (*2 days*) - Production of OFSP (*2 days*) - Maintaining clean planting materials (*2 days*) - harvesting and post harvest (*2 days*) - Market linkages and value addition (*2 days*)	2	F and G H I J K	Trainer, CIP, and local CBO
M	Planting, harvesting, processing/marketing roots and other products	13	H to L	Women

Activity scheduling methods

There are several project scheduling methods. Examples include:

Network analysis

The network analysis is a method of scheduling tasks within a project (Figure 4.2). The circles symbolize distinct tasks or activities in the sequence they are to be carried out. The line between two circles shows the duration it takes. The code for the task is inside the circle, while the duration is outside the line. Tasks that depend on others can be identified in the network. The earliest and latest start and finish dates are identified, along with the total duration of the project. The duration of each activity is recorded. The sequence of activities that enable a project to be completed in the shortest time is referred to as the **critical path**. For example, the minimum time in which the OFSP women's group would start harvesting roots is 13 weeks (3 months). Activities on the critical path include determining the sequence of activities that take the shortest duration of the project in terms of cost, technical risk and other factors. It also involves identifying members, training them on the production of OFSP, purchasing vines to plant and planting vines followed by harvesting roots.

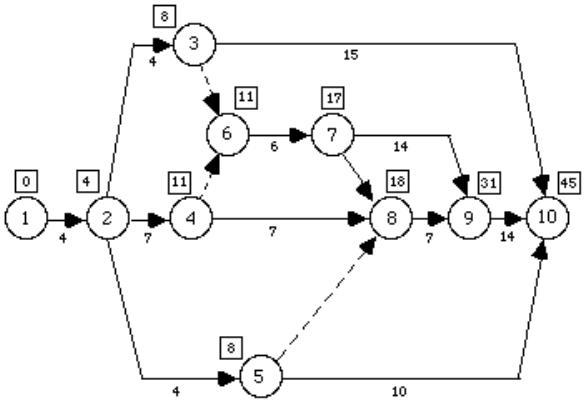


Figure 4.2: Example of a network analysis diagram (Source: McGraw-Hill)

Gantt chart

Time is important in project implementation planning. A Gantt chart is a graphic display used for scheduling project activities and task related information (Kloppenborg 2012: 193). It is simple and easy to read and presents information from the network analysis and activities graphically in the sequence in which they will occur. Other activities are presented in the earliest start and finish time to ensure timely completion of the project. Gantt charts help to monitor progress, show how sequential activities are linked and help to calculate the critical path for a project. Gantt charts are also referred to as calendar of activities.

Steps in drawing a Gantt chart

1. List all the project activities. Show the start date, estimated time and indicate whether the task is sequential or parallel, and if dependent, state the task it depends on (Table 4.4).

Table 4.4: Example — planning a Gantt chart

Task	Earliest start date	Duration	Type	Dependent on
A				
B				
C				
D				
E				
F				

2. Mark your graph paper with days/weeks/months for completing tasks.
3. Step 3 — draw the Gantt chart by plotting each task in the required sequence on the graph paper. The duration of the task indicates the length of the task. Dependent tasks are sequenced after the initial task on which it depends is completed.
4. Produce a final version of the Gantt chart (Table 4.5).

Table 4.5: Example of a Gantt chart

Objective/outcome: 2012														
Activity	**Duration (week beginning)**													
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Identify potential group members	A													
Recruit trainers		B												
Assess training needs			C											
Plan for training				D										
Provide training in OFSP production					E	E								
Harvest roots														F

Resource planning and budgeting

A resource plan is the basis for preparing the budget and allows the costing of each project activity. Under results based management, a resource plan is based on the work breakdown matrix and the activities schedule. Such costs include staff, management, administration and activities costs.

Project staff requirements are identified from the information on activities and task allocation to allow for timely employment and minimization of the duration of the project. For example, from the main activities for the training of women on OFSP production (identifying group members (Activity A), training in OFSP production (Activity E) and harvesting OFSP roots (Activity F)), the human resource requirements were: the local NGO, women group, trainers and CIP. Estimates of costs associated with staff, management and administration needs of the project are then tabulated in the resource plan.

Table 4.6: Example of a personnel schedule

Activity	**Duration (week beginning)**													
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
CIP														
HKI														
Local CBO														
National research institution														
10 women														
2 consultants (trainers)														

Resource plan and cost estimates

A resource plan (Table 4.7) groups together the resources needed to complete the activities of a project and estimated costs for all project activities in terms of inputs (human resource, equipment, service, supplies etc.). A list of all project inputs required is developed in tabular form indicating the amount of money required for each resource. Cost estimating can be challenging because the actual situation is unknown and there may be variation in some activities. Simple estimating methods should be used based on accurate cost estimates.

Table 4.7: Example of a resource plan

		Resource plan		
Project outputs	**Activities**	**Inputs**	**Cost (US$)**	**Budget (US$)**
1……	1.1 Provide training for farmers in OFSP	1.1.1 20 days consultancy	100	2,000
		1.1.2 25 training manuals	Editing 1,000 Printing 10 per manual	1,000 250
		1.1.3 Two-day training course for 20 people	Renting room 500 Facilitator 100 per day (100x2) Lunch and teas 10 per person per day (10x25x2) Materials 10 per person (10x20) Miscellaneous 200	500 200 100 200 200
	1.2 ….			…
2 …..	2.1 2.2 etc.			
				Total

Budget

A budget is prepared after completion of the resource plan. A budget is basically an itemized summary of the estimated costs based on the resource plan. Budgeting is defined as 'the process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline' (Kloppenborg 2012:254). The budget is prepared by aggregating the estimated costs of activities to specific cost or budget lines (see Module 8 for details).

Performance reporting and quality control

Monitoring plans are used to facilitate the preparation of project reports.

Performance reporting

Reporting requirements vary from organization to organization. Bi-weekly, monthly, quarterly, bi-annual and annual reports are prepared depending on the project requirements. Performance reporting may also be done through meetings. Progress is assessed against the planned activities and the expected results. Relevant and accurate information is communicated to the project stakeholders as stated in the project communication plan - in the right format and at the right time. Some donors have specific

templates for reporting. Information on work progress and performance, progress measurements and forecasting should be collected and shared with the project team and relevant stakeholders regularly.

Quality control

Quality control in project management refers to the process of reviewing the quality of activities related to project deliverables. The project team needs to understand and document the quality requirements or expectations of the project stakeholders and beneficiaries and plan for quality control. The plan should indicate the product or deliverable to be accomplished, what it is supposed to do, measure the satisfaction of the beneficiary, assess risk factors, set standards and indicate how the project success will be determined. A commonly used project quality control framework includes the process of: defining, measuring, analyzing, improving, and control. Quality control may also include identifying, analyzing, and correcting problems with respect to specific deliverables.

Quality control activities may be peer reviews, performance tests, or audits. Depending on the nature of a project, controls may also include inspection of products which should be in line with the project scope.

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Exercise 11

Identifying the implementation requirements in the case study: 'Research and development of an orange-fleshed sweetpotato' in Kenya

(Interdisciplinary Group Work)

1. Form three interdisciplinary groups with colleagues and elect a rapporteur. Remember this exercise is composed of *Part A* and *Part B.* Your team has ***2 hours*** to complete it.
2. Use Worksheet Handout 4.11.7 to record the results of your group work. Rapporteurs are also invited to record the group results on the flipchart or PowerPoint to present to the audience during Phase 2 of this exercise**.**

Phase 1. Interdisciplinary group work *(60 minutes)*

3. Reflect on the explanation provided by the facilitator on the *implementation requirement issues* and browse the summary of presentation (Handout 4.11.4) to discuss briefly the list of these requirements with your team members in order to proceed with this exercise.
4. ***Part A***. Read the case study 'Research and development of an orange-fleshed sweetpotato in Kenya' (Handout 4.11.6) to identify the *major implementation requirements* which are stated in the document.
5. Remember to use the Exercise Worksheet (Handout 4.11.7) to complete this exercise.
6. The group tasks are as follows:

   (a) Based on the summary of presentation (Handout 4.11.4), make a *complete list of the requirements* to implement a project effectively, after approval of resources.

   (b) Identify 2 *key requirements* that the case study clearly reported.

   (c) Describe in your own words *why these requirements were important* for the case study.

5. ***Part B***. After completing the items (a), (b) and (c) above

   (d) Describe *two most important lessons learned* which your team identified during this exercise; and

   (e) How would you anticipate the implementation of these practices in your organizations? List *2 actions* that you would take to implement these practices.

   (f) List 2 *implications* related to the implementation of your actions cited above; and *how you would deal with them.*

6. The rapporteurs summarize the group's results on flipcharts or PowerPoint.

Phase 2. Reporting and discussion *(60 minutes)*

7. The facilitator invites the rapporteurs to present the results to the audience.
8. Next, the facilitator will assist the participants *to reflect on the responses to this important exercise.*
9. Finally, the facilitator asks a few volunteers to state some lessons learned after the group results.
10. The facilitator provides feedback on the exercise and asks a few participants to express *how they plan to support the organization* (*clear actions*) in relation to the issue of improving the quality of project implementation within their organizations.
11. Then, the facilitator summarizes his/her views and closes the session. (*5 minutes*)

Case Study

Research and development of an orange-fleshed sweetpotato in Kenya[2]

This case study concerns the research and development of an orange-fleshed sweetpotato, high in beta-carotene, invaluable for improving household nutrition and food security especially in times of hunger or drought, and for pre-natal care and households affected by human immunodeficiency virus/acquired immunodeficiency syndrome (HIV and AIDS).

New varieties were developed as a result of a ten-year research program. Government extension services and a number of NGOs have subsequently participated in programs providing training, propagation and distribution of vines, processing and the linking of producers to markets. These programs covered many parts of Kenya but in particular Coast, Eastern, Rift Valley, Nyanza and Western Provinces.

Over 2,660 households, including many vulnerable ones, have benefited, with sweetpotatoes being grown for eating as fresh vegetables and processed product. Traditionally regarded as a woman's crop, sweetpotatoes have made an important contribution to improving the livelihoods of women, both as a food and a cash crop. Full commercialization is now taking place through promotion in urban areas with a value chain from producers through traders, wholesalers and retailers to consumers, slowly being established.

Initial context. Sweetpotato is the third most important root in Kenya, after potato and cassava. For many years it was grown purely for subsistence, more particularly in times when grain staples were in short supply. However, increasing dependence on grain since the 1980s resulted in a decline of sweetpotato production, with negative consequences for food security. A Government initiative in 2004, which gave attention to root and tuber crops, resulted in a modest increase in sweetpotato production (GoK 2004). With both food security and health attributes of sweetpotatoes increasingly being recognized, orange-fleshed sweetpotato (OFSP) varieties have been particularly favored for development over the past decade.

There are over 2,000 sweetpotato varieties grown in the country, with various attributes and at various levels of production and utilization.

Initial challenges. The development and utilization of OFSP faced a number of challenges including the following:

- Sweetpotatoes being considered a 'woman's crop' with promotion often not receiving the enthusiasm it might have deserved, especially from male audiences
- Neglect of advocacy and awareness creation of the nutritional value of sweetpotatoes
- OFSP with its high beta-carotene content has a lower dry matter content than traditional varieties. Unfortunately Kenyan consumers prefer varieties with high dry matter content. This meant an initial low demand for OFSP

[2] *Source:* ***Agricultural Innovation in Sub-Saharan Africa: Experiences from Multiple-Stakeholder Approaches.*** *AA Adekunle, J Ellis-Jones, I Ajibefun, RA Nyikal, S Bangali, O Fatunbi and A Ange. Forum for Agricultural Research in Africa, 12 Anmeda Street, Roman Ridge, PMB CT 173, Accra, Ghana. 2012. http://www.fara-africa.org/media/uploads/library/docs/fara_publications/agrl_innovations_in_ssa.pdf.*

- Since sweetpotatoes are vegetatively propagated from vines, ensuring regular supplies of healthy planting material of OFSP in significant quantities requires special measures. The OFSP varieties are early maturing and their vines are short-lived, hence a challenge for availability of planting material.

Innovation triggers. Hidden hunger and nutrient deficiencies triggered increasing interest in OFSP, among other micronutrient dense sources. Rather than continued dependence on micronutrient supplements, which many people could not afford or access, Harvest Plus, a global alliance of research institutions, funded projects that explored bio-fortification, and OFSP was identified as a rich source of vitamin A.

Interventions and stakeholders' roles. Although research on sweetpotato in Kenya by KARI (Kenya Agricultural Research Institute) and the International Potato Center (CIP) with their global partners has been ongoing for over 20 years, research, mainly breeding and dissemination on OFSP, has occurred only over the past ten years. The work involved acquisition of initial planting material, identification of suitable landraces for breeding, breeding activities for nutrient content, yield, taste, disease and pest resistance, and dissemination initiatives. Other stakeholders in the intervention have included a number of NGOs that support production and utilization projects, as well as producer and consumer organizations, notably Kilimo Trust, Sweetpotato Action for Security and Health (SASHA), Community Research in Environment and Development Initiatives (CREADIS), Rural Energy Food Supply Organisation (REFSO), Appropriate Rural Development Agriculture Program (ARDAP), Majasio Human Development, (MAHUDE) and Farm Concern International.

Different stakeholders along the OFSP product value chain include farmers, seed multipliers, market traders, extension agents, processors, media, and community based organizations. Promotion of sweetpotato now occurs countrywide, with greatest activity in Western Kenya. KARI and CIP continue to undertake research in developing new varieties, to obtain combinations of dry matter, beta-carotene, disease and pest resistance with appropriate yield and taste attributes. The Mama SASHA Project (2009–14), a component of CIP's sweetpotato activities, links health with agriculture, targeting women who require pre-natal care. Such women are provided with vouchers at clinics for obtaining sweetpotato planting material. The vouchers are exchanged with farmers for six-kilogram starter packs of sweetpotato vines. The farmers are then reimbursed at about two US dollars for each six-kilogram pack distributed. In the first four months of distribution, 836 women received vouchers from four health facilities, with more than 500 vouchers being redeemed vine starter packs. Follow-up visits to the homes of 216 women found that 81 percent of them had planted the vines (DONATA 2011). Dissemination of New Agricultural Technologies in Africa (DONATA), a network supported by FARA enhancing the uptake and adoption of the OFSP technologies in Kenya, Ethiopia, Rwanda, Tanzania and Uganda, has been using an IP approach since 2008. Two IPs have been formed, each with its own institutional arrangements to support the up-scaling process (DONATA 2011).

An NGO, Farm Concern International, has initiated sweetpotato promotions in Nairobi grocery stores to assist in developing the urban market for OFSP.

The public sector, private sector, NGOs, and farmer groups have all played key roles in the success of OFSP including the following:

- Approval and funding by the public sector of research and development agenda from various players, and registration of NGO efforts

- KARI and CIP spearheading the research effort into the development of the OFSP, fine tuning of technologies and quality control
- The Ministry of Agriculture and various NGOs are part of innovation platforms in western Kenya with the ministry being responsible for technology dissemination and up-scaling in the innovation platforms
- Farmers link up through the SASHA project to provide planting material although commercial multiplication remains to be achieved
- Private traders purchase the crop where commercialization has taken root, like in Kabondo in South Nyanza and in Busia and Bungoma in Western Province; Concern International also links traders to markets
- Several cottage industries process sweetpotatoes with Busia Farmers' Training Institute, a government organization, training farmers in many aspects of sweetpotato utilization
- Financing of the enterprises is by private arrangements, except for the SASHA project which funds the purchase of planting material for mothers in pre-natal stage
- Transport is handled by private traders, who also engage in marketing and market information
- NGOs like CREADIS, REFSO, ARDAP, and MAHUDE have been involved in coordination of activities and mobilization of community groups, documentation of activities and outcomes, coordination of planting material multiplication and postharvest processing
- Representatives of groups handle their interests in the innovation platforms.

Achievements. Many stakeholders are now involved with sweetpotato. There are over 2000 varieties grown with different attributes and *research* work is still on-going. The DONATA network has made an important contribution in planting material multiplication, training on production and utilization, and promotion activities. About 880 farmers have directly participated in the multiplication and distribution of planting material and by the end of 2010; about 2660 end users had received planting material. The project has trained 48 trainers on OFSP agronomy and vine multiplication and 37 trainers on postharvest processing. The trained trainers later reached a total of 653 farmers (550 farmers on agronomy), postharvest processing (71) and business skills (32). The project also trained 24 Ministry of Agriculture extension staff on business skills.

One OFSP processor (Mukunya, 2011) indicates that a market has finally been established and according to one farmer representative (Agri-Hub Kenya, 2011) there are approximately 7000 farm households in southern Nyanza producing local varieties, that would be willing to produce if assured of market contracts. Farmers have been organized into around 40 producer groups with umbrella marketing cooperatives. The area produces over 50 percent of the country's sweetpotatoes and is therefore a potential supplier for the emerging market.

