

Yapasa Monitoring & Results Measurement Manual

Revision C

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This document describes The Monitoring and Results Measurement (MRM) system of the Yapasa Programme and provides guidance to monitor and measure results across the programme.

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Preface

Yapasa is a programme focused on developing market systems in the soy bean and aquaculture value chains in Zambia through using the Making Markets Work for the Poor (M4P) principles. The M4P approach focuses on facilitating systemic change as opposed to the more traditional project approach of the direct delivery of goods and services. To manage and implement an M4P programme in complex market systems, it is essential that the project management team become more familiar with: a) how impact assessment can be incorporated into the project design architecture; and b) how verification of results can be used to identify the most important drivers of impact during a project life cycle. By doing this, resources can be allocated and reallocated to those development interventions that yield the best results.

These unique characteristics of the M4P approach reinforce the need for a systemic method to design, deliver, and measure interventions. Therefore, Yapasa has designed an 'improved' monitoring and results measurement system aligned with the Donor Committee for Enterprise Development (DCED) Standard for Results Measurement. This system operates as a dynamic management tool which better meets the needs for a constant flow of useful information to adapt and improve the programme design.

This manual describes the Monitoring and Results Measurement (MRM) system for Yapasa and explains how results are monitored, measured and reported across the programme.¹ Several programme manuals have been consulted from various projects to develop this manual, and efforts have been made to appropriately source sections that have been adapted.

The manual is intended primarily as an internal document and as a guideline for teams involved in the design, implementation and management of interventions. In an effort to make the manual useful to staff, the body is brief. However, the manual includes more detailed annexes for step-by-step procedures and in-depth references.

This manual aims to explain the bulk of measurement work done on a day-to-day basis. Exceptions will occur and they will be handled on a case-by-case basis. This manual is not a static document, and will periodically be reviewed, revised and updated, to incorporate best practices from the wider results measurement community. In addition to the continuous revisions and updates, Yapasa will have a formal review of the manual on an annual basis to assess the utility of the document and identify any larger structural improvements to improving this utility.

¹ This manual integrates many elements and learning from the results measurement systems of other M4P programmes (especially ENABLE, Katalyst, GEMS1, SAMARTH-NMDP, PrOpCom, CAVAC, FSDZ and GROW). As far as possible any elements adapted from these other systems have been acknowledged in the text of the manual. The system has also been designed in accordance with the DCED Standard for Measuring Results in Private Sector Development, with the manual drawing heavily on the current DCED guidelines for the Standard and materials from the advanced workshop on the DCED Standard

Glossary

The Key definitions used in the Yapasa MRM system

- **Attribution:** the extent to which an observed change was caused by a specific programme intervention (as opposed to exogenous factors).
- **Copying:** target groups (farmers and/or enterprises) adopt or imitate a program-induced innovation.
- **Crowding-in:** market players not directly targeted by the programme adopt or imitate a program-induced innovation. Crowding-in can also occur within a given organisation (for example, when one department copies another department within the same organisation).
- **Enterprises:** all businesses operating within the soy bean and aquaculture sectors. This can include a self-employed small-scale farmer or a larger scale outgrower or processor.
- **Full Time Equivalent Employment:** 240 person days of work is equivalent to 1 FTE, also if a new position is created within an enterprise, then it will be equivalent to 1 FTE.
- **Impact:** the long-term change incurred by the programme and its interventions on target enterprises and employees. Impact normally refers to positive changes, but can include negative (unintended) consequences. Note that an observed change cannot be classified as impact until plausible attribution has been established. Impact can be direct (brought about through players directly targeted by the intervention) or indirect (brought about through copying or crowding-in, as defined above).
- **Improved Job:** An additional measure for job creation which uses income increases relative to likelihood of being in poverty as a proxy for job improvement.
- **Indicator:** a variable used to record change. Indicators can be quantitative (numerical) or qualitative (descriptive).
- **Market actors:** Organisations or individuals participating in a market system who are either directly involved in or influential to the core function (supply/demand), the rules function (formal and informal rule-setter, shapers), or any number of supporting functions that impact the core exchange involving the poor. This may include organisations in the private and public sectors as well as non-profit organisations, representative organisations, academic bodies and civil society groups. Also called market actors or system actors.
- **Market system:** the multi-player, multi-function arrangement comprising three main sets of functions (core, rules, and supporting functions) undertaken by different players (private sector, government, representative organisations, civil society, etc.) through which exchange takes place, develops, adapts and grows.
- **Replication:** the imitation of a program-induced innovation by those not directly targeted by the programme. Replication can take the form of copying or crowding-in.

- **Results:** the changes brought about by the programme and its interventions in the market system and on farmers and small-scale entrepreneurs. While impact can be both positive and negative, results are referred in this manual as positive changes. As with impact, an observed change cannot be classified as a result until plausible attribution has been established.
- **Rules:** formal (laws, regulations and standards) and informal (values, relationships and social norms) controls that provide a key input in defining incentives and behaviour in market systems.
- **Services:** the provision of high-quality inputs, products, training, advice, or information to target groups, including as a result of changes in laws, regulations and standards aimed at better performing markets.
- **Sustainability:** the extent to which positive impact is maintained (or enhanced) over time, especially once the intervention has ended. In M4P this specifically refers to the market capability to ensure that relevant services continue to be offered to and consumed by the poor beyond the period of an intervention.
- **Systemic change:** A fundamental change and/or a new development in the market system. It can be a change in the underlying causes of market system performance – typically in the rules and supporting functions – that can bring about more effective, sustainable and inclusive functioning of the market system. Systemic change is a higher degree of sustainability. It is measured against the adopt-adapt-expand-respond matrix which is explained later in the document.
- **Youth enterprises:** These are characterised as enterprises within the soy bean and aquaculture sectors that have majority ownership for those ages between 18-35.

1 Background: M4P Approach and DCED standard For Yapasa:

Yapasa (“it has succeeded” in youth colloquial language) is an M4P programme working with two core value chains, aquaculture and soy beans, in Zambia. The programme aims to reduce poverty by improving rural youth enterprise opportunities, employment and incomes of target enterprises (owned and operated by rural youth) in the selected sectors. The programme uses the principles of the M4P approach, which focuses on facilitating systemic change as opposed to directly delivering goods and services. The approach seeks to improve the underlying pro-poor performance of sectors, leading to opportunities that should improve the performance, employment and position of the youth within market systems. This, in turn, also leads to enhanced food security for the poor.

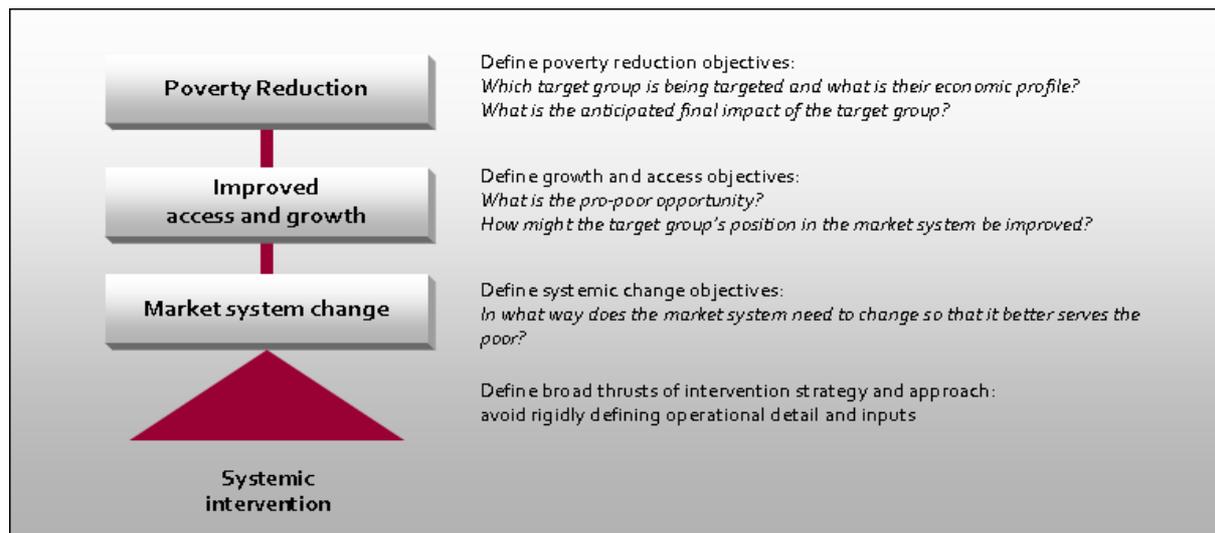
The M4P approach is based on the recognition that economic poverty is the result of outcomes in markets in which the poor participate. When markets work efficiently and produce equitable outcomes for the poor, they are the most powerful vehicle for delivering growth and poverty reduction. The approach aims to sustainably improve the lives of the poor by analysing and influencing market systems that affect them as entrepreneurs/farmers (in terms of higher margins, increased volumes and improved market access), consumers (in the form of better access to products and services, lower prices, increased food security, and wider choice) and employees (in the form of higher wages and improved working conditions). It works to identify the underlying causes, instead of symptoms, of why markets do not work for the poor. Its actions facilitate change in the behaviour, capabilities, incentives and relationships of market actors which improve competitiveness via:

- I. Improving target market systems, and
- II. Creating the conditions for markets to be continuously upgraded after the M4P ‘intervention’ is completed.

The Strategic Framework and overall logic of the market development approach is conceptually simple. One acts on a few select points to effect change in a set of connected markets, so that poor people get a better deal (better access to the market or better terms). With more engagement, the markets better serve each other and attract investment and competition which lead to greater competitiveness, efficiency and growth.

Within an M4P approach, a results chain is used to understand the logic of demand versus supply, and how market facilitation can enable market systems to become more efficient for the poor to participate in. The approach is a rigorous means of monitoring and results measurement which ensures plausible attribution of results. It requires real-time monitoring and results measurement (MRM) to ensure information is available for timely feedback, enabling the programme to use results for both decision making and reporting.

Figure 1: The M4P Strategic Framework ²



The complexity of the approach and the challenges of measuring attributable results emphasise the need for a considered approach to designing, monitoring, and reporting results. Hence, Yapasa has designed a monitoring and results measurement system in alignment with the DCED standard. The DCED Standard specifies eight elements of a successful monitoring system for results measurement, which provides programmes with the basis for a dynamic management tool that uses the constant flow of information to adapt and improve the programme design.

This manual describes Yapasa's results measurement system (in line with the DCED standard) and explains how results are monitored and measured across the programme. The manual has been developed with the dual objectives of providing guidance to the programme management team and documenting the MRM system. The manual has been developed in simple and precise manner that is easy to understand with a general MRM guideline overview provided in the document body and more detailed guidelines included in the annexes.

To ensure compliance with the DCED standard, a DCED based results measurement system needs to be updated and revised depending on the need to update practices and respond to the dynamics of the markets systems. Therefore, this manual is not a static document; it will be reviewed and updated periodically; and more detailed guidelines and annexes will be added as the programme progresses through implementation.

²Diagram courtesy of *The Springfield Centre*

2 Introduction to the Results measurement system at Yapasa:

Monitoring and results measurement (MRM) plays a crucial role in every M4P programme. It is an integral part to project management system and enables strategic and informed management of interventions based on validated results. An effective MRM system helps decision-making be both pro-active and reactive in response to changes in the dynamic market systems.

Yapasa aims to build an MRM system that is capable of robustly capturing and reporting results (*proving* results) and that support improved decision-making by management (*improving* results). To achieve this, Yapasa has designed and is implementing a DCED standard based MRM system to inform effective decision making and to capture impact in greater detail. Therefore, the system is in alignment with DCED standard which uses results chains to assess and measure causality of impact. The measurement techniques and methodologies also focus on capturing and plausibly attributing the direct and spill-over impact of the programme implementation on for each programme indicators.

Along with designing an effective MRM system, it is equally important to have the right technical and financial resources and professional intent. Therefore, the results measurement system designed at Yapasa has been developed in conjunction with a balance of technical and financial support which enables the programme to maximize its achievements.

2.1 The Purpose of Monitoring and Results Measurement at Yapasa:

The MRM system is designed to assist with data collection, reporting, analysis and strategy development. The system and data collected not only answer questions like 'what happened or what did not happen' but also analyse and explain 'why something has worked or has not worked'. Considering this, the purpose of using a DCED based results measurement system in Yapasa is threefold:

- a) To improve programme performance
- b) To develop evidence based reporting on project achievement, and
- c) To disseminate learning and successes

Improve programme performance:

To improve results, the system must generate timely, relevant, and useful information for management, and this information must be acted on by programme decision-makers. This means, adjusting intervention strategies and tactics to respond to collected results that may inform if a causal link is missing or why results were not achieved. Effective use of the system could also lead management to change the allocation of programme resources according to where the programme is achieving the greatest impact.

The system is designed to provide regular information on logframe level indicators to help management adjust implementation based on what type and number of activities have been effective in addressing specific market system constraints. Therefore, the MRM system Yapasa has been strategically focused on learning. That is, it seeks to help the management team gather lessons from past implementation to improve future activities and results.

Develop evidence based reporting on programme achievement

To prove results, the system must be capable of robustly reporting an accurate reflection of the results the programme to external stakeholders. While in a strict sense it is never possible to 100 per cent 'prove'³ the results of a programme, the MRM system is designed to capture and report results with 'plausible attribution', as to convince a 'reasonable but sceptical' outsider observer.

The Swedish International Development Cooperation Agency (SIDA), through the ILO, require that Yapasa report at various levels including target group scale, market systems change, sustainability, youth enterprise, income, and employment. The system is designed to regularly deliver information on each of these levels so that it can be easily consolidated and put into reports, as per the ILO's requirement.

Inform the wider community about programme successes and learning experiences

Yapasa aims to have a DCED compliant MRM system that can also inform the wider development community through sharing learning experiences and successes. In addition, the MRM system developed at Yapasa can serve as a benchmark for other ILO managed programmes to learn from and incorporate improvements.

2.2 Yapasa -Measurement Strategy and Approach:

The objective of Yapasa programme is to overcome the market constraints in the soybean and aquaculture sectors and achieve the following results:

- a) Improve soy bean and aquaculture sectors with more and better jobs, enterprises, food security and income within these sectors (especially for youth)
- b) Improve support functions for soy bean and aquaculture and more and better jobs, enterprises, food security and income within the support functions
- c) Achieve systemic change by creating positive change in market systems and mechanisms.

To achieve the above objectives, the MRM strategy and approach has been oriented to measure results and assess attribution of Yapasa's impact at all levels of the logframe from activities to outputs. Measurement will be managed through continuous use of results chains. Both the logframe and the results chain, two of the principle MRM tools, are detailed in the following sections.

Logframes

Logframes are widely used by donors and implementing agencies as a monitoring and evaluation framework to assess programme and project progress. The Yapasa logframe records results at three levels: impact-level, outcome-level, and output-level. The logframe provides the overarching vision of what Yapasa should achieve during its lifespan or beyond and the means needed to achieve the programme targets. More simply, a logframe explains qualitatively and quantitatively how achieving the logframe 'output' targets will help Yapasa achieve its logframe 'outcomes, and how achieving the logframe 'outcome' targets will lead to achieving the 'impact' targets. The overall MRM system

³ Rather than scientific proof, the system aims to provide credible estimations of impact that combine rigour with practicality. Randomised control trials are not the only way of rigorously linking observed effects to causes

in Yapasa has been designed in a manner that data can be collected and reported with attribution against the logframe targets.

Results chains

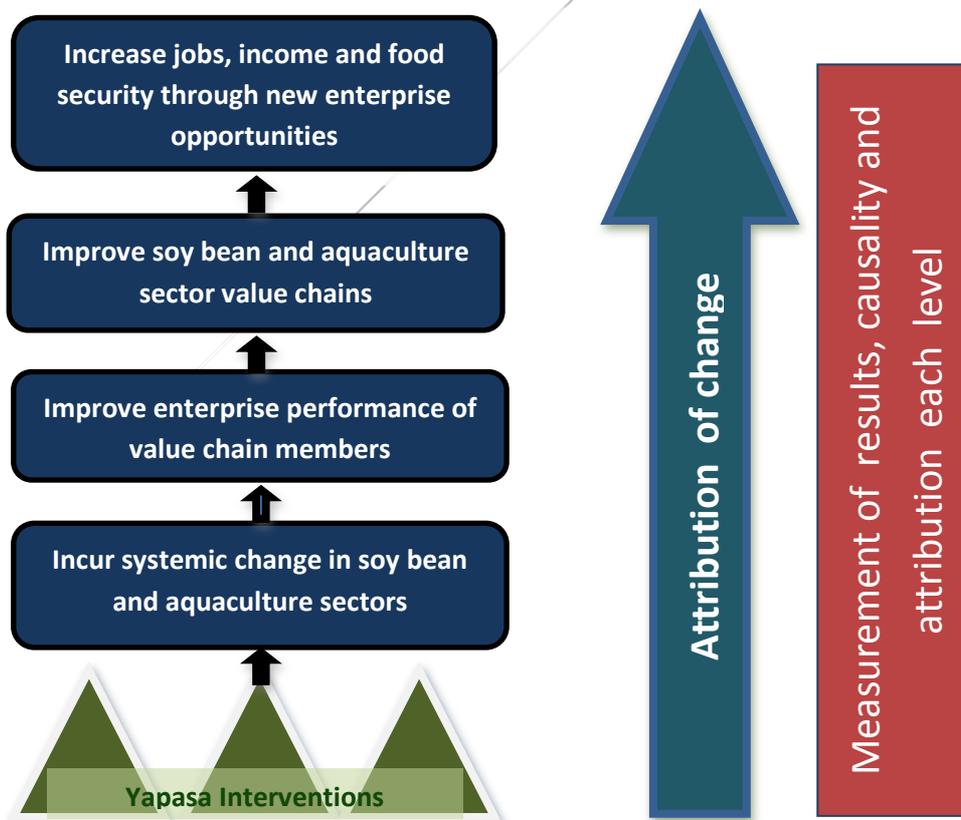
A results chain is a diagram that maps the causal linkages and impacts from an intervention's activities to a market system change to enterprise performance and poverty reduction.

The results chain is at the core of an efficient results measurement system. Use of results chains help the project explain the logic, 'why we do what we do'. They show causality of impact, which follows the same logic of cause and effect relationship, i.e. if A causes B, then B causes C and C causes D. Therefore, A has an influence and importance in the impact of D.

Results chains have targets which guide monitoring and measurement during intervention activities. These monitored targets allow for the implementation of corrective actions, design reviews, and progress reports such that the logframe targets are met.

Through measurement, validation and attribution at each level of the results chain, Yapasa will test the cause and effect relationship between intervention activities and the programme's goal (impact). The following diagram shows how the pieces of the results chain fit together to help achieve the programme's logframe targets

Figure 2: Assessing attribution and causality through results chains



This approach allows Yapasa to justify and explain any activity and/or intervention implemented, and its contribution to the overall logframe. Further measurement at each level of the results chain will allow the project to take immediate corrective actions.

