EVERYTHING YOU EVER WANTED TO KNOW ABOUT SWEETPOTATO

TOPIC **12**

Monitoring, Learning, and Evaluation of Sweetpotato Projects

Reaching Agents of Change Training of Trainers (ToT) manual

October 2018

Building Nutritious Food Baskets

RAC Support Vitamin A Sweetpotato

CIP INTERNATIONAL POTATO CENTER A CGIAR RESEARCH CENTER

UNIVERSITY of GREENWICH

NRI | Natural Resources Institute

Helen Keller INTERNATIONAL

Orange-Fleshed SWEETPOTATO Rich in Energy & Natural Vitamin A

Everything You Ever Wanted to Know about Sweetpotato. Topic 12 - Monitoring, Learning and Evaluation of Sweetpotato Projects
Reaching Agents of Change ToT Training Manual

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Contents

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This manual was originally produced as part of the Reaching Agents of Change project in 2013 and updated by the Building Nutritious Food Baskets project in 2017/2018 – both projects funded by the Bill & Melinda Gates Foundation.

Acronyms and Abbreviations

AIs	Adequate Intakes
AVRDC	The World Vegetable Centre
BNFB	Building Nutritious Food Baskets
CBO	Community Based Organisation
CIP	International Potato
DAP	Days After Planting
DFE	Dietary Folate Equivalents
DONATA	Dissemination of New Agricultural Technologies in Africa
DVM	Decentralised Vine Multipliers
dwb	Dry Weight Basis
FAO	Food and Agriculture Organisation of the United Nations
FW	Fresh Weight
HH	Household
HKI	Helen Keller International
IBPGR	Bioversity International
IPM	Integrated Pest Management
IPPM	Integrated Pest & Production Management
K	Potassium
LGA	Local Government Areas
M&E	Monitoring and Evaluation
MAP	Months After Planting
m.a.s.l.	Metres Above Sea Level
Mm	Mass Multiplication
MSC	Most Significant Change
N	Nitrogen
NARO	National Agricultural Research Organisation
NGO	Non-Government Organisations
NHV	Negative Horizontal Ventilation
NRI	Natural Resources Institute
OFSP	Orange-fleshed Sweetpotato
P	Phosphorous
PMCA	Participatory Market Chain Approach
PMS	Primary Multiplication Site
PPP	Public Private Partnership
PVC	Polyvinyl Chloride
QDPM	Quality Declared Planting Material

QDS	Quality Declared Seed
RAC	Reaching Agents of Change
RAE	Retinol Activity Equivalents
RCT	Randomised Control Trial
RDA	Recommended Daily Allowances
RE	Retinol Equivalents
REU	Reaching End Users
RH	Relative Humidity
SASHA	Sweetpotato Action for Security and Health in Africa
SMS	Secondary Multiplication Site
SP	Sweetpotato
SPCSV	Sweetpotato Chlorotic Stunt Virus
SPFMV	Sweetpotato Feathery Mottle Virus
SPKP	Sweetpotato Knowledge Portal
SPVD	Sweetpotato Virus Disease
SSA	Sub-Saharan Africa
ToT	Training of Trainers
TMS	Tertiary Multiplication Site
Tshs.	Tanzanian Shillings
TSNI	Towards Sustainable Nutrition Improvement
UNICEF	United Nations Children's Fund
USD	United States Dollar
Ushs.	Ugandan Shillings
VAD	Vitamin A Deficiency
WAP	Weeks After Planting
WHO	World Health Organisation
WTP	Willingness to Pay

Foreword

During the past decade, interest in sweetpotato in Sub-Saharan Africa (SSA) has expanded, the number of projects utilizing sweetpotato has increased, and the demand for quality training resources, training development practitioners and farmers has subsequently risen. Sweetpotato scientists at the International Potato Center and national research centres often received these requests and frequently held 1-3 day training sessions, drawing on whatever training materials they had or could quickly pull together.

The Reaching Agents of Change (RAC) project in 2011 changed that situation. Jointly implemented by the International Potato Center (CIP) and Helen Keller International (HKI), RAC sought to empower advocates for orange-fleshed sweetpotato (OFSP) to successfully raise awareness about OFSP and mobilize resources for OFSP projects. RAC also sought to build the capacity of public sector extension and non-governmental organizational personnel to effectively implement those projects to promote the dissemination and appropriate use of vitamin A rich, orange-fleshed sweetpotato. The Building Nutritious Food Basket (BNFB) is a three-year project (November 2015 to October 2018) that followed on from the RAC project. The project is implemented in Nigeria and Tanzania and funded by the Bill & Melinda Gates Foundation. The goal of the project is to accelerate and support scaling up of biofortified crops for food and nutrition security and to help reduce hidden hunger by catalyzing sustainable investment for the utilization of biofortified crops (OFSP, PVA maize, high iron beans and vitamin A cassava) at scale. BNFB develops institutional, community and individual capacities to produce and consume biofortified crops. The objectives of the project are to strengthen the enabling environment for increased investments in biofortified crops and to develop institutional and individual capacities to produce and consume biofortified crops.

RAC/BNFB goal of developing and revising the Training of Trainers (ToT) manual on *Everything You Ever Wanted to Know about Sweetpotato* was to see *sustained* capacity for training senior extension personnel about the latest developments in sweetpotato production and utilization in each of the major sub-regions of SSA: Eastern and Central Africa, Southern Africa, and West Africa. Hence, CIP identified local institutions to work with in Mozambique, Tanzania, and Nigeria to host an annual course entitled: *Everything You Ever Wanted to Know about Sweetpotato.* The course has progressed from initially having CIP scientists working closely with national scientists to implement it, to national scientists and partners independently organising and conducting the course. In subsequent years, institutions in Burkina Faso, Ethiopia, Ghana, Malawi and others have been capacitated in conducting the course.

In developing the course content, a long-time collaborator of CIP, Tanya Stathers of the Natural Resources Institute (NRI), University of Greenwich, worked with CIP Scientists to review the existing training material, added in new knowledge from sweetpotato scientists and practitioners, and designed the course with a heavy emphasis on learning-by-doing. The CIP personnel who contributed to the development of the initial manual include, (Robert Mwanga, Ted Carey, Jan Low, Maria Andrade, Margaret McEwan, Jude Njoku, Sam Namanda, Sammy Agili, Jonathan Mkumbira, Joyce Malinga, Godfrey Mulongo), Adiel Mbabu and HKI nutritionists (Margaret Benjamin, Heather Katcher, Jessica Blankenship) and an HKI gender specialist (Sonii David) as well as NRI colleagues (Richard Gibson, Aurelie Bechoff, Keith Tomlins). Some of the materials were adapted from the DONATA project training materials, the Reaching End Users project and many others. After practitioners had used the course and the manual, a review was held in 2012 and the manual and course were subsequently updated, and a standard set of accompanying Power Point presentations created. In 2017-2018, the Building Nutritious Food Baskets project led a further review of the manual working closely with Tanya Stathers, the above mentioned CIP teams again plus Robert Ackatia-Armah, Kwame Ogera, Srini Rajendra, Julius Okello, Fred Grant, Joyce Maru, Hilda Munyua and Netsayi Mudege to update the content of topics 3, 4, 5, 12 and 13 which cover: sweetpotato varietal selection; nutrition; seed systems; monitoring, learning and evaluation; and using the 10 and 5 day ToT course.

This manual is designed to potentially serve a wide variety of audiences (nutritionists and agronomists, policymakers, extension workers, community development workers, leaders of farmer organizations, farmers etc.). Not all the materials will be relevant to all audiences, but facilitators can adapt the content to their audience and facilitation best practices. To ensure sustainability and wide reach; a cascading approach in the delivery of training is recommended; where key experts (agriculturalists, nutritionists, health workers, marketing and gender experts) will attend more detailed ToT workshops. The experts trained will then become primary facilitators and drive the agenda for OFSP. This group will in turn deliver shorter version courses and step-down the training to various levels of audiences (secondary and tertiary) – based on needs identified. This trend will continue until the training cascades down to "farmer trainers" who finally train the end users in their communities.

The original version of the manual has also been translated into Swahili, French, Portuguese, and Amharic are available online at https://www.sweetpotatoknowledge.org/learn-everything-you-ever-wanted-to-know-about-sweetpotato/ with the intension of translating the revised chapters as soon as resources permit. We envision the course to continue to be improved as new knowledge comes in. In this way, we expect the vibrant and knowledgeable sweetpotato community of practice to continue to grow in the coming years. The *Everything You Ever Wanted to Know about Sweetpotato* course will help us to achieve the major objectives of the Sweetpotato Profit and Health Initiative (SPHI). Launched in October 2009, the SPHI seeks to improve the lives of 10 million sub-Saharan African families in 16 countries by 2020 through the diversified use of improved sweetpotato varieties.

Jan W. Low, Leader of the Sweetpotato for Profit and Health Initiative, International Potato Center
October 2018, 2nd edition.

How to Use This Guide

This guide was designed to be used in two ways:

- As self-study material, or
- As a facilitator's guide for classroom training sessions

For each topic we have provided:

- A handbook (this volume)
- A PowerPoint presentation, and
- A handout for classroom training participants

If you plan to deliver this as classroom training, then we would encourage you to read the **Facilitator's Guide** (separate volume) prior to planning your lessons.

Introduction: Monitoring, Learning and Evaluation of Sweetpotato Projects

Topic Objectives

Topic 12 introduces the concepts of monitoring, learning and evaluation (ML&E) for use in implementing sweetpotato projects, and shares a range of practical tools which can be used for ML&E of sweetpotato projects. By working through this topic, you will be able to:

- Explain how monitoring, learning and evaluation can help you improve the implementation and impact of your project.
- Distinguish between monitoring and evaluation.
- Describe and identify the different elements of a project's logic (inputs, activities, outputs, outcomes, impacts).
- Identify and illustrate the use of several sweetpotato project monitoring tools.
- Discuss the importance of using a representative sample when evaluating a project.
- Illustrate how gender can be integrated into a project's logic and ML&E systems.

If you have participated in the 10-day or 5-day ToT course, you will also have:

- Practiced using a monitoring tool for the dissemination of sweetpotato planting materials

Synopsis

An explanation of the reasons for monitoring and the differences between monitoring and evaluation is provided. This is followed by a range of tools which can be used for monitoring the dissemination, performance and use of sweetpotato planting materials. In order to understand the long-term impacts and reach of sweetpotato training it is important that records are kept on who has been trained. These records can be used for follow-up activities.

Unit 1 – Key Concepts and Terminology in Monitoring, Learning and Evaluation

Objectives

By the end of this unit, you should be able to:

- Explain basic processes and criteria for monitoring and evaluating sweetpotato projects for efficacy (does it work?) and cost-effectiveness (does it use resources wisely?).
- Explain the difference between evaluation and monitoring and their relationship to learning.

Key Points

- **Monitoring is a system of ongoing data collection throughout a project.**
- **Monitoring ensures that short-term targets are being achieved.**
- **Evaluation is a periodic assessment of data gathered through monitoring.**
- **Evaluation is a longer-term view which measures the changes that have been caused by a project in the market and community.**
- **Monitoring and evaluation are both ways of learning from experience.**
- **Accountability is the obligation for individuals and organisations to account for their activities and use of resources.**
- **Decision-making is the mental process of using data to find an optimal solution to problems.**

Key Concepts and Terminology in Monitoring, Learning and Evaluation

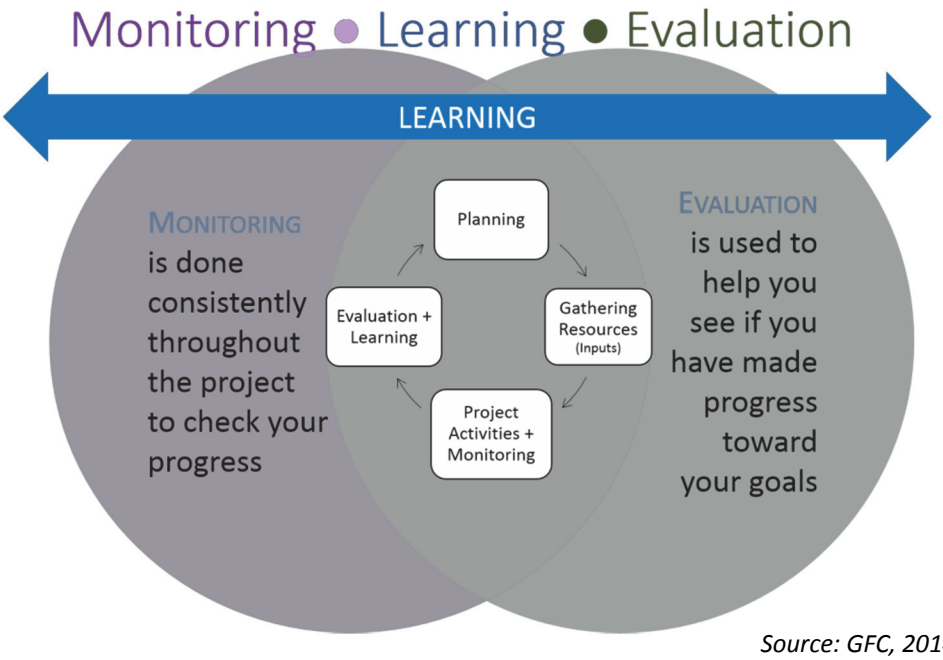
Monitoring, learning and evaluation (ML&E) are processes that can help you to find out how well your project is progressing, whether it is meeting the intended action plans and goals, whether any changes are required, whether the investments are providing value for money, and whether your project is *'making a difference'.*

Whilst monitoring and evaluation are related they are not the same thing (see the table overleaf).

Monitoring and Evaluation – What Are They, and How Do They Differ?

MONITORING	EVALUATION
• On-going systematic collection and analysis of information/data during implementation of a project • Performed during implementation to improve project design and functioning (efficiency and effectiveness) • Is typically based on targets and activities designed during the work planning phase • Provides early indications of progress and achievement of goals against plans • Mostly focuses on measuring project outputs • Enables project team to determine whether the resources and capacity they have are sufficient, appropriate and being well-used • Can help alert managers to things that are going wrong • Done more frequently than evaluation • Can be used as a base for evaluation	• A measure of the change that has taken place because of a project • Compares actual project impacts against the agreed strategic plans • Can be formative (occurring during the life of a project to help improve the strategy or way of functioning of the project) [*like a check-up*] • Can also be summative (drawing lessons from a completed project) [*like an autopsy….*] • Examines longer-term results • Identifies how and why activities succeeded, failed or were changed • Studies the outcome of a project in order to inform the design of future projects • Requires a baseline assessment at the beginning of the project in order to be able to effectively evaluate any change

Both monitoring and evaluation are about learning from what you are doing and how you are doing it, and then using what you have learnt to re-plan the activities and inputs as necessary. Unless we learn effectively we continue to repeat our mistakes.



Source: GFC, 2014

M&E provides opportunities for all those involved in the project to *learn.* ML&E systems help projects learn about their progress towards achieving the intended objectives and the impacts of project activities on the environment and people's lives. This improved knowledge and understanding should then be used to help direct project activities in different ways or directions to improve the impacts of the activities from beneficiaries and other stakeholders' perspectives. The creation of a climate for and the inclusion of opportunities for *participatory or collaborative learning and reflection* can help improve the relevance of the project, increase ownership of the project by beneficiaries and local stakeholders, and thereby improve the sustainability of the project.

Learning

Learning involves the acquisition of data, information and knowledge through the M&E system, which in turn influences the understanding, memories and cultures of the organization or project.

To recap:

Monitoring

A systematic process of collecting, analysing and using information to manage and make decisions during the implementation of an action, project or program. Its goals are:

- To ensure that inputs, work schedules, and outputs are proceeding according to plan (in other words, that implementation is on course);
- To provide a record of input use, activities, and results, and
- To warn of deviations from expected outputs.