Achievements of the research and development efforts are acknowledged, yet the major reason for the development of the OFSP, the contribution of the beta-carotene health attribute, is still unknown. Many users of OFSP flour including homes that care for HIV/AIDS sufferers indicate positive outcomes, although this is yet to be scientifically studied.

Emerging or unresolved challenges. The demand for OFSP is now outstripping supply:

'We have been selling OFSP flour for a few years now and all of a sudden farmers are not finding the varieties interesting enough (for their pockets) and just as the market looks ripe for growth, the root is nowhere to be found' (Mukunya, 2011). Commercialization of the sweetpotato is still in the intermediate phase, where the suppliers, traders and consumers have not yet established a stable value chain, despite several initiatives in the crop in the country.

Attempts to develop varieties that are resistant to the potato weevil have not yet been successful. Mitigation of weevil damage includes use of short-season varieties and deeper storage of roots.

Lessons learned. Production of the OFSP or other commodities grown by smallholders participating in group initiatives can be successful if there are contract markets to provide the stability for increasing production. It also requires support for breeding, production and utilization. Greater involvement of nutrition research activities may have contributed even more to the ongoing success.

Exercise 11. Worksheet
Identifying the implementation requirements in the case study above

PART A. (a) List of requirements	**PART A.** (b) 2 Key requirements	**PART A.** **(**c) Why 2 requirements are important	**PART B.** (e) 2 Important lessons learned.	**PART B** (f) 2 implications	**PART B** **(g)** How to deal with them

SESSION 12 The concepts of monitoring and evaluation

Developing a theory of change (ToC)

Instructions to Learning Facilitators

SESSION 12

Presentation and Exercise: ***4 hours***

Tea/Coffee break: ***15 minutes (morning and afternoon)***

OBJECTIVES

By the end of this session, the participants will be able to do the following:

- Discuss the concepts of monitoring and evaluation
- Describe the major uses of M&E
- Distinguish between monitoring and evaluation
- List activities related to process monitoring
- Identify output, outcome and impact indicators based on 'Research & development of an orange-fleshed sweetpotato' case study
- Analyze the approaches to performance monitoring and evaluation
- Develop the theory of change (ToC)

Use PowerPoint to present this session's objectives.

Distribute summary of PowerPoint, summary of presentation and exercise 12 (from handout 4.12.1 to 4.12.4).

PROCEDURE

Learning strategy or facilitation' techniques: presentation, interdisciplinary group work and plenary discussion.

EXERCISE 12 PRESENTATION

Part A. Defining Monitoring and Evaluation *(1 hour 30 minutes)*

Phase 1. Group work *(30 minutes)*

(experience) Before making presentation, invite the participants to form small groups and elect a rapporteur to undertake the tasks listed in the Exercise 12, phase 1, handout 4.12.3. They are expected to discuss and write (1) their understanding of *monitoring* (2) their understanding of *evaluation* (3) *the functions of M&E* (4) *the reasons M&E tends to fail in its objectives.* The rapporteurs write the group results on the flip chart.

Phase 2. Reporting and discussion *(30 minutes)*
(process generalization) When the participants complete this first 'warm-up' exercise, invite the groups to share the responses in plenary.

(generalization) Remember to point out that the terms *monitoring and evaluation* are used in many different ways. Remind the participants that these concepts have already been discussed under Session 3 (project cycle management), in Volume 1 of the learning kit. Then make presentation.

Phase 3. PowerPoint Presentation *(30 minutes)*

(experience) Give a brief presentation. Use PowerPoint from 4.12.4 to 4.12.21 and emphasize the concepts of M&E, major uses of M&E, M&E in a management cycle, the relationship between monitoring and evaluation, etc. PowerPoints are available to support the presentation. At the end of the presentation, ask if clarification is needed.

EXERCISE 12

Part B. Developing a theory of change (ToC) (*2 hours 30 minutes*)

Phase 1. PowerPoint Presentation *(30 minutes)*
(*experience)* Make a brief introduction to the concepts of theory of change. Use PowerPoint from 2.12.22 to 4.12.30. Follow this introduction with a practical demonstration using 'development of strategy' covered in Session 4, Exercise 4b.

Phase 2. Group work *(60 minutes)*

(experience) Invite each group to work on the Kenya Case Study on 'Research and Development of Orange-Fleshed Sweetpotato'.

(experience generalization) Ask the participants to return to their respective objective trees which must be displayed on the wall to:

(i) Show the flow of results using arrows

(ii) Identify assumptions and risks: on the objective tree, insert assumptions and risks

(experience generalization) At the end of this phase the groups will have exercised the development of theory of change which is a visual alternative and more comprehensive of the Logical Framework.

Phase 3. PowerPoint Presentation *(10 minutes)*

(experience) Use PowerPoint 4.12.31 to reinforce the benefits of the theory of change. At the end ask participants if they need further explanation or if they have questions for clarification.

Phase 4. Reporting and discussion *(45 minutes)*

(generalization application) Invite the rapporteurs to present the exercise results to the audience. After hearing

all groups results, ask a few volunteers to state some lessons learned.

(application) At the end of this exercise, ask a few participants to express *how they plan to support the organization (clear actions)* in relation to the issue of improving quality to design an M&E Plan for the projects within their organizations. Take note of the actions on the flipchart, make a few comments on the actions, summarize your views and close the session.

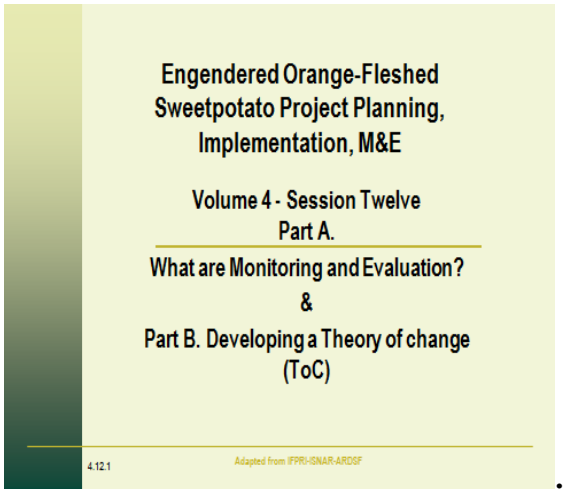
CLOSURE

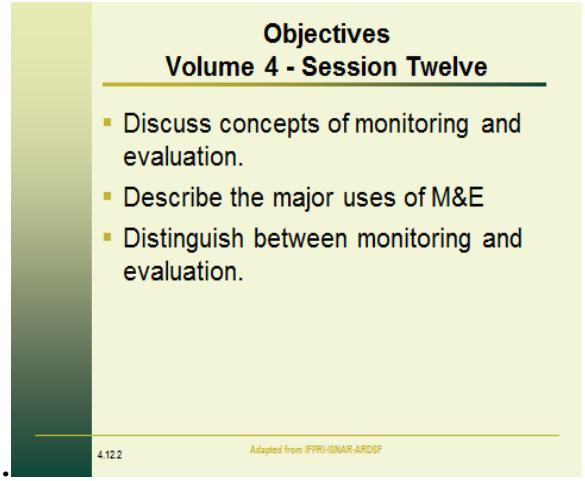
Closure *(5 minutes)*

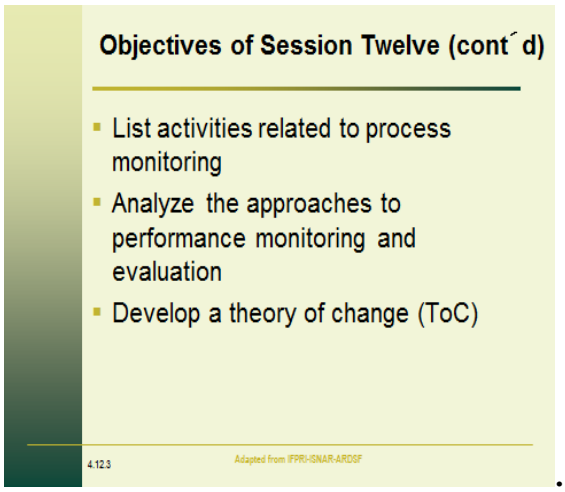
(application) Ask the participants, 'What might you do differently in your job as a result of what you have learned?' How could you describe the level of acceptance of this new learning among your peers in your organization? Ask volunteers to respond to these questions to increase this session's learning.

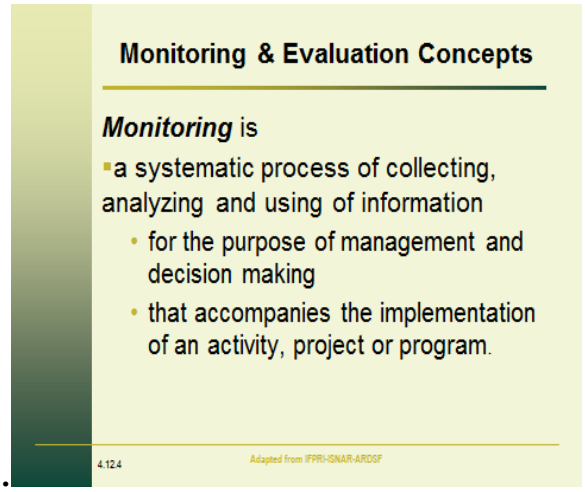
Make a transition to the next session.

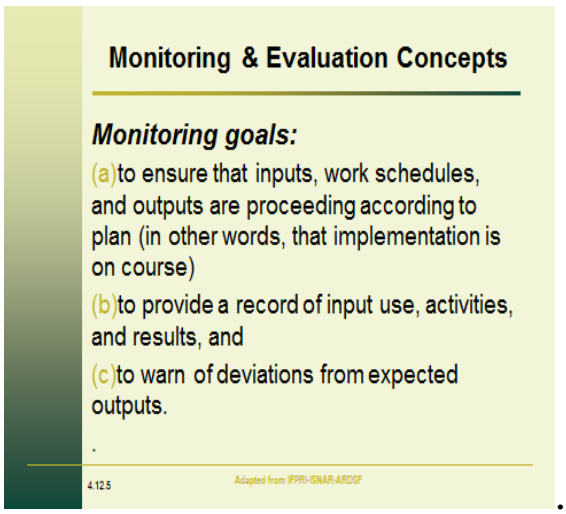
Session 12 PowerPoint Presentation

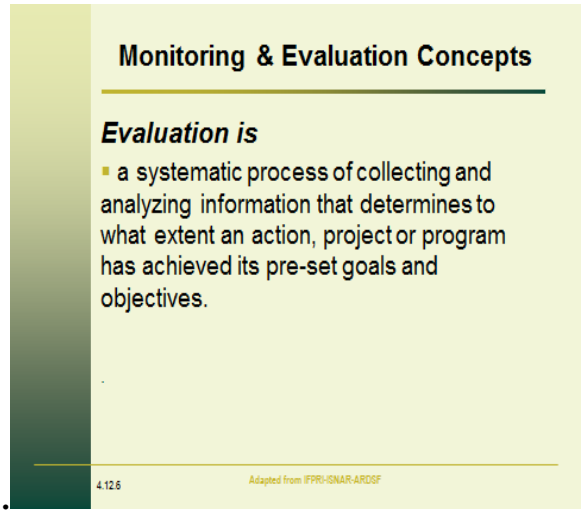


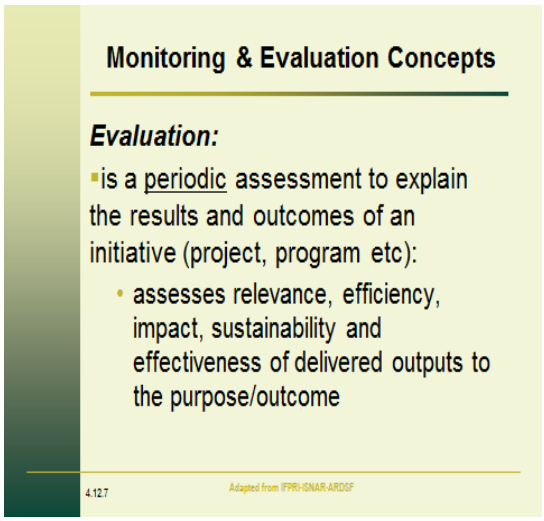


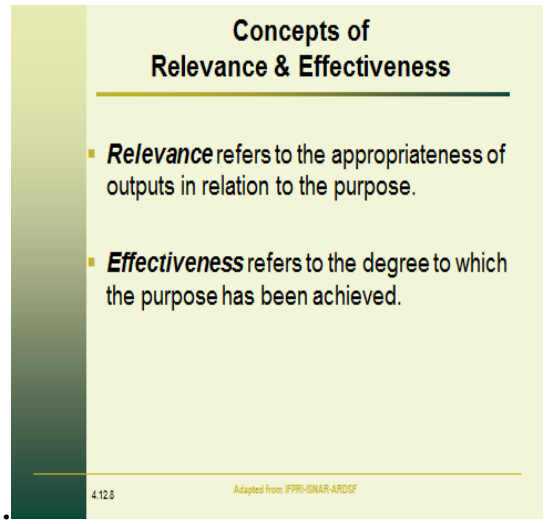


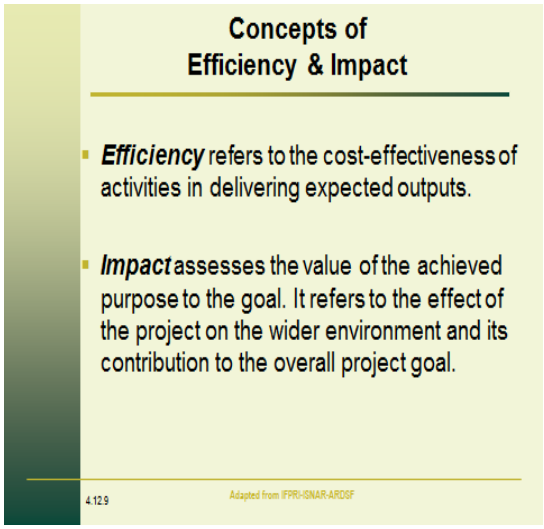


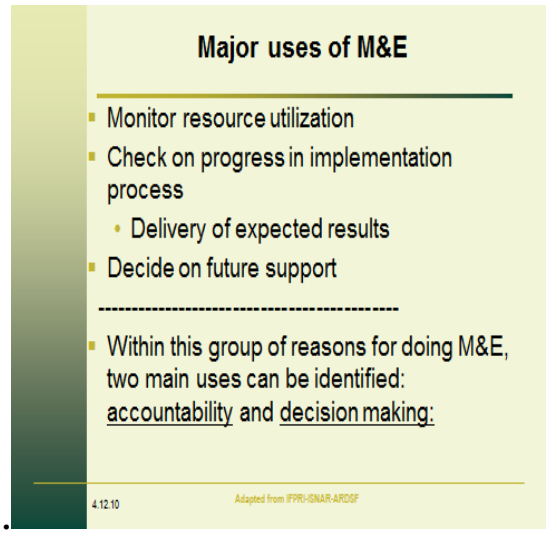


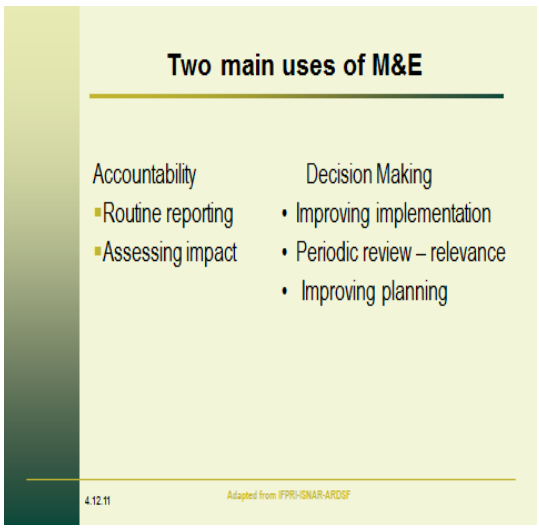


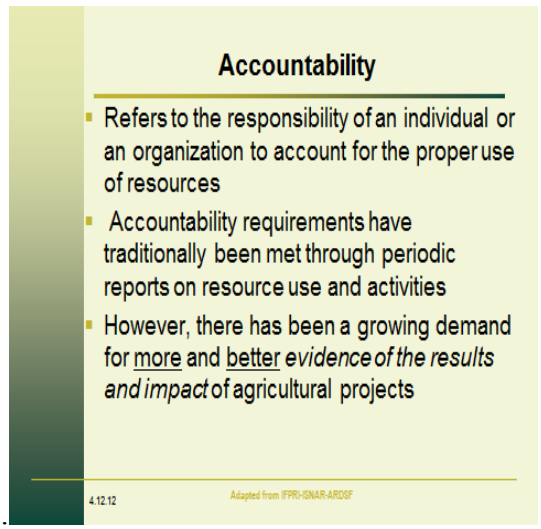

Monitoring & Evaluation Concepts
Evaluation:
is a periodic assessment to explain the results and outcomes of an initiative (project, program etc):
assesses relevance, efficiency, impact, sustainability and effectiveness of delivered outputs to the purpose/outcome
4.12.7
Adapted from IFPRI-ISNAR-ARDSF


Concepts of Relevance & Effectiveness
Relevance refers to the appropriateness of outputs in relation to the purpose.
Effectiveness refers to the degree to which the purpose has been achieved.
4.12.8
Adapted from IFPRI-ISNAR-ARDSF


Concepts of Efficiency & Impact
Efficiency refers to the cost-effectiveness of activities in delivering expected outputs.
Impact assesses the value of the achieved purpose to the goal. It refers to the effect of the project on the wider environment and its contribution to the overall project goal.
4.12.9
Adapted from IFPRI-ISNAR-ARDSF


Major uses of M&E
Monitor resource utilization
Check on progress in implementation process
Delivery of expected results
Decide on future support
Within this group of reasons for doing M&E, two main uses can be identified: accountability and decision making:
4.12.10
Adapted from IFPRI-ISNAR-ARDSF


Two main uses of M&E
Accountability
Routine reporting
Assessing impact
Decision Making
Improving implementation
Periodic review – relevance
Improving planning
4.12.11
Adapted from IFPRI-ISNAR-ARDSF


Accountability
Refers to the responsibility of an individual or an organization to account for the proper use of resources
Accountability requirements have traditionally been met through periodic reports on resource use and activities
However, there has been a growing demand for more and better evidence of the results and impact of agricultural projects
4.12.12
Adapted from IFPRI-ISNAR-ARDSF

Monitoring Mechanisms

- Project is carried out and monitored in relation to plans, results, and changing circumstances.
  - *Annual project/program reviews* and *mid-term project reviews* are useful mechanisms for regular assessment and decision making.