For example, Yapasa organises a training for input retailers on improved cultivation techniques, the use of soy bean inputs and the business benefit of providing cultivation information as an embedded service to soy farmers. The results chain will focus on the following cause and effect relationships to depict this process of impact of this training:

- a) Input retailers become knowledgeable on soy farming and the use of inputs;
- b) Input retailers understand the business benefit of sharing the input usage and cultivation knowledge to soy bean farmers as an embedded service;
- c) Input retailers provide this information to farmers;
- d) Farmers become knowledgeable on use of inputs and improved cultivation;
- e) Farmers apply the knowledge and inputs appropriately; and
- f) Farmers have improved soy bean productivity and quality and increase profits.

The results measurement system at Yapasa monitors and measures each box (or level) with the goal of establishing a causal relationship between the sequentially related boxes. If all assumptions and logic hold true and are validated through measurement, only then can Yapasa claim that the impact on the farmers is a result of their activities.

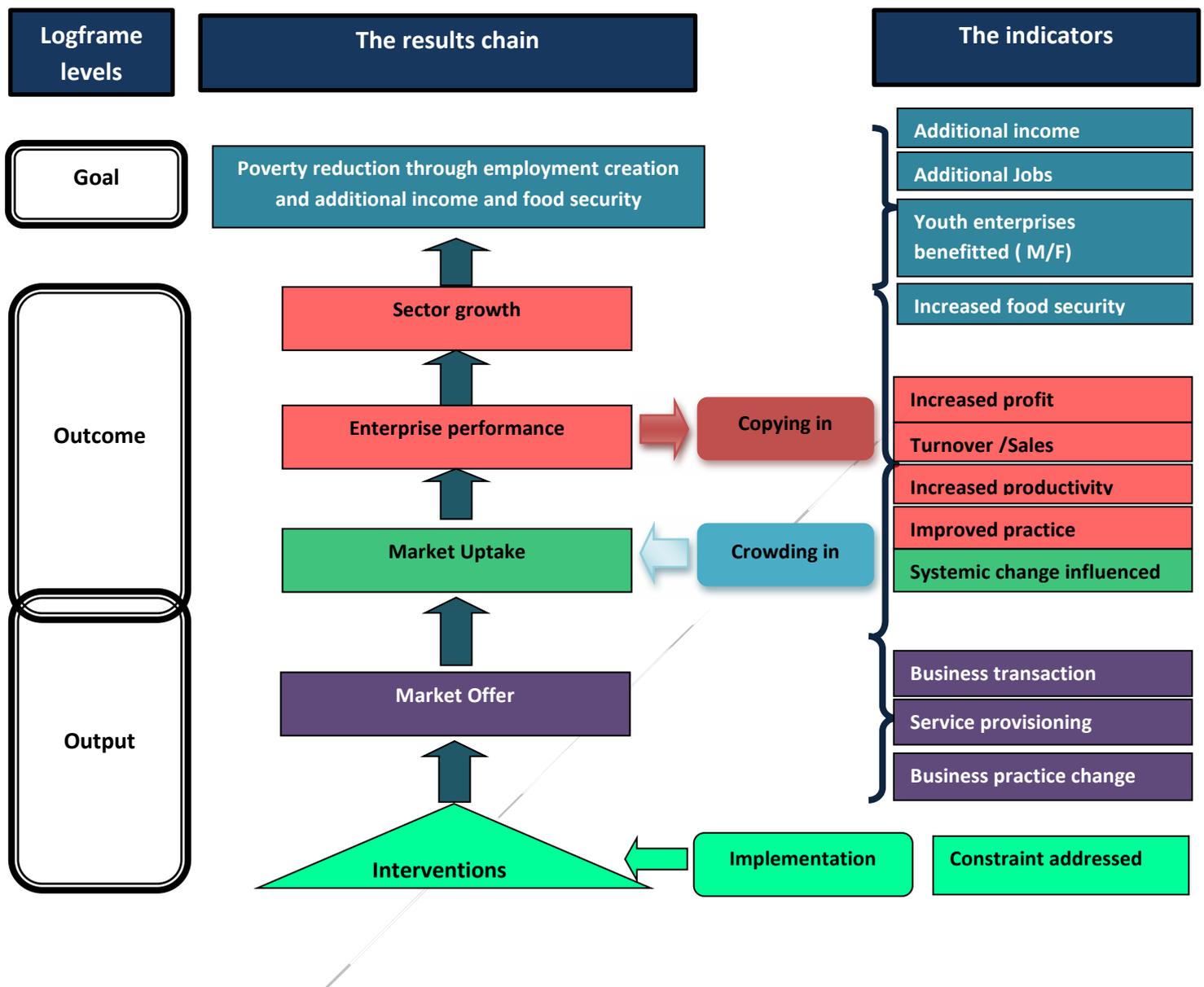
Because monitoring each step is so important with respect to proving programme causality, a fully integrated MRM system is essential for programme implementation. The MRM system at Yapasa ensures that:

- From the outset, every intervention has a clear results chain (consistent with the programme's logframe) and indicators, setting out how the intervention will create systemic change and, ultimately influence enterprise performance change and poverty reduction for youth and non-youth enterprises in the soy bean and aquaculture sectors.
- During implementation, managers and project teams receive the right information at the right time to help them make informed decisions.

2.3 Monitoring and Measuring Against the Logframe and the Role of Results Chains:

The results chain, its levels and the indicators in each level are set in a manner that complement the logframe levels and allow for reporting against them. The diagram below shows how the Yapasa results chains fit with the logframe levels and indicators, and the level in which indicators are measured. The indicator measures for each results chain level correspond to the respective logframe level headline indicators.

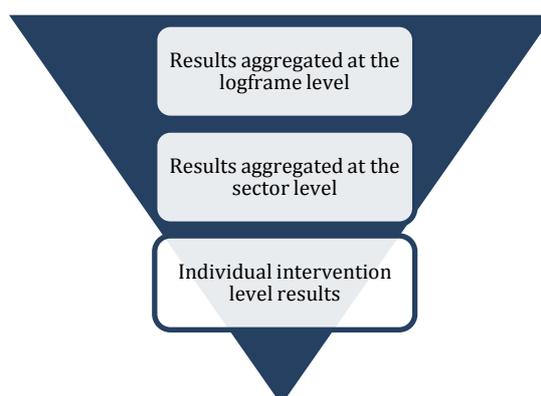
Figure 3: The relationship between logframe and Yapasa results chain



3 The Results Measurement System and Methodology

The Yapasa MRM System is designed in alignment to the DCED standard to support the twin objectives of ‘proving’ and ‘improving’ results. At Yapasa, the results measurement system is designed around the interventions. The logframe sits at the top as the guiding document with targets at impact, outcome and output levels. Analysis and attribution from intervention level results chains feed into sector level strategies to help Yapasa establish a link between interventions and their respective sectors. Data collected at the intervention level are then aggregated at both sector and logframe level which is demonstrated in figure:

Figure 4: Results Aggregation Pyramid



Key Specification of the Yapasa MRM System

An effective MRM system requires a number of specifications to assist the programme to improve performance, provide proof of attributable results and share learning experiences. The following are the key specifications for the Yapasa MRM system:

- A results chain for every intervention, detailing the changes expected to result from intervention activities, all the way up to the poverty reduction level is developed and used to guide monitoring and results measurement;
- A set of specific, relevant and measurable indicators, which contains a balanced mix of quantitative and qualitative indicators to measure and report results;
- A set of robust measurement tools conforming to good research practices for data collection;
- Monitoring and results measurement strategies designed to capture baseline and counterfactual data to estimate attribution;
- A means of capturing impact on sustainability and wider systemic change, such as copying or crowding-in by those not directly targeted by the programme;
- A set of baseline values for each indicator collected for each intervention;
- An attribution strategy, specifying how the actual impact of the programme will be ascertained (options include the triangulation of results, use of quasi-experimental methods and control groups, trend analysis, results chains, and key informant interviews);
- A clear process for analysing and presenting data in a way that is useful to managers and the team; and
- A culture that supports risk-taking, learning, honest reporting on failure and evidence-based decision-making.

3.1 The MRM Process

Every Yapasa intervention is designed and implemented as per the results measurement system. The process is designed in a way to ensure that learning is built-in throughout the process. Information from the MRM system is used not just to report results, but is used to update programme understanding of the systems in which Yapasa is intervening and to revise and improve intervention strategies (as encapsulated in the results chains). The intervention results chain sits at the core of the MRM system, and an Excel based intervention steering guide referred to as the 'intervention guide (IG)' is used to implement the MRM system. Therefore, the IG containing the results chain is

the key document of the Yapasa MRM system which is used to manage and implement effective results measurement, guide regular monitoring and provide continuous feedback.

4 Measurement Technicalities and Specifications:

The Yapasa measurement system is designed in line with the DCED system and thus, uses the DCED guidelines as a reference to manage and implement the system. The details of these processes, tools and procedures driving this measurement system are explained in the remaining chapters of this manual and in its annexes.

The DCED guidelines use control point system to evaluate programmes subject to audit. This control point system serves as a checklist-type guide identifying the elements of a strong programme MRM system. These guidelines have been followed as a point for developing this MRM system⁴ and this section of the MRM manual has been designed to correspond to these control points.

4.1 Intervention Guide

At the intervention-level, the key MRM document is the Intervention Guide (IG). Information specific to each intervention results chain is entered in its respective IG. The results measurement team sets up the IG together with the intervention manager. These IGs are developed in a Yapasa standardised Excel workbook, which contains the results chain, intervention target, measurement plan and the actual achievements and progress. The intervention control framework is a detailed Excel file; and contains nine worksheets containing various information (see below table). The IGs are ‘live’ documents which need to be reviewed and updated on a regular basis, reviews and updates require adjusting the various tabs to reflect actual progress and achievement for each intervention. For that reason, the IGs are designed to be easily updated. Yapasa uses Excel based coding to make the update and management of intervention guide easy. Details on the how to develop an IG and functionality of this coding is included in Annex 3.

The Yapasa intervention guide, contains a total of nine tabs, the following table below summarizes each of these tabs.

Table 1: Intervention Control Framework

Tab title	Content & Use
Content	Lists the IG pages and corresponding links used for easy access and indexing.
1.Cover page	Key information and summary statistics related to interventions. This page also contains information on acknowledging private/public partner contributions, cost of the intervention and on overall VfM ratio.

⁴The DCED control points are regularly monitored through a control point management tool developed for Yapasa. Within this management tool, each control point is reviewed to see if the current system appropriately addresses the control point to the DCED standard. This control point management spreadsheet can be found [here](#).

2.Story	A brief description of the intervention, how the intervention will create systemic change as well as address issues related to gender, youth enterprise, food security. The story page also contains the key assumptions made for the intervention (to be successful)
3.Results Chain	The results chain levels are developed in line with the logframe, so that aggregation and reporting against the logframe can be easily performed.
4.Measurement Plan	Within the measurement plan, a brief summary on assessing attribution, systemic change and risks associated with measurement are detailed. The rest of the measurement plan is a matrix that details the indicators, measurement tools, sources and samples, and timing and frequency of data collection for each box in the results chain.
5.Projections and Results	The sheet documents the baseline, projections and actual impact, and the basis of these figures (such as source, assumption and/or studies).
6.Support Calculation	This sheet contains the detailed calculations of impact (projections and actual impact) and figures for each box in the results chain.
7.Infolog & Diary	This tab contains a matrix to document key observations made in the field , this can act as a quick source of information. The tab is designed in a way that one can also document the type of activity (i.e. whether it was an interview, a field visit, a meeting, etc.), and can also mention if the info is pertaining to a specific RC box. The matrix can be also used to store any useful information.
8.RC update log	The key steps/changes agreed in an internal strategic meeting (quarterly/semi-annually/annually) are documented. This tab should be reviewed in preparation for such meetings or as intervention guides are to a level of completion. This tab is also used as a log book to document any changes made to the intervention plan, updated results chains, numbers, measurement plans, etc. as well as the approval of these changes from MRM or management staff.

It should be noted where calculations are too complex to fit concisely in tab 6, Support Calculations, an additional calculations tab is provided to the right of tab 8.

4.2 Interventions Types⁵

Yapasa generally has two types of interventions: a) Proof of Concept and b) Strategic Interventions.

Proof of Concept: These are pilot interventions that are characterized by the innovative nature of an intervention. These interventions often introduce a completely new product/service, technology or method, for which even background research cannot specify the potential of impact within sectors and locations that Yapasa operates in. Therefore, these interventions are done in small scale. Proof of concept interventions are used as a tool to obtain data, which can be later used to develop projections for the scale-up of pilot interventions.

⁵ This section has been adapted from GEMS1 MRM strategy and modified to fit Yapasa's system requirement

Strategic interventions: These are stand-alone interventions which strive to achieve impact on jobs, enterprises, income and food security. Projections are developed for each level within the results chain/logframe, depending on availability of information.

4.3 Results Chains and Measurement Plans

The intervention manager develops the results chain in the first instance with regular review and technical support provided by the MRM manager and project team. Construction of the results chain depends on the status of the intervention. The various intervention statuses are detailed below in Table 2.

Table 2: Intervention Status Types

Status	Description
Idea	It is an idea which still needs background research
Planned	Background research and prospective of partners on-going, no concrete agreement/deal has been agreed
Foundation	Intervention identified, deal signed, ground level (i.e. first set of activities have been initiated but is progressing very slowly).
On-going	Intervention implementation is on-going and/or measurement is on- going.
Complete	Activity and measurement all have been completed
On-hold	Put on hold or postponed
Discontinued	Terminated

With respect to the above statuses, the timing for which the results chain and measurement plans are developed is indicated in Table 3.

Table 3: Timing for Development of Results Chain & Measurement Plan per Intervention Status

Status	Results Chain	Measurement Plan	Defining attribution/ Systemic change measurement and strategy
Idea	No	No	No
Planned	Yes-draft	No	No
Foundation	Yes-draft	Not normally, but decided on a case by case basis	No
On-going	Yes	Yes	Yes
Complete	Yes	Yes	Yes
On-hold	Once an intervention is put on hold no additional changes are made until it is reactivated.		
Discontinued	Once an intervention is discontinued, no additional changes are made.		

Each results chain should show the following:

1. Numbers in all relevant boxes (projections/where applicable) and actuals
2. Impact level data needs to be disaggregated by direct and in-direct
3. Each results chain should have copying and crowding in box. If not, an explanatory note should be given
4. If copying or crowding in has not happened the boxes should be deleted
5. Projections and estimation for direct and indirect will have to be done for two years or 3 business cycles both for direct and indirect beneficiaries.

Annex 4 provides further detailed guidelines on how to develop a results chain⁶.

4.4 Setting indicators

To allow intervention managers to monitor progress along the results chain, and to simplify attribution, one or more indicators are defined for every box in the results chain. These indicators provide the means with which change is recorded and measured. Each key level of change along the results chain needs to be measured using a combination of qualitative and quantitative indicators. Quantitative indicators are useful because they can be used to analyse trends and measure the scale of change. However, they invariably miss some of the nuances involved in change processes, which can only be captured through qualitative indicators. Further, qualitative indicators are also necessary to explain attribution as they assist in explaining the reason for change.

By defining indicators for every results chain box, it is possible to test each assumption underlying the intervention results chain, isolate any problems in the logic (improve results) and help the project management team construct a convincing chain of attribution from activities through high-level impact (prove results). Details regarding the types of indicators that are most useful and easy to collect are included in Annex 1.

4.5 Data Collection, Measurement and Sourcing Techniques

The MRM system uses a variety of tools and techniques to measure and monitor results which are based on good research practices. Multiple measurement tools and sources are used to perform triangulation to more accurately understand and capture the impact.

Internally, Yapasa uses market observation, activity check, secondary sources, authoritative sources (such as associations, chambers, leading or resourced persons etc), in-depth interview, case-study method, key informant interviews, focus group discussions and/or formal surveys to collect impact data. In all interventions, more than one data collection tool is used to collect and source data for both baseline and impact evaluations. Annex 5 provides further details about the various tools and techniques used for data collection.

4.5.1 Measurement Plan

The measurement plan is a planning tool which is used by the project management team to plan on how, when and who should collect the data for various indicators and levels in the results chain. Selection of an appropriate measurement tool depends on the nature of the indicator, the degree of robustness required and available budget. The details on data planning and data collection tools are described in Annex 5. The format shown below in Table 4 is how the measurement plans are generally presented in the intervention guides:

Table 4: Intervention Guide Measurement Plan Format

⁶ For another information source on developing a results chain, see Kessler, A. and Sen, N. (2013) "Guidelines to the DCED Standard for Results Measurement: Articulating the Results Chain." (<http://www.enterprise-development.org/page/download?id=1833>)

Results Chain Box	Indicator(s)	Tools/Study Types	Sampling Techniques	Collected by Who	Baseline Data Status	Time of Data Collection
[Box 1]	[Indicator 1.1]					
	[Indicator 1.2]					
[Box 2]	[Indicator 2.1]					
...	...					
[Box N]	[Indicator N.1]					

In the measurement plan, the following is specified for each indicator:

- The frequency and/or timing of data collection (including the timing of baseline data collection);
- The measurement tool to be used to assess the indicator (e.g. interviews, survey);
- The sampling methods used in for survey;
- Who in Yapasa is responsible for collecting, collating, and documenting the data (or overseeing data collection by a third party); and
- Any baseline data already available for the indicator.

The plan, which is summarized in the “Measurement Plan” tab of the IG, includes a summary of the attribution strategy and approach to assessing systemic change. The measurement plans also document any potential measurement risk anticipated.

4.5.2 Baseline data collection:

Baseline data collection is required for each intervention. Yapasa has adopted a number of strategies to collect baseline data.

Through market system analysis studies:

The market system analysis studies conducted during the inception phase in both soy bean and aquaculture sectors captured a number of sector level baseline statistics. The baseline data includes information on growth trends, production volumes, productivity, and pricing among others.

Through intervention level scoping studies:

The intervention scoping and background research studies are designed in a manner that they provide intervention specific baseline data. These baseline data are not income related, rather these studies provide baseline understanding on skills and business practices, and enterprise performance. This baseline information provides the foundation for identifying attributable business behaviour changes with respect to technical know how and/or business practices.

Through intervention level baseline data collection:

For each intervention, specific baseline data is collected as part of the intervention. The MRM team and the intervention manager design and implement the baseline studies. Due to the number of interventions, these studies are small-scale, however, when used alongside other information, are quite complementary and can provide a better understanding of the changes incurred throughout

the course of the intervention. A chapter on baseline data collection and impact assessment will be included in the next revision to this document.

Through implementing partner:

At the moment, Yapasa collects baseline data information from intervention partners such as associations, offtakers, or financial service providers etc. This method provides another, economic data source which is useful for triangulation.