Evaluation

A systematic process of collecting and analysing 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. It assesses relevance, efficiency, effectiveness, sustainability and impact of delivered outputs to the outcome/purpose.

- Relevance - The appropriateness of outputs in relation to the outcome/ purpose.
- Efficiency - The cost-effectiveness of activities in delivering expected outputs.
- Effectiveness - The degree to which the purpose has been achieved.
- Sustainability - The extent to which benefits continue after external development assistance ends.
- Impact – Analyses 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.

Within sweetpotato promotion projects (which focus on various objectives such as increasing smallholder farmers' access to clean planting materials, or improving household nutrition and income generation), monitoring and evaluation (M&E) have a major role to play in accountability, decision-making and learning.

M&E and Accountability	M&E and Decision-making and Learning
• **Routine reporting** – efficiency in input utilisation • **Assessing impact** – effectiveness in delivering outputs and achieving objectives	• **Improving implementation** – corrective action as required • **Periodic review** – to assess the continued relevance of project objectives • **Improving planning** – based on lessons learned

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 is a growing demand for more and better evidence of the results and impact of agricultural projects, and for increased effectiveness in delivering expected results.

ML&E should help with decision-making during planning, implementation, and periodic reviews of activities. Decision-making refers to the thought process behind identifying and selecting a course of action from several alternatives. ML&E provides information/ objective data to facilitate the choosing of the best option, by weighing the positives and negatives of each option it helps reduce uncertainty.

Before learning about the practical aspects of ML&E, the important steps and processes for developing a good ML&E system are discussed in the next unit.

Review Questions

Look at the Monitoring and Evaluation table above.

1. What is the difference between monitoring and evaluation?
2. How do monitoring and evaluation improve decision-making?

Unit 2 – Developing an ML&E System for A Sweetpotato Project

Objectives

- Explain the connection between a project's logic and a meaningful ML&E system.
- Describe the key components of a project's logic.
- Name the steps needed to develop an M&E system.
- Explain why it is important to identify and understand project beneficiaries.

Key Points

- **ML&E should be systematized for every project—not just when a donor asks for it.**
- **Inputs, activities, outputs, outcomes (medium- and short-term goals), and impacts (long-term goals and effects of a project) are the essential components of a project's logic. Designing a meaningful ML&E system depends on clearly understanding each element.**
- **A theory of change describes the pathways that will turn desired outcomes into results.**
- **The preliminary phase of designing and ML&E system is the time to set scope and purpose.**
- **Baseline assessments are done during the second step, finalizing the M&E framework.**
- **In the third and fourth steps, project workers operationalise monitoring and evaluation mechanisms.**
- **In steps five and six, we develop a plan for timely and quality communication and reporting, and then for critical reflection processes and events.**
- **It is important to understand the beneficiaries of a project, both direct and indirect, in order to measure short-term goals and long-term impact.**

Developing An ML&E System for A Sweetpotato Project

Monitoring, learning and evaluation should not be thought of as things which only happen when a donor insists on them, they are invaluable internal management tools to ensure that you are using the project's resource (staff, time, funds, equipment) efficiently and effectively, and learning how to do things better.

Understanding the Project's Logic

To design a meaningful ML&E system, you need to be familiar with the project's logic (or logical framework) and the theory of change that underpins it. What did the planning team intend would happen when they designed the project, what were the envisaged links between each element (inputs, activities, outputs, outcomes, impacts) of the project's logic. An example of the project logic of a sweetpotato nutrition improvement project is shown in the figure below.

Defining the Project's Logic

Impact

(Long-term results, e.g. better nourished infants, resulting in improved household health and productivity)

Outcomes

(Short of medium-term results, e.g. more awareness of vitamin A deficiency, and more consumption of vitamin A rich foods including OFSP)

Outputs

(What we produce, e.g. new farmer selected varieties of OFSP, clean planting materials of OFSP, training events on nutrition, training on sweetpotato)

Activities

(Processes that convert inputs into outputs, e.g. on-farm variety research trials, development of training materials, OFSP breeding activities)

Inputs

(What we invest, e.g. staff expertise and time. laboratories offices, partnerships, funding, methodology development)

Inputs

What financial, material and human resources do you need to do your work? This can include people, partners, equipment, and operational costs. ML&E becomes important to assess whether resources are adequately allocated to address the desired objectives (e.g. staff with: sweetpotato breeding skills, training skills, gender skills); whether resources have been allocated and spent on the targeted activities; and whether the allocation of resources is achieving the desired objectives.

Activities

What are the processes (tasks/ services) that convert inputs into outputs (hiring of staff; meetings, field trials, training, disbursement of funds etc.)? ML&E of activities is necessary to assess whether activities

are efficient and contributing to the desired

objectives (e.g. whether farmers are involved in selecting the OFSP varieties, whether nutrition training activities at household level are taking place, whether women as well as men are involved and consulted).

Outputs

These are products and services produced (deliverables) from your activities. Some outputs may be tangible. Tangible outputs would include a new OFSP variety or a new type of farm equipment; while intangible outputs might include changes in taste and preferences. Note that in all cases, the output is always something "new," in the sense that it was not there before. The output alone cannot achieve the objective (purpose) of the project. But it will contribute to it.

Outcomes

What are the medium/ short-term results? Outcomes are the results that would be necessary to achieve the operational objectives. There may be many outcomes and one need to select and prioritise which outcomes need to be measured. For example, in order to increase income of women sweetpotato producers, the project might aim to: enhance productivity through provision of clean planting materials, enhance capacity through training courses; improved nutrition- related behaviours; strengthened social capital through working groups or associations, or improved bargaining capacity.

Impact

- What are the long-term results? These are often difficult to measure during the life of the project and related to long-term goals and not to goals achievable in the medium or short-term. There will likely be other factors contributing to the achievement of the overall goals. Impacts often require sustained behavioural change and can be measured through qualitative assessments. Many project ML&E systems therefore focus on the outcome level.

Theory of Change

A theory of change depicts the pathway of change; it describes the hypotheses through which activities will be transformed into results. It outlines how early changes in a project (outputs) relate to more intermediate changes and then to longer-term changes. A theory of change ('road map for change', 'pathway of change', 'outcome map') therefore makes explicit how a particular project anticipates change will happen and what critical assumptions accompany this perceived change. These theories and assumptions should be reviewed during the course of the project.

To learn more about theory of change see Volume 4 of the Engendered Orange-Fleshed Sweetpotato Project Planning, Implementation, Monitoring and Evaluation Toolkit, available at: http://1srw4m1ahzc2feqoq2gwbbhk. wpengine.netdna-cdn.com/wp-content/uploads/2017/05/Engendere d-English-4-3.pdf

Designing A Project's ML&E System

Key steps for designing an ML&E system for a sweetpotato project are shown in the table below. Note that many of the steps are conducted concurrently, as opposed to as a linear process.

Six Steps of Setting Up A Project ML&E System

Step	Design element	Description
1	**Preliminary phase**: How do you prepare to launch your ML&E function? Scope and purpose	Project proposal documents usually contain a description of how the project intends to manage the key ML&E elements, including the theory of change. Therefore, immediately after your project is funded, you need to: • Conduct an ML&E capacity assessment of partners • Agree on an evaluation policy for your organization/project • Develop an ML&E plan. This should include: your "theory of change" (e.g. using your project's logic - which inputs lead to which activities, what outputs these activities are expected to generate, and what outcomes these outputs will cause, and what impacts are likely to result from these outcomes (see Figure 12.1); project *indicators* (see section 12.3.2); performance M&E matrix/framework describing targets, roles, responsibilities and timelines. • Agree partners' ML&E workplans (with clear milestones, deliverables) and budget
2	**Finalize the ML&E framework** including baseline assessmen t	During this phase: • Design and conduct the baseline survey including a concrete counterfactual (especially in cases of Random Controlled Trial design projects- see section 12.4 on evaluation mechanisms) • Populate the performance M&E matrix/ framework with baseline figures for each indicator and target • Build capacity of partners and staff to carry out their result-based ML&E functions
3	Operationalise **monitoring** mechanisms	During this phase: • Develop tools to facilitate the gathering of routine information to track progress of indicators (see examples of the tools in the templates in Units 3) • Train staff, partners and beneficiaries on how to use the tools • Set up and operationalise efficient data collection and analysis mechanisms • Conduct data quality assessment (s) (DQA) • Implement a progress reporting mechanism • Revise indicators and plans as necessary, based on the realities on the ground. *Remember ML&E systems should be dynamic.*
4	Operationalise remaining **evaluation** mechanisms	Objective and systematic assessment of the extent to which the project is achieving its goals and objectives. With a focus on: • Generating lessons learned for improving programming for better results, and for making changes to the current project's activities. • Documenting success stories and best practices for replication. • Demonstrating accountability Therefore: - Conduct regular internal assessments/studies to review progress on indicators - Conduct an objective mid-term evaluation

5	Plan for timely and quality **communication and reporting mechanism**	Reports (which could be activity reports, quarterly progress reports, financial reports etc.) are basically tools for monitoring. However, without a communication strategy, reporting may become counterproductive and more often than not, consume valuable human resource hours. A communication strategy will help your organisation to plan what information to report on, to whom, why and when.
6	Plan for **critical reflection processes and events**	This aspect is especially important for multi-partner projects. The idea is that ML&E is not an end in itself and the custodians of the system are the project implementers and beneficiaries. Therefore, put in place mechanisms such as joint monitoring/ learning/ reflection events, quarterly review meetings and joint data quality assessments so stakeholders can appreciate the general progress of a project or programme. This will help them know that their views or concerns are being recognised and incorporated into the project. Provide opportunities to celebrate results or agree on a change of course.

Beneficiaries in Sweetpotato Projects

Sweetpotato projects usually aim to reach a certain group of the population residing in targeted communities, also known as project beneficiaries. The "reach" can be in terms of providing goods and/or services to the beneficiaries in the form of:

- Information about the best practices for growing sweetpotato;
- Information on the use of improved (i.e. Disease/pest resistant or climate-adaptable) varieties;
- Or access to improved varieties.

Thus, the nature of "reaching" the beneficiaries will be defined by the set of goods and/or services provided by the project, which in turn depends on project design. In the majority of sweetpotato projects, a major part of the delivery of the project goods and/or services involves providing access to planting materials of improved sweetpotato varieties coupled with basic information on agronomic and pest and disease management practices.

Different projects will usually define beneficiaries at different levels of the population stratification. Thus, in some sweetpotato projects, beneficiaries are defined at household level as the number of households reached with (or receiving) project's goods and/or services. In other projects/cases, the beneficiaries are defined at an individual level as the number of women, men or children, often meeting a stated criterion, receiving project goods and/or services. The criteria for women might be lactating or pregnant, and for children it could be 6-23 months of age.

The beneficiaries of any sweetpotato project can broadly be categorized into direct and indirect.

- A direct beneficiary is a household or individual that comes into direct contact with the set of interventions (that is, goods or services) provided by the project or its implementing partners. Thus, a pregnant woman who receives a bundle of vines of OFSP from the project or its implementing partner is a direct beneficiary.
- An indirect beneficiary is a household or individual that receives goods and/or services

provided by the project but *does not have direct contact with project or its implementing partners.* An example of an indirect beneficiary is a neighbouring farmer who sees the superior performance of a project-disseminated variety and obtains that variety from a project recipient and then grows it.

Review Questions

1. What are the essential components of Project's Logical Framework?
2. Can you think of an example of 'indirect' beneficiary of a project?

Unit 3 – Monitoring Mechanisms for a Sweetpotato Project

Objectives

- Name the range of monitoring mechanisms that are effective for sweetpotato projects.
- Compare and describe lower-level indicators and higher-level indicators and their uses.
- Explain SMART indicators and why they are important.
- List and locate pre-made tools and sets of indicators that are available for sweetpotato projects.
- Explain the crop-cut technique.
- Tell why Data Quality Assessment is necessary and how it is performed.

Key Points

- **A project's logic: inputs > activities > outputs > outcomes > impact**
  - **Inputs – what we put in; Activities – what we do; Outputs – what we create**
  - **Outcomes – what results; Impact– what difference it makes**
- **Indicators are signs that something has been done or achieved, they help us understand what has been done when, where and at what cost, and who was affected in whatways**
- **Lower level indicators require regular tracking and are part of the monitoring system. *For example: Number of male headed households and female headed households who have received vines; or Number of extension officers trained on nutrition.***
- **Higher level indicators are outcome or impact level indicators and mainly for evaluation.**
- **The data on the indicators needs to be sex-disaggregated; it can also be useful to be able to disaggregate your data by age, wealth group, educational level, etc.**
- **Monitoring depends on knowing about information barriers to accurate information, for example, finding out how many farmers use piecemeal harvest techniques and making sure to record those harvests.**
- **As women are less literate than men in some places, an equal gender perspective may require getting oral interviews as well as offering written records and surveys.**

Monitoring Mechanisms for a Sweetpotato Project

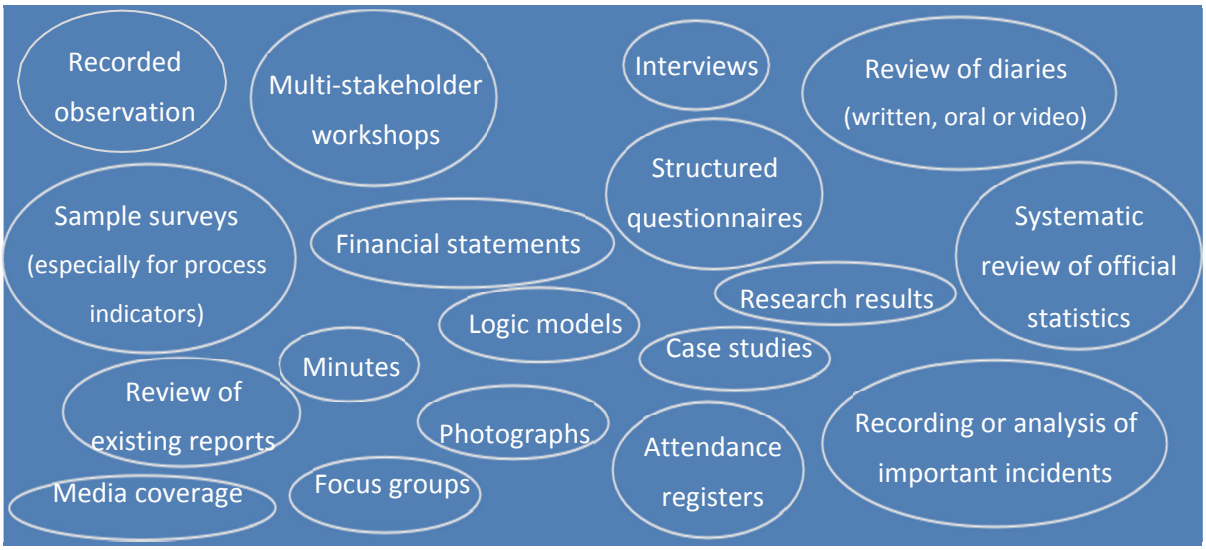
Monitoring is the process of collecting and analysing data on project-related processes to support decision-making.

Monitoring should provide up-to-date information on the implementation process by tracking the project work plan including activities and outputs with the objective of ensuring that implementation is on course. Monitoring should also provide a record of input use for efficiency and accountability reasons. The key steps for operationalising the monitoring mechanisms are shown below and need to be thought about from the project design stage.