4.12.13 Adapted from IFPRI-ISNAR-ARDSF

Approaches to performance monitoring

Internal monitoring:

- continuous self-assessment - project partners have the responsibility to undertake performance monitoring and reporting.
- Agreement is reached on the baseline, sources of information, and who is responsible.

4.12.14 Adapted from IFPRI-ISNAR-ARDSF

Approaches to performance monitoring

External monitoring:

- contracts a project monitor to independently track and report on performance
- often reporting to a project steering committee.

4.12.15 Adapted from IFPRI-ISNAR-ARDSF

Approaches to performance monitoring

External monitoring:

This is often used for large, complex projects.

- The monitor reviews the baseline data, project narrative, financial reports & performance information; undertakes field visits; and participates in management committee meetings.

4.12.16 Adapted from IFPRI-ISNAR-ARDSF

Selecting monitoring approach

It is important to select a monitoring approach that is:

- cost effective,
- appropriate and
- reflects all the stakeholders' needs for timely performance information

4.12.17 Adapted from IFPRI-ISNAR-ARDSF

Evaluation is both a management and an accountability tool.

Evaluation should:

- promote organizational learning by highlighting lessons and issues and
- contribute to enhanced management accountability and transparency, including reporting to the governing bodies and other stakeholders.

4.12.18 Adapted from IFPRI-ISNAR-ARDSF

Ten Key factors for improving M&E

1. Focus on key management and accountability needs
2. Avoid over-ambitious M&E objectives
3. Think of M&E as a process that integrates planning, implementation and decision making; not a series of disconnected activities

4.12.19 Adapted from IFPRI-ISNAR-ARDSF

Ten Key factors for improving M&E

4. Assign responsibilities for M&E and follow-up action
5. Inform all levels of management and staff of the purposes, principles and uses of M&E
6. Plan an M&E system that fits the project´s resources and needs
7. Use simple, practical methods to minimize time, cost and paperwork

4.12.20 Adapted from IFPRI-ISNAR-ARDSF

Ten Key factors for improving M&E

8. Plan jointly with key stakeholders (including donors), and coordinate implementation and reporting to satisfy mutual needs
10. Summarize M&E results for managers and present options for actions
9. Provide information on a timely basis for decision making

4.12.21 Adapted from IFPRI-ISNAR-ARDSF

Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, M&E

Part B

Developing a project´s Theory of Change (ToC)

4.12.22 Adapted from IFPRI-ISNAR-ARDSF

What is a Theory of Change (ToC)?

A ToC is a description of a social change initiative that shows how early changes relate to more intermediate changes and then to longer-term change.

A ToC ('road map for change, 'pathway of change', 'outcome map') is defined as making explicit how people think change happens and what critical assumptions accompany this perceived change.

A way of activating strategic foresight.

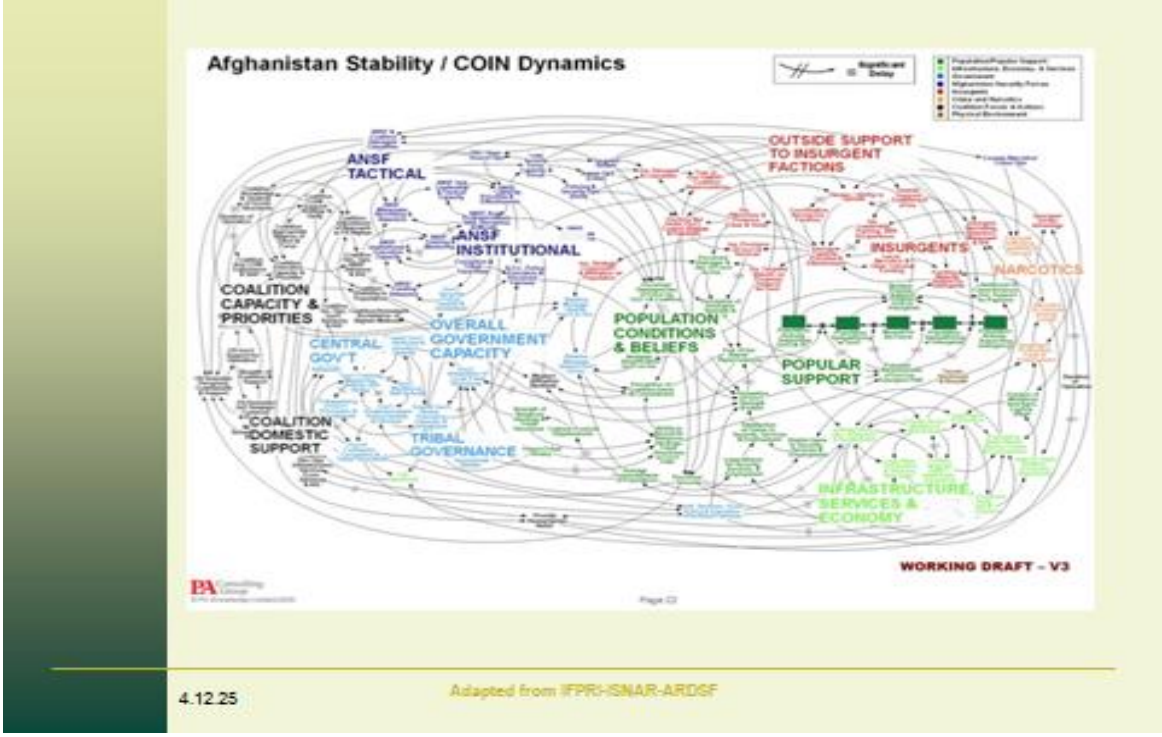
4.12.3 Adapted from IFPRI-ISNAR-ARDSF

What a theory of change involves

Theory of change is an ongoing process of reflection to explore change and how it happens – and what that means for the part we play in a particular context, sector and/or group of people.

- It locates a programme/ project within a wider analysis of how change comes about.
- It acknowledges the complexity of change: the wider systems and actors that influence.
- It is often presented in diagrammatic form with an accompanying narrative summary.

4.12.24 Adapted from IFPRI-ISNAR-ARDSF



How to locate change

- We all have different theories about how change happens:
  - from personal experience / fieldwork (inductive)
  - from science/research / academic literature (deductive)
  - from intended users (user-focused approach) to produce their ToC
- Some basic questions we have to ask:
  - how do we measure success?
  - How (will we know how) has this success (has) come about? What changes have occurred and how are these related? What assumptions do we make?

4.12.26 Adapted from IFPRI-ISNAR-ARDSF

How to describe a ToC?

- Stated as a *narrative* and in a variety of ways *visually*. Visual (= skeleton) alone is not enough: the stories (=flesh) that people tell will make explicit people's underlying theories about how change happens
- A fully developed theory of change will spell out more clearly the *sequence* in which outcomes are likely to happen, how early and intermediate outcomes lead to long-term outcomes/impacts, and how they connect to each other.

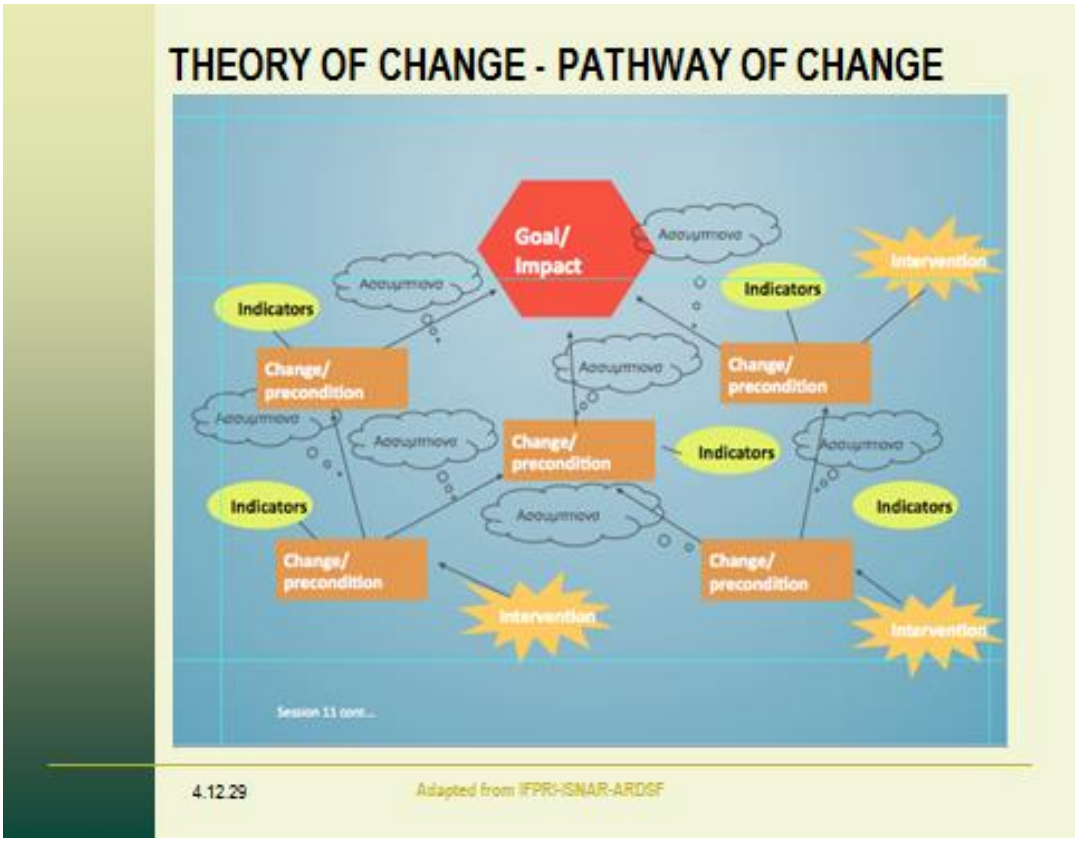
4.12.27 Adapted from IFPRI-ISNAR-ARDSF

Steps in developing a ToC

- **Step 1.** *Identify the long-term outcomes (ToC)*
- **Step 2.** *Develop a pathway of change (ToC)*
- **Step 3.** *Define interventions/Main activities (ToA)*
- **Step 4.** *Articulate assumptions and risks (ToC)*

Note: very many ways to develop a ToC. Important is to think beyond the linear causal models and surface underlying assumptions. We have adapted these into the next steps

4.11.28 Adapted from IFPRI-ISNAR-ARDSF


THEORY OF CHANGE - PATHWAY OF CHANGE
Goal/ Impact
Assumptions
Indicators
Change/ precondition
Intervention
Session 11 cont...
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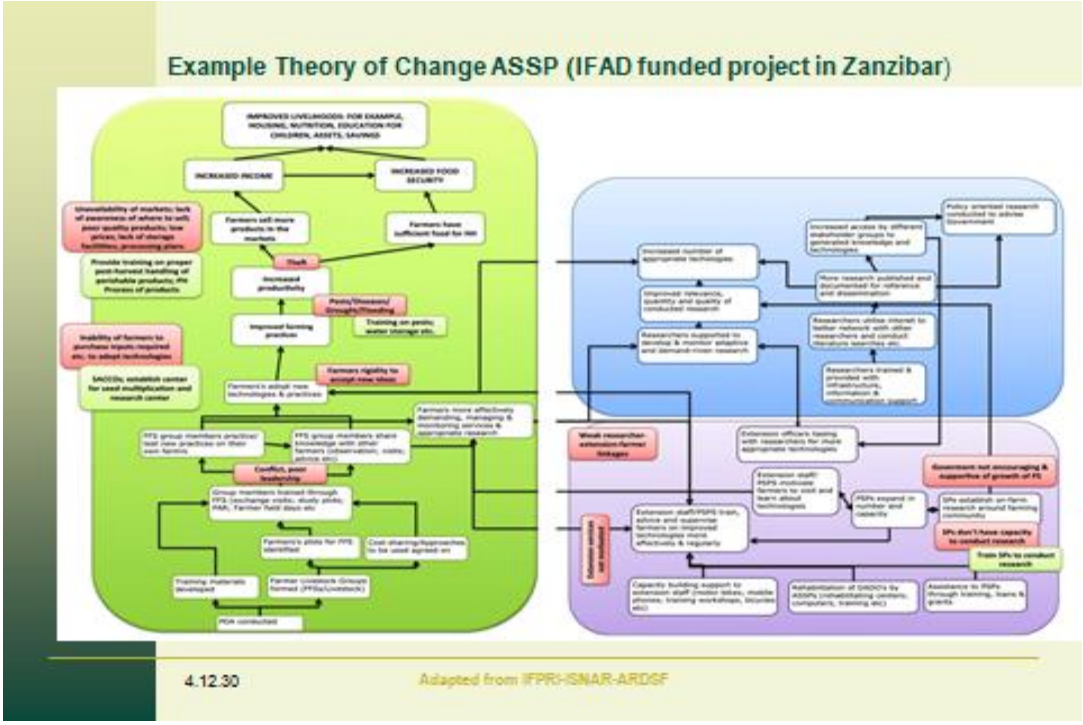
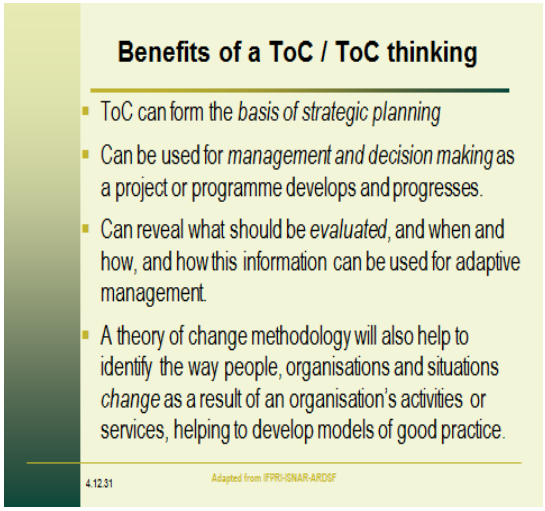
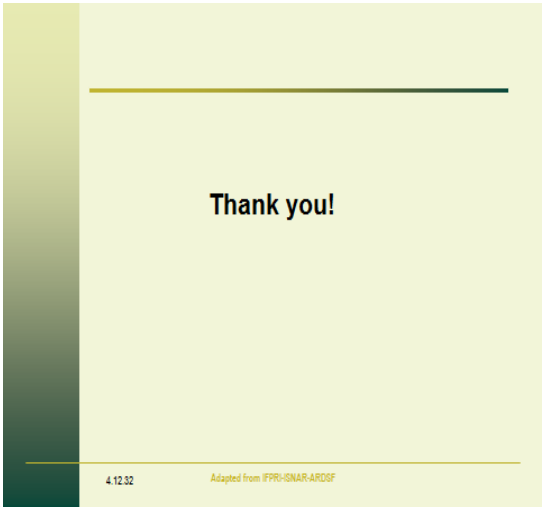

Example Theory of Change ASSP (IFAD funded project in Zanzibar)
4.12.30
Adapted from IFPRI-ISNAR-ARDSF


Benefits of a ToC / ToC thinking
ToC can form the basis of strategic planning
Can be used for management and decision making as a project or programme develops and progresses.
Can reveal what should be evaluated, and when and how, and how this information can be used for adaptive management.
A theory of change methodology will also help to identify the way people, organisations and situations change as a result of an organisation's activities or services, helping to develop models of good practice.
4.12.31
Adapted from IFPRI-ISNAR-ARDSF


Thank you!
4.12.32
Adapted from IFPRI-ISNAR-ARDSF

The concepts of monitoring and evaluation (M&E)[3]

(Summary of Presentation)

Introduction

The terms *monitoring and evaluation* are used in many different ways. These concepts have already been discussed under Session 2 (project cycle management). However it is important to stress that monitoring and evaluation (M&E) is part of a continuum of observation, information gathering, supervision, and assessment. Thus M&E is closely linked to the results of the needs assessment and the subsequent project implementation planning process. However, more importantly, M&E is essentially an integral part of project implementation, reporting, learning from experience, and demonstrating project results and benefits to those who fund and support agricultural projects.