4.6 Data Sourcing:

Within each intervention guide, a targeted projection is identified alongside actual figures achieved for each relevant box (see “Projections and Results” tab). The “Support Calculation” tabs contain information, calculation and sourcing of those numbers for each relevant box. Any number that is used in the results chain should always be sourced, and it should be mentioned whether it is an assumption/target or information from a particular source or a measure figure.

4.7 Monitoring and Measuring Over Time to Assess Sustainability of Change:

Each intervention is monitored for either 24 months or three business cycles (whichever is appropriate). Therefore, the treatment group of an intervention are monitored or revisited two or three times. This methodology allows the project to better understand and measure sustainability and attribution. The 24 month monitoring process is not only done for the same group of respondents, but over time, the sample includes a mix of new respondents and old respondents. This kind of mixed group provides a basis for understanding the nature of impact in terms of continuity and sustainability as well as provides the basis for validating estimated figures.⁷

4.8 Measuring Attribution, Sustainability and Systemic Change⁸:

Attribution, sustainability and systemic change are of utmost importance for any M4P programme and are the most challenging aspects of measurement. The Yapasa system has invested into designing tools and methodologies to capture the overlap and synergy of interventions as well as to measure sustainability and attribution in greater detail. The following sections explain how attribution, sustainability and systemic change are measured.

4.8.1 Measuring Attribution:

Attribution is the extent to which an observed change is caused by a specific programme intervention as opposed to exogenous factors.⁹ Therefore, attribution is the degree of observed change that occurs as a result of Yapasa interventions.

Yapasa operates in complex market systems. There are many factors that have the potential to affect the various changes the programme aims to catalyse. To assess the programme impact, the

⁷ For another information source on developing a results chain, see Kessler, A. and Sen, N. (2013) “Guidelines to the DCED Standard for Results Measurement: Measuring Changes in Indicators.” (<http://enterprise-development.org/page/download?id=2111>).

⁸ Adapted from GEMS1 measurement strategy document and modified to fit the Yapasa MRM system

⁹ For attribution resources, see Sen, N. (2013) “Guidelines to the DCED Standard for Results Measurement: Estimating Attributable Changes.” (<http://www.enterprise-development.org/page/download?id=2012>).

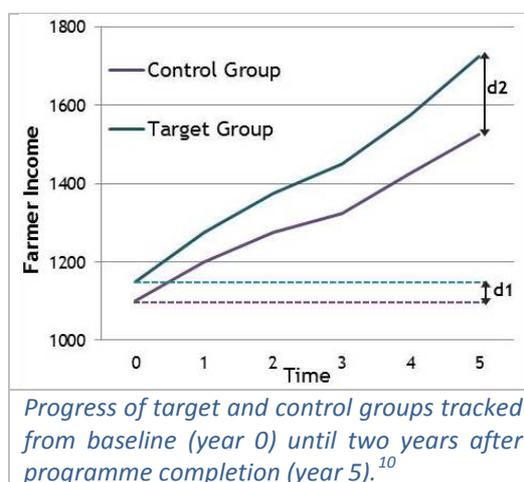
design of intervention specific attribution strategies that can help attribute results plausibly is required. For example, an observed change, such as the use of better inputs to improve soy bean yields and thus income, cannot be claimed as a programme result until “plausible attribution” has been established. The requirement of plausible attribution aims to balance credibility with practicality when assessing programme results: the emphasis is on generating a credible account of results and impact given the monitoring resources available, rather than on providing scientific “proof”.

4.8.2 How Can Attribution be Measured?

There are two approaches to measuring attribution, ‘factual’ and ‘counterfactual’. A **factual** approach measures before and after change. The most common methods include ‘end of project survey’, ‘before-after study’ and ‘opinion survey’. The **counterfactual** approach isolates the core value of the intervention. Depending on the complexity of the intervention and the exogenous factors affecting outcomes, a number of tools may be used to assess ‘counterfactual’ attribution; however, the most common approaches to assessing counterfactual attribution are ‘comparative study’, ‘quasi-experimental’ and ‘difference-in-difference’. Please review Annex 6 for further details with respect to attribution.

The Yapasa system focuses on using a number of tools and techniques available, such as before-after, trend analysis, difference-in-difference (comparative before after studies between user and non-user groups) etc., which are based on situation, intervention and context. Where possible, the system will use randomised control groups and/or quasi-experimental to understand attribution better. However, in reality, it is impossible to get uncontaminated control groups. Therefore, Yapasa will try to use more difference-in-difference. The following diagram explains how difference-in-difference studies can help substantiate attribution.

Difference-in-difference: In using the difference-in-difference method, two comparative groups are evaluated. The control group is not affected by the intervention though members of it have similar characteristics to the treatment group. Participants of the control group are selected randomly and their change/progress is measured over time. The difference in progress between the control group and treatment group is the attribution.



The difference-in-difference methodology is used in a rigorous manner to provide a strong basis for understanding attribution against the counterfactual. For example, Yapasa started intervening (after inception) in mid-2014, and interventions started in January 2015.

Table 5: Difference-in-difference calculation example

¹⁰ In relation to the figure above, to find the attributable impact of an intervention on farmers’ income using the difference-in-difference method, subtract d1 from d2.

Scenario	Control Group Income	Target Group Income
Baseline (July 2014)	5,500	5,400
After intervention (July 2015)	7,500	8,700
Income year difference	2,000	3,300
Attribution		1,300

The measurement system in Yapasa will try to use difference-in-difference with varying degrees of rigour to understand attribution. However, conducting such a detailed difference-in-difference study can be practically challenging, difficult to implement, expensive, and may often have recall bias.

In most cases, data will be collected on a sample group which will provide the basis for producing results on a larger population. For those results that are extrapolated from a sample size, it is important to perform validation checks on an annual basis. That is, if data is collected on a sample treatment group in the first year of a programme, data should be recollected on that group annually to track and verify any impacts. Also, if one takes the results from a pilot project to provide the basis for estimating the impact of an intervention scale-up, the impact on scale-up must be validated through an independent data collection exercise on those involved in the scale-up.

4.9 Measuring Sustainability & Systemic Change

Sustainability is a pre-requisite for achieving systemic change and systemic change is a higher degree of sustainability.¹¹ Because sustainability and systemic change are interrelated, the measurement for both is interconnected and interdependent. However, each require different focuses of attention. One needs to measure sustainability in order to understand if the change is going to be systemic. The following section explains technicalities of measuring sustainability and systemic change.

4.9.1 Measuring Sustainability:

Sustainability indicates that relevant services continue to be offered to and used by the poor beyond the period of an intervention. The MRM system at Yapasa will conduct longitudinal studies, where financially feasible, over a period of 24 months (or 3 business cycles) after the intervention to track long-lasting impacts and market system changes. Such studies can be designed in a number of ways depending on the nature of intervention. The common options used are:

- **Comparative study with two constant groups (panel interview method):** This method involves conducting periodic study of two constant groups over the 24 month period, one being the treatment group and the other being the control group. The study should be conducted over a 24 month period (or 3 business cycles), the sample size for each group may range from 30 to 40. The weakness of this method is having biased data because of a constant treatment group.

¹¹ For further sustainability and systemic change resources, see Kessler, A. (2014) "Assessing Systemic Change: Implementation guidelines for the DCED Standard" (<http://enterprise-development.org/page/download?id=2113>).

- **Comparative study with constant control group:** This method involves conducting periodic study for two groups (control and treatment) over a 24-month period. The control group is kept constant. For the treatment group a new sub-set of treatment group participants is interviewed for each study. The treatment group sample may be selected purposively based on geographical coverage of the intervention. As in the above method, the sample size for each group may range from 30 to 40. This approach can assess sustainability over a greater geographical area. Therefore, if data shows positive impact on sustainability across regions, the impact is more likely to be global.

When selecting the treatment group in both approaches, details such as name and location need to be collected from the market actor whose business model has been improved as a result of the intervention. This should include both direct and indirect system actors. Identifying the indirect system actors may require an investigative process that identifies more actors than the actual sample size. This measure is taken to reduce any selection bias as the list is given by the market actor.

Measuring over a 24-month period using these methods assists in understanding sustainability from the point of view of assessing adapt and expand (explained in the following section). In addition, these measurement data also have implications on aggregation, because the Yapasa programme logframe collects aggregates results annually.

Measurement of sustainability should also include the use of quantitative indicators and qualitative indicators which document the quantity of change and the reasons (or incentives) for that change, respectively.

4.9.2 Measuring Systemic Change

Systemic change is representative of a fundamental and/or new change in the market system. This can be a change to the underlying causes of market system performance which typically occurs in the rules and regulations or supporting function and can incite more effective, sustainable and inclusive functioning of the market system. Systemic change is a higher degree of sustainability. It is measured against the adopt-adapt-expand-respond matrix (see Annex 7).

Yapasa looks at both scale of impact over time as well as quality of impact over time to measure sustainability and systemic change. This allows Yapasa to understand the nature of systemic change better and its extent. Please review Annex 7 to understand about systemic change and its measurement in details.

The MRM system at Yapasa has invested into designing tools and methodologies to capture the overlap and synergy of intervention. These tools along with an investigative approach will be used to understand and measure sustainability and systemic change with respect to attribution.

4.10 Projections, Aggregation and Disaggregation

Projections & Estimation

Each intervention contains projection data. Projections are reviewed and updated before approval of each intervention guide and when actual validated figures become available. Both projections and estimations are cumulatively recorded for two years for both direct and indirect groups.

Aggregation

Yapasa has developed a system to aggregate impact data at intervention, sector and logframe levels. The system has been developed in a manner that allows for disaggregating results by gender and age (youth), where necessary. Figures will be adjusted for overlap such that results are not double counted.

A programme aggregation tracking sheet has been developed with annual targets for each logframe level. Annual targets have been projected in an incremental basis to ensure that programme targets will be achieved steadily over the programme duration. Where relevant, these targets have been segregated by gender. For each intervention, a copy of the programme wide aggregation tracking table is embedded in the intervention guide. Data collected through measurement within an intervention is fed into this aggregation tracking table and then aggregated into an Excel based master programme aggregation tracking sheet.¹²

As the master aggregation tracking sheet is continuously updated, programme impact data can be extracted, on demand, to meet reporting needs. Yapasa also reviews the impact figures every two months during its portfolio review meeting. Details about how to perform projections and aggregation are included in Annex 8.

4.11 Assessing and Tracking Risks

Assessing potential risks in intervention implementation is imperative for programmes to ensure their success. Yapasa's potential to achieve a positive impact depends on a host of factors outside of its control. Each intervention therefore carries a certain level of risk, including the risk of negative impact. Yapasa will also aim to implement intervention within the 'do no harm' boundaries. Where potential risks are identified, relevant mitigation measures will be proposed - allowing projects to be pro-active as opposed to reactive.

The risks associated with the programme are focused on two levels. Intervention design related risks are risks related to specific technical, partner, and impact issues within individual interventions. These risks may jeopardise the achievement of intended results and include projection assumptions that may not hold; novel behaviour/practices in market actors that may not occur; or a private partner that does not conduct the tasks that he/she has committed to do. Secondly, interventions carry an inherent level of uncertainty as they try to influence the attitudes and actions of market actors. Thus, there is a risk that intervention can cause or contribute to unintended and negative impact.

Risk levels are assessed during project design, and formally reviewed during internal semi-annual and annual meetings. However, depending on the type and degree of risk, the project managers need to communicate with the MRM Manager as appropriate to decide on required actions.

¹² Master aggregation tracking sheet located in this Excel [file](#).

4.12 Measuring Change, Conducting Impact Assessments, and Monitoring Progress

Actual results for each box in the results chain are directly compared to projections to assess whether the intervention is on track and to identify any problems in the intervention strategy on an on-going basis. Each link in the results chain is validated to produce an attribution narrative, showing the causal link between Yapasa activities and changes at the output, outcome, and impact levels. Once data is collected according to the measurement plan, it is analysed to identify any significant challenges or emerging trends.

5 Results Measurement for Decision Making

The key purpose of using a DCED standard based MRM system is to use information to ‘improve’ programme performance. This means using results to inform programme decision making. An MRM system at Yapasa has been designed with built-in continuous learning loops that capture tacit and explicit knowledge and ensure that this information is used for management decision-making. This helps ensure that:

- Management can fine-tune tactics and make decisions, where necessary, about strategies and the continuing viability of interventions;
- All decision-making is based on evidence;
- The team is able to make mid-stream adjustments to on-going activities, adopting a flexible approach which responds to the dynamic market systems in which they work.

Programme management and results management are therefore two sides of the same coin. Programme managers review progress against their results chains informally on a monthly basis, and formally every two months during the portfolio review meeting with the project team. Progress updates from these meetings are used as the basis for programme reporting and strategic decision making related to intervention implementation. At the end of each portfolio review meeting, all intervention guide sections are updated with checks and approvals from the MRM coordinator or Chief Technical Adviser. At the end of each portfolio review meeting, decisions and next steps related to intervention implementation are documented in the intervention guide in the “Infolog & Diary” tab. This section explains how Yapasa uses results to drive programme performance and describes the steps taken to promote the use of results.

5.1 Using Results to Drive Programme Performance

Yapasa uses the results generated by the MRM System to drive programme performance at two levels.

Intervention-level

At the design stage, results chains and results projections are used to ensure that all interventions are based on a sound logic and are projected to deliver results and value for money. At the implementation stage, interventions are monitored to assess whether they are on track and the assumptions underlying the intervention hold. If interventions do not deliver the results expected, the strategies and tactics are modified; in some cases the intervention may even be cancelled.

Programme-level

Results projections and the actual results from interventions are used to allocate programme resources across interventions and across sectors. Learning experiences from each intervention are used to update programme understanding of the market systems in which it is operating, driving improvements in intervention design and implementation. The results are also used to assess the overall portfolio performance of the sectors implemented. Based on performance of the interventions, Yapasa may decide to downsize or exit from an intervention or strategic intervention area.

5.2 Ensuring Use of Results within Programme Management

A programme can have the most sophisticated monitoring system but can still fail to use those results to drive programme performance. Beyond robust data collection systems, a programme needs formal processes and a culture and set of norms that encourages the use of results. Yapasa ensures the use of results and information through the following four processes:

Collecting and disseminating information that is relevant and accessible to management

The MRM System is designed to ensure that the data and information collected is relevant to management. Key to this is the use of results chains, which ensure that data collection is driven by the changes each intervention is designed to bring about. Programme managers are involved in key steps of the data collection process, ensuring that measurement plans are designed not just to meet programme reporting requirements but to also give managers the information they need, when they need it.

The data collected is analysed and summarised and key findings are incorporated in the IG in the “Infolog & Diary” tab such that information collected through various tools is not lost. In addition, analysed data are documented and presented in a way that is accessible for management, avoiding voluminous studies that sit on the shelf because they are too long or technical to effectively inform decision-making.

Creating formal processes that support the use of information and results

Yapasa has created a series of formal meetings and reviews designed to promote the regular use of information. These reviews are linked to formal decision-making nodes, such as whether to proceed from the pilot phase to scale-up phase, ensuring that key decisions are made on the basis of evidence and results.

Portfolio Review Meetings

Portfolio review meetings are held every two months to track and review the programme progress with respect to intervention guides, aggregation of results, the overall MRM system, human resources, performance, reporting and budgeting. The meeting is formally recorded in a register with due dates for completion of specific actions.¹³

Before the meeting the project managers prepare an intervention update, summarising the intervention strategy and activities and results to date, providing an overall operational and strategic assessment. The results chain logic is reviewed by the entire project team to determine if it is

¹³ Please see portfolio review meeting registration [sheet](#)

sensible and on track in light of programme developments since the previous review. Indicators and projections are also reviewed by the project team, to see if they are still realistic and achievable.

The update is presented and discussed. Formal decisions are made whether to continue the intervention as planned, modify the intervention, or cancel the intervention (or collect more information if an informed decision cannot be made). After the meeting the MRM manager coordinates any updates to the Intervention Results Guide (including any changes to the Results Chain, indicators or projections,).

Creating a programme culture that encourages the use of results

Formal processes for using results and information will only be effective if they are underpinned by a culture that encourages programme staff to seek out information, share information, discuss both successes and failures and act on information. Yapasa has created a culture that supports curiosity and reinforces the use of evidence in discussions and decision-making. Most importantly, it promotes openness about discussing if intervention or a particular work strategy is not working optimally. This is vital to creating an environment where staff are able to seek out and share *all* information (not just successes) and to admit that an intervention might not be delivering the results expected; and learn from those mistakes.

5.3 Budgeting

5.3.1 Expenditures

A budgeting system has been developed to keep track of programme expenditures on a monthly basis. The financial system is an Excel based tracking tool created specifically for Yapasa.¹⁴ The tracking tool uses outputs from the ILO and FAO financial systems to seamlessly integrate the two reporting systems into a single location. Through this system, expenditures for each project expenditure code are assigned to interventions such that intervention costs can be estimated on a per expenditure line item basis. The expenditures from these line items are allocated to interventions every two months by the programme CTA.

The financial system provides a summary of expenditure data in both a general sense and at very high levels of detail. For example, expenditures incurred by an intervention, per line item, with a user specified date range can be shown quickly within the tool. More generally, the tool provides a monthly comparison of total expenditures across interventions.

Programme expenditures are reviewed by FAO and ILO financial and programme management staff on a monthly basis to ensure that expenditures are in accordance with project expectations.

5.3.2 Value for Money

Yapasa will conduct detailed Value for Money (VfM) analysis annually on an intervention basis. Programme costs are assigned to interventions every two months during the portfolio review meetings. These assigned costs are used as a basis to forecast costs throughout the intervention life.

¹⁴ Please see budget tracking Excel [tool](#).

For example, the costs for the first eight months of an intervention will be used as the basis to forecast the costs for the intervention throughout its 24 month duration.

Intervention benefits are estimated from the income projections for the intervention. The VfM is a benefit-cost ratio (BCR) of projected income over projected cost. VfM calculations are updated concurrently to month-end expenditure reports as the intervention VfM calculations in the IG “1. Cover Page” tab are linked directly to the Yapasa budgeting system.