- Agree with partners (in multi-partner projects) on the *what, who, how, and when* as far as monitoring and reporting individualized work-plans and budgets is concerned. The work-plan and budget would be developed and agreed upon during the preliminary inception phase of the project. Therefore, at this stage of the project, all you will need is to determine timelines and responsibilities for monitoring activities, milestones, deliverables and budget.
- Develop tools to facilitate the gathering of routine information on activities, outputs and process (lower level progress indicators) (see examples of the tools in the next unit).
- Train staff, partners and beneficiaries on how to use the tools.
- Set up and operationalise efficient data collection, storage and analysis mechanisms.
- Conduct data quality assessment(s) (DQA).
- Implement a progress reporting mechanism.

Approaches and Tools for Monitoring

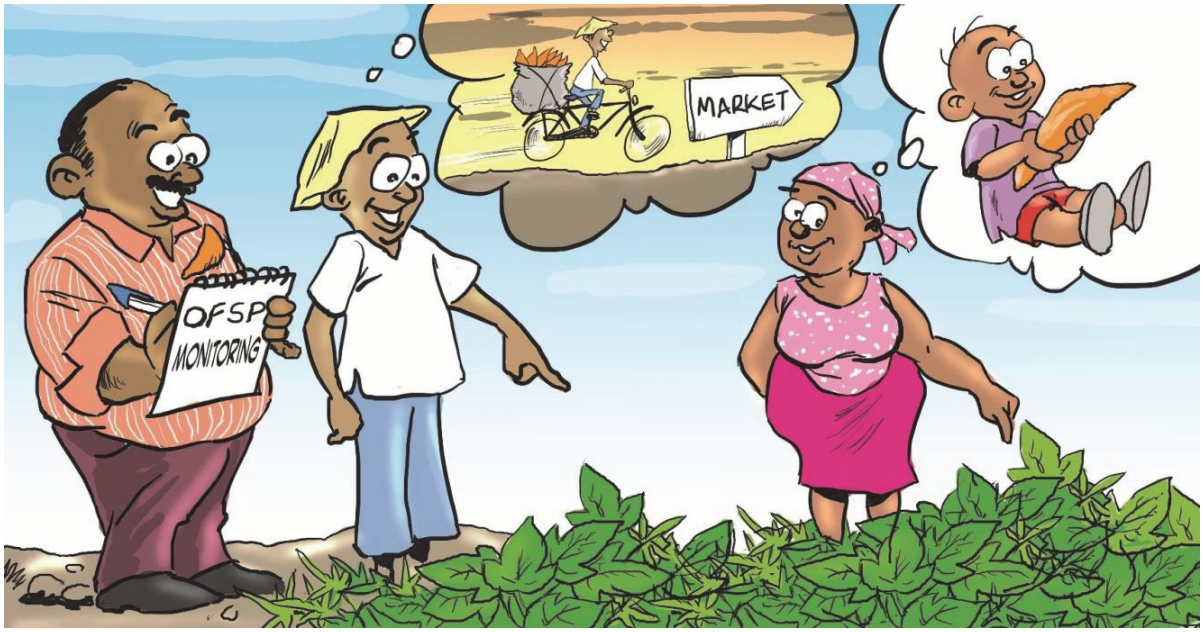
A range of monitoring approaches and tools exist which can be used alone or in combination.



These tools help you collect data on lower-level indicators. Lower-level indicators are activity or output level indicators, they can typically be achieved within a relatively short time-frame and are less complex and costly to measure than higher-level indicators which are used for outcome or impact level change.

Depending on the intended use of the information you may decide that the collection of quantitative (*how much or how many*) or qualitative (*descriptive, e.g. what people know or believe about something, how people feel about something, why and how things are done the way they are*) data or more likely a mixture of the two would be most meaningful. The project also needs to decide on what degree of beneficiary and partner participation and ownership in the monitoring process would be most meaningful.

Remember it is relatively easy to collect a lot of data, but its analysis can be very time consuming, and therefore it is important to spend time thinking about which tools will be able to provide the monitoring data required and which analysis and reporting methods will be used.



Monitor to find out where the planting materials were planted, how they are performing and in what ways they are being used by different members of the household

Indicators

Indicators are signs that something has been done or achieved, often indicating the progress made in delivering an output or achieving an objective. Many people assume that indicators relate only to evaluation mechanisms. However, many projects have lower level indicators that require regular tracking and are therefore part of the monitoring mechanisms.

Lower level indicators will often measure or provide information at the output level. However, depending on your project, some outcome level indicators can also be tracked more regularly and will therefore fall under monitoring mechanisms. Remember, *lower level indicators* are activity or output level indicators, while outcome or impact level indicators are *higher level indicators* and are mainly used in evaluation.

Examples of lower level indicators of the adoption of OFSP in a community might include:

- Number of households obtaining OFSP and other kinds of sweetpotato vines;
- Number of households receiving vines by sex of household head or sex of receiver;
- Quantity of OFSP planting material sales and gifts to others in a year;
- Quantity of OFSP root sales/distribution/ also by sex of seller in a year.

Examples of lower level indicators of capacity on OFSP being built might include:

- Number of farmers or trainers that have been trained on various aspects of OFSP;
- Number of extension officers trained on OFSP and so forth.

You need to collect *sex disaggregated indicators*. For example, you could track the number of households receiving vines by sex of household head, or sex of person who received the vines; how many vines/roots were sold, and income received by sex; the number of trained farmers by sex. You may also need to include gender specific indicators as well, particularly if your project seeks to address issues related to women empowerment. It may also be useful to have age, educational level, or wealth group disaggregated data. Monitoring tools should be developed to collect and track data on your focal indicators. Through the indicators you can then find out details on: What? Who? How many? How often? How much? Where? When? etc.

It is best to develop the project and the indicators in consultation with the target beneficiaries. This helps ensure the work is driven by local realities, is locally-owned and is focused on bringing change that is meaningful to the target community.
Most guidelines suggest indicators should be SMART, particularly so for quantitative indicators.

S =	Specific	do you know what is to be measured?
M =	Measurable	do you know how to measure it?
A =	Achievable	is this something you have influence over & can be achieved in the timeframe
R =	Relevant	does this relate to the project outcome/ output?
T =	Time bound	when will this indicator be measured?

However, indicators can also be qualitative, e.g. raised level of awareness about nutrition.

It is important to keep indicators manageable, it is more useful to use a small number of meaningful indicators which can be looked at regularly and carefully, than a long and complicated list that is too time-consuming to use.

Indicators are not able to capture complex realities and relationships, they are good ways of measuring change but not of capturing the reasons behind such change. Indicators should be seen as just one part of a ML&E strategy.

Sweetpotato Dissemination and Uptake Monitoring Tools and Examples

Many sweetpotato monitoring forms and tools already exist. On the following pages, you will find: the tool, Monitoring the Dissemination of Sweetpotato Planting Materials from A Mass Multiplication Process. The tool is also suitable for monitoring the dissemination of sweetpotato planting material from a voucher system and includes details of who received the planting material vouchers, telephone contacts and whether the vines were labelled or not.

The form is available at this link:

http://www.sweetpotatoknowledge.org/files/sweetpotato-vine-dissemination-form

Monitoring the performance of the disseminated planting materials (see Tool below), and the further spread of the disseminated planting materials is also important.

These tools are available at the following link:
http://www.sweetpotatoknowledge.org/files/performance-spread-monitoring-forms-2

Additionally, when training is provided, it is important to keep a record of who has received training, the gender of the trainee, and who they have subsequently trained and what changes have occurred as a result. Tool 12.3.6a is for monitoring who has received sweetpotato training and what they plan to do as a result of it. Form 12.3.6b is for monitoring the farmers who are trained by the project and Form 12.3.6c is for evaluating the 'everything you ever wanted to know about sweetpotato' training course. These forms are available on the Sweetpotato Knowledge Portal at:

Tips for Using Vouchers

Vouchers are a popular way to target and collect information on beneficiaries cheaply.

For voucher monitoring systems to work, the vouchers need to have a unique tracking/ serial number and to include all the data required for analysis (e.g. name, sex, age, location, date, type and amount of planting materials). The beneficiary keeps one copy of the voucher while the original is filed carefully.

The effectiveness of a voucher system is linked to training of the voucher issuers to ensure data completeness, and careful verification of voucher beneficiaries (to ensure they meet the project's criteria). Use a voucher management system to keep them safe between collection and digitization. For more about vouchers see Topic 5.

http://www.sweetpotatoknowledge.org/files/monitoring-tools-training

You will note that these forms have spaces on them to write in the identification information as well as boxes to enter the codes. Having both kinds of information helps one check to see that no errors have been made in coding. Having coded information, will make data entry and analysis easier. A useful and free data entry program from the United States Bureau of Census is CSPro http://www.census.gov/population/international/software/cspro/. The program is designed for surveys and permits one to double-enter the data easily, which eliminates typing errors. Labels and data can then be exported to common statistical packages such as SPSS, SAS, or STATA or as ASCII files.

In addition to these tools, there are a variety of ICT based tools you could adopt to monitor various sweetpotato related indicators. Key amongst these is the Decentralized Vine Multiplier (DVM) monitoring tool. Decentralized vine multiplication is one of the strategies employed to improve access to clean planting OFSP vines through establishment of trained vine multipliers close to farmers. These vine multipliers, often referred to as DVMs receive training on sweetpotato agronomy and other important aspects of OFSP production and dissemination. The DVMs are then expected to pass on this information to farmers obtaining OFSP vines from their farms. Many OFSP promotion projects setup their DVMs so that they have OFSP vines ready by the start of the planting season for dissemination to farmers (see Topic 5 for details). It is important to keep an up-to-date database of the DVMs and to monitor their activities. Existing tools for you to use or adapt include: the DVM registration and DVM monitoring forms. Registration of DVMs is typically done once at the point of admission of new DVMs, at the beginning of the season. The DVM monitoring form is used to record technical backstopping visits by extension agents to each DVM. These visits are designed to support high quality vine multiplication throughout a given season.

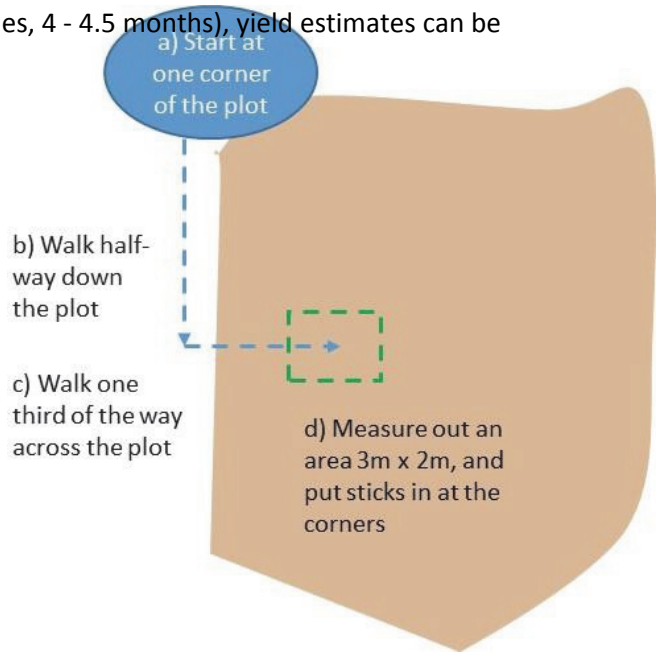
These tools are only available in Open Data Kit (ODK) compatible format which is available at this link: http://www.sweetpotatoknowledge.org/files/odk-compatible-dvm-mapping-tool/. ODK is an open source suite of technologies that enables users to build data collection forms, collect data using Android mobile devices, and send it to a server via the internet.

Monitoring the Performance of Disseminated Planting Material

To collect data on the performance of the disseminated planting materials in farmers' fields, you need to decide at the beginning of the season where you are going to collect it from as many farmers use piecemeal harvesting (i.e. removing a few roots whenever they are needed) and hence, yield can easily be underestimated. One recommended technique for monitoring the **yield** of sweetpotato is the *crop-cut* technique (see the box below).

Using the crop-cut technique for monitoring the yield of sweetpotato planting materials

1. Randomly select the required number of farmers from a list of vine recipients
2. Ask these farmers to plant the different varieties they receive in separate plots
3. Ask them to plant a comparison plot using their local variety at the same time
4. When the crop is mature (for most varieties, 4 - 4.5 months), yield estimates can be calculated using the following steps
   a) Starting at one corner of the plot
   b) Walk half-way down one of the long sides
   c) Then walk one-third of the *way across the plot*
   d) *Measure an area 3m x 2m around the standing point, place sticks at each corner of it (this should be done just after planting)*
   e) *At time of yield assessment, collect data on the storage root, vine and biomass weight within the marked* area. Incidence of weevil damage to roots should also be recorded
   f) Yields of the different OFSP and local varieties can be compared.



Monitoring the Dissemination of Planting Material from Mass Multiplication Processes

MODULE 08. VINE DISSEMINATION COUNTRY: ORGANIZATION: MASS DISS. 0-NO 1-YES ADMINISTRATIVE LEVEL 1 (AD1) SHEET # Pg 8

M08_06 DAY: MO: YR: ADMINISTRATIVE LEVEL 2 (AD2) ADMINISTRATIVE LEVEL 3 (AD3) ADMINISTRATIVE LEVEL 4 (AD4) ADMINISTRATIVE LEVEL 5 (AD5)

M08_07 NAME OF MULTIPLIER OR VINE SOURCE: M08_08 VOUCHERS USED? 0-NO 1-YES M08_09 NAME OF MONITOR/EXTENSIONIST: YY

NAMES OF VARIETIES DISTRIBUTED: 888- N/A

M08_10 VAR1 M08_11 VAR2 M08_12 VAR3 M08_13 VAR4 M08_14 NO. OF VARIETIES PER HH

M08_15 AMOUNT DISTRIBUTED FOR EACH VARIETY: M08_16 UNIT 1- CUTTINGS 2- KGS 3- BAGS *IF IN BAGS:* M08_17 NO. OF CUTTINGS PER BAG LABELED? M08_18 0-NO 1-YES M08_19 IS THIS QUALITY DECLARED MATERIAL? 0-NO 1-YES

IF THE SAME FOR ALL VARIETIES

No.	DATE OF REDEMPTION DAY MON	HEAD OF HOUSEHOLD FIRST & MIDDLE NAME	HEAD OF HOUSEHOLD LAST OR FAMILY NAME	SEX OF HEAD 0-F 1-M	FEMALE CAREGIVER FIRST & MIDDLE NAME *If same as head, Write SAME*	FEMALE CAREGIVER LAST OR FAMILY NAME	Leads SP Growing 1-Head 2-Female	No. U5 in HH	No. U2 in HH	No. Women Aged 15-49 Years	CELLPHONE NUMBER (OWN NUMBER CLOSEST CONTACT)	VOUCHER NUMBER	ACTUAL AMOUNTS RECEIVED IN UNIT FROM M08_16 VAR1	VAR2	VAR3	VAR4	MONEY PAID (0 if free) Currency:
	M08_20	M08_21	M08_22	_23	M08_24	M08_25	M08_26	M08_27	_27B	_27C	M08_28	M08_29	_10B	_11B	_12B	_13B	M08_30

Monitoring the Performance of Disseminated Planting Material

Administrative level 4:_____ Administrative level 5:_____

Extensionist: _____ Year: ☐☐☐☐ Month: ☐☐ Sheet Number: ☐

Date of Visit		Identification Number	Name of Person Visited		Sex	Village					*Questions to answer if VINES have been picked up*									Has your family grown any type of OFSP before this project? 0-No 1-Yes	Has kitchen garden 0-No 1-Yes	*If yes,* is OFSP in garden 0-No 1-Yes	*If no,* why no kitchen garden? (below)	Signature of woman or other family member
											Month of 1st vine pickup	Type of new plot 1- upland 2- lowland	For new plot with voucher vines										
													Date of planting			Obser-vation (code below)	Estimated area in meters						
Day	Mon		First	Surname	1-M 2-F	Name	Code						Day	Mon	Year		Length	Width					