M&E Concepts

- *Monitoring* is a systematic process of collecting, analyzing and using information for the purpose of management and decision making that accompanies the implementation of an action, project or program. Its goals are (a) to ensure that inputs, work schedules, and outputs are proceeding according to plan (in other words, that implementation is on course), (b) to provide a record of input use, activities, and results, and (c) to warn of deviations from expected outputs.
- Evaluation is a systematic process of collecting and analyzing information that determines to what extent an action, project or program has achieved its defined goals and objectives. It is a periodic assessment to explain the results and outcomes of an action: assesses relevance, efficiency, sustainability and effectiveness of delivered outputs to the purpose/outcome. Evaluation results feed into impact assessment processes.

Relevance refers to appropriateness of outputs in relation to the purpose.

Effectiveness refers to the degree to which the purpose has been achieved by delivering expected outputs.

Efficiency refers to cost-effectiveness of activities in delivering expected outputs.

Impact assesses the value of the achieved purpose to the goal. It refers to the effect of the project on the wider environment and its contribution to the overall project goal.

Major uses of M&E

Organizations, programs, projects or activities are monitored or evaluated for many reasons: to monitor resource utilization, to check on progress in delivering expected results, to assess the value of the delivered results, and to decide on future support.

Within this group of reasons for doing M&E, two main uses can be identified: *accountability* and *decision making:*

Major uses of M&E

Accountability	Decision making
• Routine reporting	• Improving implementation
• Assessing impact	• Improving planning

[3] *Adapted by RAC – CIP Team in 2012 from FAO Document, 2011 and from ISNAR Learning module on Project Management Cycle: Planning, Monitoring and Evaluation. 1999*

Accountability refers to the responsibility of an individual or an organization to account for the proper use of resources. Accountability requirements have traditionally been met through periodic reports on resource use and activities; however, there has been a growing demand for more and better evidence of the results and impact of agricultural projects.

M&E is also used to help with *decision making* during planning and implementation processes. Decision making refers to the thought process in identifying and selecting a course of action among several alternatives. It reduces uncertainty by weighing the positives and negatives of each option thus facilitating the choosing of the best option.

- *Accountability and decision making* should be linked. For example, information provided by a scientist or an organization to meet accountability requirements may be used by managers at higher levels to determine future funding for projects.
- Accountability is also part of good management within an organization. Senior managers require their staff and project managers to be accountable for the resources they use.
- An ongoing project is supervised to ensure that schedules for inputs, activities, and outputs are on target, and to allow managers to address problems in a timely manner. *M&E systems should meet the need for both accountability and decision making.*

Routine reporting. Funding agencies require recipient organizations to account for the use of their resources. This is done through periodic reports on expenditures and activities that show that public funds have been used properly. It is important that the organizations maintain reliable data collection, storage and processing to help managers fulfill these obligations in a cost-effective way.

Assessing impact. Governments and donors are re-examining their investments in agriculture. Taxpayers and government officials are demanding evidence of its benefits. Satisfying this demand for information requires effective M&E that demonstrates the benefits of agricultural projects and the usefulness of its results to policy makers, donors, farm organizations, and other interested groups.

Impact studies are one way to provide convincing evidence that agricultural projects have been a good investment in the past and that they will continue to be a good investment in the future. Retrospective studies (or ex-post evaluation) can show how public funds have been used to carry out projects and how project outputs have been used by farmers and other clients.

Improving implementation. Monitoring or on-going evaluation can assist managers by warning them when activities and their results deviate from expectations – when they may need a guiding hand. In project management, major deviations between plans and results often mean that the plans themselves need to be revised.

Review. Periodic reviews of project activities are useful in determining whether the objectives of the project are still relevant and their strategies remain valid. Periodic reviews can also help ascertain what progress has been made to date and to assess future benefits. This information can be used by project managers to decide if the activity should continue as planned, if important changes should be made in project goals and plans, or if the activity should be terminated. These considerations are often taken in consultation with **steering or management committees. Annual technical review** may be undertaken, which can involve both internal and external experts. **Mid-term review** may also be conducted to take a more substantive and formative look. A **terminal tripartite review meeting** should also be included to examine project achievements and decide on eventual follow-up.

Improving planning. Evaluations provide unique information and insights into project

processes and their results. For example, evaluations can bring insights that can be used by managers to improve the planning and design of future programs, projects and project activities. For this reason, it is useful to prepare for major planning exercises with careful evaluation of previous work, its outputs and its impact. Here *outputs* refer to the direct products of projects, such as a new variety, and *impac*t refers to both the short-term effects of projects (such as adoption of a new variety) and to longer-term effects (for example increase in yields, production, incomes and social welfare resulting from adoption of a new variety.

M&E in a Management Cycle

Monitoring and Evaluation processes in agricultural projects can best be understood in relation to the management processes and the decision-making hierarchy of organizations. Management cycle is useful to visualize a cycle of management decision that begins with needs assessment and planning, continues with implementation and ends with review (Figure 4.3).

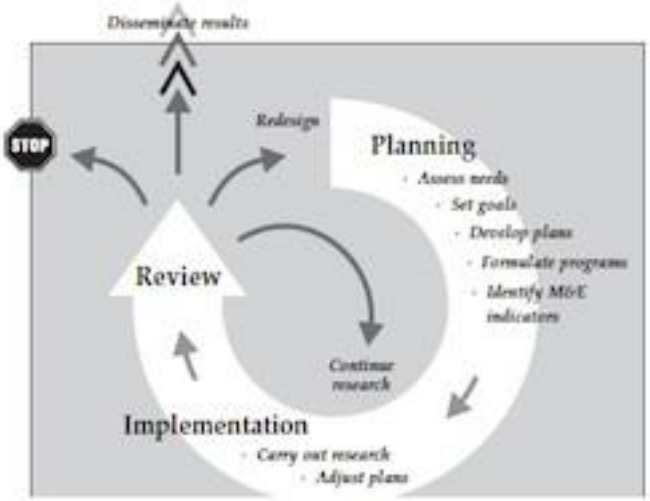


Figure 4.3: The management cycle

During planning, the needs of farmers and other technology users should be assessed, goals set, strategies designed, and plans prepared. Ex-ante evaluations may be conducted to assess needs and to evaluate proposed research topics and designs.

In the implementation phase, the project is carried out and monitored in relation to plans, results, and changing circumstances. Annual program reviews and mid-term project reviews are useful mechanisms for this kind of evaluation.

It is important to periodically review all aspects of the project activity, including the original needs assessment, goals, project plans and designs, implementation processes, and project outputs and impacts (both planned and unanticipated). At this time, decisions are made (a) to continue project activities as planned, (b) to redesign the project activity, (c) to terminate it, or (d) to pursue new project areas. This assessment then feeds into planning in the next cycle

It is helpful at this stage to discuss the relationship and differences between monitoring and evaluation (Figure 4.4).

Monitoring:

- includes the periodic recording, analysis, reporting, and storage of data on key indicators; a good manager ensures that all of these four activities are carried out; it is also important to disaggregate data by gender, age or other factors that have been identified in the project;
- usually necessitates inclusion of **baseline data** in the design of the monitoring system, particularly for Trust Fund projects; this is essential if impact assessment is to be conducted later on.
- primarily provides information on project performance, on whether an activity is proceeding according to plan; this information is actively used by project management.
- is concerned with **resources** and **processes,** the latter being extremely important in highly participatory projects with strong socio-economic and cultural dimensions. In the case of a research project, 'processes' connotes **how priorities are set, who participates in research evaluation, research programme and project leadership, research management structures**, etc.
- if ex-post or impact evaluations are to be conducted later, the monitoring system will also provide at least some information on socio-economic indicators for these purposes, again reflecting information gathered in initial baseline surveys.

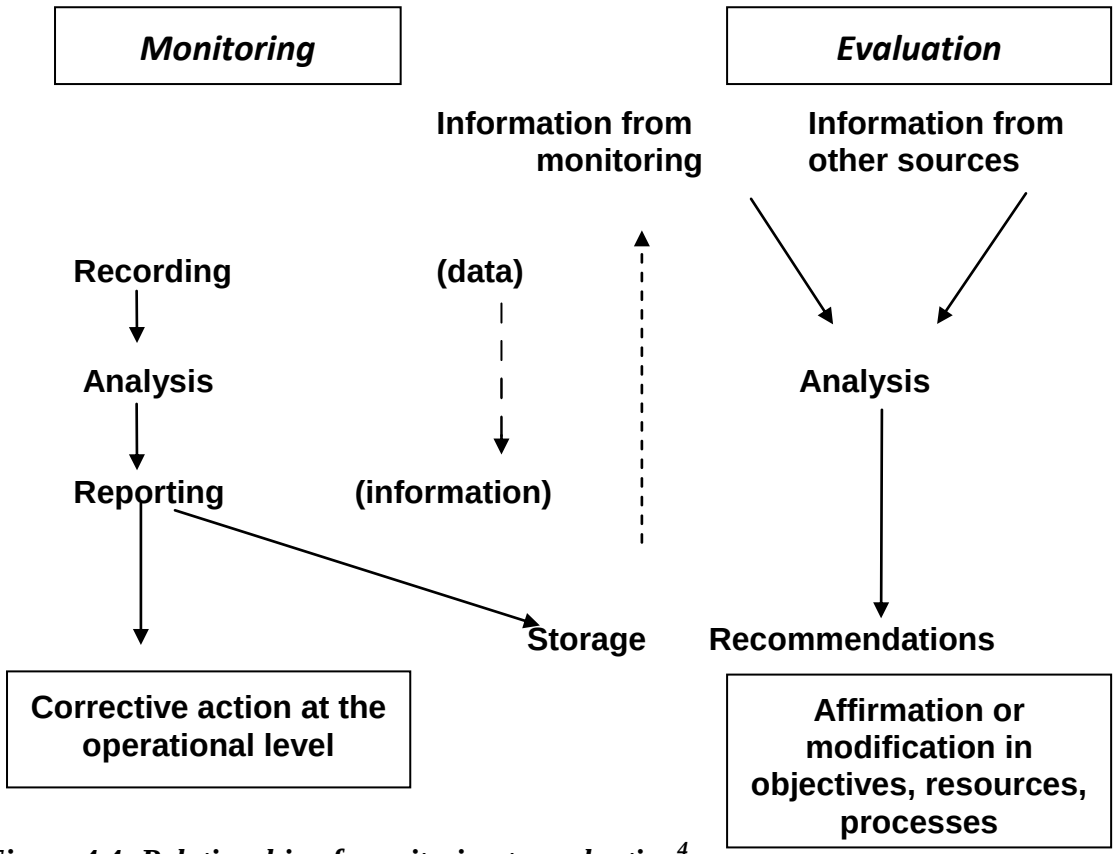


Figure 4.4: Relationship of monitoring to evaluation[4]

[4] *From D. McLean, 1988. Monitoring and evaluation in the management of agricultural research. Working Paper no. 14. The Hague. ISNAR.*

Process monitoring, essential for iterative, process-oriented projects, usually comprises narrative accounts of formal and informal discussions, interviews, steering committee meetings, etc. which either reinforce on-going activities or result in changes to project design (e.g. activities, focus, reach, depth, time frames) and/or implementation (e.g. approach, management systems, service delivery). It is important to document these processes in clear narrative particularly because project managers and key stakeholders often change within the life of the project. This process of documenting change also facilitates the identification of lessons learned and best practices.

Evaluation is based on both qualitative and quantitative information, gathered through monitoring and from other sources. Evaluations look at relevance, quality and effectiveness, and even the appropriateness of the plan itself. Evaluations result in a set of recommendations, which may result in mid-course corrections, project termination, or ideas for future projects. Evaluations contribute to more effective programming and institutional learning when organizations try to understand the reasons for success and failures and when they take 'lessons learned' seriously.

Approaches to performance monitoring

There are three basic approaches to performance monitoring with RBM systems. All three assign overall accountability to the programme or project manager.

- **Internal monitoring**: This is essentially a form of continuous self-assessment where the project delivery partners have the capacity, and are given the responsibility, to undertake performance monitoring and reporting. Agreement is reached on the baseline, sources of information, and who is responsible.
- **External monitoring**: This involves contracting a project monitor to independently track and report on performance, often reporting to a project steering committee where necessary. This option is often used for large, complex projects. Generally, the monitor would review the baseline data, project narrative and financial reports and performance information; undertake field visits; and participate in management committee meetings.
- **External support**: This approach combines the above approaches, with project delivery partners being responsible for the performance monitoring function but being assisted by a performance advisor who is contracted to review the selection of performance indicators, information collection strategies, systems and instruments, and the validity and reliability of the information produced, in order to recommend improvements.

It is important to select a monitoring approach that is cost effective and appropriate, and that reflects all the stakeholders' needs for timely performance information. Some factors to consider are the magnitude and complexity of the investment; the experience and capacity of the delivery partners; the commitment of partners to self-assess; the level of external risk; and the potential for lessons learned that may not otherwise be available.

Based on this approach, the system put into place should be developed while considering the following:

- Who needs the information and for what purpose?
- What are the simplest means possible to collect the necessary data? Can they be collected from existing sources? If not, can they be collected at a reasonable cost in relation to their usefulness?

- Can the information resulting from data analysis be presented in a simple, standard format for timely use in decision making?
- Can the information be stored in a format compatible with that from other sources, so that findings from similar activities can be compared?
- What aspects of the monitoring system should be computer-based? While microcomputers are a definite asset in the analysis, storage and presentation of data, a lack of computer capability should not be an excuse for inadequate record-keeping if a system has been developed with this in mind.

Evaluation

Historically, **evaluation** has been an objective and independent process, most often performed by a team external to project management. In current practice, however, many organizations are seeking ways to preserve the objective character of evaluation while also involving stakeholders more in the process.

Evaluation is an analytical tool to support project managers at various levels by providing them with an in-depth assessment of continuing relevance, project effectiveness and efficiency. It is based on both **qualitative and quantitative** information, gathered through monitoring and from other sources. Whereas monitoring tracks whether progress is according to plan, evaluation assesses the appropriateness of the plan, its continuing relevance, and larger issues of outcomes and impacts. It often looks at processes and institutional capacity.

Evaluations result in recommendations that are based on concrete analysis, and which provide feasible solutions and options for future decisions. An evaluation may be used in different ways and adapted to particular aims and purposes for:

- future selection and design of projects
- orientation and work planning of projects
- extension of projects and new phases
- identifying and correcting problems
- accountability to stakeholders (recipient governments, donors, national/local stakeholders)
- meeting the requirements of donors and organizations.

In summary, *evaluation* is both a management and an accountability tool.

Evaluation should:

- catalyze improvements in overall planning, selection, and design of programs;
- support management decision making for in-course correction and improved execution;
- provide input to management decisions regarding the future of programs (e.g. their extension, re-orientation or termination);
- promote organizational learning by highlighting lessons and issues; and
- contribute to enhanced management accountability and transparency, including reporting to the governing bodies and other stakeholders.

To ensure its effective use, *evaluation must be integrated with the overall program and project management processes* at all levels so that its key findings, lessons and recommendations are fed into program planning and execution.

Some Lessons from Program Evaluation

- Limited use of results is a significant weakness of M&E systems.
- There is no "best" single method for M&E; combining methods may be more useful.
- To ensure use of results, managers should be involved in M&E.
- It is essential to design M&E processes to meet clearly defined needs for information.
- Lengthy impact assessment exercises are generally of little practical value to decision makers.