5.4 Reporting Results

Results from across Yapasa interventions are continuously aggregated against the Yapasa Logframe and results are used to inform the various reporting demands for the project. The aggregated results will be supported with sufficient detail and explanation such that a wide target audience can understand the relevance of the results. The required programme reports include the following:

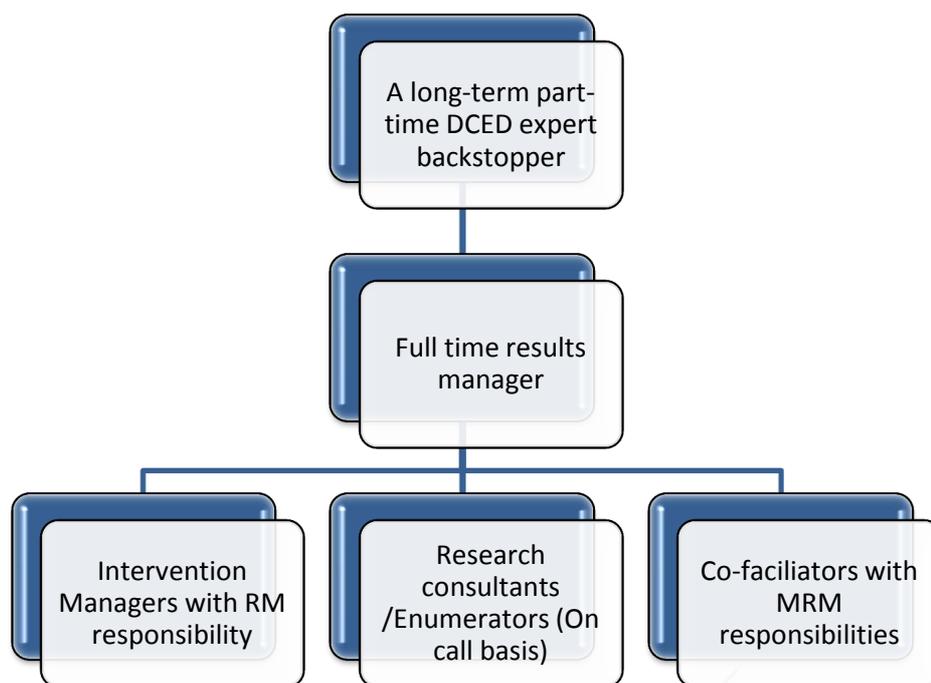
- Annual financial report – due in May of every year covering the January to December period of the previous year;
- Annual report – due May of every year covering the January to December period of the previous year;
- Biannual Steering Committee Reports;
- Mid-term programme evaluation report – due at the end of August 2015; and
- End of programme evaluation due in July 2018.

The annual report will include an update on the results achieved in the previous calendar year along with detailed programme expenditures. It is a contractual obligation that the annual report be published into public domain.

5.5 Roles, Resource and Skills:

A results measurement system, as per the DCED standard, is a very rigorous one and requires the right skills and resources in place to implement it efficiently. Yapasa is a small-scale project with limited financial resources. Therefore, the entire results measurement system, tools and methodologies have been designed keeping in consideration of available resources and with an aim to stay resource efficient. To be more cost efficient, Yapasa currently implements the following human resource structure for MRM.

Figure 5: Human resource structure of the results measurement system in Yapasa



In the Yapasa system, all programme staff are part of day-to-day data collection, act as co-facilitators, and are ingrained into the MRM system. The MRM manager and the project management team jointly have the responsibility of managing and designing the system. For the intervention guides, the project management team develops the first draft which includes development of the results chain, measurement plan and projections. This draft is reviewed by the MRM manager and comments are made to the intervention manager to help refine the intervention guide and project specific MRM system.

To ensure that programme staff could effectively carry out MRM tasks, the Yapasa team coordinated two weeks of training on the DCED standard which has been performed by an external DCED expert. This training included the thorough development of intervention guides with respect to results chains, projections, measurement, attribution and aggregation. The training involved the actual development of the first four interventions that are in process by the Yapasa team.

Staff in various government ministries, UN Agencies, youth organisations and NGOs have been engaged with in an effort to build capacity and demonstrate the advantages managing a programme implementing use of DCED, MRM and M4P practices. As a part of this capacity building exercise, personnel from these organisations have participated in a value chain development workshop, two DCED training courses, and a market facilitation workshop. The desired result of these trainings is that those that have participated will have a better understanding of the programme approach. At the moment, it is not envisaged that the government organisations will have an active role as co-facilitators.

Annex 1: Programme Indicators

Introduction

The effectiveness or outreach of an intervention is measured through a series of indicators throughout the results chain. The indicators can be qualitative, quantitative or both and should include at least one indicator per box defined in the results chain.

Qualitative and quantitative indicators are used to complement one another such that qualitative information can help supplement or provide a more comprehensive story on data collected by a quantitative indicator, and quantitative data can support or refute qualitative conclusions. As general guidance, qualitative indicators should be used more regularly at the bottom of the results chain (activity level) and quantitative indicators at the top of results chain (poverty reduction/enterprise level).

The measurement of any indicators should be tracked through actively completing and updating the “Measurement Plan” tab of the intervention guide. Details of the indicator as well as specifics on when/how/by whom the indicator will be collected should be entered in “Measurement Plan” tab and updated as required.

Yapasa Defined Indicators

A wide variety of indicators were defined for Yapasa within the inception phase of the project. Common indicators have been identified such that aggregation of results is more standardised across various project interventions. The common project specific indicators, which are shown below in Table 6, have been segregated in the level that they should be collected within the results chain. For indicators that require more clarity, sub-bullets have been listed below the indicator itself.

It is important to recognise that for all interventions, data associated with the four indicators defined within the poverty reduction level in Table 6 should be collected (for further details, see Annex 2). For the indicators within the enterprise, market uptake/offer, activity result and activity levels, measurement for every indicator identified in the below table is not expected, however, any indicator that is relevant to the intervention should be measured where possible. For example, for an access to finance intervention, the number of funding applications from young entrepreneurs indicator should be measured, whereas measurement of the quantity of social marketing campaigns indicator would not be required.

Table 6: Yapasa Defined Results Indicators¹⁵

Level	Indicator	Quantum
Poverty Reduction	Gross decent jobs for youth <ul style="list-style-type: none">Measured using new full-time equivalent (FTE) job (equal to 240 days x 8 hrs) for any new jobs plus jobs with income increases deemed sufficient based on an individual’s relative poverty level and agricultural value added per worker (productivity).¹⁶	3,000

¹⁵ Further details with respect to each indicator is included in programme aggregation [sheet](#).

¹⁶ Please see Annex 2 with regards to the formal job calculation methodology.

Level	Indicator	Quantum
	<ul style="list-style-type: none"> For youth (ages 18- 35) segregated by gender Employment is not exploitative 	
	Youth owned/managed enterprises have started up and/or improved operations (details in below indicator and last indicator in Enterprise Level)	5,000
	Existing youth enterprises increase incomes <ul style="list-style-type: none"> Income increase based on poverty level and agricultural value added per worker (productivity).¹⁷ For youth (ages 18- 35) segregated by gender 	2,000
	Income increase of target group beyond control group	10% increase
	Hunger gap in treatment group reduced by at least one month beyond control group	10%
Enterprise Level	Attributable production yield increase in soy bean and aquaculture	20% increase
	Attributable increase in target group and stakeholders indicating improved ease of doing business for youth, i.e increase in those that view sector as viable	30% increase
	Entrepreneurs start or expand enterprise activities within the soy and fish market systems <ul style="list-style-type: none"> Attributable new entrants in the soy/aquaculture production For youth (ages 18- 35) segregated by gender 	3,000
Market Uptake/ Offer	Effective and functional sector development collaboration mechanisms	2
	Young entrepreneurs' business plans funding applications financed through different mechanisms.	300
	Applications submitted by young entrepreneurs for funding	5,000
	Young people participate in entrepreneurship culture campaigns	10,000
	Young entrepreneurs attend competency based technical skills training	1,000
	Young entrepreneurs attend business start-up and business management training and identify it to be useful to advance their business interests.	1,000
	Financial Service Providers supporting youth entrepreneurs through own funds and Credit Guarantee Scheme	5
	Consumption of soybean products for human consumption ¹⁸	25% increase
	Target beneficiaries with improved attitude toward business opportunities in rural areas	20% increase
Activity Result	BDS providers successfully serving young entrepreneurs in the targeted sectors	20
	Aquaculture input providers established or incentivised and successfully serving young entrepreneurs in targeted sectors	10
	Soy Beans input providers established or incentivised and successfully serving young entrepreneurs in targeted sectors	10
	Good production practice approaches adopted/adapted by young entrepreneurs in their enterprise activities	3
	Effective and functional sector development collaboration mechanisms	2

¹⁷ As most enterprises are individually owned and operated, the same calculation as detailed for jobs will be used to quantify improved income in a self-employed/one-proprietor enterprise.

¹⁸ Indicator to be reviewed upon completion of baseline consumer survey.

Level	Indicator	Quantum
	developed among value chain players (actors, supporters, regulators)	
Activity	BDS providers trained to support rural youth enterprises	80
	Consumer surveys conducted in soy bean sector	2
	Social marketing campaigns conducted to reach youth in rural areas	10
	Policy, legal and regulatory review activities undertaken in the two sectors	2
	PLR dialogue events conducted with public and private stakeholders	6
	Study tours conducted with sector stakeholders	2
	Value chain stakeholder coordination forums established	2
	Value chain stakeholder dialogue events held in each sector	3
	Joint initiatives undertaken by value chain actors and stakeholders	10

Due to the high quantum of indicators and the budget relative to collecting these indicators, the most important indicators for assessment will be reviewed with a higher level of rigour than those that are less important. Of the indicators in Table 6, those in the Poverty Reduction tier will be reviewed most rigorously, and in particular, the indicators associated with income and job creation. Indicators associated with improved productivity, food security and ease of doing business will also be assessed intently, though less so than the income and job security indicators.

The above table should be referenced considerably when completing the “Measurement Plan” of the intervention guide. That is, for each box within an intervention results chain, Table 6 should be reviewed at the corresponding intervention level to determine if a common project indicator can be collected. For any common project indicator that can be measured, it is important that the intervention manager communicate with the project team and the MRM manager to ascertain whether the indicator had been previously collected through another intervention. If the indicator had been previously measured, it is essential for the intervention manager to understand how that data collection exercise measured the indicator such that results across the project can be aggregated and reported in a consistent manner. More details on the measurement and collection of indicators are included in (future data collection/Impact Assessment annex to be inserted).

It is important to note that the indicators listed in Table 6 are not the only indicators which should be collected throughout the intervention. That is, other intervention specific indicators should also be collected to track progress for individual boxes within the RC.

Defining Additional Indicators

For qualitative and quantitative indicators which are not identified within Table 6, the below provides a reference to develop simple, measureable and usable indicators that will help track intervention progress¹⁹:

- Relevance: Indicator measures a relevant change due to RC box action

¹⁹ List of good indicator characteristics developed from guidance provided in Chapter 2 of the DCED Implementation Guidelines, *Guidelines to the DCED Standard for Results Measurement: Defining Indicators of Change*, (February 2013). Further details regarding these characteristics are included in the aforementioned DCED document.

- Precision: Simple and clear indicators easily understood and interpreted
- Measurability: Qualitative or quantitative indicator is assessable and/or measureable
- Time-bounded-ness: Indicator can be measured, with regularity during intervention implementation.
- Realistic: Selected indicators are logical and can be efficiently measured with respect to time and human and financial resources.
- Usefulness: Indicator appropriate for regular monitoring purposes.

Some indicators can be very difficult to measure, such as the annual income for a rural youth. Incomes for the target population are quite difficult to measure considering they come from a myriad of activities which pay different incomes, at different times of the year and often include incurred upfront costs. In light of this, alternate, more easily measured proxy indicators may better suit the measurement needs. An example of a proxy indicator would be measuring crop output and time spent doing piece work in lieu of actual income.

Timing

For each indicator, a deadline for the time for baseline collection should be identified at the initiation of the intervention as this will ensure that the collection of particular indicators is not missed. Deadlines for collection post-business cycles should be identified as the intervention progresses and the intervention managers better understand when measurement of these indicators is suitable. The timing for the baseline and post-business cycle data collections should be identified in columns I, K, M and O of the measurement tab.

Summary

In summary of this annex, the following should be considered during development and management of intervention indicators:

- At least one indicator is measured per results chain box with a balance of qualitative and quantitative indicators used throughout the results chain;
- Details regarding the indicator and its measurement should be included and updated regularly in the “Measurement Plan” tab of the intervention guide;
- Any Yapasa common indicators (see Table 6) should be measured, where relevant; and
- Additional indicators which not identified in Table 6 should be developed considering characteristics defined in Defining Additional Indicators section above.

Annex 2: Programme Universal Impact Indicators

Introduction

An inherent challenge in any market systems development project is quantifying the impact of the programme with respect to the DCED universal impact indicators, and in particular the number of decent jobs and enterprises created. The universal impact indicators are included in the poverty reduction level of each results chain within each intervention guide and are consistent to measure programme outreach across various projects. This chapter endeavours to provide background and clarity to the approach taken to quantifying the universal impact indicators (UIIs).

Gross Decent Jobs

Within the Yapasa programme, it is forecast that 3,000 “gross decent jobs” will be created as a result of the programme’s interventions. Quantifying these impacts can be challenging due to a multitude of factors including job displacement and in consideration that most of those subject to programme interventions are already working, albeit underemployed. As job creation is an important programme outcome, having a clear methodology for quantifying these jobs is necessary.

When quantifying jobs, the quality of any new job, or how “decent” the job is, is taken into account. A job is characterised as “decent” if it is neither exploitative nor involves the employment of anyone under 15 years of age at the expense of school attendance. Jobs are only quantified for those aged between 18 and 35 years old at the start of the intervention that creates the job.

The following three sub-sections explain the considerations that are taken into account in quantifying jobs created as a result of the programme.

Displacement

Job displacement occurs when a “new” job, presumably created by the programme, shifts from one growing company to another within the same sector.²⁰ If a displaced job is created via a programme intervention, a total of no net new jobs are created. Therefore, if many new jobs are created through a programme intervention which simply incurs displacement, or a labour shift from one company to another within the same sector, the intervention impact with respect to job creation is negligible.

One example of a displaced job is if a new job is created by a miller, and that position is filled by someone who currently working in another milling company. If the miller that loses the staff member does not replace him/her, then then a net new job was not created as this job simply shifted from one business to another.

For several reasons, a decision was taken by the Yapasa team not to count the effect of displacement. It is expected that the vast majority of those participating in the programme are youth smallholder farmers who are largely underemployed. These farmers do not make enough money from their jobs within the farming sector to sustain the livelihoods for themselves and their families. Thus, with the creation of a new, decent job with better income, a smallholder farmer will migrate

²⁰ Fowler and Markel. 2014. Working Paper: Measuring Job Creation in Private Sector Development. DCED

from a poor job to a decent job (see *Improved Jobs* sub-section below). This is not simply a migration from a decent job to a better paid decent job.

Also, with rural youth underemployment at 53per cent²¹, it is recognised that an opportunity which is foregone by an individual to work in a new job will be subsumed by another youth if that opportunity is, in fact, worth engaging in. That is, a new job will always be created as those that are underemployed and working in a sector with little growth will look to absorb the opportunities that are created when someone leaves their job to find a new employment opportunity (if an opportunity indeed exists).

Although job displacement is assumed to be negligible for this project, the Yapasa team will undertake focus group discussions and perform other verification surveys to ensure that displacement is indeed negligible. If evidence suggests that displacement should be accounted for, Yapasa will modify its current global approach to quantifying the impacts of displacement.

Full-Time Equivalent (FTE)

The DCED strongly encourages using the full-time equivalent (FTE) method for counting the number of jobs created by a programme. FTEs are characterised by the DCED as the “net additional, full time equivalent jobs created in target enterprises as a result of the programme, per year and cumulatively.”²² Using this method, the net number of new jobs (new jobs less jobs lost²³) are counted on the basis of 8 hours of employment per day for 240 days in a year.

An example of 1.0 FTE is if a soy processor opens operations and hires a full-time staff that works approximately 8 hours a day, five days a week, for the entire year. FTEs can be in fractions as well. If that soy processor employees a part-time staff that works 4 hours per day for 12 months or 8 hours per day for six months, both jobs are counted as 0.5 FTEs created.

A review of the FTE method was undertaken in consideration of the programme objectives, the target group and the types of interventions scheduled for implementation. Through this review, the following shortcomings were identified with respect to the FTE method’s appropriateness for assessing jobs created in the Yapasa programme.

- FTEs often show minimal job impact with respect to agriculture based programmes. This is because the target group is already involved in agricultural activities (most full-time though not earning enough) and thus, interventions designed to stimulate better agriculture practices or establish new markets for their goods do not change their employment status.
- Most of the targeted youth work full time but often do not earn enough income to live above the poverty line. An increase in income within the activities that they currently engage in could provide sufficient returns for the family to move out of poverty, and this

²¹ Figure defined as youth not involved in economic activity from the SK Capital report, “Mapping of the Demand and Supply of Financial Services among Young entrepreneurs and Rural Enterprises in Zambia” (February 2015).

²² Sen, Nabanita. 2013. Guidelines to the DCED Standard for Results Measurement: Defining Indicators of Change. DCED.

²³ As discussed in Displacement (Section 1.2), lost jobs lost will largely be assumed as zero, unless evidence suggests otherwise.

could be considered as the progression from underemployed to a decent job. FTE would not capture this progression.

- The nature and distribution of jobs using the FTE method is not always transparent. That is, it cannot be identified whether 1.0 FTE is comprised of just one new job or four seasonal jobs which last for three months each.

Improved Jobs

Although the FTE method is championed by the DCED as the most common method for quantifying jobs, there is scope for using other job counting methods.²⁴ In consideration of the limitations associated with FTEs, it was identified that improved jobs should be counted in addition to those counted as FTEs.²⁵ A method was therefore developed to count these improved jobs.

In developing a method for quantifying improved jobs, it was recognised that the basis for such a method should be centred on a “significant”²⁶ positive income change for those in poverty. To quantify the necessary income change, the identification of two characteristics is required. These two characteristics are the likelihood that an individual is in poverty and the income change that could be deemed “significant”.

In identifying if an individual is in poverty, the Progress out of Poverty Index (PPI) is used due to its ease of implementation in measuring the likelihood (or per cent chance) that a household is in poverty.²⁷ Furthermore, the PPI is used in favour of other poverty measures such as poverty lines as they are often difficult to measure and are subjective to an arbitrary value that is not indicative of purchasing power, local incomes, subsistence farming or household size.

As the target group, rural youth, are largely involved in agricultural activities, the quantification of a significant change in income would best be related to an agricultural and monetary based benchmark. After thorough review of numerous local, regional and international data sources, the benchmark determined most applicable was the agricultural value added per worker, a measure of agricultural productivity which is indicative of the outputs less the intermediate inputs²⁸.

It is recognised that using a global figure has some limitations, mainly that it includes a mix of small-scale (less productive) and large-scale (more productive) agriculture enterprises, and variety of

²⁴ According to Sen (2013), “programmes are, of course, free to report on additional goal level indicators, and to choose how to calculate each indicator - as long as the measurements and calculations are clear, transparent, well justified and documented.”

²⁵ Improved jobs should be used as a complementary method to FTE and used only when FTE does not appropriately count the impacts of the programme. That is, Yapasa will be careful not to use the FTE and improved jobs methods to double count the same job.

²⁶ The meaning of “significant” in this instance and through the remainder of the document is not intended to synonymous with “statistically significant”.

²⁷ The Progress out of Poverty Index is a Grameen Foundation Project, with country specific measurement tools for measuring the likelihood that an individual is in poverty. The information for Zambia can be sourced at <http://progressoutofpoverty.org/country/zambia>.