Observation

1-Not planted, no crop on the ground

2-Good, well maintained plants, free from pests and disease

3-Fair, modestly maintained, some pest or disease problems

4-Poor, not weeded and/or serious pest or disease problem

9-Not able to observe

Why no garden

1-Does not see need

2-Not right type of land

3-No time to do it

4-Would ne5-no nearby water ed fence

5- Other issue, describe

6-Someone else decides land use \

7-Other

Monitoring the Spread of Disseminated Planting Material

Administrative level 1: _____ Administrative level 2: _____ _____ ___

FURTHER SPREAD OF VINES

Administrative level 3:_____

Administrative level 4:_____ Administrative level 5:_____

Extensionist: _____ Year: ☐☐☐☐ Month: ☐☐ Sheet Number: ☐

Date of Visit		Name of Person Visited		Sex	Village	Coverage									Indirect reciepient households					Telephone No.
						Month of 1st vine pickup	Type of new plot 1- upland 2- lowland	Date of planting			Obser-vation (codes below)	Estimated area in meters			Has any other household collected vines from you? N/Y	If yes How many?	Name and telephone No. of indirect beneficiary Household 1	Name and telephone No. of indirect beneficiary Household 2	Name and telephone No. of indirect beneficiary Household 3	of person visited
Day	Mon	First	Surname	1 F 2 M	Name			Day	Mon	Year		Length	Width	variety *use code						

Observation

Name of variety: 1- kakamega 2- Kiegea 3-Mataya 4-Amelia 5-Melinda 6-Irene 7-Bela 8-Namanga 9-Gloria 10-Other (specify)

1- Not planted, no crop on the ground

2- Good, well maintained plants, free from pests and disease 3-Fair, modestly maintained, some pest or disease problems 4-Poor, not weeded and/or serious pest or disease problem 5-Other issue, describe

9-Not able toobserve

Other comments from visits:

Monitoring the Use of the Disseminated Planting Material

OFSP promotion projects are likely to differ in some of their specific aims. However, most projects will probably be interested in finding out about the immediate and evolving use of the OFSP planting materials that their project has disseminated. Some typical areas of interest might include:

- Whether the OFSP is being included in infant feeding practices and if so, in what ways, forms and quantities? What feedback do families using it have? Have health clinics noticed any changes which might be due to the OFSP or the associated nutritional or improved infant feeding knowledge? Do families using OFSP in infant feeding have any important outstanding knowledge gaps or needs?
- In what ways is OFSP being used by the households growing it? Which of these ways do they think they will continue to use it or increase their use of it for, and why? Which ways of using it will they not continue and why?
- How is OFSP being accepted by consumers who purchase the OFSP roots? What feedback do they and the market traders selling the OFSP roots have? What knowledge gaps or needs do they and the market traders selling the OFSP roots have?

Questionnaire forms or checklists for use in focus group discussions or case studies can be developed to learn about the use of the disseminated planting materials. It is likely that monitoring of this aspect would be repeated after different time intervals (e.g. annually) to understand how use of OFSP develops as its initial novelty wears off.

Monitoring Who Received Sweetpotato Training and What They Plan to Do as A Result of It

It is well understood that the adoption of new crops and varieties can be enhanced if the dissemination of planting material is accompanied by training on all aspects of its crop management, as well as its processing, utilisation and marketing.

Whilst at the start of any training, participants' expectations are usually discussed using a brainstorming exercise to ensure that the participants and facilitators have a common understanding of what will be done during and after the course. Whether these expectations are met is typically discussed at the end of the course. However, it can also be useful at the end of the course to ask the participants what they think will happen within the next 1 year or 5 years etc. as a result of the training they have received and to both document this and use it during follow-up monitoring and evaluation exercises.

In order to document and understand what training has occurred and what its impacts have been and where further emphasis is still required, data should be collected and kept on all these aspects.

In order to streamline the monitoring process of what training has occurred and how it went, a system can be set up to ensure that the trainer's payment is only triggered once a good quality training report and copies of the training materials have been received by the management. The following forms are suggestions of what might be recorded and monitored about the trainers who are trained (Form 12.3.6a), and the farmers who these trainers subsequently train (Form 12.3.6b).

The training report should capture at least the following aspects:

- Who participated in the training (name, age, gender, current place of abode, place of origin,

wealth group, how they were selected to participate process).
- When the training occurred and how this correlates to the local agricultural calendar.
- What topics were covered in the training (this should include a version of the final programme followed, the facilitators training notes, and any hand out notes).
- What the participants thought of the training (e.g. A summary of the participants' evaluation of the training, copies of the course evaluation forms).
- Suggestions for improving the training in future (e.g. What worked well and what didn't in regard to content, participants, timing, organisation and other factors).

Additionally, most training courses include a short session for the participants to evaluate the training at the end of the course. Form 12.3.6c shown below is a typical training course evaluation form. The form can be anonymous, but the trainer should ensure all participants complete and submit a copy of it. Note that the form includes some questions where the participants have to explain and provide reasons for their answers, and others where they just have to tick against a score. Combining these two techniques is useful to help ensure participants engage with the form and provide the facilitator with more qualitative information on their experience as opposed to just ticking the same column without thinking about the questions. The quantitative data can be useful in looking at the percentage of respondents who felt the course was highly relevant etc. However, it should be noted that an evaluation like this typically evaluates just the delivery, content and organisation of the training course, and does not usually assess the actual learning outcomes.

It should be noted however that in many Sub Saharan African countries, rural women are often less literate than their male counterparts. Therefore, written evaluations may leave their views out. If you suspect this could happen in your trainings, then consider using a participatory evaluation approach in order to capture their views.

Form 12.3.6a Monitoring the TRAINERS Who are Trained by the Project

Training course title:				Location:			When is sweetpotato typically planted here:					
Date of course:				Duration (days)			Facilitators name and mobile number:					
Participants details								During the next 12 months how, many of the following types of people does each participant expect to train?				
	First name	Surname	Sex. 1 = M 2 = F	Name of employer	Position held	Geographical location of work	Cell phone contact details	Email address	Extensionists	NGO/ CBO workers	Farmers	Others (give details)	Signature
1													
2													
3													
4													
5													
6													
7													
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Form 12.3.6b Monitoring the FARMERS Who Are Trained by The Project

Training course title:				Location:			When is sweetpotato typically planted here:				
Date of course:				Duration (days)			Facilitators name and mobile number:				
	Participants details										
	First name	Surname	Sex. 1 = M 2 = F	Age (in years)	Village	District	Cell phone contact details	Name of household head	Wealth group 1= very poor 2= poor 3= middle 4= high	Age range of children	Area under sweetpotato (acres or ha or sq meters)	Signature
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
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25												

Form 12.3.6c Evaluating the Training Course

'EVERYTHING YOU EVER WANTED TO KNOW ABOUT SWEETPOTATO' **TRAINING COURSE EVALUATION FORM**						Date: Location:
Questions						Sex: M _ F_
1. Which aspects of the training did you find **most useful**?						
2. Which aspects of the training did you find **least useful**?						
3. Was there anything you found **confusing**? If yes, please explain what.						
Tick the number that applies	1 Not at all/ None	2	3 Partially/ Medium	4	5 Greatly/ High	**Your specific comments on this aspect**
4. Will the **knowledge and skills** from this training help you **in your sweetpotato production, utilisation and marketing**?						
5. What **level of understanding** did you have regarding the **course content**?						
6. Was the course information **relevant to your livelihood**?						
7. Was **enough time allocated** for the course?						
8. How would you rate the **facilitators' level of knowledge on the topic**?						
9. Were the facilitators **clear and confident in their tasks and presentations**?						
10. Did you have enough **opportunity to practice the skills** as opposed to just hearing about them or watching them being demonstrated?						
11. Were there enough opportunities to **ask questions**?						
12. Were **satisfactory answers** given by the facilitators?						
13. Were the **timing, length and venue** of the course convenient?						
For Questions 14, 15 and 16, on a scale of 1 (low) to 10 (high), how confident are you that the training will **translate into:** 14. - **improved OFSP production**? Please briefly explain your answers.						
15. - **increased OFSP processing and utilisation**?						
16. - **increased OFSP marketing**?						
17. How could a training course like this **be improved**?						
18. Any **other comments**?						

Data Quality Assessment (DQA)

Data Quality Assessment (DQA)

is the process of confirming the quality of reported data in terms of validity, accuracy, consistency, completeness and timeliness.

Due diligence in ML&E requires us to act with a certain standard of care to ensure that the data and information we collect meets professional data quality standards in terms of validity, integrity, precision, reliability, completeness and timeliness. By conducting an audit, we can assess the quality of the ML&E data collected and learn about the strengths and weaknesses of the data sources and systems; ultimately leading to improvement in the overall data collection and management strategy.

Remember that to accurately measure the success of and to improve the management and impact of a project, a strong ML&E system which produces high quality data about the project is required. A project or program that understands the quality of its data can position itself to maximize the value of data collected through continuous improvement. Quality data can play a vital role in increasing the effectiveness of projects and strengthens the reputation and capacity of the organizations involved. The implications of poor data management and quality are wide-ranging and potentially damaging, financially, legally, and in terms of credibility and reputation.
DQA Methodology

DQA planning phase: determine the scope of the exercise, assign responsibilities, train the personnel involved, communicate well-in-advance, determine your sample and sampling technique (which indicators, partners to visit, field areas etc.), refine your assessment tools etc.

DQA execution phase: start with an audit of the data management and reporting system at the project office. Then visit one of the project's field sites or partners.

Auditing of the ML&E system will involve a qualitative review of the relative strengths and weaknesses of functional areas of a data management system and focuses on:

- ML&E capabilities, roles and responsibilities of the staff
- Training of staff and partners on ML&E requirements
- Indicator definitions and value of the results attributed to project implementation
- Data collection and reporting forms/tools
- Data management process and quality control processes
- Integrity of electronic filing system and access to data

This should be followed by quantitative assessment and verification of the reported data for the sampled indicators. Data verification could entail physical recounting and comparing of reported data contained in the source documents both at the project office and project sites/partner level. Data recounting aims to establish the completeness, and accuracy of the reported data. Additionally, the exercise attempts to check if risks to data quality abound and whether source documents for the reported data are in place.

An example of a DQA tool for an ML&E system is available at:
http://www.sweetpotatoknowledge.org/files/dqa-data-collection-tool/

Review Questions

1. What are the steps of designing effective monitoring mechanisms?
2. What are some of the monitoring tools?

Unit 4 - Evaluation Mechanisms of a Sweetpotato Project

Objectives

- Explain the importance of *vision* and *process vision* in creating evaluation mechanisms for a sweetpotato project.
- Tell why and how your list of indicators should be narrowed down.
- Explain outcome counterfactuals.
- Describe the process of sampling.
- Explain the usefulness of Focus Group Discussions (FGDs) and describe the circumstances where sex-segregated FGDs are and are not practical.

Key Points

- **Developing a clear vision in the early stages of planning a sweetpotato project helps identify and develop higher level indicators. You should know what problem areas you want to change and how you want them to look after the project.**
- **These higher-level indicators in sweetpotato projects often include common markers such as increases is income generated and improvement in diet quality and vitamin A intake.**
- **Determining higher level indicators helps build an idea of what lower level indicators are needed.**
- **Final key indicators should number no more than 19-20.**
- **The cost of recording and collecting indictors should be considered; here as elsewhere, spend resources wisely.**
- **Evaluations should demonstrate change compared to a control group.**
- **Baseline surveys show where you are beginning from in terms of reaching project goals. Midterm evaluations give a halfway guidepost.**
- **Sampling is the process of selecting units from within the population to give a general idea of the overall outcome by generalising that data to the population.**
- **FGDs are a great tool and should be as representative of the population of the community as possible.**

Evaluation Mechanisms of a Sweetpotato Project

During the planning stages of a project, it will be helpful to develop a *vision* of how you would like the problem areas to be/ look by the end of the project; this will help you to identify and develop higher level indicators, such as: the volumes and value of OFSP produced and/or sold (including income from sale of sweetpotato); improvement in diet quality from consumption of more diverse diets; increased levels of intake of vitamin A.

It is also important to develop a *process vision* for how you want the things to be achieved (the method). This understanding will help you to develop effective outcome and impact indicators. Such impact indicators might include the % of children under 5 years of age consuming OFSP (or vitamin A-rich foods) on a daily basis, or the number of households with children under 5 years old reached with clean planting materials of improved sweetpotato varieties. This process will also help you to develop lower level indicators.

If your list of indicators is long, you will need to prioritise to choose your final key indicators.

Make sure the selected indicators: cover a fair representation of outputs, outcomes and impacts; cover all important causal chains in your project's logic; and are not more than about 12-20 indicators in total.

It is relatively easy to collect a lot of data, but its analysis can be very time consuming and therefore careful planning is required to ensure straightforward analysis methods have also been thought about as a key part of the design of the evaluation mechanisms. It is important to work out how much it will cost to collect each indicator. It is better to collect data on a few indicators well, than to collect everything poorly.

Higher-level Indicators

Evaluation mechanisms deal with higher level indicators.

OFSP adoption indicators might include:

- Cropped area of OFSP
- Proportion of households producing OFSP

OFSP consumption and nutritional awareness indicators might include:

- Frequency of young child consumption of OFSP and other sources of vitamin A-rich foods
- Understanding of nutritional benefits of OFSP
- Levels of intake of vitamin A
- Vitamin A deficiency levels

Different Aspects of a Project's Logic Model Which Need Monitoring and Evaluating

ACTION MEASURES | RESULTS MEASURES — *e.g. timeliness and efficiency of activities e.g.*

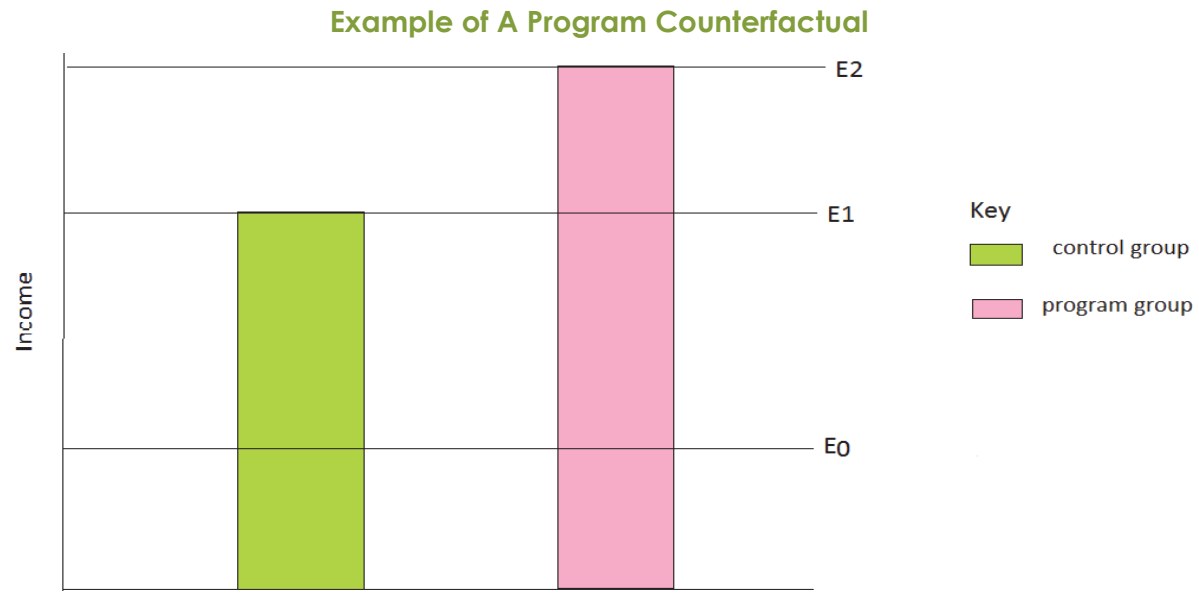
key indicators to monitor what happens, and the process by which the change happens

Operationalising the Evaluation Mechanisms

Evaluations of sweetpotato endeavours may range from simple quick initiatives to more complex rigorous ones. The immediate objective of the initiative, the timing, skill level of the key ML&E staff and the level of funding are factors to consider when choosing the evaluation method.