Ten Key Factors for Improving M&E

- ☐ Focus on key management and accountability needs.
- ☐ Avoid over-ambitious M&E objectives.
- ☐ Think of M&E as a process that integrates decision making, planning, and implementation, not a series of disconnected activities.
- ☐ Assign responsibilities for M&E and for follow-up action.
- ☐ Inform all levels of management and staff of the purposes, principles, and uses of M&E.
- ☐ Plan an M&E system thats fits the organization's resources and needs.
- ☐ Jointly plan, coordinate, and facilitate donor M&E activities to satisfy their requirements and minimize disruption of research.
- ☐ Use simple, practical methods to minimize time, cost, and paperwork.
- ☐ Provide information on a timely basis for decision making.
- ☐ Summarize M&E results for managers and present options for action.

Theory of Change (ToC) [5]

Development pundits attribute the foundations of the theories of change to Carol Weiss. Weiss (1995) defined theory of change as a way to describe the set of assumptions that explain both the mini-steps that lead to the long term goal and the connections between policy or program activities and outcomes that occur at each step of the way. Retolaza (2011:4) on the other hand defines theory of change as 'a thinking-action approach that helps us to identify milestones and conditions that have to occur on the path towards the change that we want to contribute to happen'. According to Leeuw[6] these theories express an intervention logic of a policy: policy actions, by investing resources aimed to produce

[5] Leeuw F.L. *Theory-Based Evaluation.* Undated online article available at: http://ec.europa.eu/regional_policy/information/evaluations/pdf/impact/theory_impact_guidance.pdf (accessed on 25/10/2013)

planned outputs through which intended outcomes in terms of people's well-being and progress are expected to be achieved.

Therefore, a theory of change is a description of a social change initiative that shows how early changes relate to more intermediate changes and then to longer-term change.

A theory of change ('road map for change', 'pathway of change', 'outcome map') is defined as making explicit how people think change happens and what critical assumptions accompany this perceived change.

A theory of change is a way of activating strategic foresight.

What a theory of change involves as *Cathy in 2011 said.*

Theory of change is an ongoing process of reflection to explore change and how it happens – and what that means for the part we play in a particular context, sector and/or group of people.

- It locates a program/project within a wider analysis of how change comes about.
- It acknowledges the complexity of change: the wider systems and actors that influence.
- It is often presented in diagrammatic form with an accompanying narrative summary.

Why 'theories of change'?

- We all have different theories about how change happens:
    - from personal experience/fieldwork (inductive)
    - from science/research/academic literature (deductive)
    - from intended users (user-focused approach) to produce their ToC

Some basic questions we have to ask:

- how do we measure success?
- how (will we know how) has this success (has) come about? What changes have occurred and how are these related? What assumptions do we make?

How to locate change

- We all have different theories about how change happens:
    - from personal experience / fieldwork (inductive)
    - from science/research / academic literature (deductive)
    - from intended users (user-focused approach) to produce their ToC

How to locate change

It important that we are able to locate to locate change in a project's pathway; if we are not able to do this, then we cannot delineate success from failure; if we cannot see success, we cannot celebrate and reward it; if we cannot reward success, we can easily end up incentivizing failure and therefore losing stakeholders' support (Osborne and Gaebler 1992).

From a ToC perspective, three important structures ought to be in place to ensure that a project is able to locate change:

Develop the indicators of change: It is important that we have verifiable indicators of change for each condition on our pathway of change so as to be able to appreciate changes in conditions and the effect of these changes on the target population. Retolaza (2011:32) state that the indicators of change relate to the observation of the conditions identified in the theory of change and should assist in the understanding of the degree and manner these conditions are occurring in the environment.

Define the indicators of change: In project design, it is perhaps easy to develop an indicator than to define it. Essentially, both processes should be contested and consultative. We define indicators of change to "better understand how to read the context in order to see what effects we can perceive in this context due to our action. These indicators allow us to better understand how change is really happening (or not) and what our contribution is to that change". Retolaza (2011:32). It is also important to note that the definition of an indicator is not static, but dynamic i.e. it is given to review as when the situation/conditions change.

Follow-up and monitor the indicators: We should make deliberate efforts to follow-up on the indicators to ascertain if they have been met or to document the stage they are at. This also includes un-intended outcomes. The follow-up helps us to 'keep eyes on the ball'. In trying to locate change we should ask ourselves-: has knowledge changed in the wider community as a result of the intervention? What about attitudes, skills and habits? And how can we objectively demonstrate these changes if at all?

Steps in developing a theory of change

- **Step 1.** *Identify the long-term outcomes (theory of change)*
- **Step 2.** *Develop a pathway of change (theory of change)*
- **Step 3.** *Define interventions/main activities (theory of change)*
- **Step 4.** *Articulate assumptions and risks (theory of change)*

Note: very many ways to develop a theory of change. Important is to think beyond the linear causal models and surface underlying assumptions. We have adapted these into the next steps.

When to use a theory of change

If you want to:

- Understand *what to anticipate* in a (complex) change process that you envisage in relation to a planned development initiative.
- *Make assumptions* about how change is expected to happen more explicit to check validity and *improve tentative planning* on the basis of this.
- Find out what *critical capacities and conditions* (incl. effective relationships) will need to be in place if the development initiative is going to be successful.
- Create a *shared understanding* among stakeholders regarding what will be involved in an envisioned change process.

Remember:

1) The *actors* (individuals or groups) who are trying to bring about change;

2) The *context* or situation that influences the actors and the situation which they are trying to change;

3) The ideas or *theories* on which the actors draw when 'looking at' a situation and deciding how best to act;

4) The *reflection* and decision making processes that help actors to develop strategy, review success and failure, and make improvements to both their ideas and their strategy;

5) The *strategy* that gives the reasons and provides a framework for taking particular action.

Benefits of a theory of change/theory of change thinking

- Theory of change can form the *basis of strategic planning.*
- Can be used for *management and decision making* as a project or program develops and progresses.
- Can reveal what should be *evaluated*, and when and how, and how this information can be used for adaptive management.

A theory of change methodology will also help to identify the way people, organizations and situations *change* as a result of an organization's activities or services, helping to develop models of good practice.

References:

1. Cathy James (2011). Theory of Change Review. Comic Relief.
2. Center for Development and Innovation. (2012). Participatory Planning, Monitoring and Evaluation Seminar Notes. Wageningen University.
3. Leeuw F.L. *Theory-Based Evaluation*. Undated online article available at: http://ec.europa.eu/regional_policy/information/evaluations/pdf/impact/theory_impact_guidance.pdf (accessed 25/10/2013).
4. Osborne D. and Gaebler T. (1992). *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*. Addison-Wesley, Washington D.C.
5. Retolaza E. I. (2011). *Theory of Change; A thinking and action approach to navigate in the complexity of social change processes*. Humanistic Institute for Development Cooperation (HIVOS) and the United Nations Development Programme (UNDP). Guatemala.
6. Weiss, C. H. (1995). Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families. In J. Connell, Kubisch, L. B. Schorr, & C. H. Weiss (Eds.), New approaches to evaluating community.

Exercise 12. Defining monitoring and evaluation. Developing a theory of change (ToC)
(Group Work)

1. Form the same small groups who worked on the Kenya Case Study to build the Problem, Objective and Strategy Trees. Elect a rapporteur.
2. Remember that this exercise is composed of Part A and Part B. The groups have ***four hours*** to work on the tasks below.

Part A. Defining Monitoring and Evaluation *(1 hour 30 minutes)*

Phase 1. Group work *(30 minutes)*

3. The facilitator invites the group members to reflect and discuss the concepts of project monitoring and evaluation and their importance to ensure the project ends up with positive results.
4. The group addresses the following issues and write their group results on the flip chart:
   (a) Explain the difference between Monitoring and Evaluation. Describe in your own words.
   (b) Identify the types of Evaluation.
   (c) Identify the different levels of results (logical model).
   (d) What is the significance of Monitoring and Evaluation in Project management?

Phase 2. Report and discussion *(30 minutes)*

5. The rapporteurs present the results in plenary session. Each group will share the lessons learned during Phase 1 of this exercise.

Phase 3. PowerPoint Presentation *(30 minutes)*

6. The facilitator makes a presentation about Monitoring and Evaluation to enrich this learning. He/She uses the PowerPoint from 4.12.4 to 4.12.21

Part B. Developing a theory of change *(2 hour 30 minutes)*

Phase 1. PowerPoint Presentation *(30 minutes)*

7. The facilitator makes a brief introduction on the concepts of theory of change. He/she uses PowerPoint from 4.12.22 to 4.12.30. He/she follows this introduction with a practical demonstration using 'development of strategy' covered in Session 4, Exercise 4b.

Phase 2. Group work *(60 minutes)*

8. Each group then works on the Kenya Case Study on 'Research and Development of Orange-Fleshed Sweetpotato'.

9. The participants return to their respective objective trees which are displayed on the wall to:

   (i) Show the flow of results using arrows

   (ii) Identify assumptions and risks: on the objective tree, insert assumptions and risks

10. At the end of the exercise, the groups will have exercised the development of theory of change which is a visual alternative and more comprehensive of the Logical Framework.

11. The facilitator invites the groups to make plenary presentations. Other participants ask questions and make contributions.

Phase 3. PowerPoint Presentation *(30 minutes)*

12. The facilitator then makes a brief presentation using PowerPoint 4.12.31 and invites questions to improve understanding and reinforce the learning on the theory of change.

Phase 4. Report and discussion *(30 minutes)*

13. The facilitator also invites the participants to share how they plan to support their organizations – *stating clear actions* – in relation to improving the design of an M&E Plan for the projects in their organizations.

14. Be prepared to respond to a few questions related to the application of your new learning. The facilitator might ask: 'What might you do differently in your job as a result of what you have learned?' or 'How could you describe the level of acceptance of this new learning among your peers in your organization?'

15. At the end, the facilitator summarizes his/her views, solicits feedback from a few volunteers, and closes the session.

Monitoring and Evaluation Plan

Reaching Agents of Change Project (RAC)

Project Duration: 2011–2012

Introduction

This document outlines a framework for undertaking monitoring, evaluation, reporting, and learning activities for the Reaching Agents of Change (RAC) project within the overall RAC M&E framework. The plan covers three years of the project's life. Being a 'living' document, it will be reviewed periodically to accommodate new changes during the lifecycle of the project.

Background

In 2009, the Sweetpotato for Profit and Health Initiative (SPHI) set an ambitious goal of improving the lives of 10 million African households in 10 years through the effective production and expanded use of sweetpotato. Reaching millions of households requires a large investment from public and private sources and firm policy support at the regional and national levels. The RAC project therefore exists to build the capacity of African advocates already committed to the health and well-being of their people to engage and influence key decision makers and donors to invest in the most appropriate ways to achieve widespread adoption and utilization of orange-fleshed sweetpotato (OFSP). The project will create the capacity for both public and private sector change agents to design, implement, monitor and evaluate programs that are either strictly OFSP focused or are adding OFSP into existing efforts. Permanent training capacity on all aspects of sweetpotato production and use will be established in each of the three target sub-regions.

Note: *SPHI was launched in October 2009 by CIP and its main partners and seeks to reduce child malnutrition and improve smallholder incomes through the effective production and expanded use of sweetpotato.*

Organization Vision and Goal

The overall vision of success is to see substantially increased investments and commitment to the dissemination and use of OFSP as a means to combat vitamin A deficiency **(**VAD) and food insecurity in Africa. This effort will be spearheaded by a cadre of dynamic Africa advocates who are committed to achieving better nutrition impact through agricultural innovation. The project will be further supported by qualified agronomists, marketing, communication, and promotion experts as well as engaged individuals, all of who are OFSP change agents. RAC will contribute towards an overall development goal of seeing the rate of vitamin A intake increase by at

GOAL: Contribute to the fight against vitamin A deficiency & food insecurity in sub-Saharan Africa, and improve health status and livelihoods of households, particularly women of reproductive age and young children, through strategic policy advocacy and resource mobilization, and technical capacity building for large-scale use and dissemination of Vitamin A rich Orange-fleshed sweet potato (OFSP).

least 30% among targeted beneficiary areas in Tanzania and Mozambique and 15% in Nigeria, Ghana, and Burkina Faso within five years after project completion.

Specific Objectives

In order to achieve this vision, the project has two specific objectives:

1) To generate new investments by governments, donors, and NGOs to scale-up the adoption of OFSP in five target countries
2) To build the capacity of implementation agencies to design and implement technically strong and cost-effective interventions that drive the update of OFSP

Expected Outcomes

Main impact outcomes of the project (for a detailed presentation see the Performance Monitoring Matrix) include:

- Increased vitamin A intake at the household level
- Reduced food insecurity
- Reduced child malnutrition

Theory of Change

"There is Nothing So Practical as a Good Theory:"
Kurt Lewin

Successful programs create change and are built on a solid knowledge of what works—the program's theory. This supports and builds upon the basic project logic model. The theory of change is therefore the envisaged pathway of change for the development intervention and the way we think change will happen. It also underlines the critical assumptions made for this pathway of change.

The International Potato Center (CIP) will lead the project, based on its expertise in all aspects of OFSP production, use, and promotion. Meanwhile, Helen Keller International (HKI), an international NGO with considerable experience in food-based nutrition interventions, health programs to combat VAD, and advocacy for increasing investments to combat micronutrient deficiencies, will be the major implementation partner. Under RAC, CIP and HKI will reach out to regional- and national-level agencies and individuals who will act as agents of change. Agents of change are individuals associated with the project who will be responsible for advocating to national governments, donors, and their own agencies to promote OFSP and increase investment. Agents of change are also those who will be responsible for implementing OFSP programs.

RAC will facilitate building capacity of African institutions, advocates, and implementing organizations to generate awareness, obtain funding, and effectively implement medium to large-scale programs to combat vitamin A deficiency and food insecurity by exploiting the potential of orange-fleshed sweetpotato.

We believe that the accumulated experiential knowledge and lessons learned by both partners will enable RAC to isolate the building blocks of what works where and when as far as food based approaches are concerned. It is upon this experience, and that of other actors in this domain, that the RAC theory of change emanates.

We ask ourselves three questions in our theory of change:

1) What advocacy activities are essential to generate new investments by governments, donors, and NGOs to scale-up the adoption of OFSP in target countries?

2) What materials and capacities will the implementing agencies need to design and deliver technically strong and cost effective interventions to drive OFSP projects?

3) What resources, capacities and activities will the project need to manage for results and for shared learning?

When answers to these questions are provided in a sustained manner and the following risks are militated against, we anticipate RAC to contribute to the fight against vitamin A deficiency and food insecurity in sub-Saharan Africa, and improve health status and livelihoods of households, particularly women of reproductive age and young children, through strategic policy advocacy and resource mobilization, and technical capacity building for large-scale use and dissemination of OFSP:

- The division that exists among the nutrition community about the cost-effectiveness of the three major approaches towards combating VAD i.e. supplementation with vitamin A capsules, fortification of processed foods with micronutrients, and food-based approaches, including bio-fortification
- At the moment, re-investing in agriculture is the mode after many years of declining investment in response to rising world food prices and the recognition that increasing agricultural productivity is essential to meet the nutritional needs of the burgeoning world population
- One of Nigeria's greatest risks is the limited number of donors interested in funding activities in Nigeria because it is an oil-rich country
- There is a risk of farmer and consumer resistance to OFSP compared to more traditional varieties
- Finally, there is always the risk of natural or political disasters.

In addition to these risks, RAC is making the following assumptions:

- There's already a network of potential stakeholders and advocates who will utilize the capacities for action. If there is no such network, we assume that the one that will be developed will be sustained
- Regional bodies will organize sub-regional and regional forums
- National agricultural research and/or extension organizations will institutionalize the OFSP agenda
- Trainers of Trainers (TOTs) will incorporate OFSP ideas into action/agenda
- There are strong extension-farmer linkages
- Service providers will be committed to the cause of OFSP and backstop extension services in the field
- National counterparts/agents adopt and implement 'monitoring for results' skills.

The Monitoring & Evaluation Plan

The overall purpose of RAC Monitoring, Evaluation, Reporting and Learning (MERL) plan is to provide a framework for collecting accurate, relevant and timely information to

enable the project to meet information needs for all stakeholders. The proposed plan articulates performance indicators designed to track performance of results which RAC anticipates to deliver in order to realize the overarching goal. The plan also outlines the why, what, when, who and the how of RAC monitoring activities in order to keep implementers abreast of the progress of implementation as well as the realization of program purpose. Armed with this information, RAC management will act decisively on the changing circumstances in the field through monitoring of the context, risks, assumptions, efficiency and effectiveness of implementation processes, relevance and sustainability of designed interventions, standards and anticipated project effects on the target population. The plan also acts as a framework for learning and improvement of RAC implementation strategies. The MERL plan also supplements the RAC Logframe in terms of articulating the project data collection demands as well as performance measurement along set objectives.