²⁸ Value sourced from World Bank Data for 2013 (<http://data.worldbank.org/indicator/EA.PRD.AGRI.KD>). Value was USD 341 in 2005 dollars. This figure was calculated to year 2013 dollars (USD 421) using the World Bank Inflation, consumer prices indicator.

agriculture sectors such as fishing and crop cultivation (relevant) and hunting and forestry (not as relevant). Although the figure may not be a perfect indicator of agricultural productivity with respect to the programme, it was the most appropriate indicator in consideration of the available data that was reviewed.

In quantifying the “significant” income change required to classify a job as improved, the poverty likelihood and agricultural productivity indicators were connected to one another in a flexible manner. Because a fixed increase in income for someone more likely to be in poverty would have a much larger impact toward job improvement than the same income increase to someone less likely to be in poverty, it was determined that a sliding scale for the income increase be adopted to quantify an improved job. The sliding scale is used in a way such that a “significant” income increase for those more likely to be in poverty would be lower than for those less likely to be in poverty.

This sliding scale value, or “significant” income increase, is linked between the PPI poverty likelihood and the agricultural value added per worker (productivity). The process of using these values to calculate an improved job is shown below.

1. Calculate an individual’s poverty likelihood (probability) using the Progress out of Poverty Index (PPI). This will be done through a formal survey.
2. Subtract this probability of poverty likelihood from the value one. For example, if an individual has a 78 per cent²⁹ likelihood of being in poverty (or 0.78), the calculated value is now: $(1.0 - 0.78) = 0.22$.
3. Multiply this value (0.22) by the agricultural value added per worker for 2013 which is USD 421.

Thus, for an individual that is 78% likely to be in poverty, the calculation is $(1 - 0.78) \times \$421 = \93 . That is, for a particular person that has a 78 per cent likelihood of being in poverty, an income increase of \$93 or more during a year would quantify a new improved job. For someone with a 10% likelihood of being in poverty, the income increase required for an improved job would be $(1 - 0.10) \times \$421 = \379 .

Enterprises

It is expected that the Yapasa programme will create or improve the incomes of 5,000 youth owned/managed enterprises during the programme lifetime. Of these 5,000 attributable enterprises, at least 2,000 are expected to be existing youth enterprises which increase incomes and at least 3,000 are expected to be enterprises which start or expand activities in the soy or aquaculture value chains. The following sections describe how both types of enterprises are quantified³⁰.

Youth enterprises increase incomes

²⁹ 78 per cent is indicative of the year 2010 Rural poverty headcount ratio at national poverty lines, as defined by the World Bank Data (2015)

³⁰ Enterprises can be counted in only one of the enterprise categories (increased incomes or start/expand activities). This is to avoid double counting enterprises.

Youth that operate within the soy bean or aquaculture value chains are composed of the two types of business owners: those that are self-employed enterprises,³¹ and those that have multiple employees. For both types of enterprises, the following is requisite to quantify an enterprise with an increased income:

- The enterprise is active in the soy bean or aquaculture value chains prior to any of the interventions and or market systems changes effect the operations of that business.
- The enterprise must be majority owned by youth.³²

Self-employed enterprises

The majority of existing enterprises that the programme engages with are self-employed enterprises. Because the characteristics of a self-employed business so closely resemble those of the smallholder farmers for which improved jobs have been quantified, it is sensible to measure the income increases for enterprises and improved jobs in a consistent manner. Therefore, the three-step methodology used to calculate an improved job (see section 0) is used to calculate the income increase needed to quantify a self-employed enterprise with an income increase.

Multiple-employee enterprises

For any enterprises with one or more wage earning employees (apart from the owner), the methodology used to calculate income increases for self-employed enterprises is not appropriate as the poverty likelihood of the owner or any employee of the business does not provide a strong basis for evaluating the increases in income for that enterprise. Therefore, for multiple-employee enterprises, an alternative evaluation form of an attributable income increase of 10 per cent is required. This 10 per cent income increase is consistent with the income increase for those targeted by the programme (see Section 0).

Enterprises start or expand operations soy/aquaculture

In addition to the enterprises with income increases, at least 3,000 entrepreneurs are expected to start or expand activities within the soy bean and aquaculture value chains. These enterprises must be youth, majority owned and can include either of the following measures:

- Attributable enterprises that initiate any type of activity within the soy bean or aquaculture value chains for the first time; or
- Attributable enterprises that expand their line of activities within the soy bean or aquaculture value chains.

An example for the latter of the two measures is a soy bean farmer who becomes involved in processing or an outgrower who commences activities as an agro dealer for soy bean inputs.

Income

A 10 per cent income increase is projected for youth which have been impacted by interventions or market systems changes incited by the programme. This indicator measures the programme

³¹ This classifies as a single farmer that operates his/her own business, with operational support from immediate family.

³² For self-employed/single proprietor enterprises, the subject entrepreneur must be a youth.

outreach. All interventions should therefore quantify the income changes as a percentage for the youth benefitting from programme activities.

Food Security

Food security is not one of the universal impact indicators as identified by the DCED. However, as improving food security is one of the core programme objectives, it has been added as a UII and to the poverty reduction level as identified in the intervention guides.

Food security can be measured in a myriad of ways including through measurement of changes to household consumption habits, changes to the proportion of household expenditures on food, or diet diversity. Youth may or may not be heads of households but contribute to household food security. For this study, the change in the lean season, or, the duration per annum that a household runs out of food stocks, is the measured indicator. This indicator has been selected in consideration that it is relatively easy to collect as most farmers encounter this problem and know precisely when their food stocks run out and when they are replenished.

As a target, it is envisaged that the lean season will be reduced by one month or more for at least 10 per cent of the rural youth. This indicator should be measured for all smallholder farmers and rural youth.

Summary

In summary, the following should be considered for the projections and measurement of the universal impact indicators for the Yapasa Programme:

- Displaced jobs will be assumed as zero until evidence suggests otherwise.
- New jobs can be counted in two ways, based on the standard FTE method or the improved job method. The improved job method, which was developed for this programme, is quantified based on the relationship between national agricultural productivity per worker and the likelihood that an individual worker is in poverty.
- Enterprises are quantified to take account of those who are already participating in soy bean or aquaculture activities and experience income increases, and those that are either new to soy bean or aquaculture activities or are expanding activities within those value chains.
- An income increase of 10 per cent is the projected change for the target group (rural youth) within the programme.
- Food security is measured by a reduction in the lean season. It is projected that at least 10 per cent of the target group will reduce the lean season for themselves and their families by at least one month.

Annex 3: Intervention Guide Development and Maintenance Guidance

Introduction

Interventions are often multi-step processes which involve engagement with multiple partners, the collection of data and measurement of different indicators across these steps. Given the complexity

of interventions, the use of a simple and all-encompassing management tool is imperative to maintain a well organised intervention that considers appropriate measurement targets and timescales.

The tool used to manage interventions as a part of the Yapasa is called an intervention guide and is an Excel based tool. The intervention guide (IG) is a dynamic tool that should be updated and modified as activities change and details become clearer throughout the course of the intervention. By continuously updating the IG, the tool can be used effectively to inform project decisions and revise projections to give a more accurate picture of the intervention's impact.

When commencing an intervention, the [prototype intervention guide](#)³³ should be used as a basis. A checklist of the processes that one should complete when initiating a new intervention guide has been included at the end of this annex.

This annex of the MRM Manual details how to utilise the intervention guide to set-up, actively manage and document the activities within an intervention. Within the following sub-sections, detailed instructions are provided for each IG tab and each sub-section header corresponds to a particular IG tab.

Contents

The "Contents" tab of the IG requires no maintenance. All details from cells E4 through E7 are auto populated from the "8 RC update log" tab, such that those details are only entered in the "8 RC update log" tab. The only entry in this sheet should be in the form of an intervention specific photo.

Cover Page

The "Cover Page" tab is included such that anyone reviewing the IG for the first time can ascertain a snapshot understanding of the important intervention details through key facts and figures. Details associated with some categories such as intervention cost and value for money may not be available at the start of an intervention, however, the intervention manager should review these details periodically and input/update them when they are available or are more complete.

For the value for money (VfM) calculations, one should use the projected cost of the intervention from the "Monthly_Intervention_Sum" tab of the budget tracker system.³⁴ Incomes for the VfM calculations should be segregated between pro-poor (the farmers/SMEs in the target) and total (pro-poor plus other businesses benefiting i.e, Financial service providers, offtakers, processors).

Story

The "Story" tab is an opportunity to provide a more detailed (though still brief) story about why the intervention is being proposed in terms of market opportunity, who it will serve and how it will be

³³ Prototype guide located at I:\TC projects\Yapasa\IMPLEMENTATION PHASE\MRM MANAGEMENT\Intervention Guides\Prototype

³⁴ Budget tracker system located at I:\TC projects\YAPASA\IMPLEMENTATION PHASE\MRM MANAGEMENT\Budgeting

executed. Each of the sections within the “Story” tab such as Enterprise Performance, Youth Enterprise, Gender and Food Security should be completed initially and updated throughout the course of the intervention.

Results Chain

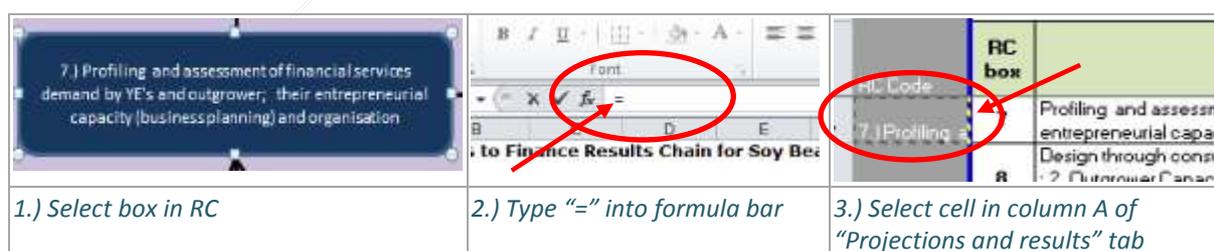
The “Results Chain” tab provides a mechanism to develop, actively manage and track the order of activities that are required to develop and complete an intervention. It should be noted that the text within this annex does not provide exhaustive instruction about setting up a results chain (RC), that process is further detailed in Annex 4.³⁵ The details in this section are provided to help the intervention manager navigate through and manage the systems in this particular results chain.

Formatting

The formatting for all Yapasa IGs should use the same colour, font, arrows and abbreviation key styles. Please note that the boxes within pre-activities, main activities, activity titles, systemic change activities and activities associated with other results chains are shown in different coloured boxes. When developing a results chain, it is recommended that the responsible portfolio manager adapt the structure of their results chain from the example results chain in the prototype IG such that the formats across RCs remain consistent. Box sizes can be adjusted such that the text fits appropriately.

Reference to Projections and Results Tab

In an effort to automate the interaction between calculations and projections, all text in the RC boxes should reference column A in the “Projections and Results” tab. This reference is necessary such that changes to the activity descriptions or projections in the “Projections and Results” tab are automatically updated in the RC boxes. With this link in place, consistency between tabs is maintained as long as all updates are entered in the “Projections and Results” tab. To establish this link, the following tasks must be performed: 1.) select the box within the RC, 2.) click on the formula bar at the top of the screen and enter “=”, and 3.) select the “Projections and Results” tab and click on the cell in column A that corresponds to box number that was selected in the RC and hit the “enter” key. These three activities are illustrated in the figure below.



After typing the “enter” key, return to the “Results Chain” tab to check that the appropriate text appears in the box that was initially selected. Note that column C of the “Projections and Results”

³⁵ Also, for those looking to refresh on results chain methods and development to the DCED standard, please consult <http://www.enterprise-development.org/download.aspx?id=1833>

tab should be completed first prior to undertaking this exercise. Instruction regarding how to complete the “Projections and Results” tab is included in Section 0.

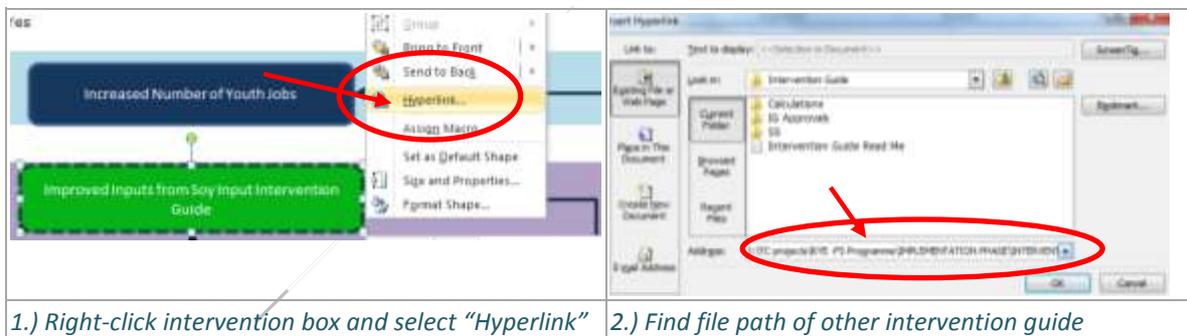
RC Assumptions and Projections

Assumptions and projections are an important part of the results chain logic, however, their visibility on the RC is not always necessary when checking or reviewing simple RC logic. To turn on and off these projections (direct/indirect/actual) and assumptions, one can toggle on and off these details by selecting “yes” (on) or “no” (off) in cells D2 through D5, respectively. The activity of turning on and off projections and assumptions is shown in the figure above and to the right.

	A	B	C	D
1	Page 3: Access to Finance Results Chain fo			
2				Yes
3				Yes
4				Yes
5				No
6				
7				
8				

Links to other RCs

The activities in one intervention can be dependent on or closely linked to those of another intervention. Results chains need to take into account this interaction such that the interdependency between interventions can be demonstrated clearly and the risk of double counting projections is minimised. A link to the results chain of another intervention should be done using the formats shown in the prototype (green box) and with the text in the activity box identifying the exact name of the linked intervention. Additionally, a hyperlink should be set-up in the activity box with the file path linking to the file where the linked IG is saved. The manner in which a hyperlink is assigned to an activity box is illustrated below.



After the file path has been selected (step 2 above), check to see if the hyperlink was activated by clicking on the green RC box.

Abbreviation Key

For any abbreviated text within the results chain, please complete the Abbreviation Key located at the top right of the results chain.

Measurement Plan

Within the “Measurement Plan” tab, the specific indicators per results chain box are identified along with the methods to collect the indicators and the date the indicator was collected or is scheduled for collection. Indicators should include a mix of qualitative and quantitative measures, with some results chain boxes containing both qualitative and quantitative indicators. In general, qualitative

indicators are more common near the bottom of an RC (in the activities level) and quantitative measures near the top (enterprise level/poverty reduction).

The information which should be entered initially into this tab is contained between rows 3 and 17. Within these rows, enter a brief description about the attribution strategy, measurement risks and how measuring systemic change is proposed. These details should be discussed thoroughly with the MRM coordinator.

The “Measurement Plan” tab is closely linked to the “Projections and Results” tab as the activities detailed in the latter, automatically appear in columns B and C in the former. The cells in columns B and C are locked such that they cannot be manually edited. To have the data appear in columns B and C, insert the number box in column A which you would like to reference. Numbers in column A should be entered in ascending order starting with box 1.

Conditional formatting in the form of colour coding has been included in column E (in reference to when the data is/was scheduled for collection) such that the intervention manager is aware of the immediacy of data collection needs. The colour scheme used for columns I, K, M, and O is detailed below and illustrated in the figure to the right:

- *Green*: Indicator has been collected (indicated by a “yes” value in the corresponding cell in columns J, L, N, and P);
- *Orange*: The indicator has not been collected and is scheduled for collection in the next two months;
- *Red*: The indicator has not been collected and the scheduled date for collection is already past due; and
- *Clear*: The indicator has not been collected and its scheduled collection is more than two months from the present date.

E	F
Collected when	Complete
Mention the time, (month/year) when data is likely to be collected	
Dec-14	No
Oct-14	Yes
Oct-15	No
Mar-15	No

Colour Scheme illustrated

For the remaining columns, please enter details and data as instructed in row 23 of this tab.

Projections and Results

The “Projections and Results” tab is perhaps the most important tab within the intervention guide. The content in this tab provides all information that is detailed within the RC as well as provides the basis for the “Measurement Plan” tab. Furthermore, the actual projections are linked to the calculations tab. Because of the interdependency of the “Projections and Results” tab, it is vital that information is entered correctly and completely. Before entering data, please review the red text in the row below the column header for instruction on the details required for entry in each column.

Within this tab, column A shows the text that is entered into the RC. This text is automatically generated from the text entered in columns B, C, F, G, H, J and K. The formulas in column A should never be changed nor should text be written over the formulas. In the case that the formula for a particular cell is overwritten, copy and paste the formula from another cell in column A which has not been overwritten.

Regarding the projection values, it is recommended that all values reference an appropriate cell in the “Support Calculation” tab. For example, if one projection is 1500 jobs, the value, 1500, and unit, jobs, should be referenced directly from the “Support Calculation” tab. These values should be linked directly to the “Support Calculation” tab such that when calculations are updated, the projection values (and those in the RC) are updated instantaneously.

For each box, identify any assumptions that provide a basis for calculating the projection value. As these assumptions may appear on the RC (if assumptions is toggled on in the RC), it is important that they are brief such that they do not clutter the RC box.

As measurement of the results from the intervention commences, it is important to update and adjust the projection values to reflect results that have actually been measured. With partially measured results (say after one season) one can also monitor how much of the cumulative projections (over three cycles/years) have been achieved to date by updating columns K and L.

In the last column, column O, any research that has been conducted to inform any of projections should be identified and the corresponding documentation hyperlinked such that it can be sourced easily and readily within the tab.

Support Calculation

The “Support Calculation” tab shows the details for any calculations made to populate the values in the “Projections and Results” tab. The calculations should be presented starting at box 1 at the top of the worksheet, and proceeding down the worksheet in ascending order (i.e. Box 2, 3, 4, etc.). The calculations should loosely follow the format shown in the example IG and should use the colour schemes shown in G3 through G6.

Calculation sheets should be checked by the MRM Manager to ensure that the calculation methodology is appropriate and that the formulae have been entered correctly. Checking should occur prior to the approval of any IG revision and evidence of this checking process should be detailed at the top of the worksheet, as shown in the figure to the right.

	B	C	D
	Calculations performed by: MM		
	Date of latest calculation revision:		22/01/2015
	Revision calculations checked by: SH		
	Date revision calculations approved:		22/01/2015
<i>Evidence of calculation checks/approvals</i>			

It is understood that the nature of projection calculations, particularly for those associated with business incomes and profitability, can be complex as they often involve a series of fixed capital costs, variable operating costs and sales. Additionally, many of the interventions benefit multiple actors such as an offtaker, financial institution or small holder farmer, each with a unique set of costs and revenue streams. Because these calculations can be so complex and may require multiple Excel worksheets to maintain clearly presented and coherent records, more complex calculations may be saved outside of the IG and in another Excel file or in a calculation appendix within the IG. For any calculations referenced from an external sheet, the “Support Calculations” tab must have a hyperlink to that external sheet as well as identify the cell and tab locations where the projection value was extracted. For externally referenced calculations, the box number in “Support Calculations” sheet should be highlighted in the colour orange. An example of an external calculation referenced within the “Support Calculations” tab is shown on the following page.