The design of the evaluation(s) should ideally be outlined at the start of the project in the ML&E plan.

Key evaluation questions can be identified, and the baseline survey should be designed to ensure that it includes data on variables that correspond to key outcomes and impacts, the baseline survey method and team should be developed and clarified and must include the collection of sex-disaggregated data. A baseline survey collects relevant data from the area or groups where the project will intervene as well as from an area or groups where the project will not intervene (which can be useful when calculating the impact of an intervention) this will enable you to demonstrate change in a scientific and easy way. An example of a baseline survey form used to collect data prior to or at the start of a sweetpotato project is presented in Appendix 12.1 and available in excel on the Sweetpotato Knowledge Portal http://www.sweetpotatoknowledge.org/files/sample-sp-survey-tool/, you may want to build on or adapt it to suit your needs. Whenever possible, both the mid-term and summative evaluations should demonstrate the change compared to a control group for the different indicators. This is illustrated in the chart below which shows what would have happened to the income of participants if the program had not existed. An outcome without the intervention is therefore the counterfactual.



E0 = Participants' income at baseline
E1 = Income of the control group after a certain period (mid-term, end-term or ex-post)
E2 = Income of program participants after a period of intervention (mid-term, end-term or ex-post)
E2 – E0 = Observed change in income of the program's beneficiaries
E1 – E0 = Income of participants if the program had not existed (counterfactual)
E2 – E1 = The income impact of the program

Individual or household surveys are often valuable sources of data on indicators at baseline, mid-term or end-term of the project. You need to ensure that the baseline study is gender sensitive otherwise you will not be able to evaluate the project achievements from a gender perspective. In addition to the repeat of household or individual surveys, other evaluation tools can be developed and incorporated. Multi-stakeholder audits of the project can be undertaken, and random checks and data quality assessments.

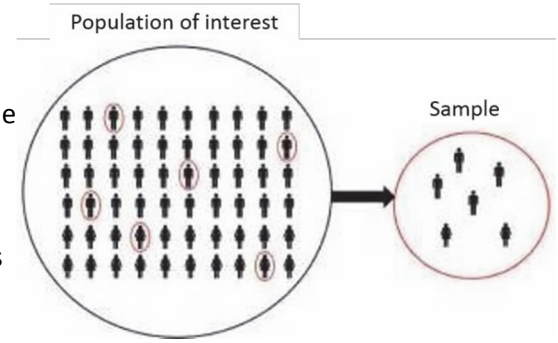
The opportunities for outcome and impact evaluations (mid-term and summative) and approximate dates should be identified early on in the project. It is also useful to know whether there will be a post-implementation evaluation of the project to examine the long-term effects of project.

The most common methods used in evaluation include: appreciative inquiry, story-based methods; outcome mapping; Most Significant Change (MSC) technique; participatory evaluation methods; randomised control trials (RCT); and stakeholder analysis.

Most of these require a certain level of technical experience. The choice of method will depend on factors such as your immediate objective, the timing, your skill level and the resources you have. Depending on the intended use of the information you may decide that the collection of quantitative (*how much or how many*) or qualitative (descriptive, e.g. what people know or believe about something, how people feel about something, why and how things are done the way they are) data or more likely a mixture of the two would be most meaningful. The project also needs to decide on what degree of beneficiary and partner participation and ownership in the ML&E process would be most meaningful.

Development and selection of indicators, and a discussion on sampling, are presented in the prior Units of this topic respectively and are relevant to both monitoring and evaluation.

Sampling



While thinking about your indicators, you also need to decide on how your sampling will be done to collect the data. Sampling is crucial for setting up a good evaluation, consult a statistician to ensure that your sample size and strategy is adequate. Sampling is one of the most important elements to consider regardless of the choice of method you will adopt. Sampling will help you decide how confidently you can generalise your findings to the entire population.

Sampling can either be probability or non-probability sampling. Probability sampling involves randomisation which involves setting up a process so that each of the samples you will select has an equal chance of being selected within a sample frame.

Sampling

The process of selecting units (e.g. people, fields, villages) from a population of interest so that by studying the sample we can generalize our results back to the population from which they were chosen.

Conversely, non-probability sampling does not involve randomisation and hence this approach has a greater risk of bias, and thus should not be used if you want your results to be representative of the population.

Various types of probability sampling approaches exist such as simple random sampling, stratified random sampling, systematic random sampling, cluster random sampling, and multi-stage random sampling. Alternatively, the non-probability sampling approaches include convenience sampling, purposive sampling, typical case/modal instance sampling, expert sampling, proportional and non-proportional quota sampling, heterogeneity or diversity sampling and snowball sampling. An explanation of each is in the table below and http://www.socialresearchmethods.net/kb/sampling.php

You should select your sampling approach based on the objectives of your study and the extent to which you would like to generalize your findings. For instance, if you are going to do a monitoring survey on lower level indicators involving individual interviews, you will need to think about how you decide who to interview. Will you use random sampling across the whole community, will you try and interview someone from every 10th house along a transect line through the community, will you ask the village government to randomly select houses, do you have a list of households from which you could make a randomised selection? You also need to think about the resources you have to do the survey, how will you cover as many interviews as possible from as representative a group of your target beneficiaries as you can find? These decisions will be influenced by the length of the questionnaire, your sampling scheme, the number of enumerators available, your transport arrangements, and your budget. The same principles will apply to higher level indicators as you operationalise your evaluation mechanisms.

Overview of Different Probability and Non-Probability Sampling Methods

Probability Sampling	
	Selection strategy
Simple random	Select from a full list of the population (sampling frame). You could use a random number table, or pick numbers from out of a hat etc. to do this
Stratified random	Divide your population into homogenous subgroups (for example by sex, age, wealth group) and then take a random sample from each

Systematic random	Start at random, and choose every 10th case depending on sampling frame size
Cluster random	Population divided into clusters (such as along geographic boundaries, age, farm sizes and so forth). Randomly sample clusters. Then measure all units within the sample cluster.
Multi-stage	Combines sampling methods and is commonly used for applied social research. Might include cluster sampling, and then stratified random sampling within the clusters (e.g. stratified by education level, or households with under 5's or with pregnant women).

Non-probability Sampling	
Convenience	Select cases based on their availability for the study
Purposive	Sampling with a purpose in mind, e.g. pregnant women to understand their knowledge on infant feeding practices, or villages with DVMs
Typical case/ modal	Select cases that are known to be 'typical' and not extreme. But in reality it is difficult to know who is 'typical'
Expert	Using a sample of persons with known experience in a topic (key informants)
Quota	Select people non-randomly according to some fixed quota. Sample selected that yields the same proportions as the known population on easily identifiable variables
Heterogeneity or diversity	Used to obtain all opinions or views, and not for representing these views proportionately
Snowball	Start by interviewing someone who meets the inclusion criteria in your study. Then ask them to recommend others they know who also meet the criteria
Most similar	Select cases that are judged to represent similar or dissimilar case conditions

If you are going to hold checklist guided focus group discussions (FGDs) with groups of 5-12 individuals knowledgeable about the subject you want to discuss, it may be necessary to have sex disaggregated FGDs so that you can capture the views of both men and women. In some communities, there may be restrictions against women speaking in public or they may not want to contradict men in public. You will need to decide on whether to have one male and one female FGD at each target site, or/and whether to disaggregate the community by different wealth groups or age and in some cases ethnicity.

Sometimes budget, human resources or time constraints may make it difficult for teams to have sex-disaggregated discussions. In this case, you will need experienced facilitators who are able to actively engage both men and women. Sometimes when the information being discussed is sensitive, you may wish to adopt private voting processes with men and women using different voting tokens, so you can capture any gender-based differences.

You will need to think about how to ensure the FGD participants are as representative as possible of the community. Some of the questions you may grapple with as you decide on the sample are whether to pick villages that are easy to access (convenience sampling) or those you think have benefitted the longest from the project (purposive sampling)? You need to ensure the FGD participants are representative of the village and not just the people who live closest to the local government office, the road, or are idle at the time of the survey etc.

Review Questions

1. How could having a clear vision serve as an evaluation mechanism?
2. What are some of the evaluation methods that could be used?

Unit 5 – Gender and Diversity Aspects of Sweetpotato ML&E

Objectives

- Describe the gender and diversity issues surrounding sweetpotato ML&E.

Key Points

- **Development projects can affect men and women, poor and wealthy, and young or old people differently.**
- **It is essential to collect disaggregated data, so you can see whether the project design needs improving to prevent it having adverse effects on specific groups.**
- **Gender aspects need including from the project design stage.**

Gender and Diversity Aspects of Sweetpotato

A thorough discussion of gender and diversity aspects in relation to sweetpotato is presented in the topic, Gender and Diversity Aspects.

However, key gender and diversity issues relevant to ML&E are discussed below.

Females and males have different development priorities, needs and constraints, and are therefore

affected differently by development projects, programs, and policies. A gender sensitive ML&E framework reveals the extent to which a project has achieved improvements in the lives and overall social and economic well-being of men and women. Timely and systematic collection of sex-disaggregated and gender information helps to inform managers and other stakeholders whether the intervention is benefiting both males and females. Such information allows for appropriate refining of project design to improve overall development effectiveness, when an adverse impact on either sex is identified.

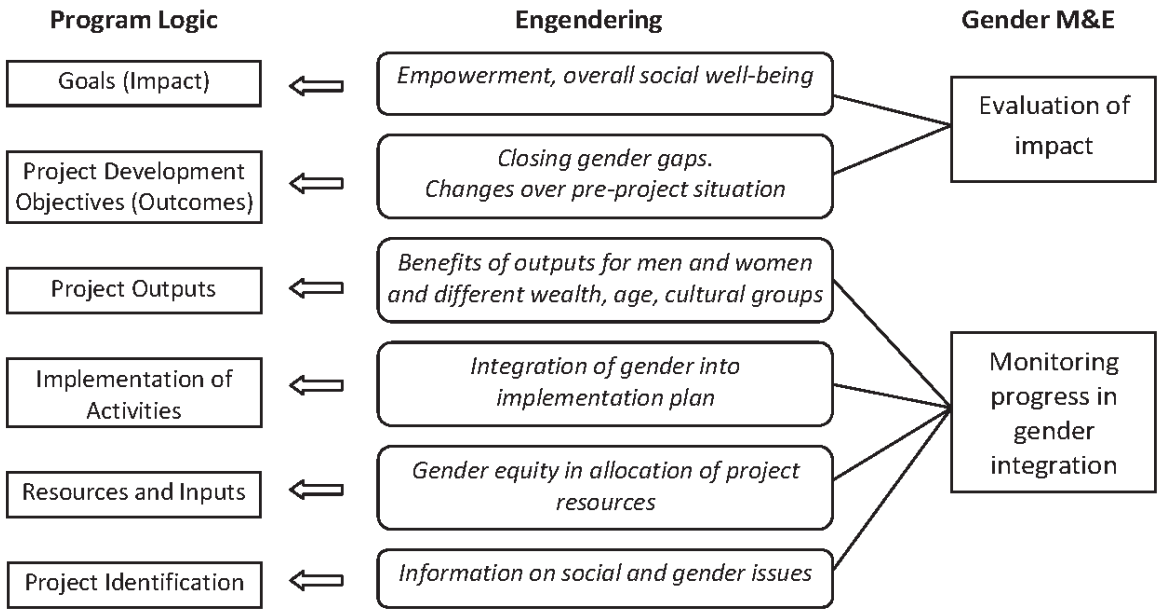
In some instances, baseline data is collected through the invitation of stakeholders to a workshop at the beginning of the project and in some cases the stakeholders are also invited to end of project meetings to evaluate the project. If this is done, care needs to be taken to ensure that the identified stakeholders can represent women's interests and the interests of other vulnerable groups. For example, when inviting farmer organisations to do not assume that men and women farmer organisations will be automatically included or that leader of farmer groups who in many instances are men, will understand and represent the interests of women in their group adequately.

Interest in the gender and diversity aspects of the project's outcomes and impacts needs to begin at the start of the project. The figure below, Integrating Gender into The Project Logic, shows how gender can be integrated throughout the program logic.

Ask Yourself:

- Are gender issues clarified in the implementation of the project (e.g., workplans)?
- Who participates in project development, implementation and evaluation and why?
- Are the needs of women and men both known and responded to in the project?
- Is there gender equity in the allocation of project resources?
- Do some of the products specifically target women and/or vulnerable sections of the population?
- How will men and women be impacted differently if at all?
- What are the gender aspects of those products relating to policies, advocacy and analysis?
- If women empowerment is one of your intended outcome/impacts, have you identified partners with the necessary skills to integrate gender and diversity into the project?
- Are outlined roles for different project implementers and partners taking into account gender dimensions and is this made clear and responsibilities clearly assigned?
- If you say you are going to consult farmers be clear about what farmers will be consulted so as not to reproduce a model where only household heads who are in many cases male are consulted.
- Did you consider that men and women may have different abilities and was this taken into consideration in the formulation of your activities and interventions?

The analysis of project ML&E data can then involve a gendered assessment. Measurement of progress towards gender impact should be undertaken at all stages of the project cycle. You should regularly monitor a set of identified gender responsive indicators which will contribute towards achieving the project outcomes and impacts. These indicators will be developed at all levels (project selection and design, project inputs, implementation process, outputs, outcomes and impacts and sustainability). Examples of questions that might be studied in such an analysis are given in the Figure after next. Meanwhile, the figure below shows how gender can be integrated throughout the program logic.



As mentioned earlier, you need gender sensitive indicators for tracking your progress along the impact pathway. Gender indicators help to measure gender-related changes over time. Sex-disaggregated indicators help measure change for men and women separately. To develop these indicators, you need to ask yourself the following questions:

- Are all or some of the outcome indicators sex-disaggregated (make this a requirement)?

- Are your outcome indicators measuring gender-related changes in society over time?
- Do you have both qualitative and quantitative indicators (e.g. it is not enough to refer to men and women's participation in terms of numbers but also in terms of other qualitative indicators such as ability to make decisions etc.)?

How are men and women going to benefit? For example, increased incomes for households may not be enough because increased incomes do not always benefit entire households, just individuals within those households (usually males or people who are able to make decisions about how the money is used). Where farmers are mentioned in progress indicators, try to sex-disaggregate.