RAC M&E Objectives

The RAC M&E plan will facilitate:

- Efficient monitoring of how the project converts inputs into outputs
- Track implementation of project activities within a specified time-frame and targets
- Evaluate the effectiveness of the program in achieving its purpose and specific objectives
- Facilitate early detection of potential or emerging problems in order to provide ameliorative measures
- Record changes in condition of the contextual factors over time
- Track identified risks as well as assumptions of the project
- Evaluate sustainability and relevance of designed interventions in relation to changing conditions within the context of the project.

This RAC M&E Plan consists of the M&E Framework, a list of key output and outcome indicators and a three-year performance tracking table/matrix. In total, RAC has 12 outcome indicators. Table 4.8 below shows a logical arrangement of these themes.

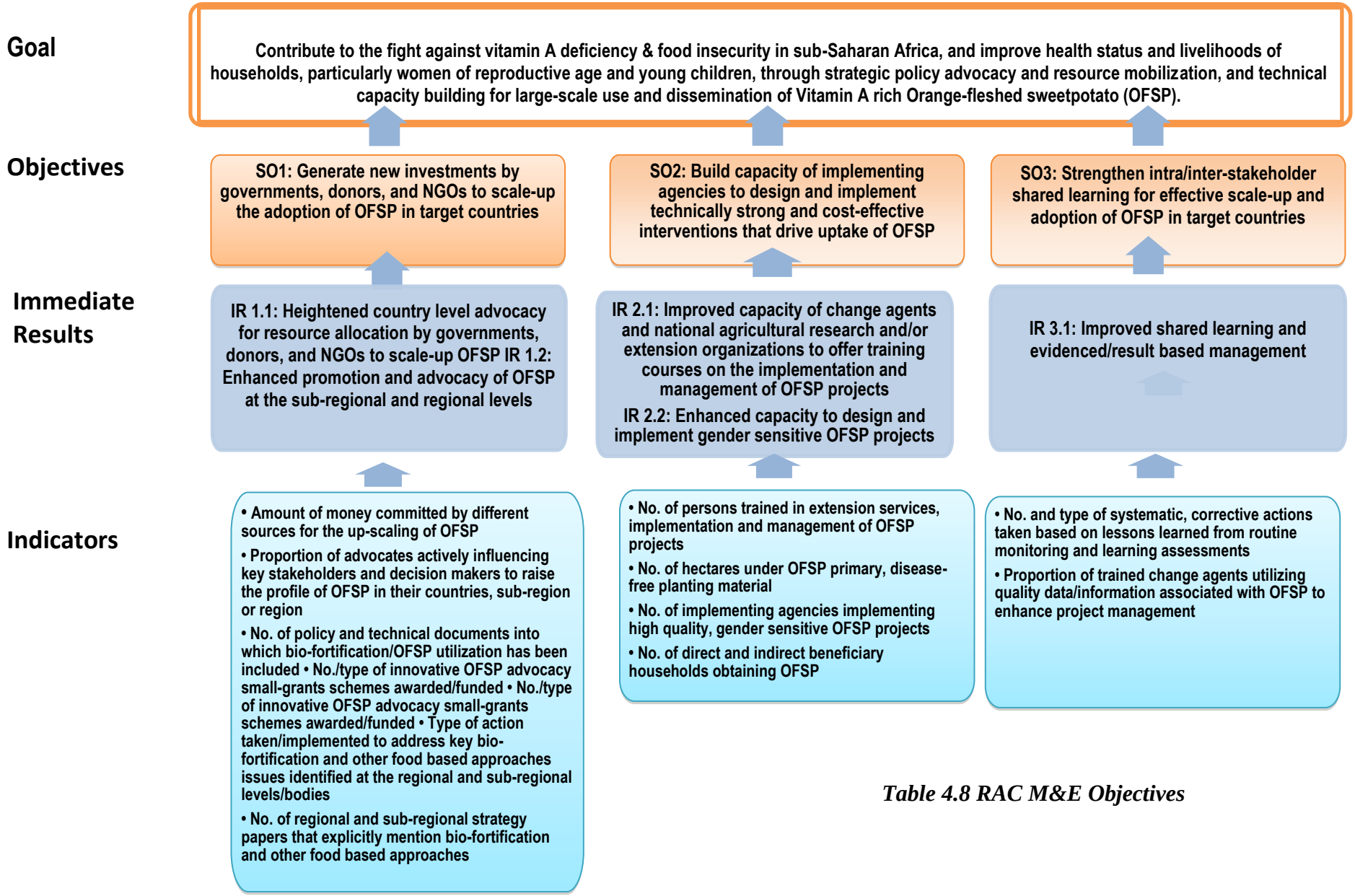


Table 4.8 RAC M&E Objectives

Elements of the M&E Plan

RAC will be tracking its performance on a bi-annual and annual basis. This will be focused on comparing targets against actual performance as well as comparing performance against the baseline values. Following are the specific elements of the M&E Plan:

- Baseline and target values
- Data collection methodology and dissemination mechanisms
- Monitoring and evaluating progress
- Reporting
- Learning Dissemination

Baseline and target values

It is planned that in each country, the M&E Specialist, in collaboration with the Gender and Advocacy Specialist, will lead the baseline assessment of past efforts concerning OFSP dissemination and other relevant food-based initiatives. This will be based on collecting and reviewing secondary data and reports, not collecting primary data. This information will feed into the design of the advocacy strategy and resource mobilization planning process. The RAC team will meet annually to set targets of implementation based on resources mobilized and the lessons learned.

Monitoring

Monitoring will include simple observation of activities as well as more rigorous and systematic data collection, to provide a basis for periodic evaluation of the Implementation Plan.

Monitoring will be done at three levels:

- Implementation Monitoring – This will determine whether plans and activities are implemented as designed and comply with RAC objectives and standards.
- Efficiency and Effectiveness Monitoring – This will be done on a bi-annual basis to determine whether or not planned interventions and activities implemented are making a difference, and whether the outputs are contributing to the outcomes of the project. This will also be done to track progress towards achievement of project purpose.
- Validation Monitoring – This will be done to verify implementation as well as credibility of data reported from the field in order to ensure that reliable and valid data are submitted to the donor and other stakeholders. It will also be used to determine whether the correct target group is receiving intervention.

Day-to-day monitoring of program implementation shall be the responsibility of the program field staff (both HKI and CIP) pegged on the periodic Implementation Plan and process indicators. The program team will share with the RAC management observations regarding progress of implementation through bi-weekly updates and reports. Noted delays or difficulties faced shall be shared with partners and appropriate support or corrective measures provided in the field. Review of the same will be done during annual review meetings to evaluate progress of implementation based on observations made. If need be, M&E system will be called upon to undertake process evaluation based on planning assumptions to ascertain the cause of delays in implementation.

Implementation Progress Tracking Tool (The M&E Factsheet)

Activity implementation will be tracked on a bi-annual basis and a progress report written and shared with the Project Manager. Feedback will be given per activity in terms of target, achievement, and variances. Explanation of variances will be given by the Project Managers to the donor.

Data collection methodology and dissemination mechanisms

Indicator related data will be collected at various periods utilizing a variety of data collection tools. Output/routine data will be collected by Promotion Experts and the Country Agronomists, and the data generated from these mechanisms will be used for updating the factsheet across the entire project period. Whereas output level tracking reported via the factsheet will be focused on quantitative data, the customized online CIVICRM database / platform will provide qualitative information to help track the advocacy process. The RAC data collection approach will be two-pronged: through continuous Project Monitoring and Periodic Project Evaluations.

The following are the key monitoring tools we will use:

1. **OFSP distribution and field monitoring tools**. These are two tools that complement each other; one (sheet A) will be used to track direct beneficiaries, while indirect households obtaining OFSP will be tracked by the second tool (sheet B). Tool B will also be used by the Agronomists and the M&E Specialist to verify the hectares under OFSP.
2. **TOTs Monitoring Tool**. This will be used to record the multiplication of Trainers of Trainers as a consequence of the first initial 10-day training on 'all you ever wanted to know about sweetpotato'.
3. **Workshops Attendance Sheet**. This will be used to record participant attendance in all the meetings, seminars or workshops that RAC will host, including the initial TOT mentioned above.
4. **Resource Mobilization Monitoring Tool**. This tool with automatic formulas will be used to record and audit resources mobilized thorough RAC.
5. **CIVICRM**: http://frontline-interactive.com/hellenk/user/11/edit. As earlier mentioned, this platform will provide most of the qualitative data to track the advocacy process. The platform will also provide a key front to track the contacts of advocates and champions (database).
6. **The RAC annual work plan template**. This is filed by RAC staff during Annual Review and Planning Meetings. It is documented and kept by the M&E Specialist.
7. **Type of action taken to address OFSP issues in the regional/sub-regional bodies** (i.e. RAC Indicator No. 5). This is the type of action taken/implemented to address key bio-fortification and other food based approaches issues identified by bodies at the regional and sub-regional levels.
8. **RAC Systematic-Action-taken template**. This tool will help track indicator # 11: i.e. Number and type of systematic, corrective actions taken based on lessons learned and from routine monitoring and learning assessments.

Data flow and Management system

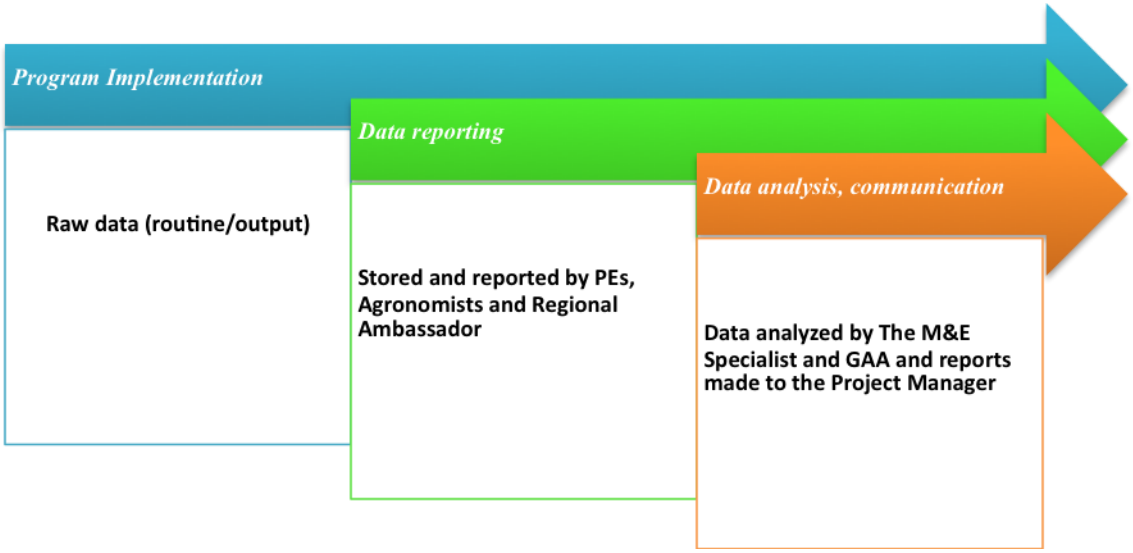


Figure 4.5: RAC data flow

RAC data management plan encompasses both the architecture and administrative processes and policies surrounding the practices and procedures of managing information lifecycle needs in an effective manner. It covers the administrative process by which data are acquired, validated, stored, protected, and processed, and by which its accessibility, reliability, and timeliness are ensured to satisfy the needs of the data users.

Data Quality Assessment Plan

The project implementation team will ensure that data are properly documented, managed, and updated on a bi-annual basis. It is essential that any data collected and reported be of the best possible quality. In order to ensure this, The M&E Specialist will induct staff on data management and a Data Quality Audit (DQA) which will be conducted by an external evaluator in February–March 2013[7] in line with the reports submitted by all countries. The M&E Specialist will periodically conduct data DQA in all countries, especially to audit the veracity of resources that have been reported as allocated to OFSP and will give appropriate feedback to the program team during the annual planning meetings. Data audit will focus on critical elements of data quality, namely: validity, reliability, timeliness, precision, and integrity. Any known data limitations which may affect the quality and credibility of data will be highlighted to the donor and data auditors.

Project Evaluation

Evaluation will include analysis of data collected during monitoring visits. A review and evaluation of monitoring results will be conducted annually and summarized in an annual technical report. The program team will review the planned implementation to determine whether conditions have changed significantly. Fundamental monitoring and evaluation questions will be asked and information realized used to determine if there will be need to revise planning assumptions or implementation strategies based on the new realities on the ground. Monitoring and evaluation thus forms the basis for adapting the RAC Implementation Plan. RAC will use external evaluator(s) to assess country advocacy strategies and implementation after about 14 months of implementation and provide a final assessment in the end of project report.

[7] *Will be done by the same consultant who will be evaluating the progress made in the advocacy component*.

A Mid-Term Evaluation will be undertaken during the second year of the project. This will determine progress being made towards the achievement of project outcomes and will identify course correction if gaps are identified in program implementation. It will focus on the effectiveness, efficiency, and timeliness of project implementation and highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation, and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. Summative evaluation will be done at the end of the project through an external evaluator to establish whether or not the project achieved its stated objectives and whether the project hypothesis and assumptions were true or false. The evaluation results will be mapped on the project theory of change and test the hypothesis and assumptions of the project.

Project Reporting

The following reports will be written and submitted to the donor during the life of the project:

- RAC will deliver mid-year progress reports against the agreed work plan and including information from the Performance Monitoring Framework (PMF).
- RAC will deliver an annual narrative report which will include details of activities, outputs, and outcomes that RAC achieved during the year. It will also set out any key lessons identified and recommendations for the future direction of the project.
- Reports prepared by any consultants contracted to carry out specific pieces of work will be shared with the donor and other relevant partners where appropriate.
- Bi-annual and annual financial statements of spending to date against programme allocations, including details of how this expenditure has been incurred and an estimate of future spending by quarter for current and next financial year.

The Interim Narrative Reports shall include, but not be limited to, the following:

- Progress towards the achievement of the objectives set for the period
- Progress toward the overall project activities and objectives
- Explanation as to significant variances from timelines, implementation plans, and budgets
- Project modifications or impending problems.

Final Project Report

The final report will include:

- Summary of the achievement of the objectives set for the period
- Summary of the overall project activities and objectives
- Explanation as to significant variances from timelines, implementation plans, and budgets
- Success stories/case studies
- Challenges in project implementation
- Lessons learned from project experiences

Dissemination Plans

Monitoring and Evaluation reports will be shared internally and where applicable externally, particularly with the donor through existing information sharing networks. In addition, the project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identifying and analyzing lessons learned will be an on-going process, hence the need to communicate such lessons as one of the project's central contributions. Both CIP and HKI will be encouraged to document and report lessons learned and disseminate these during annual reviews.

Further details of RAC's Theory of Change are available from: Reaching Agents of Change (RAC) Project, International Potato Center, Sub-Saharan Africa Regional Office, ILRI Campus, PO Box 25171–00603, Nairobi, Kenya. Tel. +254 020 422 3682. Cell: +254 711 860964. Fax: +254 020 422 3600/42 3001. Website: http://www.cipotato.org

SESSION 13 Developing an M&E plan/matrix and implementing M&E systems: responsibilities and processes

Instructions to Learning Facilitators

TIME FRAME

Presentation and Exercise: *4 hours 30 minutes*
Tea Coffee Break: *15 minutes*

OBJECTIVES

By the end of this session, the participants will be able to do the following:

- Explain the importance of an M&E plan/matrix
- Analyze a project's M&E framework/matrix
- Practice developing an M&E plan/matrix
- Demonstrate monitoring and reporting responsibilities as processes of an M&E system
- Present a Toolbox to identify day-to-day output and outcome monitoring process
- Discuss the importance of Data Management Flow

Distribute handouts from 4.13.1 to 4.13.4.

PROCEDURE

Learning Strategies: presentation, group work, and plenary discussion.

PRESENTATION

(*experience)* Give a very brief presentation on how to develop an M&E plan/matrix, using RAC MERL Plan as an example. Use the PowerPoint slides from 4.13.1 to 4.13.10 to facilitate understanding. Next, refer to previous Session 12 (handout 4.12.4) and present the diagram of RAC M&E framework. . At the end of the presentation be sure to ask participants if they have any comments or questions, or if they need clarification *(30 minutes).*

EXERCISE 13

Developing an M&E plan/matrix and identifying types of reports for an M&E system *(4 hours for Part A and Part B Exercises)*

Part A. Developing and M&E Plan/Matrix *(2 hours)*

Phase 1. Demonstration Exercise *(30 minutes)*

(experience) Make sure that the participants have Handouts 4.13.3 and 4.13.4 in their hands. Go over the instructions with the participants step by step. Ask if any clarifications are needed.