Any external calculation Excel workbook should also include a [calculation cover sheet](#)³⁶, which details any changes that have occurred to the calculations as well as provides a checking/approval record for these external calculations.

16	Box 2	External Calculation		
17		Excel Sheet Name:	MRM Plan Updated Fish feed (KBF).xlsx	
18		Tab Name:	Jobs	
19		Location:	C13	Unit
20		Cumalitive Projection	1546	Jobs
21	Calculation checked?	Yes		

Example of a calculation made in an external sheet referenced in the "Support Calculations" tab.

Infolog and Diary

The "Infolog & Diary" tab provides a space for the documentation of any meetings or key team decisions which have influenced the RC or any other part of the IG. Meetings which have influenced the IG should be regularly documented in [meeting minutes](#)³⁷, with hyperlinks to the documents provided in column E of the "Infolog and Diary" tab.

RC Update Log

The "RC Update Log" tab provides a space to document all major changes to the IG that have occurred prior to the approval for a particular revision. The first revision of the document should be RevA, followed by RevB, RevC, etc. Within the row for RevA, all changes and corresponding justifications for change to the IG which occurred during that revision should be documented within the same row. Once an IG is approved by the MRM Manager or CTA, that sheet becomes frozen and is no longer a working document. The intervention manager can commence work on the next revision and save and archive the approved revision as a snapshot the intervention guide at a particular time.

IG revision approvals should be given by the CTA or MRM Manager via email. These approval emails should be saved in the "IG Approvals" sub-folder within the "Intervention Guide" folder. These approval emails should be hyperlinked to the relevant cell in column G, such that when the approval cell is selected, the approval email will open.

As good practice, IG approvals should occur once a month and at the minimum, once a quarter.

Summary

Within this MRM Manual chapter, instruction is provided for good practice in managing the intervention guides. These intervention guides should be a living document which is constantly updated as more current or better information becomes available. This chapter should be used as a guide to help IG users throughout the development and management of an IG. Although this chapter

³⁶ Calculation cover sheet examples are available at I:\TC projects\Yapasa\IMPLEMENTATION PHASE\Document Templates

³⁷ Meeting minute templates are available at I:\TC projects\Yapasa\IMPLEMENTATION PHASE\Document Templates

provides a reference guide for intervention manager, the manager should consult the MRM Manager in the case that any process associated with the IG which is not clear.

The checklist on the following page should be consulted when setting-up an IG such that the intervention manager has a quick and easy guide that highlights the steps required for setting up an IG.

Intervention Guide Development Checklist

Please use the below checklist as a tool to help set-up and check through an intervention guide to ensure that all necessary tasks have been completed. If any questions arise from the below checklist, please consult the above document and/or the MRM coordinator.

Yes	No	Tab/Task
		Contents
		Intervention specific photo inserted
		Cover Page
		Intervention information, details and figures completed
		Story
		Brief story descriptions provided for each of the six description categories
		Results Chain
		RC adapted from structure of base RC
		Formatting (arrows, box styles, text) is consistent with base RC
		Text in all RC activity boxes links to cells in column A of the "Projections and Results" tab
		Hyperlink to corresponding/interdependent intervention IG included (if necessary)
		Abbreviation key completed
		Measurement Plan
		Measurement plan text (rows 3-17) entered
		RC box numbers listed in ascending order from the top (i.e. 1, 2, 3, etc.)
		Mix of qualitative and quantitative indicators identified
		At least one indicator identified per RC box
		Remaining details per row entered per instructions in row 23
		Projections and Results
		RC box numbers listed in ascending order from the top (i.e. 1, 2, 3, etc.)
		Values in column A have not been changed
		All values have been entered per the instructions in row 5
		Projection values and units referenced to "Support Calculation" tab (where applicable)
		All calculation/projection assumptions completed
		Cumulative projections estimated over three cycles (where applicable)
		Hyperlinks to research that has informed projections included in column O
		Support Calculation
		RC box numbers listed in ascending order from the top (i.e. 1, 2, 3, etc.)
		Colour scheme identified in cells F3 to F6 implemented
		Calculation check/revision title block up to date (cells C3 through D6)
		Hyperlink provided to external calculations with cell and tab location of referenced value (if necessary)
		Calculation cover sheet created and updated for any external calculations.
		Infolog & Diary
		All relevant decisions logged and hyperlinks to meeting notes or other decision evidence provided
		RC Update Log
		All changes and change justifications for each revision are identified
		Hyperlinks to revision approval emails included in column G
		Additional
		Naming convention of file follows Sector_Intervention_IG_RevX.xlsx, or for example, Soy_Access to Finance_IG_Rev A.xlsx

Annex 4: Developing Results Chain-Detailed Guide

Results Chain Basics

The Results chain³⁸ is a tool that shows the causality of impact at different levels. Results chains demonstrate how intervention activities may influence particular systems, how changes in these systems affect enterprises, and how those changes in enterprises may ultimately reduce poverty and/or contribute to other development goals.³⁹ Results chains can be developed both at intervention and sector level.

Intervention Results Chain Logic

An Intervention results chain is a diagrammatic representation of the logical sequence of the intervention strategy. It demonstrates the logical flow from Yapasa activities to outputs, outcomes, and impact. The results chain boxes should be connected with arrows to show the sequencing and the cause and effect relationship between boxes.

Every results chain is subject to a plausibility test: the link from one box to the next must be logical and realistic and eventually lead to changes in beneficiary incomes.⁴⁰ If the test is failed then the results chain needs to be revised. It may be that the jump between one box and the next is too great, in which case intermediary steps are needed, or that the strategy is not aligned with the expected systemic or enterprise-level change. To ensure consistency across the programme and that results chains intersect the Yapasa logframe, all results chains should have boxes relating to:

- Market players providing new/improved quality services (signs of 'adoption')
- The incentives of market players to continue or expand pro-poor innovations (including targeting new customer segments such as women and other disadvantaged groups)
- Avenues for replication (crowding-in and copying)
- Business practice changes in farmers and/or SMEs (e.g. buying and using quality seeds)
- Enterprise performance changes in farmers and/or small-scale entrepreneurs (e.g. improvements in yield, quality, price)
- Net attributable income changes in beneficiary farmers and/or small-scale entrepreneurs.
- Total number of youth enterprises (existing and new benefitted)
- Volume of additional production as a proxy for food security

Drawing and Intervention Results Chain-Guidelines

The following is a basic guideline for drawing an intervention results chain. It is a generic guideline that can be applicable for most of the interventions, however, sometimes, there may be exceptions, and modifications may need to be applied, provided the MRM manager approves them.

³⁸ Results chains are also known by a variety of other names such as Causal Models, Causal Chains, Impact Models or Results Chain.

³⁹ Measuring Achievements in Private Sector Development: Implementation Guidelines (Version 1g, 5th March 2010), *Donor Committee for Enterprise Development*

⁴⁰ Documented research and analysis must underlie the logic of the steps in the results chain(s) to explain how changes are likely to lead to lasting impact

- Brainstorm and streamline the main activities that Yapasa plans to undertake in order to address a certain sector constraint. A useful way to identify and screen out the right activities, is to ask these key questions:
 - Does one activity lead to another or will they be undertaken simultaneously?
 - Do they all target the same service providers/enterprises or do they target different service providers?
 - Do they all aim to produce one specific change in service providers'/enterprise's capacities or are they aimed at different changes?
 - What market system change are we trying to create?
- Describe the main change(s) in 'market offer; under the 'market system change level' i.e. changes in service providers'/market actors' capacities and/or behaviours that are expected to result from Yapasa activities:
 - Insert different boxes for each type of service provider/market actor
 - Add a different box for each major type of change
- Describe the expected changes in the interaction between service providers and target enterprises, and/or enterprises' increased use of the service in 'market uptake' under the 'market system change' level.
 - Add a box for the new/improved product of services offered. This will help assess 'adoption'.
 - Add a box for new and improved product of services being purchased/ used. This shows if 'adaption' and 'expansion' is occurring.
- The market system change level should always have a box to demonstrate if other service providers /market actors are crowding in. This will again help assess 'expansion' of the service/product.
- At the enterprise level describe the specific changes in enterprises'/beneficiaries' behaviour that are expected to result from increased use of the service /product and/or interaction with the service providers. The enterprises level should contain two parallel vertical line of boxes to differentiate between direct and copy beneficiaries:
 - One line of boxes should be put for those enterprises directly accessing services from directly reached providers; these are Yapasa's direct beneficiaries. This vertical line of boxes should lead all the way up to the impact level (i.e. jobs/income/enterprises/food security)
 - A second line of boxes for enterprises/market actors reached through providers that have crowded in or enterprises that copy directly reached enterprises. These are Yapasa's indirect beneficiaries. This line of boxes similar to the 'direct beneficiary' boxes should lead all the way up to the impact level (i.e. jobs/income and food security)
- At the Impact level, draw separate boxes to show per enterprise profit /sales etc. for direct and indirect/copy. Beneficiaries. These two boxes should then lead to a common box for the cumulative net additional income increase for enterprise owners (for direct and indirect).

Checklist for Developing Results Chain Logic⁴¹

While developing an intervention results chain there are some points that need to be considered. A checklist has been provided below which should be adhered to when preparing a results chain. These are mainly dos

⁴¹ Adapted and modified for Yapasa based on Katalyst Results Measurement Manual

and don'ts that one should be aware of. Note that this is not an exhaustive list, and through time and experience new things might be added.

- **Focus on Causality:** The result chain needs to be constructed in a manner that properly explains the causality between two levels. Therefore, a results chain should have causality starting from activities up to goal level. However, it is also possible to have interventions like (capacity building and/or policy change) that only have a causal link and impact up to outcome level. The key is to have a careful and thorough check on causality while constructing the logic.
- **Should use connectors for Excel files:** While developing results chain using Excel it is recommended that, boxes be joined using connectors rather than simple arrows. This makes the results chain more manageable, organized and also makes it easier to move around the boxes and to update them.
- **Numbered boxes:** Each box in results chain must contain a serial number. The numbers are placed sequentially starting from the activity level to poverty level. This number is used in the calculation sheet to link the measurement methodology to the relevant box and also to the MRM plan
- **Impact numbers should be updated quarterly or at least semi-annually:** Numbers at every stage of the results chain should be updated ideally every two months. This would help to capture the level of impact accurately and portray any changes taking place in the market without delay
- **Direct and Indirect/copy Impacts:** Direct and indirect impacts are kept in separate vertical lines in the results chains. At the outcome level, it is necessary to make separate boxes for the enterprises showing 'copying' and 'crowding-in'. Copying occurs when farmers/SMEs directly imitate the behavioural change of the beneficiaries, and crowding-in occurs when the other service providers enter the market seeing the benefit of the service providers in the Yapasa-intervention
- **Number projection and calculations:** The numbers and the calculations in the results chain are backed by well thought out assumptions and facts from the field. Facts or events that have taken place are used mostly at the activity level of the results chain, thus making it less significant to justify them. However in majority of the boxes, numbers are assigned based on market observations, trends, and the field experience of relevant professionals, in which case the necessity to verify them becomes quite essential. The projection should be kept as realistic as possible
- **Assumptions:** The assumptions made in the logic should be clearly mentioned in the Projections and Results tab which are automatically read into the RC by coding. Their display can be turned on and off via a toggle at the top of the page.
- **Assumption validation:** It is crucial that the assumptions in the results chain are validated throughout the monitoring and impact assessment period by conducting necessary studies. Field researchers are to come up with a pragmatic and relevant impact number to support said assumptions. Once assumptions are validated, they should be replaced by actual findings.
- **Impact number validation:** At the intervention level, although numbers are projected up to the goal level, the impact numbers are validated up to outcome level. In case of impact level impact studies are used to estimate the overall impact level figures.

- **Number calculations and supporting information:** All calculations and information that support a particular number (whether projected or estimated) are included in the Support Calculations tab.
- **Provide proper source:** It is of utmost importance that proper sources are quoted for each piece of information or calculation stated in the results chain. This not only strengthens the reliability of the projections, but also helps keep track of where the information was taken from and can therefore be easily modified when required
- **Sustainability mechanism:** Sustainability of the intervention is ensured by including any behavioural change-taking place among the service providers and market beneficiaries. This is done by including boxes at the outcome level, which reflect crowding-in, copying or any change in business practice or behaviour of the service providers and farmers/SMEs. The measurement plan for the relevant boxes should contain appropriate measurement planning to capture sustainability.
- **Capturing unintended effects:** The logic should also contain the scope of including unintended effects. Unintended effects maybe positive or negative, which were not anticipated while designing the logic. If these unanticipated effects become evident over time, the intervention design should be modified accordingly. These unintended effects could be captured in a separate box in the logic
- **Support Calculation sheet:** Each intervention results chain should be supported by a calculation sheet and an information sheet. In the calculation sheet, the final numbers at each level of the logic should be kept in bold letters, placed in a green coloured box.
- **Keep it simple:** The results chain should be kept as simple as possible without losing the context. Unnecessary arrows and boxes should be avoided.

Updating and Revising Results Chains

Results chains are not set in stone: they should be adapted and modified whenever there is evidence that an intervention is not delivering the results expected, or in response to new learning and new opportunities.

Every two months, the intervention managers present the results chain to the project team during the portfolio review meeting. These meetings are an opportunity to reflect on overall implementation, on the status of activities, and the effectiveness of the tactics being used. Results chains are used to guide the discussion, but to keep the MRM System manageable the changes are not always made during the meeting (unless seen as absolutely necessary). This provides an opportunity for the team to reflect more widely on the market system changes facilitated in sectors in which it is intervening, and review and analyse successes and failures from across the portfolio of interventions. After each review, the project management team have the opportunity to revise Intervention results chains. Reasons for the change are documented in the intervention plan under their respective tabs.

Annex 5: Measuring Change in Indicator

Measuring Change in Indicators:

To 'improve' interventions and 'prove' whether or not results have been achieved, each box in the results chain is measured using a combination of quantitative and qualitative indicators. This chapter explains the data collection tools available which allow change to be measured.

Use of tools, and Samples⁴²

For each indicator in the Measurement Plan, the plan specifies which data collection tools will be used to populate the data. A variety of measurement tools are available including: observation, output checks, in-depth interviews, Focus Group Discussions (FGDs), pocket and formal surveys. The exact choice of tool depends upon the nature of the change being measured, the complexity of change process, the required robustness, and extent of potential impact expected. For boxes at the activity level which relates to activities carried out under intervention such workshops, training, product development, linkage meetings etc. for which measurement tools like observation, output check and/or project records can be used. For boxes in market systems change level, which relate to 'market offer' -changes in the capacities, relationships, practices, and business models, improvement in product/service, and 'market uptake-awareness/understanding of the 'market offer', transactions of product/service etc. related a handful of system actors, a mix of qualitative and quantitative will need to be used, the types tool used could include output check, partner record (i.e. sales data), in-depth interview, FGDs etc. For boxes at the enterprise performance and impact level, which relate to benefits enjoyed by a larger number of target beneficiaries, a combination of interviews and surveys will typically be used.

The Measurement Plan specifies for each results chain level and box which tool should be used, when the data should be collected and who should be collecting the data. In case of primary data collection tools (e.g. interviews) the measurement plan also mentions how many people will be interviewed, the population from which they will be selected, and how they will be selected. For example: "interview all Yapasa partners receiving support to develop new feeds for fish", or "random sample of 200 end-users accessing new variety of feed X". If a control group is required, the Measurement Plan will specify how the control group is selected, and how many will people be interviewed. Where indicators are disaggregated by specific demographics such as gender, purposive sampling may be used to ensure that a large enough sample of respondents from each gender is chosen. For each primary study conducted the sample and sampling technique will be documented briefly (in a separate document) along with the measurement plan. These may be word or excel document and can be added as additional tab named 'study plan' in the intervention steering framework. Before committing to any primary data collection, a scan of available secondary data is conducted to make sure that primary data collection is warranted.

Each Measurement Plan will sample a variety of different system actors and use a variety of different sources in order to triangulate results and build up a more detailed and robust picture of change processes.

⁴² The section has been adopted by consulting the data collection section of GEMS1 (in-house research guide) FSDZ , SAMARTH NMDP, Grow Liberia and Katalyst 2011 Manual

Relying on just one set of system actors is unlikely to provide the depth and reliability of information required to prove and improve results.

Observation

An observation consists of direct inspection or examination by Yapasa staff. Observation can take the form of: examination of third party data (e.g. company records); qualitative information resulting from field visits; informal discussions with partners or other system actors; or observations regarding changes in the market (e.g. the launch of a new mobile based agri-information service). Observation is low-cost and useful for regular monitoring and providing quick feedback. However, observations are not easy to verify (unless supported by documented evidence), and their subjectivity means they lack robustness. When conducting observation, the following tips should be considered:

- ✓ Observations can be undertaken in the normal course of work or may be planned as a separate activity
- ✓ Observation can be made more effective if a checklist of required information is prepared before a visit
- ✓ May include informal discussions with market players
- ✓ Observers should be familiar with the market system

Activity Check:

An Activity Check captures and analyses the immediate effect of intervention activities. It is an on the spot checking of an activity to assess the success of the activity. The Objective of an Activity Check is to validate whether output is having the desired impact. In other words, it determines whether the intervention activities achieved what they set out to be achieved. An 'activity check' is a modified observation techniques which also includes use of some sort of data collection tools. So, this tool while allows observing, it also helps collect some qualitative and quantitative primary data. Examples of activity check may include quick pre-post assessment of trainings, quick feedback of workshop/dissemination seminar; on spot sales data of a trade show etc.

- ✓ Activity checks need to be planned with the intervention managers, as they need to take place on the same date and time of an activity to conduct on spot assessment.
- ✓ The MRM personnel will have to prepare checklist, data collection form or standard close ended questionnaires depending on the type of activity to carry out the activity checks
- ✓ The MRM persons should be familiar with the market system and the activity (its expected results in details)

In-depth Interviews

In-depth interviews are detailed interviews targeted to understand the process of change in details, and therefore, require a lot of time to extract explanations. In-depth interviews gather both qualitative and quantitative information from individuals on a one-on-one basis (as opposed to Focus Group Discussions, which occur in a group setting). They provide an opportunity to explore, in-depth, people's perception of the change process (e.g. why they think a change happened, how they feel about the change, and whether the change has brought about any negative consequences).

Interviews provide a useful complement to large-scale surveys, as they can capture some of the nuances and complexities missed by questionnaires and provide an opportunity to explore unexpected avenues (e.g. unintended consequences of a change process).

Interviews tend to be loosely structured, shaped around a list of issues to be discussed. They resemble a conversation, allowing a free flow of ideas and information. Interviewers frame questions spontaneously, probe for information, and take notes (which are elaborated on and organised after the interview).