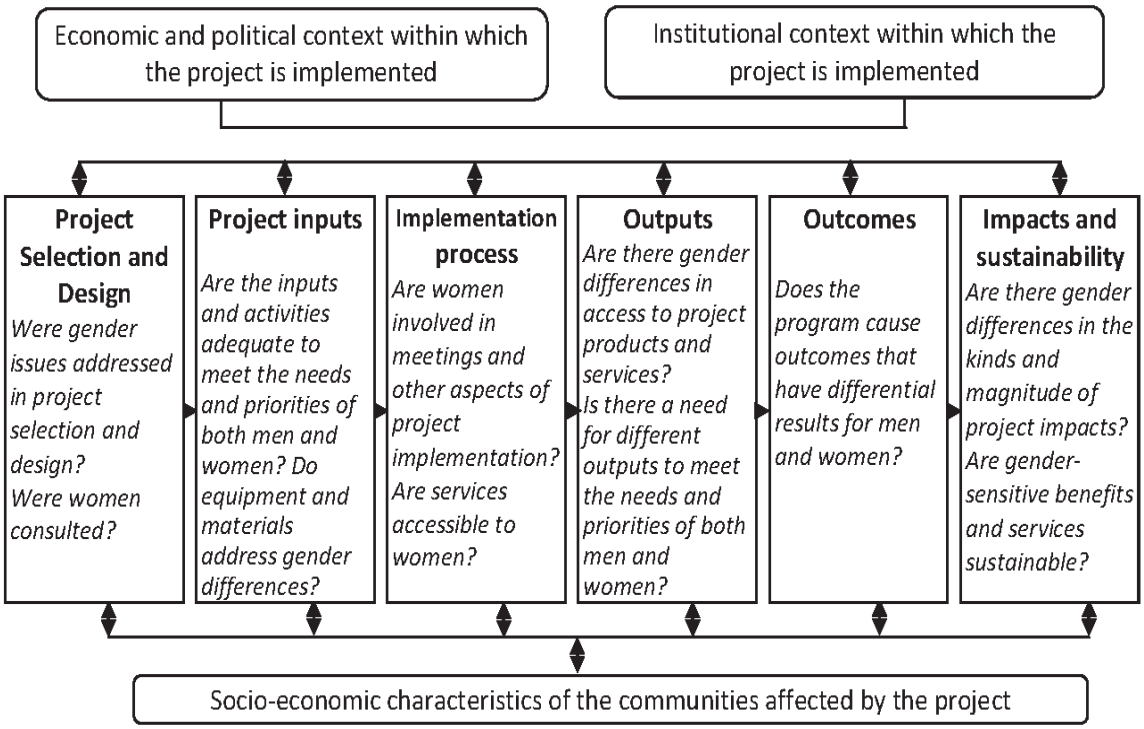
Subsequent evaluation questions might then aim to understand:

- To what extent did the intervention increase the participation of women in sweetpotato economic activities?
- To what extent did the project address constraints faced by women?
- To what extent did the intervention reduce the incidence of vitamin A deficiency in under 5-year-olds (girls and boys)?
- To what extent did the intervention increase awareness and consumption of vitamin A rich food consumption for children and pregnant and breastfeeding women amongst carers and those who influence them?
- To what extent did the intervention influence institutional changes that support the advancement of women? Provide examples.
- To what extent did the intervention help to reduce gender and diversity disparities in the health and agriculture sectors?

The M&E indicators used by the project should be:

- Sex-disaggregated indicators – e.g. a signal that helps measure change for men and women separately.
- Gender indicators – e.g. a signal that helps to measure gender-related changes.

The analysis of project ML&E data can then involve a gendered assessment. Examples of questions that might be studied in such an analysis are given in the figure below.



Some common gender challenges faced in ML&E include:

- The assumption that ML&E frameworks are gender neutral.
- Inadequate inclusion of gender aspects during the initial project planning.
- Limited gender awareness and capacity of ML&E staff.
- Barriers to free and open participation by female respondents due to under-representation of women in evaluation and interview teams.

Review Question

1. What are some of the ways gender issues could be included into the development projects?
2. What are some of the gender-related challenges in monitoring and evaluation?

Activities

These learning-by-doing activities will provide hands-on discovery opportunities for participants.

Activity 12.1 Where Did It Go?

Objectives

Participants will: practice monitoring the dissemination of planting materials; understand why we monitor and evaluate

Time

30 mins

Materials

- 200 completed (or blank if practicing using vouchers) planting material vouchers which have the information required for Form 12.3.3.1 on them
- 40 photocopies of Form 12.3.3.1
- Pens

Advanced Preparations

Collect or complete 200 completed planting material vouchers.

Suggested Steps

1. This activity could be done in several ways, if the facilitator feels it would be useful for the participants to practice completing vouchers then each group of 4 participants could spend 5 minutes completing 40 vouchers. All the vouchers can then be collected and shuffled by the facilitator, and then each group given 40 vouchers to record the details in their Monitoring of planting material dissemination form (12.3.3.1). If the participants do not need practice in completing vouchers, then the same exercise can be done using already completed vouchers.
2. Ask the groups to swap their forms and vouchers with their neighbouring group who will then check through them.
3. Facilitate a discussion about why it is important to monitor the dissemination of planting materials; what difficulties they had while completing the vouchers or the planting material dissemination tracking form; what mistakes were noticed by those checking the forms; and what improvements they could suggest.
4. Using either the forms and explanations in Section 12.3 of the manual or Presentation 12, briefly review the main reasons for using ML&E in projects and then discuss the need to monitor the performance and use of disseminated planting materials and the receipt and use of training.

Answers to Review Questions

Unit 1

1. What is the difference between monitoring and evaluation?
   - *Monitoring: On-going systematic collection and analysis of information during project; Improves project design and functioning; Typically based on short term targets; Early indications of progress and achievement of goals; Focuses on measuring project outputs; Evaluation: Measure of change taken place due to project; Looks at actual impact on market and communities; Periodic assessment of data gathered by monitoring; Formative: Occurs during the life of project; Summative: Draws lessons from completed project.*
2. How do monitoring and evaluation improve decision-making?
   - *Processing data to find optimal solution to problems; Improving implementation through corrective action; Periodic review to assess the continued relevance of project objectives; Improving planning based on lessons learned.*

Unit 2

1. What are the essential components of Project's Logical Framework?
   - *Inputs; Activities; Outputs; Outcomes (Medium- and short-term goals); Impacts (Long-term goals and effects of a project).*
2. Can you think of an example of 'indirect' beneficiary of a project?
   - *E.g. project involving raising awareness of OFSP nutritional value to address Vitamin A deficiency. Indirect beneficiaries could be sellers who will see increased demand.*

Unit 3

1. What are the steps of designing effective monitoring mechanisms?
   - *Agree with partners what, who, how and when for monitoring, reporting work-plans, and budgets; Develop tools to routinely gather information; Train staff, partners, beneficiaries how to use tools; Set up and operate efficient data collection, storage; Conduct quality assessments (DQA); Implement progress reporting mechanism.*
2. What are some of the monitoring tools?
   - *Interviews; Multi-stakeholder workshops; Photographs; Focus groups; Case studies.*

Unit 4

1. How could having a clear vision serve as an evaluation mechanism?
   - *Vision helps identify and develop higher level indicators; Vision helps build an idea of what lower level indicators are needed; Vision includes recognising problem areas you want to change and how you want them to look after the project.*
2. What are some of the evaluation methods that could be used?
   - *Appreciative inquiry; Outcome mapping; Most Significant Change (MSC) technique.*

Unit 5

1. What are some of the ways gender issues could be included into the development projects?
   - *Gender aspects should be included at the project design stage; When baseline data is collected at a workshop or end of the project meeting is held, women should be invited; Disaggregated data should be collected throughout the project to analyse impact on specific groups.*
2. What are some of the gender-related challenges in monitoring and evaluation?
   - *Assumption that ML&E frameworks are gender neutral; Inadequate inclusion of gender aspects, initial project planning; Limited gender awareness of ML&E staff; Barriers to free and open participation by female respondents.*

Glossary

Evaluation: 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. It assesses relevance, efficiency, effectiveness, sustainability and impact of delivered outputs to the outcome/purpose.
Impacts: the long-term effects resulting from a chain of events to which the research has contributed directly or indirectly, they may be intended or unintended, positive or negative, primary of secondary. These effects can be economic, socio-cultural, institutional, environmental and technological.
Impact assessment: within the CGIAR, this term is generally used for an ex-post study which uses specialized methods to estimate the changes in selected development parameters and the extent to which these are attributable to defined research activities, project or program.
Indicator: a quantitative or qualitative variable that represents an approximation of the characteristic, phenomenon or change of interest (for instance, efficiency, quality or outcome). Indicators can be used to monitor research or to help assess organizational or research performance etc.
Inputs: the financial, human, and material resources used in research and development projects.
Outputs: products, capital goods and services produced (deliverables) from activities. They may include new knowledge and services which result from research, capacity building and other activities related to research for development.
Outcomes: the intended or unintended likely or achieved short-term and medium-term effects or changes resulting from an intervention's outputs. For example, change in knowledge, attitudes, skills and behaviour, change in discourse, institutions, policy and practice.
Milestone: is a progress marker towards an outcome and into which it is divided for monitoring intermediate performance along a timeline. Milestones are measurable and observable. Annual milestones are defined to reflect some reasonable achievement for the specified time period (challenging but achievable). Milestones could be outputs or outcomes as appropriate to the scale and maturity.
Monitoring: is a systematic process of collecting, analysing and using information for the purpose of management and decision-making that accompanies the implementation of an action, project or program.
Performance management: the continuous process of setting goals, measuring progress, giving feedback, coaching for improved performance, and rewarding achievement.
Sample: the group of people (or fields etc.) that you select to be in your study
Target: an amount of change that is to be achieved over a specific time frame in an indicator.
Theory of Change (ToC): includes the impact pathways and the assumptions along the way. Presents a hypothetical identification of the ways by which change is expected to occur from output to outcome and impact along an impact pathway. The ToC questions the assumptions about causality underlying the relationships between outputs, outcomes and impact. In ToC the assumptions present the mechanisms of change.

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Appendix 12

Appendix 12.1 Sweetpotato Baseline Data Collection Form

Form available to download at http://www.sweetpotatoknowledge.org/files/sample-sp-survey-tool/ **BASELINE SURVEY: 1 – METADATA**

Element	DATA
Title (dc.title)	
Creator or Author(dc.Creator)	
Affiliation:	
Contact:	
E-mail:	
Description (dc.description.abstract)	
Subject (dc.subject)	
cg.subject.agrovoc (Keyword)	
Keyword Term:	
Keyword Vocabulary	
Keyword Vocabulary URL	
cc.subject.crop	
Citation:	
ID Type	
URL	
Related Publication	
Distributor: Name	
Distributor: Abbreviation	
Distributor: URL	
Depositor:	
Deposit Date	
Producer: Name	
Producer: Abbreviation	
Producer: URL	
Producer: LOGO URL	
Publisher (dc.publisher)	
Contributor (dc.contributor)	
Contributor - Type	
cg.contributor.center (Grant Agency)	
cg.contributor.crp	
cg.contributor.funder	
cg.contributor.partnerId	
cg.contributor.project	
Date (dc.date)	
cg:date.embargo-end-date	
Type (dc.type)	
Format (dc.format)	
Identifier (dc.identifier)	
Source (dc.source)	
Language (dc.language)	
Relation (dc.relation)	
Coverage (dc.coverage)	
cg.coverage.region	
cg:coverage.country	
cg:coverage.admin1	
cg:coverage.admin2	
cg:coverage.admin3	
cc.locality	

dc.coverage.latitude	
dc.coverage.longitude	
cc.coverage.elevation	
dc.coverage.start-date	
dc.coverage.end-date	
Software	
Name:	
Version:	
Other References:	

BASELINE SURVEY: 2 – HOUSEHOLD INFORMATION

[*INSERT NAME OF SURVEYHERE*]

M02. HOUSEHOLD IDENTIFICATION AND DEMOGRAPHICS

COUNTRY:

M02_09 ENUMERATOR'S NAME

M02_01 *AD1: PROVINCE*

M02_10 **CATEGORY:** 0- CONTROL OR NON-PARTICIPANT HH 1- INTERVENTION OR PARTICIPANT HH

M02_02 *AD2: DISTRICT*

STATEMENT OF AGREEMENT ***PLEASE READ THE FOLLOWING TO THE INTERVIEWEE:***

M02_03 *AD3: LOCATION*

We are here today to ask you some questions so that we can understand better what the current situation is

M02_04 *AD4: SUB-LOCATION*

which will help us do a better job in implementing our work. Your participation in voluntary and you can stop at any time. We will not share your names with anyone else. The results will be presented as figures for groups of households, not individuals. May we proceed ***M02_11*** AGREED TO PARTICIPATE? 0- NO 1- YES

M02_05 *AD5: VILLAGE*

M02_06 HOUSEHOLD (HH) NUMBER

M02_07A FIRST NAME OF THE **INTERVIEWEE:**

M02_07B LAST NAME:

M02_08A **M02_08B**

M02_08C M02_08 ~~DATE OF THE INTERVIEW:~~ ~~DAY~~ ~~MONTH:~~

YEAR:

M02_12 FIRST NAME OF THE **HEAD OF HOUSEHOLD:** **M02_13** LAST NAME: **0 1**

M02_14A **M02_14B** **M02_14C**

HEAD OF HH: AGE IN YEARS YEAR BORN LEVEL OF FORMAL EDUCATION: CODES: 0- None 1-12 Primary through secondary 13-Technical 14-University 15-Post-Graduate

M02_15 **STATUS** OF HEAD OF THE HH 1- MAN 2- WOMAN HH WITH THE SUPPORT OF A NON-RESIDENT MAN 3- WOMAN HH WITH RESIDENT MAN 4- WOMAN WITHOUT THE SUPPORT OF A MAN

M02_16A FIRST NAME OF REFERENCE **WOMAN:** **M02_16B** LAST NAME:

M02_17A **M02_17B** **M02_17C**

REF. WOMAN: AGE IN YEARS YEAR BORN LEVEL OF FORMAL EDUCATION: CODES: 0- None 1-12 Primary through secondary 13-Technical 14-University 15-Post-Graduate

M02_19 CELL PHONE:(Country code followed by the number) **M02_20** BELONGS TO: 1- Head 2- Reference woman 3- Other in HH 4- Neighbor

HOUSEHOLD SIZE: *RESIDENT AT LEAST 3 MONTHS DURING PAST 12* MALE FEMALE TOTAL

M02_21 LESS THAN 5 YEARS (0-59 MO) OF AGE **M02_26** IS THERE A REFERENCE CHILD IN THE HOUSEHOLD? 0-No 1- Yes *if no, skip to M02_30*

M02_22 5-14 YEARS OF AGE **M02_27** *if yes:* FIRST & LAST NAME:

M02_23 15-64 YEARS OF AGE **M02_28** DATE OF BIRTH: DAY MONTH: YEAR:

M02_24 65 YEARS OF AGE & GREATER **M02_29** GENDER: 0- FEMALE 1- MALE

M02_25 TOTAL SIZE *(Verify with the interviewee)*

M02_30 DURIING THE PAST YEAR, PLEASE ESTIMATE THE AMOUNT OF LAND THAT YOU CULTIVATED: . UNIT: 1- Sq meter 2-Acre 3-Hectare 4- Are (100 sq m) 5- Timad (2500 sqm)

M02_31A DURING THE PAST YEAR, DID ANY MAN IN THIS HH HAVE A SALARIED JOB? 0-No 1- Yes **M02_31B** DURING THE PAST YEAR, DID ANY WOMAN IN THIS HH HAVE A SALARIED JOB? 0-No 1- Yes

M02_32A DOES THE HOUSEHOLD HAVE: ANY CATTLE OR DONKEYS? 0-No 1- Yes **M02_32B** IF YES,WHO OWNS THE CATTLE OR DONKEY? 1=Male 2=Female 3=Both

M02_33A DOES THE HOUSEHOLD HAVE ANY GOATS, SHEEP, OR PIGS 0-No 1- Yes **M02_33B** IF YES,WHO OWNS THE GOATS, SHEEP OR PIGS? 1=Male 2=Female 3=Both

M02_34A DOES THE HOUSEHOLD HAVE ANY ANY CHICKEN, RABBITS, DUCKS OR DOVES? 0-No 1- Yes **M02_34B** IF YES,WHO OWNS THE CHICKEN, RABBITS, DUCKS OR DOVES? 1=Male 2=Female 3=Both