Phase 2. Practicing developing and M&E Plan/Matrix: group work *(45 minutes)*

(experience, process) Ask the participants to form the same group that worked on the Kenya Case Study on 'Research and Development of Orange-Fleshed Sweetpotato – to work together in the following tasks:

(i) identify 2 output and 2 outcome indicators from the

Kenya Case Study on 'Research and Development of Orange-Fleshed Sweetpotato'

(ii) use the 4 indicators to practice developing an M&E framework for the project

Phase 3. Reporting and Discussion *(45 minutes)*

(process generalization) The facilitator asks the groups to present their M&E plan/matrix to the plenary and invite other participants to provide feedback on the exercise results and/or provide inputs to improve the matrix. Each group should have 5 minutes to present their exercise results.

(generalization) Next, the facilitator invites participants to reflect about the process of this exercise and asks a few volunteers to share some lessons learned. The facilitator then asks the groups to move for the next Part B of the exercise.

Part B. Reporting and Data Management Mechanisms (2 hours)

Phase 1. Brief review of the PowerPoint on Reporting Responsibilities *(10 minutes)*

(experience) Use the RAC Monitoring and Reporting System as a case study. Introduce how a typical project ought to implement an M&E and reporting system. Use PowerPoint from 4.13.12 to 4.13.19 to facilitate learning.

(process) Invite questions and allow brief interaction during this presentation. Ask a few volunteers to share stories from their respective organizations.

Phase 2. Identifying, assessing and creating better ways to improve reporting and reporting responsibilities within their organizations. Group work *(60 minutes)*

(process generalization) Ask the participants to form the same groups as in Part A and elect a rapporteur. Guide the groups by saying that each participant needs to share the types of report they use in the organization, how effective they are (point out strengths and weakness) and how they plan to support their organizations – *stating clear actions* – in relation to improving the design and production of M&E reporting to reinforce the M&E System.

(process generalization) Guide the participants to use Handout 4.13.4 to record their responses. This will be a very effective way to facilitate the rapporteur's task to summarize the results of the group reporting differences and similarities at the end of this phase. The rapporteur must be prepared to report these group results to the audience during the next Phase 3 of this exercise.

Phase 3. Report and discussion *(45 minutes)*

(process generalization) The rapporteurs of each group are invited to present their results to the plenary. After each group presentation, the facilitator must **only** *invite 1 or 2 volunteers* to make comments and provide feedback on the exercise results.

(process generalization) Each group should have 10 minutes to present and hear few comments or feedback. However, the facilitator reminds the participants that *after all group presentations*, there will be a plenary discussion to maximize learning about the reporting improvements by the participants in their organizations.

(generalization) The facilitator asks participants to give comments which might improve the group results and to provide feedback on the content of this exercise.

(generalization) The facilitator should also ask participants 'What did you learn?' 'How did you feel doing this exercise?' These kinds of questions increase the level of understanding and learning among the participants.

CLOSURE

Closure *(5 minutes)*

(application) Ask the participants 'How and when do you plan to apply the knowledge and skills acquired during this session in their work environment?' 'How could you summarize the anticipated impact of this application of new knowledge and skills?'

Make a transition to the next session.

FEEDBACK AND PAPA

Feedback on the day's Activities and PAPA: *15 minutes*

By the end of this session participants will be able to do the following:

- Provide feedback on the session's activities.
- Consider possible actions they would like to take in their own organizations.

Individual exercise *using the attached handouts at the end of this session*

(generalization, application) Ask the participants (1) to jot down some action ideas they may have as a result of today's activities (PAPA) and (2) reflect on the session's activities to provide feedback, i.e. strengths, weaknesses, and how to improve the day.

- Make transition for the next activities of Volume 5 of this learning kit and close the day.

SESSION 13 PowerPoint Presentation

Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, M&E

Volume 4 - Session Thirteen
Developing an M&E Plan/Matrix and Implementing an M&E System: Responsibilities and Processes

4.13.1 Adapted from IFPRI-ISNAR-ARDSF

Objectives
Volume 4 - Session Thirteen

- Explain the importance of an M&E Plan/Matrix
- Analyze a project's M&E Plan/matrix
- Practice developing an M&E Plan/Matrix
- Demonstrate monitoring and reporting responsibilities as processes of an M&E system

4.13.2 Adapted from IFPRI-ISNAR-ARDSF

Objectives
Volume 4 - Session Thirteen (cont´d)

- Present a Toolbox to identify day-to-day output and outcome monitoring process
- Discuss the importance of Data Management Flow

4.13.3 Adapted from IFPRI-ISNAR-ARDSF

The importance of an M&E Plan/Matrix

- It provides a framework for collecting accurate, relevant and timely information to enable the project meet information needs for all stakeholders.
- It articulates performance indicators designed to track performance of results which anticipates to deliver

4.13.4 Adapted from IFPRI-ISNAR-ARDSF

The importance of an M&E Plan/Matrix (cont´d)

- It outlines the **why**, **what, when**, **who** and the **how** of monitoring activities to keep implementers abreast of the progress of implementation as well as the realization of program purpose.

4.13.5 Adapted from IFPRI-ISNAR-ARDSF

Key elements of the M&E Plan/Matrix

They are:

- *Indicators*
- *Baseline information*
- *Methods for data collection and processing*
- *Measurement tools and sources of data*
- *Definition of responsible parties*

4.13.6 Adapted from IFPRI-ISNAR-ARDSF

Indicator - definition

- 'A quantitative or qualitative factor or variable that provides a simple and reliable basis for assessing achievement, change or performance. A unit of information measured over time that can help show changes in a specific condition. *Source:* Guijt and Woodhill (2002)
- Making the most of indicators (and seeing their limits) means deciding whether or not to use indicators – or opt for questions – and if so, how to construct and use them to tell the story of change. *Source:* Guijt (2007, p. 27)

4.13.7 Adapted from IFPRI-ISNAR-ARDSF

Indicators

- Each evaluation question will have a range of indicators or other information needs to answer the question.
- Together they can give a comprehensive answer to the question being evaluated.
- Negotiate indicators with stakeholders, especially primary intended users of the evaluation.

4.13.8 Adapted from IFPRI-ISNAR-ARDSF

Baseline information

- Information about the initial starting point or situation before any intervention has taken place.
- Can help assess change over time and redefining development initiative at start up
- Some baseline information may already be present, e.g., through the situational assessment for the development initiative, or secondary data like reports, or statistical data from other organisations.
- Some baseline information can be acquired retrospectively such as through storytelling.

4.13.9 Adapted from IFPRI-ISNAR-ARDSF

Data collection & processing

- Decide whether you need quantitative or qualitative data, or both.
- Data collection methods can be individual (e.g. for sensitive information) or group-based (e.g. to encourage learning).
- Data collection methods need to be participatory (where possible), especially when shared learning is important.
- The methods you select will depend on the kind of information you require and the purpose of the evaluation.

4.13.10 Adapted from IFPRI-ISNAR-ARDSF

The RAC M&E Plan/Framework

Refer to Session 12 - Handout 4.12.4 to explain this plan

4.13.11 Adapted from IFPRI-ISNAR-ARDSF

Monitoring Responsibilities

4.13.12 Adapted from IFPRI-ISNAR-ARDSF

Monitoring responsibilities

- **Day to day monitoring/process**
  - **POs (implementers)**
- **Output Monitoring (Quarterly)**
  - **POs, FDs, Thematic leaders, M&E,**
- **Outcome monitoring (Annually)**
  - **FDs, Thematic leaders, M&E , PM, Donor, Partners & Beneficiaries**

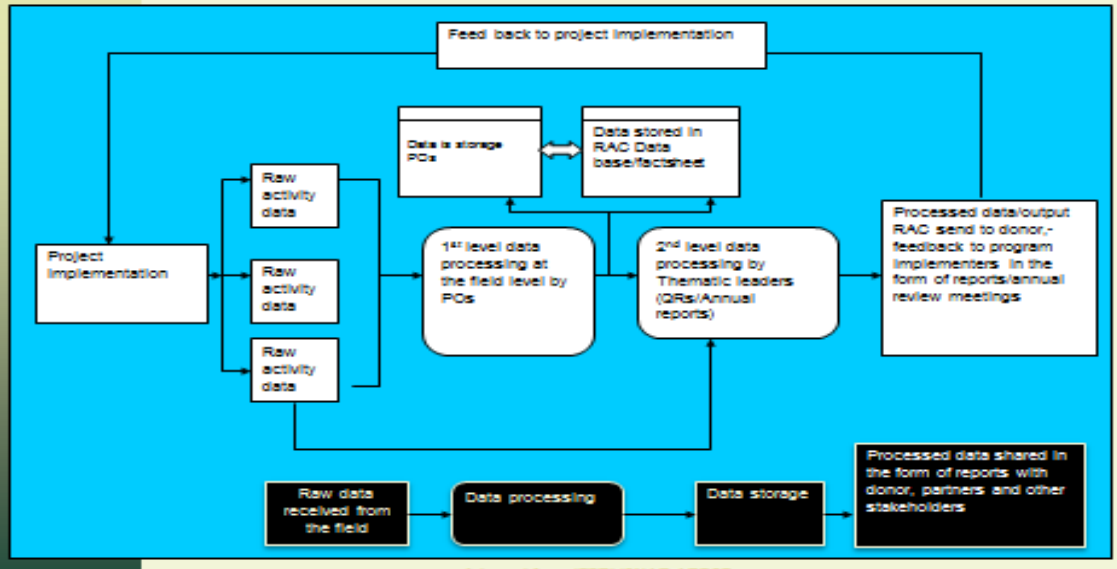
4.13.13 Adapted from IFPRI-ISNAR-ARDSF

Toolbox

- Day to day monitoring/process
  - Attendance registers
  - Activity reports
  - Field reports
- Output Monitoring (Quarterly)
  - Quarterly narrative reports,
  - Case studies
  - Factsheets (Monitoring of targets & achievements)
- Outcome monitoring (Annually)
  - Factsheets
  - Financial report
  - Annual report
  - Survey reports

4.13.14 Adapted from IFPRI-ISNAR-ARDSF

Data Management/Flow

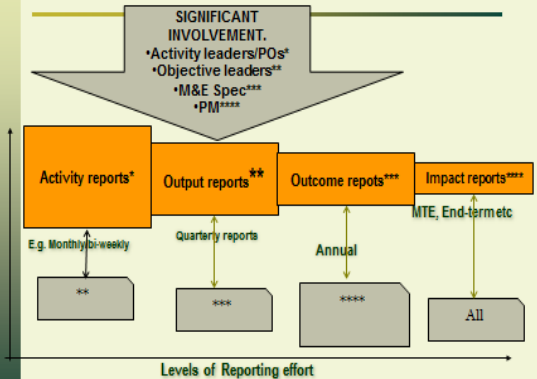


4.13.15 Adapted from IFPRI-ISNAR-ARDSF

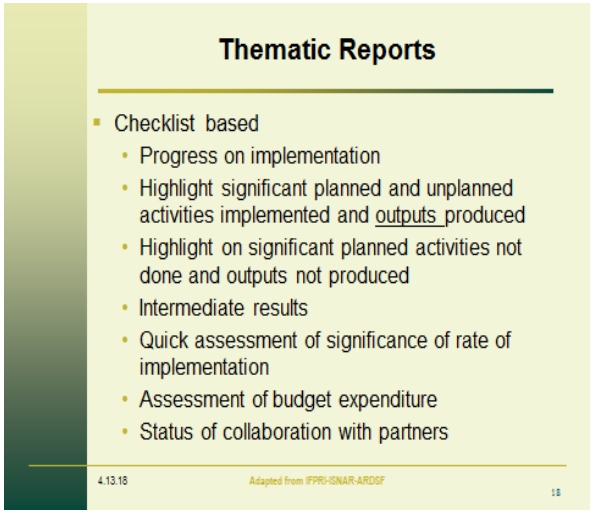
Reporting and Reporting Responsibilities

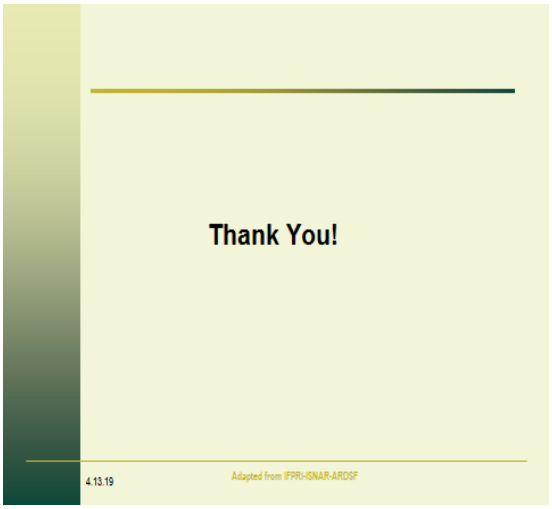
4.13.16 Adapted from IFPRI-ISNAR-ARDSF

Reporting Responsibilities



4.13.17 Adapted from IFPRI-ISNAR-ARDSF


Thematic Reports
Checklist based
Progress on implementation
Highlight significant planned and unplanned activities implemented and outputs produced
Highlight on significant planned activities not done and outputs not produced
Intermediate results
Quick assessment of significance of rate of implementation
Assessment of budget expenditure
Status of collaboration with partners
4.13.18
Adapted from IFPRI-ISNAR-ARDSF
18


Thank You!
4.13.19
Adapted from IFPRI-ISNAR-ARDSF

Developing an M&E plan/matrix

and

Implementing an M&E system: responsibilities and processes

(Summary of Presentation)

Introduction

The CIP Reaching Agents of Change (RAC) embraced the Monitoring, Evaluation, Reporting and Learning (MERL) Plan to design its M&E Plan/Matrix.

The MERL plan is a firm commitment to tracking and communicating impact. This is done through a knowledge management based system that ensures that all activities within the RAC design and implement a MERL plan.

RAC M&E MERL framework/matrix is used to present to the workshop participants what the overall purpose of RAC MERL plan is, in order to provide a framework for collecting accurate, relevant, and timely information to enable the project to meet information needs for all stakeholders. The proposed plan articulates performance indicators designed to track performance of results which RAC anticipates to deliver to realize the overarching goal. The plan also outlines the why, what, when, who and the how of RAC monitoring activities in order to keep implementers abreast of the progress of implementation as well as the realization of program purpose.

Participants analyze the importance of developing an M&E plan/matrix which assists them, as practitioners, to keep timely, reliable, and credible data/information for evidence-based decision making and the management and service delivery level; identify monitoring and reporting responsibilities; utilize toolbox components; ensure data management flow to provide feedback to project implementation; and define reporting system, types of reports and reporting responsibilities.

M&E framework/matrix for a project

An M&E framework/matrix provides detailed information about how the organization's goal, objectives, and intermediate results will be monitored and evaluated. The M&E framework/matrix should ideally contain all the information required to understand, collect, tabulate/analyze, disseminate, and report on the negotiated performance indicators. In essence, the M&E framework/matrix is not a monitoring tool per se, but a communication tool, complete with methodology for data collection, actions, timing, and responsibilities for implementation of each indicator including the baseline values, numerator, and denominator to be considered during data analysis.

Pact Brasil[8] indicate that an M&E framework/matrix is a fundamental tool for monitoring and evaluating a project or program.

An M&E framework/matrix should be:

- Developed collectively during the development of the project or program

[8] *Pact Brasil (2006). Monitoring and Evaluation. Pact Inc. Washington DC.*

- Systematically updated throughout the project

The process of developing an M&E Plan can be divided into three basic steps:

- Definition of the project or program indicators
- Definition of the measurement tools for the indicators
- Definition of those responsible for collecting data related to the indicators

Key elements of the M&E framework/matrix

1. Indicators

An indicator is 'a quantitative or qualitative factor or variable that provides a simple and reliable basis for assessing achievement, change or performance. A unit of information measured over time that can help show changes in a specific condition.' (Guijt and Woodhill 2002).

An indicator should be:

- **S**pecific: The indicator should clearly specify what it will measure
- **M**easurable: The indicator must be measurable by quantitative or qualitative mechanisms
- **A**ppropriate: The indicator must directly relate to the project goals and objectives
- **R**ealistic: The NGO must have the resources necessary, human and financial, to measure the indicator
- **T**emporal: The indicator must be measurable within the project time frame.

Please note:

After defining an indicator for an action, project or program, verify the following for each indicator:

- Does the indicator clearly specify what it will be measuring?
- What methodologies/data collection tools would be necessary to measure the indicator? Do these tools effectively measure what the indicator proposes?
- Is the indicator clearly related to the project goals and objectives?
- Given the available resources and technical expertise of the project team, does the NGO have the capacity to collect and analyze data necessary to report on this indicator?
- Given the time frame in which the project will be implemented, is it feasible to expect a change in the indicator?