Sampling: sample sizes typically range from 2-20 individuals (depending on the context of the study and the type of change being measured). Respondents are intentionally chosen with the aim of maximizing relevant information gathering. When conducting in-depth interviews, the following should be considered:

- ✓ Interviewers should draw up a list of questions and/or topics to be covered during the interview and he/she must have a good understanding of the intervention/ market.
- ✓ Interviewers should avoid asking leading questions, seeking to influencing answers, or correcting facts during the interview
- ✓ Interviewers should use follow up questions and probes to elicit more extensive responses from respondents and to explore unexpected avenues
- ✓ Interviewers should have knowledge of the change process and the wider market system
- ✓ Facts are validated through details and the interviewer

Key Informant Interviews

Key informant interviews are interviews with individuals who have first-hand knowledge of the issue being addressed through the intervention. The Objective of key informant interviews is to collect information from a wide range of individuals who can provide important and significant insight into the issue at hand. These experts, with their particular knowledge and understanding, can explain the nature of problems and give recommendations for solutions.

These interviews tend to be loosely structured, relying on a list of issues to be discussed. They resemble a conversation, allowing a free flow of ideas and information. Interviewers frame questions spontaneously, probe for information, and take notes, which can be elaborated on shortly after the interview if needed.

Sampling: Sample size ranges from 2-5 individuals. This number depends on the context of the study and type of change being measured.

Tips:

- ✓ Interviewers should have knowledge of the change process and the wider market system
- ✓ Key informants must have first-hand and in-depth knowledge about the change process and the wider market system in which Yapasa is intervening
- ✓ A diverse set of key informants are preferable, since diversity provides a broader range of perspectives and can help to triangulate findings

Focus Group Discussions

FGDs are similar to in-depth interviews except that they are conducted with a group rather than an individual. FGDs explore the process of change extensively and provide deeper understanding of why these

changes are taking place. They are useful when it is anticipated that a group dynamic will be useful to elicit fuller and more complete answers from respondents. It is also conducted when there is a need of consensus on a topic, or need of a common view of attendants. Furthermore, they provide insight into our attribution strategy. FGDs are usually conducted in-house.

Participants are guided by a moderator (or group facilitator) who introduces topics for discussion and helps the group to participate in a lively and natural discussion amongst them. The strength of FGDs relies on allowing the participants to agree or disagree with each other so as to provide an insight into how a group thinks about an issue and to highlight any inconsistencies and variation that exists in a particular group in terms of beliefs, experiences, and practices.

Planning an FGD session requires consideration of the following: the main objective(s) of the discussion, key questions or topics to be discussed, the agenda, how to select (and train) the moderator, where to host the discussion, how to record the session, and how to identify and select participants.

Sampling: typical groups consist of 8-15 people. Respondents for each group are chosen to be fairly homogenous in terms of experience and social position (and possibly gender).

Tips:

- ✓ A guide should be prepared before the discussion with a detailed checklist of points to be discussed
- ✓ The moderator must have knowledge of the change process and the wider market system
- ✓ The FGD should be held at a convenient time and location for respondents
- ✓ A good recording system should be used to record the discussion
- ✓ Participants should be selected on the basis of their first-hand knowledge and their willingness to share that knowledge
- ✓ When selecting participants, careful thought should be given to social dynamics – the composition of groups should be chosen to maximise the likely contribution of each participant. For example, in some contexts it may be desirable to form women-only groups.

Pocket survey

Pocket surveys gather information on quantitative indicators when statistical robustness is not needed. Field researchers, sector teams and the MRM team usually conduct them in-house. Pocket surveys generally use simple, close-ended questionnaires to gather information on both qualitative and quantitative indicators.

Pocket surveys can be used to obtain quick feedback on market developments, as part of an early warning system, or to triangulate the findings of qualitative measures. The findings of pocket surveys can trigger further, more extensive, research. Pocket surveys are used to validate the detailed findings of in-depth interviews, with a larger sample size.

Sampling: sample size ranges from 30- 60 respondents. Sampling can be stratified (e.g. to focus on particular target groups of interest).

Tips:

- ✓ Structured close ended, easy to administer questionnaires needs to be used for data collection
- ✓ The sampling should preferably purposive and/or stratified to ensure focus on the target group

Formal surveys

Formal surveys are used to mainly to gather quantitative information from a large number of respondents (however qualitative information can also be gathered using open-ended questions). In fact in order to understand causality and attribution a balanced mix of qualitative information must be gathered. Formal surveys can either be fully outsourced to outside research organization, or external enumerator/research aide may be recruited for data collection.

Formal surveys allow the collection of statistically robust data. Since formal surveys can be costly to administer, clear justification for why a survey is required is given in the Summary Measurement Plan tab.

All formal surveys are need to be designed and administered in accordance with accepted best practice:

Questions should be easy to understand and unambiguous. The questionnaire should not be too long. A pilot should be performed to test the clarity and length of the questionnaire. If needed, the questionnaire should be translated into local languages for respondents who do not have a good command of English. At the design stage, the survey should be translated back into English to check the quality and clarity of the original translation.

The sample should be drawn from the target population using random, cluster, or stratified sampling (if the data is to be analyzed by strata). In administering the questionnaire, care should be taken not to systematically exclude certain groups within the target population, which may bias the results (e.g. telephone interviews may exclude the poorest of the poor). If using quasi-experimental methods, both a treatment and a control group should be included in the sample.

Sampling: The sample size should be sufficient to generate statistically significant results. The exact sample size to be used depends on the level of robustness required, which in turn depends upon the size of the population and the amount of variability in responses (measured as the relative standard error⁴³). A larger sample size increases the robustness of the survey, but costs more to administer. Note that increases in the size of the population above 10,000 do not materially affect the size of the sample required to achieve a given level of robustness. Robustness is measured in terms of the confidence interval and the confidence

⁴³ The standard error is the [standard deviation](#) of the [sampling distribution](#) of a [statistic](#). The term may also be used to refer to an estimate of that standard deviation, derived from a particular sample used to compute the estimate. For example, the [sample mean](#) is the usual [estimator](#) of a [population mean](#). However, different samples drawn from that same population would in general have different values of the sample mean. The standard error of the mean (i.e., of using the sample mean as a method of estimating the population mean) is the standard deviation of those sample means over all possible samples (of a given size) drawn from the population. Secondly, the standard error of the mean can refer to an estimate of that standard deviation, computed from the sample of data being analyzed at the time. In practical applications, the true value of the standard deviation (of the error) is usually unknown. As a result, the term standard error is often used to refer to an estimate of this unknown quantity. In such cases it is important to be clear about what has been done and to attempt to take proper account of the fact that the standard error is only an estimate.

level (the probability that the true mean lies within the confidence interval). As a guide, with a relative standard error of 0.5 and population of 10,000, a sample size of 96 will give a +/-10% confidence interval with a probability of 95%⁴⁴. However, the sample size may need to be increased if there are too many diversity among the population to make appropriate representation. Therefore, in terms of selecting a sample size, the MRM team needs to focus both on robustness and resource efficiency. Since, most programmes are not research programmes, often MRM take a more practical approach to selecting a sample as opposed to going by a statistical formula. However, their statistical robustness needs to be checked to confirm the sample size.

A clear set of written instructions should be provided to enumerators and data entry staff. All enumerators and data entry staff are given comprehensive training on the purpose of the study, the questionnaire, interview techniques, and data entry requirements.

Respondents should be informed about the objectives of the survey and how the data will be used. All data should be kept confidential. The questionnaire should include the name of the enumerator, the date and location of the interview, and contact details for the respondent (to allow for repeat surveys over time and for random quality assurance checks).

If Outsourced:

If Yapasa outsources data collection for large formal surveys or for any other special studies, for each outsourced data collection exercise, a full Terms of Reference will be developed by the MRM Manager detailing:

- Background to the study
- Objective of the study
- Scope of the study (including geographic scope)
- Suggested methodology (including sample size and sample methodology, enumerator training, quality assurance mechanisms)
- Deliverables, with deadlines (to include: agreed methodology and work-plan, draft questionnaire, final questionnaire (after pre testing and translation), list of personnel (with CVs of key staff), codified cleaned database (in SPSS/Stata and Excel format), hard copies of the completed questionnaires, draft report, and final report)

Yapasa will follow its standard contracting guidelines for hiring external firms or individuals to conduct outsourced data collection.

After the data has been collated, the data should be cleaned (correcting for coding and data entry errors, investigating extreme outliers, and checking the results for internal consistency). Ideally, a random sample of 3-5% of questionnaires should be quality assured by contacting the original respondent. All data should be stored securely (with backup).

Frequency of Monitoring and data collection

⁴⁴ This example was calculated using an internet-based sample size calculator (see www.nss.gov.au/nss/home.nsf/pages/Sample+size+calculator)

To understand sustainability and systemic change, more than one impact (i.e. results data) needs to be collected. Because sustainability of results, market system changes and systemic change can only be observed over time, Yapasa monitors interventions up to 24 months or 3 business cycles (whichever is relevant) after the end of the intervention).

Triangulating Processing Information

Record the data, process, and consolidate the information according to the plan. For qualitative information, this means summarising information collected according to the indicators and information needed. For quantitative information, this means putting the data into a format that can be easily analysed.

Summarize the status of and change in the indicators. This may require calculations to determine averages, totals etc., and to compute the changes in indicators over time. Review the various information gathered from number of source to triangulate and derive the final results.

Reporting

Reports on individual data collection activities are brief and concise. It is not necessary to write a lot, can be as short as a pager. Rather, it is better to summarize information as briefly as possible. The aim is that the report has to be user-friendly for the teams who will use it for decision-making. The report includes:

- A very brief summary of how information was gathered – a few bullet points with a reference and link to the data collection plan
- The status of and change in each indicator assessed in the data collection activity
- Summary of information on sustainability
- A brief story of how the process of change has occurred.
- Summary of data on crowding in or copying (if applicable)
- Summary of information related to attribution
- Key figures for updating the intervention (or sector) impact logic (if applicable)

Useful guidance and information for In-House Data Collection

While it is tempting to try to gather as much information as possible, keep the list of information needed manageable and focused on the questions and indicators in the Measurement Plan. Plans and reports do not need to have lots of text or full sentences – bullet points are often easier to write and easier to read and use.

Useful Resources

DCED, Guide to Measuring Indicators (2013): www.enterprise-development.org/page/download?id=2111

DCED, Guide to Attribution (2013): www.enterprise-development.org/page/download?id=2012

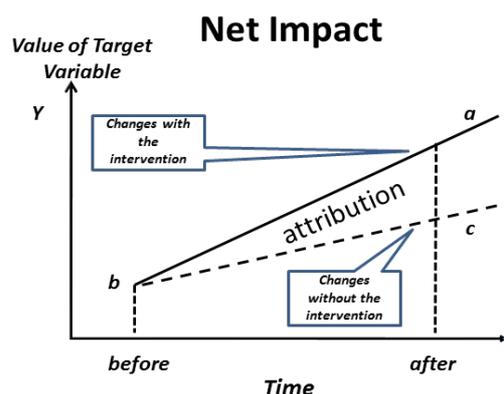
World Bank, Road to Results (2009); Chapters 8, 9, 10:

<https://openknowledge.worldbank.org/bitstream/handle/10986/2699/526780PUB0Road101Official0Use0Only1.pdf>

Annex 6: Detailed Guideline on Attribution

What is attribution and Challenges of measuring attribution?

M4P programmes operate within complex market systems, where many factors that have the potential to affect the various changes a programme aims to catalyse. Therefore, in order to assess the attributable impact of its interventions, a programme has to determine the extent to which measured changes are due to its actions, as opposed to other exogenous factors. Therefore, “Attributable Impact” is the amount of change that is caused by a programme alone. In other words,



Source: Impact Evaluations and Development: NONIE Guidance on Impact Evaluation, Frans Leeuw, Jos Vaessen, April 2009

attributable impact is the difference between the total measured change and the change that would have occurred due to natural circumstances other than programme impact. In the diagram the attributable impact is defined by the triangle ABC.

“What would have happened without the project” is called the “counterfactual.” The core challenge is that it is impossible to know with absolute certainty what the counterfactual is for a target group that has been affected by an intervention. Therefore, programmes need to design measurement approach/strategies to

measure plausible attribution rather than on providing scientific “proof”; which is firstly quite impossible and often beyond the program’s resource and capacity.

The requirement of plausible attribution aims to balance credibility with practicality when assessing programme results: the emphasis is on generating a credible account of results and impact given the monitoring resources available, to convince a ‘reasonable but sceptical’ outsider observer.

Difficulty in measuring attribution depends on a number of factors, which include among others, the nature of change (i.e. type of indicator), the context (i.e. the exogenous factors), and the counterfactual. These three factors among others play pivotal role in defining the attribution strategy.

Sometimes it is relatively easy to establish plausible attribution for a given box in the results chain. For example, if Yapasa-work with partners to develop a completely new feed variety, a simple interview with partners to confirm that Yapasa’s support was crucial in helping them to develop the new product will be sufficient. All subsequent uptake of the feed can then be attributed to Yapasa, at least over a short-term horizon, i.e. 24 months or 3 business cycle (because the product would not have existed without Yapasa’s support at least in the short-term, and beyond 24 months, overtime the private companies may innovate further to diversify, or cut back due various other factors, other than Yapasa’s intervention)

In the presence of multiple exogenous factors, it becomes harder to determine the proportion of observed change that can be plausibly attributed to the programme. For example, if measuring income change of a farmer, it is typically not sufficient to simply calculate the change in income of farmers before and after accessing the new service/product. This is because; the income may have

changed for a variety of different reasons outside the influence of the programme (e.g. good weather leading to a bumper harvest).

*Methods for estimating attribution*⁴⁵

In order to understand attribution, programmes need to understand and measure ‘counterfactual’. A combination of measurement tools and techniques used to measure baseline, counterfactual, and total change to arrive at attribution is often referred as the ‘attribution strategy’. In other words, attribution is estimated based on data collected through measurement activities carried out to understand counterfactual and total change. Therefore, a key focus on setting up an attribution strategy should be given on how to derive the ‘counterfactual’

A programme can use a variety of methods to estimate the counterfactual. Sometimes the counterfactual can be established directly by asking the system actors involved to what degree, in their opinion, the change would have happened anyway (using structured interviews or focused group discussions). Trend analysis can also be used to identify whether there was any momentum for change prior to the intervention. If the situation was fairly static for several years prior to the intervention, it is more plausible to attribute any consequent changes to the programme. Key informant interviews can be used to inform the trend analysis, supported where possible by documented evidence or secondary data. In certain cases secondary data can be used to construct an approximate control group, and thereby derive the counterfactual. There are no one-size fit all guideline to deciding the methodologies; it depends on the context, the intervention and the indicator. However, following are some of the more commonly used guidelines for setting up an attribution strategy.

There are generally two methods for assessing attribution, the factual and the counterfactual..

The “**factual**” method measures before and after (i.e. total) changes; for example, “supplying village water pumps reduces the time and cost it takes to collect water”. In this case the attribution to reducing water collection time and costs is so clear that there is no need to resort to any other method of assessment.

Factual methods are more simpler, should be administered for simpler indicators, where attribution is less challenging, and attribution is likely to be equal to the total change (i.e. the difference between before and after). It can be an efficient method of attribution when the attribution case is more transparent. When this is less clear supplementary methods are needed in order to assign attribution to the intervention. Factual methods may occasionally be used (but not recommended) in situations where obtaining counterfactual data is either too challenging or not possible.

Three common methods used to assess the factual are:

- **End of Project Survey:** As in the case of the water pumps above, attribution can be clearly established assuming that there are no other strong factors that are important for this change. This is particularly effective in case of a new technology, where its introduction is

⁴⁵ Adapted from ‘Alexandra Mehildbradth’ and slightly modified for Yapasa

the only new variable in the change process. In such cases where the causality is clear it is not necessary to conduct large surveys⁴⁶. With this type of survey, however, the target group needs to recall the details of their condition before the intervention.

- **Before and After Surveys:** In the absence of readily available or credible data that measures changes in the outcomes of the selected target group, it may be necessary to collect baseline as well as end-of-intervention data, in a “before and after” survey. This would involve surveying a representative sample of the selected target group. The aim of this survey is to verify the magnitude, if any, of the change that happened. Such surveys can convince that a change has happened, but in themselves they do not establish credible attribution.
- **Opinion Surveys:** Can supplement the two above-mentioned methods. These can be conducted with a representative sample of the target group that has been affected by the intervention. The aim of such surveys is to identify the strength of the causality between the proper use of the intervention’s output and eventually the perceived result that this has generated. In such cases the selection of a representative sample of the target group is critical for the credibility of the conclusions.

The “**counterfactual**” is a second set of methods for assessing attribution. The “counterfactual method” tries to assess ““What would have happened without the project”. This method is used in such cases, where several external variables, such as weather, civil unrest, national economic performance, or the availability of other essential inputs that may significantly influence the final indicator exist. In such cases it is important to use these ‘counterfactual’ methods to try to “isolate” the core value of the intervention. Its worth mentioning that in such situations ‘factual’ methods’ may be used additionally, depending on the intervention; however, use of ‘counterfactual’ methods are a must. Below, two of the more commonly used methods have been presented.

- **Comparison Analysis:** This involves comparing the changes measured in the selected target group with the overall norms for that same target group. These may be larger economic trends that can be identified using national statistics or comparable data collected by other credible researchers. Examples could be national productivity rates, income growth or decline, national mortality, national exports, etc.
- **Quasi-Experimental Design:** This method is sometimes called the “**difference of difference**” where a representative sample of the intervention’s target group is surveyed before the intervention starts and then at its conclusion. This difference is then compared with the difference of a representative control group of the beneficiaries who have not participated in the intervention. This can be done with small and “purposive” sampling and is suitable for isolating an intervention’s impact.

Using these methods of attribution methods all key changes along the results chain can be measured with attribution. Therefore, if measurements flag that a box in the results chain does did not

⁴⁶ Large survey as defined as those that may not be administered in house, require out sourcing to third party research organizations, and often contain a sample size of more than hundred.

achieve the expected changes/results, it will immediately signal to the programme management team that, any changes beyond that box along the results chain will not happen, as there is a broken chain of effect (i.e. results). This will help the programme management team to take have to take immediate reactive measures to address the issues causing the failure of results for that particular box/activity/step in the results chain.

Annex 7: Measuring Sustainability & Systemic Change⁴⁷

Sustainability is a pre-requisite for achieving systemic change, without sustainability there won't be any systemic change, however, sustainability cannot automatically warrant systemic change. The two factors are related and interdependent. This section explains about the technicalities of measuring sustainability and systemic change, with greater focus on systemic change.

Measuring Sustainability

What is Sustainability? Sustainability is the extent to which positive impact is maintained (or enhanced) over time, especially once the intervention has ended. In M4P this specifically refers to the market's capacity to ensure that relevant services continue to be offered to and used by the poor beyond the period of an intervention.