GPS COORDINATES **M02_35 Longitude (S)** Decimal in **M02_36 Latitude (E)** Decimal in **M02_37 Elevation**

Degrees Minutes Minutes Degrees Minutes Minutes (Metres)

BASELINE SURVEY: 3 – TRENDS IN USING SWEETPOTATO

M03. TRENDS IN USING SWEETPOTATO PROV: DIST: LOC: SUBLOC: VILL: HHNO: **Pg 3**

M03_01 WHAT WAS THE PREVIOUS SEASON IN WHICH YOU GREW SWEET POTATO (SP)? 1- Main growing season 2- Secondary growing season 3- Dry season 4- Did not grow SP the previous season *if 4, go toM03_03*

M03_02 FOR THAT PREVIOUS SEASON, TELL US ALL OF THE SOURCES OF YOUR PLANTING MATERIAL: ***(Put 1 when mentioned and 0 if not)*** **M03_02A** Own Farm **M03_02B** From this project **M03_02C** Nearby Male farmer

M03_02D Nearby Female farmer **M03_02E** Distant Male farmer **M03_02F** Distant Female farmer **M03_02G** Trained Male multiplier (DVM) **M03_02H** Trained Female Multiplier (DVM)

M03_02I Government Extension Agent **M03_02J** NGO Extension Agent/Volunteer **M03_02K** Market **M03_02L** Private sector seed company **M03_02M** Research Center **M03_02N** Other

M03_03 DURING THE PAST THREE YEARS DID ANYONE IN YOUR HOUSEHOLD ACQUIRE CUTTINGS TO PLAN **M03_03A** THROUGH PURCHASE 1-Yes 0-No **M03_03B** THROUGH A FREE DISTRIBUTION 1-Yes 0-No **M03_03C** OTHER 1-Yes 0-No

M03_04 *IF BOUGHT:* WHAT IS THE MAIN REASON THE CUTTINGS WERE BOUGHT ? 1- Lost due to drying out 2- Destroyed by livestock 3- Stolen 4- To try new variety 5- Low yields of existing varieties 6- 1st time grower 7- Other

M03_05A PLEASE TELL ME THE NUMBER OF NEW VARIETIES YOUR HOUSHOLD HAS OBTAINED DURING THE PAST 3 YEARS? **M03_05B** OF THESE, HOW MANY ARE ORANGE-FLESHED?

M03_06A DID YOU STOP GROWING ANY SWEETPOTATO VARIETIES DURING THE PAST 3 YEARS? 1-Yes 0-No **M03_06B** *IF YES:* OF THESE HOW MANY WERE AMONG THE NEW ONES THAT YOU OBTAINED? **M03_06C** WERE OFSP?

M03_07 *IF STOPPED:* WHY ARE YOU FOR NO LONGER GROWING THESE VARIETIES? (Put 1 when mentioned and 0 if not) **M03_07A** Low root yield **M03_07B** Takes too long to mature **M03_07C** Susceptible to pest or disease

M03_07D Too watery **M03_07E** Bad Taste **M03_07F** Not drought resistant **M03_07G** Not marketable **M03_07H** Lack of planting material **M03_07I** Other **M03_07J** Specify:

M03_08A NAME OF YOUR MOST PREFERRED VARIETY: **M03_08C** ITS FLESH COLOR (INSIDE)

M03_09A NAME OF YOUR SECOND MOST PREFERRED VARIETY: **M03_09C** ITS FLESH COLOR (INSIDE)

Codes for Flesh Colors 1-White 2- Cream 3- Light Yellow 4- Deeper Yellow 5- Light Orange 6- Deeper Orange 7- Purple 8-Orange & Purple

M03_10A HAVE YOU EVER HEARD OF THE TRIPLE S METHOD? 1-Yes 0-No *IF YES:* **M03_10B** WHO IN YOUR HH HAS TRIED IT ? 0-No one 1-Male 2-Female 3- Both **M03_10C** IS IT STILL BEING USED? 1-Yes 0-No 8-N/A
that is storing your roots in sand during the dry season, then sprouting....

M03_11 HAVE YOU OR ANYONE IN YOUR HH TRIED ANY NEW METHODS OF CONSERVING YOUR CUTTINGS TO PLANT THE NEXT SEASON DURING THE PAST 3 YEAR 1-Yes 0-No 8-N/A ***IF YES:*** PLEASE DESCRIBE 1-Mentioned 0- Not Mentioned

M03_11A Irrigation (any type) **M03_11B** Use of lowlands **M03_11C** Fenced plot **M03_11D** Garden near home **M03_11E** Let roots sprout **M03_11F** Under shade **M03_11G** Next to bathroom **M03_11H** Other

M03_12 LOOKING AT ALL THE AREA UNDER SWEETPOTATO DURING THE PAST YEAR COMPARED TO 3 YEARS AGO, HAS THE AMOUNT OF LAND: 1- Increased 2- Decreased or 3- Stayed the same?

M03_13 IF 10 ROOTS REPRESENT ALL YOUR SWEETPOTATO PRODUCED **THIS PAST YEAR**, HOW MANY OF THOSE ROOTS WOULD BE WHITE-FLESHED, HOW MANY YELLOW-FLESHED AND HOW MANY ORANGE OR PURPLE-FLESHED?

M03_13A white-fleshed **M03_13B** yellow-fleshed **M03_13C** orange-fleshed **M03_13D** purple-fleshed *Check for consistency with the production module..*

M03_14 IF 10 ROOTS REPRESENT ALL YOUR SWEETPOTATO PRODUCED 3 YEARS AGO, HOW MANY OF THOSE ROOTS WOULD BE WHITE-FLESHED, HOW MANY YELLOW-FLESHED AND HOW MANY ORANGE OR PURPLE-FLESHED?

M03_14A white-fleshed **M03_14B** yellow-fleshed **M03_14C** orange-fleshed **M03_14D** purple-fleshed

M03_15A DID YOU SELL ANY SWEET POTATO WHEN YOU GREW IT 3 YEARS AGO? 1-Yes 0-No **M03_15B** HAVE YOU SOLD ANY SWEETPOTATO IN THE LAST ONE YEAR?1-Yes 0-No

M03_16 ***IF YES:*** **COMPARED TO 3 YEARS AGO,** HAS THE MONEY FROM SELLING**M03_16A** ANY TYPE OF SWEET POTATO 1- Increased 2- Decreased or 3- Stayed the same? 8- N/A, don't sell **M03_16B** SELLING OFSP?

M03_17A COMPARED TO 3 YEARS AGO, HAS THE AMOUNT OF FAMILY **MALE** LABOR USED IN SWEETPOTATO PRODUCTION 1- Increased 2- Decreased or 3- Stayed the same?

M03_17B WHY?

M03_18A COMPARED TO 3 YEARS AGO, HAS THE AMOUNT OF FAMILY **FEMALE** LABOR USED IN SWEETPOTATO PRODUCTION 1- Increased 2- Decreased or 3- Stayed the same?

M03_18B WHY?

BASELINE SURVEY: 4 – SWEETPOTATO PRODUCTION AND SALES

M04: SWEETPOTATO PRODUCTION AND SALES PROV: DIST: LOC: SUBLOC: VILL: HHNO: **Pg 4**

Now, we would like to talk to you in greater detail about your sweetpotato crop that was planted and harvested ..[***during the specified recall period]***

M04_01 Note the recall period for these questions: 1- Past 12 months 2- Last growing season that has been harvested **M04_02** Starting: Month: Yr: **M04_03** Ending: Month: Yr:

M04_04 How many different sweetpotato fields does your household have……*[during recall period]*?	**M04_04A** near the house?	**M04_04B** in upland areas?	**M04_04C** in lowland areas

											During the MAJOR harvest month(s) of ..				During the MINOR harvest months						
M04_05B	**M04_06**	**M04_07A**	**M04_7B**	**M04_08**	**M04_09**	**M04_10**	**M04_11**	**M04_12**	**M04_13**	**M04_14**	**M04_15** How many		**M04_16** Each time		**M04_17** How many		**M04_18** Each time		**M04_19**		**M04_19C**
Location	Area	Area	Who	Plot	Plot	Plot	Plot	Est.	Inter-	On this plot, please tell us in which months did your hh	times did		your HH		times did		Each time		Amount Sold		Value
of	of the	Units	manages	has	has	has	has	Total	cropped?	harvest large quantities of SP? **(Major months)**	your hh harvest		harvests, how		your HH harvest		your HH harvests,				of
plot	plot		the plot?	WFSP?	YFSP?	OFSP?	PFSP?	No.		On this plot, in which months did you harvest small quantities	per day?,		much did it		per day?,		how much did it				Total
	(Quantity)							Different		of sweetpotato? **(Minor months)**	per week?,		harvest?		per week?,		harvest?				Sale
								varieties		*Fill in zero for any month when there was no harvest from*	or per month?		(Units codes		or per month?		(Units codes				
								of SP		*the plot.*	or just once?		are below)		or just once?		are below)				
		1-M²	1-Male					on the plot		0- No harvest	Times	Unit	Qty	Unit	Times	Unit	Qty	Unit	Qty	Unit	Local
1- near		2-acre	2-Female							1- Months of minor harvest		1- Day				1- Day					
Currency	house	3-Ha	3-Both	0-No	0-No	0-No	0-No		0-No	2- Months of major harvest		2- Week		(codes		2- Week		(codes		(codes	
2- upland		4-Are		1-Yes	1-Yes	1-Yes	1-Yes		1-Yes	9- N/A not in recall period		3- Month		below)		3- Month		below)			
below)	3-lowland	5Tim		8-DK	8-DK	8-DK	8-DK		8-DK	Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar		4- Time				4- Time					

Units of Measure

01- Kg	03-100 Kg Maize Equiv. Bag	05- 70 Kgs Maize Equiv. Bag	07- 50 Kg Maize Equiv. Bag	09- 10 Kg Maize Equiv. Bag	11- 20 Ltr Can	13- 5 Ltr Can	15- Tons	17- Gorogoro	19- Small basin	21- Other-Specify
02- Numbers	04- 90 Kg Maize Equiv. Bag	06- 60 Kg Maize Equiv. Bag	08- 25 Kg Maize Equiv. Bag	10- 25 Ltr Can	12- 10 Ltr Can	14- 1 Ltr Can	16- Ox Cart	18- Debe	20- Big basin	

M04_19D Exchange Rate *Local/USD Will assume is currency of the country in A00* **M04_20** Who manages the money received from sweetpotato sales in the household? 1- Male 2- Female 3- Both

M04_21 Tell me the three most important ways that you spent the money that you earned from selling sweetpotato: ***(Put 1 when mentioned and 0 if not mentioned, and 99 if not applicable)***

M04_21A	School fees		**M04_21D**	Pay house rent		**M04_21G**	Rent land		**M04_21J**	Buy farm inputs (seed, etc.)		**M04_21M**	Buy bicycle		**M04_21P**	Ceremony (e.g. funeral)		**M04_21S**	Buy meat or fish	
M04_21B	Furniture		**M04_21E**	Construction of house		**M04_21H**	Buy land		**M04_21K**	Buy large livestock (cow, goat)		**M04_2N**	Buy vehicle		**M04_21Q**	Buy salt, sugar		**M04_21T**	Buy other foods	
M04_21C	Medical bills		**M04_21F**	Pay dowry		**M04_21I**	Pay labor		**M04_21L**	Buy small livestock (chicken, etc)		**M04_210**	Leisure		**M04_21R**	Buy vitamin A rich food		**M04_21U**	Other	
															M04_21V	Specify:					

M04_22 *If OFSP and Non-OFSP were sold:* For the same amount sold, does OFSP get a higher, lower, or same price as white-fleshed sweetpotato? 1- Higher 2- Lower 3- Same 4- Same, but sells faster 8-N/A

M04_23A During the past year, how many **women** did you **give** vines to plant **for free?**
M04_23C During the past year, how many **men** did you **give** vines to plant **for free?**

M04_23B To how many **women** did you **sell vines?**
M04_23D To how many **men** did you **sell vines?**

BASELINE SURVEY: 5 – HOUSEHOLD FOOD INSECURITY

BASELINE SURVEY: 6 – DIETARY DIVERSITY FOR WOMEN AND YOUNG CHILDREN

M06. DIETARY DIVERSITY FOR WOMEN AND YOUNG CHILDREN PROV: DIST: LOC: SUBLOC: VILL: HHNO: **Pg 6**

M0601 **Name of Reference Woman:** _____ **M0602 Name of Reference Child:** _____

M0603 **Season:** 1- Harvest season 2- Post-harvest (still have food stocks) 3- Lean Season **M0603 Is the reference child still breastsfeeding?** 0- No 1-Yes

M0604 ***If no:*** **At what age (in months) did the child stop breastfeeding?**

The Reference woman (age 15-49 years) should be interviewed. **Now we would like to ask you questions about the type of foods you ate in you household yesterday during the day and during the night, and also by your child [*NAM***

Yesterday, did your household consume at least a tablespoon (15 gm minimum) per person of any of the following kinds of food? I am interested in whether you had the items I mention even if they were mixed with other food

For example, if you had a soup made with carrots, potatoes and meat, you should reply "yes" for each of these ingredients when I read you the l However, if you consumed only the broth of a soup, but not the meat or vegeta

do not say "yes" for the meat or vegetable. As I ask you about foods and drinks, please think of foods and drinks you had as snacks or small meals as well as during any main meals.

	First ask the question for woman's consumption for a category of food.	House- hold	Woman	Child	House- hold	Woman	Child
		0-No 1-Yes			**0-No 1-Yes**		
M06_01	Any foods made from grains (like maize, rice, wheat, sorghum, millet, noodles, bread)						
M06_02	Any biofortified crops (orange-fleshed sweetpotato, orange maize, iron rich beans)						
M06_03	Any vegetables or roots that are orange-colored inside (OFSP, pumpkin) *(show pictures)*						
M06_04	Any white roots and tubers or plantains (white potatoes, manioc, white-fleshed sweetpotato)						
M06_05	Any dark green leafy vegetables (sweetpotato leaves, cassava leaves, pumpkin leaves)						
M06_06	Any fruits that are dark yellow or orange inside (ripe mango, ripe papaya, passion fruit)						
M06_07	Any other vegetables (like eggplant, okra, tomatoes)						
M06_08	Any other fruits						
M06_09	Any meat made from animal organs (like liver, heart, kidney, blood-based foods)						
M06_10	Any other types of meat or poultry (like beef, pork, goat, chicken, duck, wild birds)						
M06_21A	Yesterday, how many times did the adults and older children (>13 years old) in this household eat OFSP?				M06_21B	the children 6 to 13 years old?	
M06_22	the reference child?				(enter # or 88=N/A)		
M06_11	Any eggs						
M06_12	Any fish or seafood, fresh or dried						
M06_13	Any beans or peas (fresh or dried beans, soy bean, lentils)						
M06_14	Any nuts or seeds (groundnuts or cashew-- whole or "butter", egusi, sunflower seeds)						
M06_15	Any milk or milk products (such as chees or yogurt, but NOT butter, or ice cream)						
M06_16	Any palm oil						
M06_17	Any foods made with any other type of oil, fat, or butter						
M06_18	Any sweets and sugar (Like sugar, honey, sweetened soda, candies, cookies)						
M06_19	Any condiments or seasonings (used in small amounts for flavoring)						
M06_20	Any other beverages and foods (tea, coffee, alcohol, olives, etc.)						