If the answers to all of the questions above are affirmative, the indicator is SMART!

Also, ensure that:

- Each evaluation question has a *range of indicators or other information needs* to answer the question. Together they can give a *comprehensive answer* to the question being evaluated.
- *You negotiate indicators* with stakeholders, especially primary intended users of the evaluation.

2. Baseline information

- This is the information about the *initial starting point* or situation before any intervention has taken place.
- Can help *assess change over time* and redefine development initiative at start up.
- Some baseline information may already be *present*, e.g. through the situational assessment for the development initiative, or secondary data like reports, or statistical data from other organizations.
- Some baseline information can be acquired *retrospectively* such as through storytelling.

As you think about the baseline survey, ask yourself the following:

What baseline information is already available? For which evaluation questions and indicators do we need additional baseline information? How are we going to get this?

3. Methods for data collection and processing

- Decide whether you need *quantitative or qualitative data*, or both.
- Data collection methods can be *individual* (e.g. for sensitive information) or group-based (e.g. to encourage learning).
- Data collection methods need to be *participatory* (where possible), especially when shared learning is important.
- The methods you select will depend on the kind of *information* you require and the purpose of the evaluation.

4. Measurement tools and sources of data

According to Pact Brasil (2006), measurement tools are the instruments that the project/ program will use to measure the indicators. Examples of measurement tools include attendance lists, field reports, questionnaires, focus groups and observations. The measurement tools should be:

- Relevant to the indicators
- Feasible in terms of the resources available and project timeline
- Systematically collected and analyzed

5. Definition of Responsible Parties

Although the entire project/program team should participate in M&E activities, it is essential to identify one or two persons who will be in charge of collecting, analyzing, and reporting data on each indicator.

They will work in partnership with the rest of the project/program team to guarantee that the data necessary for each indicator are systematically collected. When identifying those responsible for each indicator, it is important to avoid centralizing all activities in the project/program M&E Specialist or coordinator. They generally have many responsibilities in the actual project implementation and may not have the time necessary to dedicate to entire data collection responsibilities.

Remember that an M&E matrix:

- Is a key tool in designing M&E evaluations
- Helps to summarize the implementation of the M&E processes

- Helps to clarify ways in which the key questions will be addressed during the evaluation
- Requires flexibility for complex issues
- should be developed with stakeholders, based on a shared understanding of the development initiative

Part of the RAC M&E matrix/framework is shown in Table 4.8.

Reporting and Data Management Mechanisms (The case of RAC project)

RAC considers progress reports as key tools for monitoring the progress of project objectives. Some of the reports at RAC are internal, while some are both internal and for an external audience as well. The former are more frequent/routine than the latter. The progress reports adopted in RAC included bi-weekly reports, quarterly progress reports, six-monthly/bi-annual reports and annual progress reports. Others are technical activity reports (such as training reports, workshop reports, etc.) and evaluation reports (such as the situation analysis reports and the mid-term evaluation) prepared by external evaluators/consultants.

In addition to being tools for monitoring progress, the reports are designed in such a way that project staff do not lose focus of the big picture, i.e. that activities are designed to deliver specific outputs and that outputs should be sustained to deliver outcomes/project objectives and these are to be linked accordingly. This alignment between activities, outputs, and outcomes is critical in managing for results. Therefore in our reporting arrangements, **bi-weekly reports** focus on the link between resource utilization and activities executed; **quarterly reports** link activities to respective outputs; and the **six-monthly reports** demonstrate how outputs are leading to respective objectives. **Annual reports** wrap this up with a synthesis on overall achievements, challenges, and lessons learned.

Figure 4.6 below shows the RAC reporting protocols.

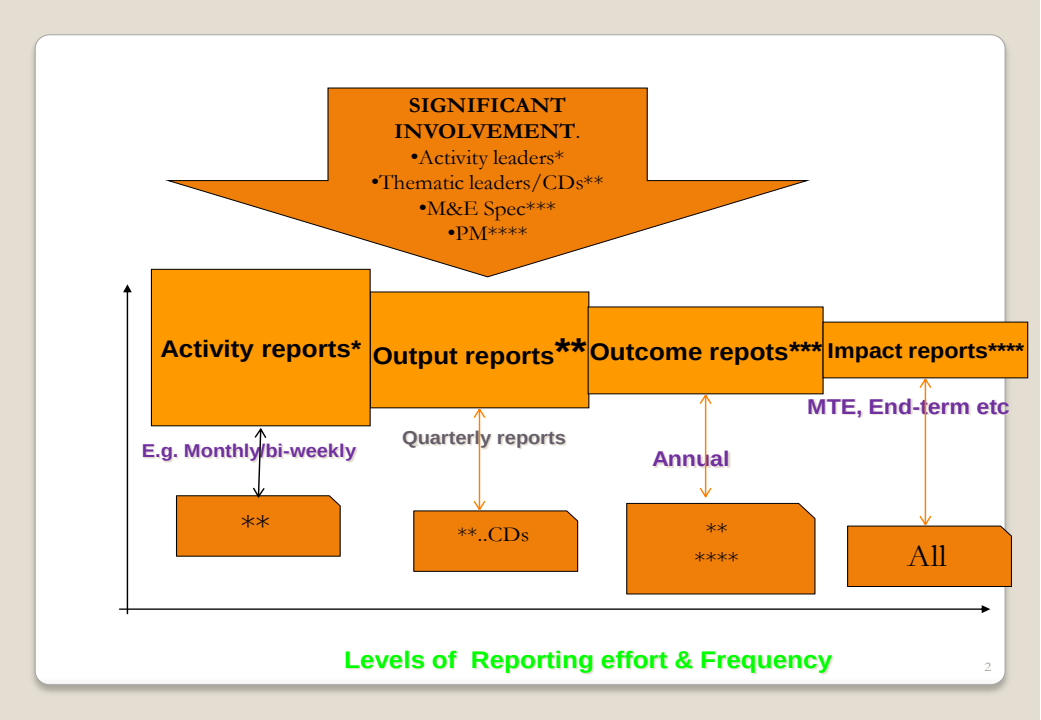


Figure 4.6: RAC reporting protocols

The bi-weeklies are written by all key RAC staff, but the main leaders are activity leaders (project implementers/program officers) who are in charge of executing RAC activities at the point of contact (with government agencies, donors, agricultural organizations and training institutions, decentralized vine multipliers etc). Though all the RAC staff openly share their bi-weeklies, the thematic leaders and country directors have the most interest in these reports.

Like the bi-weekly reports, the output reports are written by activity leaders on a quarterly basis, the thematic leaders review and consolidate them (from individual country reports to thematic regional reports). The consolidated reports (and accompanying data) are then send to the M&E function which reviews the thematic reports and data and further consolidates them into a single RAC regional report that is later submitted to the Project Manager (PM) for review and feedback. The same procedure is followed during the writing of the six-monthlies. However, unlike the output reports, the PM with the support of the M&E Specialist provides leadership in the writing and quality control of the outcome reports (six-monthlies). The PM, with assistance from the M&E function, also provides leadership during the mid-term evaluation but all the RAC staff and partners are involved.

Progress and evaluation reports are shared internally and, where applicable, externally, particularly with the donor through existing information sharing networks. Specifically, the bi-weekly and quarterly reports are predominantly internal with feedback sessions organized between the RAC management and the implementing staff. The six-monthly and annual reports are external donor reports. Feedback sessions are then organized between the donor and the RAC management to discuss the key contents of these reports. In addition, the project identifies, analyzes, and shares lessons learned that are deemed beneficial in the design and implementation of future similar projects through publications. Identifying and analyzing lessons learned is however an ongoing process, and the need to communicate such lessons is one of the project's key endeavors. Sharing and discussing progress, challenges, and lessons learned is done routinely, but more formally during the annual joint planning and review meetings.

Data collection and management protocols

The RAC data management plan encompasses both the architecture and administrative processes and policies, around practices and procedures of collecting and managing information lifecycle needs in an effective manner. The administrative process ensures that relevant data are acquired, validated, stored, protected, processed, and accessed in a reliable and timely manner to the satisfaction of the data users.

For starters, data collection tools for indicators (we designed tools that collect information for at least two or more indicators) were designed, discussed, piloted, and reviewed. Staff and partners were then trained in the use of these tools before they were adopted. The idea was to build not only consensus but to facilitate uniformity in data collection (instrument reliability). The raw data are then collected by project implementers, stored and reported to thematic leaders at the regional level (see section on reporting mechanisms and Figure 4.6 for more details on this protocol). Figure 4.7 below shows the RAC data flow mechanism.

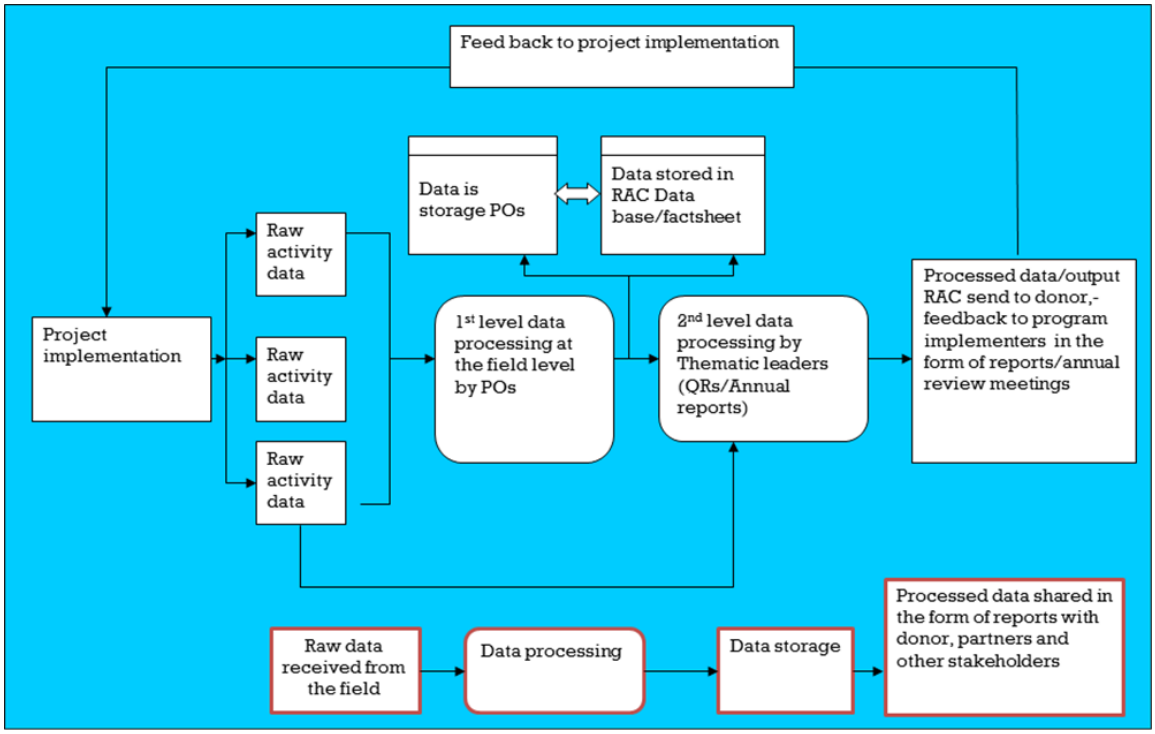


Figure 4.7: RAC data flow

Data audit is done at two levels: internally – more regularly – by the Regional M&E Specialist, and externally – by the external reviewer, during the mid-term evaluation exercise.

Exercise 13. Developing an M&E plan/matrix and identifying types of reports for an M&E system
(Demonstration & Interdisciplinary group work)

The groups have ***four hours*** to undertake the tasks of Part A and Part B of this exercise.

Part A. Developing an M&E Plan/Matrix (2 hours)

Phase 1. Demonstration Exercise by the facilitator *(30 minutes)*

1. The facilitator refers to the presentation on Developing an M&E Plan/Matrix and follows this introduction with a practical demonstration using the RAC M&E Matrix as an example presented in Session 12. He/she invites the participants to follow his/her demonstration through the handout 4.12.4.

Phase 2. Group Work: Practicing developing an M&E Plan/Matrix: *(45 minutes)*

2. The facilitator invites you to form the same group that worked on the Kenya Case Study on 'Research and Development of Orange-Fleshed Sweetpotato' (in Phase 2, part B above). The facilitator:

   (i) Asks participants to identify 2 output and 2 outcome indicators from the Kenya Case Study on 'Research and Development of Orange-Fleshed Sweetpotato'.

   (ii) Asks participants to use the 4 indicators above to practice developing an M&E framework for the project.

Phase 3. Report and Discussion *(45 minutes)*

3. The facilitator asks the groups to present their M&E plan/matrix to the plenary and invites other participants to provide feedback on the exercise results and/or provide inputs to improve the Matrix. Each group should have 5 minutes to present their exercise results.
4. Next, the facilitator invites participants to reflect on the process of this exercise and asks a few volunteers to share some lessons learned. The facilitator then asks the groups to move for Part B of the exercise.

Part B. Reporting and Data Management Mechanisms (2 hours)

Phase 1. PowerPoint Presentation *(10 minutes)*

5. The facilitator uses the RAC Monitoring and Reporting System as a case study to introduce how a typical project ought to implement an M&E and reporting system.
6. The facilitator uses PowerPoint from 4.13.12 to 4.13.15 to improve understanding among the participants. Be prepared to ask questions for clarification and to share stories from your respective organizations.

Phase 2. Identifying, assessing and creating better ways to improve reporting and reporting responsibilities within their organizations. Group work *(60 minutes)*

7. The participants form the same groups as in Part A and elect a rapporteur. The rapporteurs invite each participant to:

   (a) share the *types of report* they use in the organization

   (b) point out *how effective they are* (point out strengths and weaknesses) and

   (c) share *how they plan to support their organizations*

8. The participants use Handout 4.13.4 to record clear actions in relation to improving the design and implementation of M&E reporting to reinforce the M&E system. This facilitates the rapporteur's task to summarize the results of the group reporting differences and similarities during the next phase.

Phase 3. Report and discussion *(45 minutes)*

9. The rapporteurs have 5 minutes each to present their results to the plenary. After each group presentation, the facilitator must only invite 1 or 2 volunteers to make comments and provide feedback on the exercise results.

10. At the end of all group presentations, the facilitator leads a plenary discussion to maximize learning about the reporting improvements by the participants in their organizations.

11. Finally, be prepared to respond to the facilitator's questions: 'What did you learn?' 'How did you feel doing this exercise?' 'How and when do you plan to apply the knowledge and skills acquired during this session in your work environment?' and 'How could you summarize the anticipated impact of the application of this new knowledge and skills in your work environment?'

12. The facilitator invites feedback from a few participants, summarizes their views on the exercise and closes the session.

Exercise 13. Worksheet

Identifying, assessing, and creating actions to improve types of reports for an M&E system

(a) List types of reports used in the organization	(b) Are they excellent, good or poor?	(c) Why are they excellent or good? List 2 strengths	(d) Why are they poor? List 2 major weaknesses	(e) State 2 clear actions that you will carry out to improve them	(f) How could you summarize the anticipated impact of the application? (one sentence)

Strengths and Suggestions for Improvement

List up to three things you liked about the sessions of volume 4

1.
2.
3.

List up to three suggestions to improve the sessions of volume 4.

1.
2.
3.

Guidelines to Provide Feedback on the Workshop

1. The module

Content

- usefulness/relevance
- amount of information

Structure

- sequence
- duration
- balance between facilitators' and participants' contributions
- instruction to facilitators
- visual aids
- handouts
- extra readings
- PAPA
- evaluation

2. Process: L&CB techniques and direction

- usefulness/relevance/effectiveness
- group interaction
- clarity of questions, exercises, instructions
- opening and closure of the days

3. Facilitators' and participants' performance

- presentation/communication skills
- interaction/effective participation
- punctuality/interest/commitment/willingness to facilitate learning/willingness to participate
- other attitudes

4. Logistical support

- organization
- accuracy
- punctuality
- willingness to assist participants, services provided in general

5. Workshop environment

- physical (L&CB facilities, L&CB material, hotel facilities in general)
- psychological (personal feelings such as self-motivation, interest, satisfaction, self-achievement), social (development of friendships, relaxed, comfortable among participants, etc.)

6. Workshop results/outputs

- personal and professional assessment
- recommendations

7. General comments

FIRST STAGE

PAPA—Ideas for Action Items

Workshop title : **Engendered OFSP Project Planning, Implementation, M&E**

Date/venue : _____

Name : _____

Organization : _____

_____

Ideas I would like to try when I return to work at my organization, based on what I have learned in this L&CB workshop.

_____

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Note: You can use the workshop objectives, what you learn during the workshop, the handouts, conversations with participants and facilitators etc., to come up with ideas.