M06_23 Approximately how much OFSP did the reference child eat during the entire day? **M06_23A** No. of very small roots **M06_23B** No. of small roots **M06_23C** No. of medium roots **M06_23D** No. of large roots

M06_24 Where did you get the OFSP? 1- Your field; 2- the market; 3- relative / neighbor; 4- Current Project 5- Other; 7- Doesn't know /remember 8-N/A **M06_24A** Specify other

BASELINE SURVEY: 7 – FREQUENCY OF CONSUMPTION OF VITAMIN A RICH FOODS

M07. FREQUENCY OF CONSUMPTION OF VITAMIN A RICH FOODS PROV: ☐☐ DIST: ☐☐ LOC: ☐☐☐ SUBLOC: ☐☐☐ VILL: ☐☐☐ HHNO: ☐☐☐ **Pg 7**

AND MAJOR FOOD GROUPS DURING PAST 7 DAYS

Now we have a few more questions regarding your child (*name*) and how often he/she has eaten certain foods during the past week.

We are also interested in learning if you ate those foods as well. ☐

M07A: Name of the Reference child M07_12 *Ripe papaya, fresh or as juice Explain to the participant that you want the number of DAYS, not the number of times.*

During the past 7 days, how many days did the *child* eat (name of the food)? M07_14 White-fleshed sweetpotato **Meaning, how many days, starting with the last day *(specify the day)* , did the child eat *(food)* M07_15** *Orange-fleshed sweetpotato (OFSP)* **remembering that if the child, for instance, i ate the food at lunch and at dinner on the same day, M07_16** *Yellow-fleshed sweetpotato* **that counts as 1 day. Remember for the child, the food can be part of the porridge, e.g. milk added to maize flour.** ***(NOTE: includes foods not prepared in the household)***

NUMBER OF DAYS THE FOOD WAS CONSUMED OVER THE PAST 7 DAYS

Num.	NAME OF THE FOOD	CHILD ID	CAREGIVER ID
M07_01	Main staple (maize, rice, cassava, etc.)		
M07_02	Whole chillies or hot pepper		
M07_03	*Dark green leaves (of all kinds)*		
M07_04	*~~Pumpkin leaves~~ #*		
M07_05	*Sweetpotato leaves*		
M07_06	*Amaranth leaves* **#**		
M07_07	*~~Red Palm Oil~~*		
M07_08	Milk or milk product (cheese, yoghurt)		
M07_09	*Carrots*		
M07_10	*Ripe mango, fresh or as juice*		
M07_11	*Pumpkin or orange squash*		

Num.	NAME OF THE FOOD	CHILD	CAREGIVER
M07_13	Wheat/Biscuits/Cookies/Bread		
M07_17	**Eggs with yolk**		
M07_18	**Any fish FRESH (with intact liver)**		
M07_19	**Liver - from any animal or bird (e.g. chicken) or fish**		
M07_20	Meat from cow/pig/sheep/rabbit/rat or wild game		
M07_21	**Butter**		
M07_22	**Cod liver oil**		
M07_23	Food fried in oil or with oil		
M07_24	*Passion fruit (or other fruit rich in vitamin A)*		
M07_25	**Vitamin A fortified margarine (BLUEBAND) or oil**		
M07_26	Chicken or other fowl		
M07_27	**~~Weaning food fortified with vitamin A, like Cerelac~~**		
M07_28	**Infant formula (e.g. NAN, etc) fortified with vitamin A**		
M07_29	Coconut milk or oil, cooking oil, ghee		
M07_30	**Any sugar to which Vitamin A has been added**		
M07_31	Lentils, Beans (all kinds), peas, other legumes		
M07_32	Groundnut, cashew nut or any other nut		
M07_33	Purple-fleshed sweetpotato		

This food item can be replaced with similar foods that are locally available.

Plant sources of vitamin A are *in italics* . Animal or industrially fortified sources of vitamin A are **bolded.**

M07_33 : FOR THE CHILD IF CONSUMED ANY TYPE OF SWEETPOTATO:

(Show picture of root sizes)

On a typical day, how much sweetpotato does (name) eat during the entire d **M07_33A** Number of roots **M07_33B:** Size 1-Very Small 2-Small 3-Medium 4- Large

M07_34 FOR THE CHILD IF CONSUMED SP:

On a day when [NAME] eats SP, is it for... 0- No 1- Yes 8- Don't know **M07_34A**- Snack: **M07_34B**- Breakfast **M07_34C**- Lunch **M07_34D- Supper/Dinner**

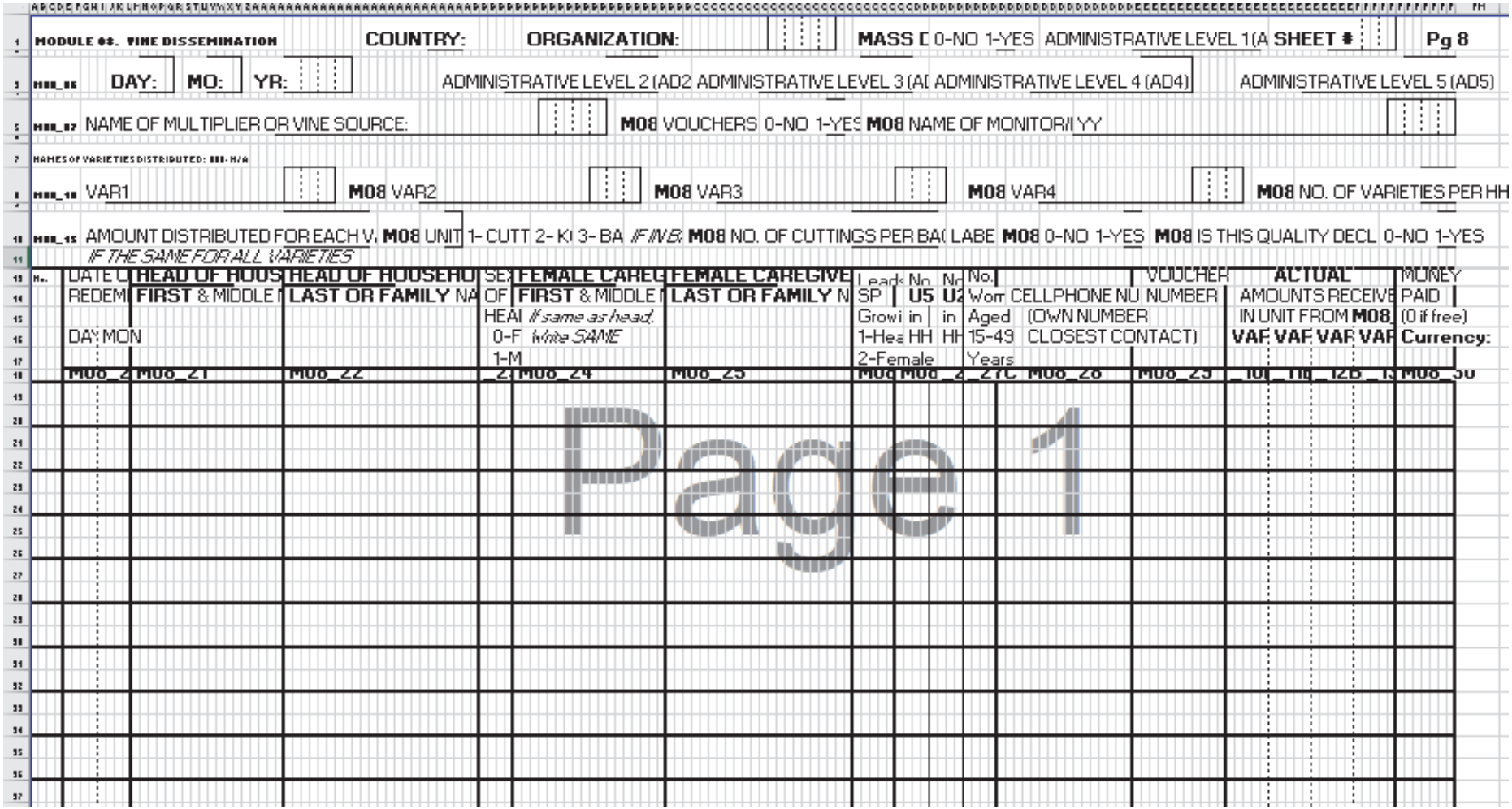
M07_35 : FOR THE MOTHER IF CONSUMED ANY TYPE OF SWEETPOTATO:

On a day when you eat sweetpotato, how much do YOU typically eat during the entir **M07_35A** Number of roots **M07_35B:** 1-Very Small 2-Small 3-Medium 4- Large

M07_36 FOR THE WOMAN, *IF CONSUMED SP* On a day when you eat SP, is it 0- No 1- Yes 7- Don't know **M07_36A**- Snack **M07_36B**- Breakfast **M07_36C**- Lunch **M07_36D- Dinner**

M07_37 *If ate SP:* Was it available from: 1- Your field 2-Market 3-relative/neighbor 4-Current Project 5-Other 7-Don't know? **M07_37A** Specify other

BASELINE SURVEY: 8 – VINE DISSEMINATION



MODULE 08. VINE DISSEMINATION | COUNTRY: | ORGANIZATION: | MASS D 0-NO 1-YES | ADMINISTRATIVE LEVEL 1 (A | SHEET # | Pg 8

M08_05 DAY: | MO: | YR: | ADMINISTRATIVE LEVEL 2 (AD2 | ADMINISTRATIVE LEVEL 3 (A(| ADMINISTRATIVE LEVEL 4 (AD4) | ADMINISTRATIVE LEVEL 5 (AD5)

M08_07 NAME OF MULTIPLIER OR VINE SOURCE: | M08 VOUCHERS 0-NO 1-YES | M08 NAME OF MONITOR/I YY

NAMES OF VARIETIES DISTRIBUTED: 888- N/A

M08_08 VAR1 | M08 VAR2 | M08 VAR3 | M08 VAR4 | M08 NO. OF VARIETIES PER HH

M08_15 AMOUNT DISTRIBUTED FOR EACH V. | M08 UNIT 1- CUTT 2- KI 3- BA *IF NVB* | M08 NO. OF CUTTINGS PER BA(LABE | M08 0-NO 1-YES | M08 IS THIS QUALITY DECL 0-NO 1-YES

IF THE SAME FOR ALL VARIETIES

No.	DATE C REDEM	HEAD OF HOUS FIRST & MIDDLE I	HEAD OF HOUSEHO LAST OR FAMILY NA	SE OF HEAI	FEMALE CAREG FIRST & MIDDLE I	FEMALE CAREGIVE LAST OR FAMILY N	Lead SP Growi 1-Hea 2-Female	No. U5 in HH	No. U2 in HH	No. Wom Aged 15-49 Years	CELLPHONE NU (OWN NUMBER CLOSEST CONTACT)	VOUCHER NUMBER	ACTUAL AMOUNTS RECEIVE IN UNIT FROM M08_ VAF VAF VAF VAF	MONEY PAID (0 if free) Currency:
	DAY MON			0-F 1-M *Write SAME if same as head.*										
	M08_20	M08_21	M08_22	_23	M08_24	M08_25	M08	M08_26	M08_27	M08_28	M08_29	_101	_11 _12B _13	M08_30

BASELINE SURVEY: 9 – YIELD ESTIMATION BY CROP CUT

MODULE 09. YIELD ESTIMATION BY CROP CUT COUNTRY: AD1 AD2 AD3 AD4 AD5 Pg 9

HHID HOUSEHOLD (HH) NUMBER M09_07 ENUMERATOR M09_08A NAME OF THE HOUSEHOLD HEAD

GPS COORDINATES M09_09 Longitude (S) Degrees Minutes Decimal in Minutes M09_10 Latitude (E) Degrees Minutes Decimal in Minutes M09_11 Elevation (Metres)

M09_08B HH HEAD CELLPHONE

FIRST VISIT: *Note that the first monitoring visit should be 45 days after planting.*

DATE OF PLANTING DAY	MON	YEAR	SWEETPOTATO VARIETY DETAILS VARIETY NAME	VARIETY ID	PLOT LOCATION 1. HIGH 2. MID 3. LOW	Sex of manager See codes below	DETAILS OF VINES USED WHEN PLANTING SOURCE Specify	OTHER SOURCE	TIMES USED OWN VINES If source is OWN vines	CAME LABELLED? 1. YES 0. NO	SP ON PLOT LAST SEASON 1. YES 0. NO	MANURE APP. BEFORE PLANTING 1. YES 0. NO	INORGANIC FERTILIZER PREVIOUS SEASON 1. YES 0. NO	SPRAYED TO CONTROL PEST PROBLEM 1. YES 0. NO	# TIMES WEEDED SINCE PLANTING	PLANTING STYLE 1.RIDGES 2.MOUNDS 3.FLAT	# PLANTS COUNTED	DISTANCE SOIL TYPE TO HOME 1. < 500M 2. 500-1KM 3. 1.1-3KMS 4. > 3KMS	1- VERY SANDY 2- SANDY 3- SANDY-LOAM 4- LIGHT CLAY 5- HEAVY CLAY
M09_12			M09_13	M09_13A	M09_14	_14B	M09_15A	M09_15B	M09_16	M09_17	M09_18	M09_19	M09_20	M09_21	M09_22	M09_23	M09_24	M09_25	M09_26

SECOND VISIT: *The date of the second visit may need to vary by variety because harvesting should be aligned with the maturity period of each variety.*

DATE OF HARVEST DAY	MON	YEAR	VARIETY DETAILS VARIETY NAME	VARIETY ID	IRRIGATION METHOD 1.NONE 2.CAN 3.DRIP 4.OTHER	DESCRIBE OTHER IRRIGATION METHOD	DISTANCE BETWEEN PLANTS (cm)	DISTANCE BETWEEN ROW/ MOUNDS (cm)	MANURE /COMPOST USED? 1. YES 0. NO	INORGIC FERTILIZER USED? 1. YES 0. NO	INORGANIC FERT. TYPE (see codes)	AMOUNT	UNITS (see codes)	NO. OF TIMES WEEDED	SPRAYED?	USED HIRED LABOR? 1-YES 0-NO	# PLANTS HARVESTED	VINE WEIGHT (kg) (one decimal)	# ROOTS OF MARKET QUALITY	WEIGHT ROOT MARKET (kg) (one decimal)	# ROOTS NON-MARKET QUALITY	WEIGHT ROOT NON-MARKET (kg) (one decimal)	# ROOTS WITH SIGNS OF WEEVIL ATTACK	WEIGHT WITH OF WEEVIL OR ROT (kg)	ROOTS
M09_27			M09_28		M09_29	M09_30	M09_31	M09_32	M09_33	M09_34	M09_35	M09_36A	36B	37	M09_38	M09_39	M09_40	M09_41	M09_42	M09_43	M09_44	M09_45	M09_46	M09_47	

Vine Source
1. Vines obtained from own farm
2. Vines obtained from this project sources (specify.....)
3. Vines obtained from nearby male farmer
4. Vines obtained from nearby female farmer
5. Vines obtained from distant male farmer
6. Vines obtained from distant female farmer
7. Vines obtained from trained male multiplier
8. Vines obtained from trained female multiplier
9. Vines obtained from government extension agent
10. Vines obtained from NGO extension agent or volunteer
11. Vines obtained from the market
12. Vines obtained from private sector seed company
13. Obtained directly
14. Obtained from other

Type of Inorganic Fertilizer
1. DAP
2. CAN
3. UREA
4. TSP
5. NPK
6. Other

UNITS
1- bottle caps 5- Liters
2- grams
3- kilograms
4- cup

BASELINE SURVEY: 10 – RETAIL S

The International Potato Center (known by its Spanish acronym CIP) is a research-for-development organization with a focus on potato, sweetpotato, and Andean roots and tubers. CIP is dedicated to delivering sustainable science-based solutions to the pressing world issues of hunger, poverty, gender equity, climate change and the preservation of our Earth's fragile biodiversity and natural resources.
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