Measuring sustainability: The MRM system at Yapasa will use longitudinal studies spread over a period of 24 months (or 3 business cycles) to trace and follow the process of change and impact and understand sustainability better. Such studies can be designed in a number of ways, depending on the nature of intervention. The design of the study should also be part of the attribution strategy. Below, two more commonly used method to assess sustainability are detailed.

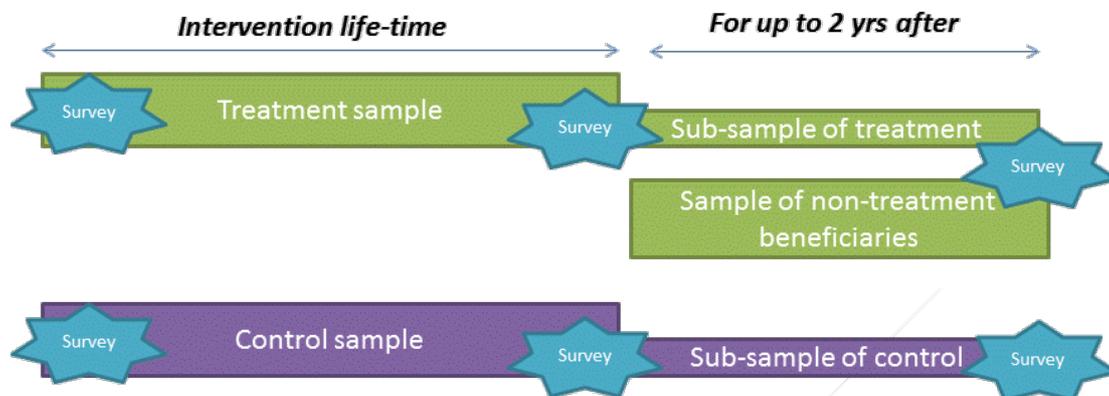
Comparative study with constant group: This method involves conducting periodic study for two groups of people over a 24 month period. One group is the treatment group and the other is the control group. The sample size for each study may range from 15-20. The weakness of this method is having biased data because the treatment group size is small and constant. The method is often known as the panel interview method.

Comparatives study with constant control group: This method involves conducting a study for a two groups (control and treatment) over the 24 month period. The control group is kept constant, but using this methodology, the treatment group for each study involves interviews with a new sub-set of beneficiaries from the same population. The sample beneficiaries may be selected purposively based on intervention geographical coverage. Since, the study is repeated over a 24 months period (or 3 business cycle), the sample size for each study may range from 15-20. This approach has the advantage of assessing sustainability to a greater geographical disperse, spread over a 24 months period. Therefore, if data shows positive impact on sustainability it is more likely to be accurate. A visual depiction of both methods is included on the following page.

In both approaches, note that details such as name and locations of other marker actors benefitting from the intervention should be collected from the treatment market actors. This should include

⁴⁷ The section has been developed by consulting, reviewing and adopting GEMS1-RM strategy, Grow Liberia and Katalyst 2011 Manual

both direct and indirect system actors. The list of other market actors should contain a larger number than the actual sample size used for the study; this measure is taken to reduce any selection bias (as the list is given by the market actor). Measuring over a 24 month period using these methods assists Yapasa in understanding systemic change (from the point of view of assessing adapt and expand, explained in the following section).



Measuring Systemic Change:

What is systemic change? Systemic change refers to a change in the underlying causes of market system performance – typically in the rules and supporting functions – that can bring about more effective, sustainable, and inclusive functioning of the market system. Systemic change is a higher degree of sustainability. This means, if Yapasa intervenes to introduce new product market for ‘improved fish feed’, the market will become systemic, when a) the company that Yapasa has supported expands operations independently, with increasing customer base, growth and revenue; b) more and more fish farmers use and demanding improved fish feed.; c) this in turn creates more competition and introduction new fish feed products offered by competitors (independent of Yapasa support). At this stage, the market has already achieved systemic change, however, a higher degree of systemic change is observed when supporting markets (services and/or rules and regulations respond). For example looking at the rapid growth of improved fish feed market, government introduces legislation on minimum standard quality of fish feed and establishes a mechanism of certification to ensure product quality. This reaction would make the ‘improved fish market’ achieve complete (high level) systemic change; where interconnected markets incite an independent reaction. The steps of achieving systemic change are measured against the adopt-adapt-expand-respond matrix, which is shown below.

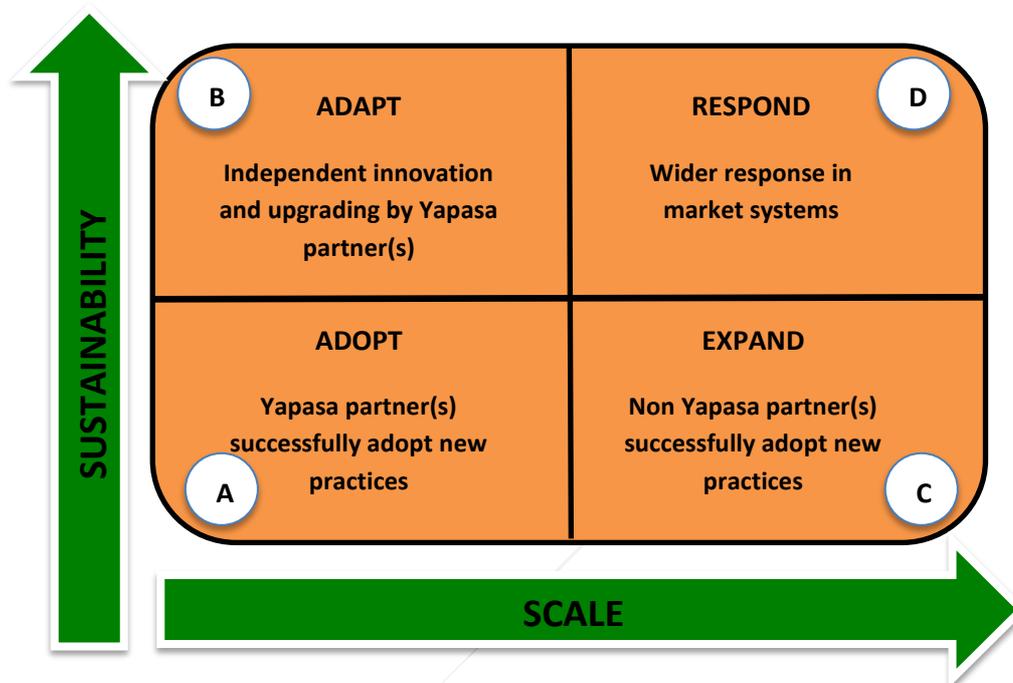
Adopt

Adopt is the first step to systemic change. Adopt occurs when a Yapasa partner successfully adopts a new practice (with the direct support of Yapasa). This could be developing and launching a new product or service, adopting a new business model, or any other practice change facilitated by the programme. Adopt is shown in quadrant A in the above figure.

At this primary stage sustainability has not been proven as partners will typically still be receiving Yapasa support. However, early signs of the likelihood of future sustainability are still assessed, for example by monitoring the degree of co-investment by the partner, commercial viability of the pilot, satisfaction of users, and plans or stated-intentions of partners to sustain the practice change.

A more convincing test of sustainability comes once Yapasa has withdrawn direct support from the partner. At this stage, sustainability requires that partners sustain the practice change after direct Yapasa support has ceased and without any significant deterioration in quality or performance.

Monitoring: Implementing partners (i.e. private sector partners) need to be monitored to determine if they are successfully adopting key practice changes during and after direct programme support has ended. This also includes checking if beneficiaries have access to new products/services or rules.



Adapt

At the adapt stage, Yapasa partners continue independent activities linked with the original practice change. Beyond sustaining the original practice change, partners undertake independent innovation to tailor the practice change, develop new varieties, and/or upgrade performance. The practice change is mainstreamed or embedded within the organisation (becoming the norm or established way of working).

Adapt is the stage of sustainability for the direct (i.e. those who have partnered with Yapasa) market actors and beneficiaries. Because, at this stage, private partners continue to develop and grow independent of the programme support. This also implies that there is increased demand for the product/service being offered, i.e. copying at the beneficiary/farmer level has occurred. It is worth noting the ‘copying’ at the beneficiary level is a must for adapt to happen, with a demand or market potential a product or business will not be able to sustain, let alone grow.

Monitoring: Monitoring activities should include monitoring private sector partners to determine if they have successfully adapted the practice change after direct programme support and monitoring direct farmers/enterprises benefits on ‘outcome’ and ‘impact level’ indicators for sustainability (as per the methodologies mentioned under ‘measuring sustainability’). Specific information should be collected on increase in sales, customer base, demand etc. These data then needs to be used to

identify the copy beneficiaries (who are essential for adapt to happen). In order to assess systemic change monitoring has been done at both supply and demand side.

Expand

At the expand stage; other system actors not directly partnered with the programme adopt the practice change (or a close variant). This crowding-in can happen organically or as the result of Yapasa activities designed to encourage replication (e.g. brokering a peer learning relationship between a partner and non-partner industry association or preparing and disseminating a case study on the commercial benefits accruing to early adopters).

The expand stage can occur after the adopt stage or the adapt stage. At the expand stage the scale of the intervention begins to increase.

When a programme identifies potential “crowding in,” it should seek to verify a link between practice change at program’s direct partners and practice change at the potential crowding in market actor. It should also monitor the system to identify copying beneficiaries (who are copying are behaviour of the direct beneficiary). At the adopt, adapt, and expand stages, programmes should monitor the total number of actors adopting the practice change (Yapasa partners plus known ‘crowding in’ actors). For example, Yapasa estimates the proportion of system actors adopting the practice change (e.g. ‘75% of feed dealers facilitated currently active in Zambia). Yapasa also estimates the proportion of end-users accessing a new service (e.g. ‘59% of clients of seed dealers facilitated are using the new variety of feed’).

Monitoring: Monitoring involves a scan of the industry landscape through key informant interviews with system actors (including partners and copycats). It also involves monitoring indirect and direct farmers/enterprises benefits on ‘outcome’ and ‘impact level’ indicators for sustainability (as per the methodologies mentioned under ‘measuring sustainability’). Monitoring at this stage becomes more investigative, involving looking for clues and following up on leads.

Respond

At the respond stage, increasingly mainstream practice change triggers a secondary response from players in the wider system, or in adjacent systems. These responses appear in the form of changed or new supporting functions and rules that reflect the original practice change and its widespread adoption. The original systemic change creates a new set of market conditions that encourage evolution in, and re-organisation of, the market. The increasing depth of market linkages, the wide variety of system actors active in and supporting the practice change, the creation of new norms and expectations around the practice change, and the continuous process of innovation and competitive upgrading means the original practice change is able to “move with the times”. The practice change has a high degree of resilience to external shocks (such as changing consumer tastes, or technological innovation).

Monitoring: Monitoring involves a scan of the industry landscape; key informant interviews with system actors; and observation of response to shocks. At this stage, monitoring is again investigative, involving looking for clues and following up on leads. It is largely qualitative in nature.

Annex 8: Guidelines on Projections and Aggregation⁴⁸

Projections: How to?

Projections are the results expected from an intervention, by a given time (month and year). Projections are made for every box in each Intervention Results Chain, against key quantitative indicators. However, sometimes these indicators are further explained by a qualitative indicator. Thus while many boxes in results chains should be measured quantitatively, they also contain a qualitative aspect. For example, “number of farmers who have learned how to cultivate early variety vegetable seeds” is a quantitative indicator, but measuring the learning exhibited by farmers contains some qualitative assessment.

Developing Projections:

Projections are produced by starting at the bottom of the Results Chain and working up, making assumptions at each step, until reaching the top. As an example of the thought process involved, consider the following example: Yapasa projects it will initially work with 10 contract traders who will develop an outsourcing model for fish farmers and use it to transfer improved fish cultivation techniques and input knowledge to these farmers. Each of these contract traders would work with 80 small-scale fish farmers. Therefore; Yapasa would have achieved transfer of knowledge on fish cultivation to a maximum of 800, farmers, of which Yapasa projects 80% would learn and benefit, therefore giving a total of 640 beneficiaries. Each projection has to be based on well thought-out assumptions derived from findings from market analysis and research, field observations, key informant interviews, or other credible third-party sources (such as government data, or studies by other development projects).

In the example above, relevant information that needs to be available beforehand include: initial discussions with potential input companies, input-dealers, and/or farmers interested in developing contract farming models; an estimate of the potential market size for new variety of fish (for which the contract farming model is being proposed); information from consultants on the type of skills, technical know how, finance and change in business practice farmers would need to bring about to develop this new variety; cost-benefit analysis and potential profit of this new variety to traders and farmers; baseline profits of farmers who are currently producing traditional varieties etc. and typical lengths of time required to support the development of this scheme. Where an intervention manager lacks the information or evidence base to make reasoned assumptions they are encouraged to seek out further information. Projects should be made as realistic as possible. All, the key assumptions and facts underpinning the projections need to be explicitly stated in the projection and calculation sheet of the intervention guide. Where facts have been used they need to accurately reference.

Validating and updating projections:

Any assumptions made for projections need to be checked, validated and replaced with the actual data. In addition, as monitoring activities are carried out along the results chain, when actual data becomes available

⁴⁸ The section has been developed by consulting and adopting, and improving from GEMS1 , Katalyst 2011 Manual , Grow Liberia

for the initial boxes of the results chain, the projections for the rest of the results chain needs to be reviewed and revised. This is explained below using the contract-farming example.

Let's assume that when the first set of activities are concluded in setting up a contract growing model, only 7 out of the 10 interested contracting traders actually develop a model. This would affect the projection negatively, as fewer companies (than expected) would be investing in the model. However, we learn that each contract grower is starting with an average of 100 farmers (instead of 80) which would affect the projections positively. With this new information the intervention manager needs to update and validate the projections. While updating simply requires revising the projections based on new data, validation occurs once some projections have translated to actuals (and are no longer based on assumptions). Once the monitoring activities have validated the new figures about 7 companies and 100 farmers/contractor, they become validated figure. The rest of the results chain figures would then have to be revised based on these figures. So, throughout the monitoring period, until all figures are validated, a results chain may contain a combination of validated and projected figures.

Using the previous example, seven contract traders developed an outsourcing model for soy bean farmers and use it to transfer improved cultivation skill and input knowledge. Each of these traders works with 100 farmers. Therefore; Yapasa has achieved transfer of knowledge on cultivation for 700 farmers, of which Yapasa projects 80% will learn and benefit, therefore giving a total of 560 beneficiaries.

As demonstrated in the example, the projections have changed. While populating the results chain with figures, it is important to distinguish the projected figures from the actual (i.e. validated projection) figures. This are distinguished in the IGs using Excel coding which allows the user to turn on and off the projections (both direct and indirect) and actuals or compare them side by side.

No intervention should enter implementation unless realistic and defensible projections are produced and, based on these projections and the intervention budget, the intervention manager can assess the potential value for money (VfM) of the intervention. During implementation, projections will be used as a basis for assessing whether each intervention is on track. By thinking through when each change can be expected to occur against each box in the results chain, projecting results also helps with measurement planning.

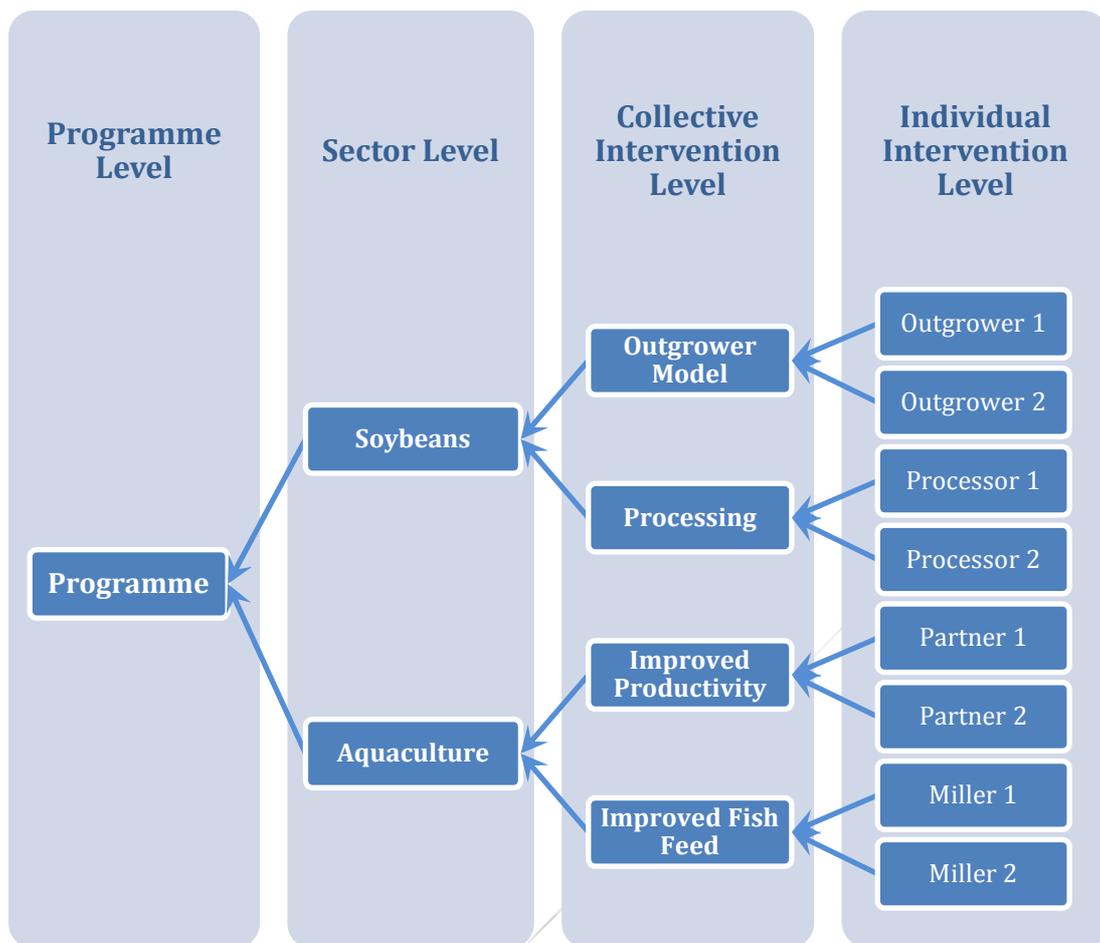
Projections should be ideally reviewed every two months as part of the portfolio review process to make sure they are still realistic. However, if changes occur before review, it is advised that the results chain be updated as soon as possible, without waiting for the review period to arrive. Any changes made should be documented in the "Infolog & Diary" tab of the IG. The support calculation should contain all detailed background calculations for both projects and actual data.

Aggregating Results

To report results at a programme-level, data from across interventions is aggregated using the Yapasa overarching impact Indicators (see [Annex 2](#)). For each indicator, overlap adjustments are made to avoid double counting.

Aggregation: How to?

Aggregation of results will be done at four levels. These four levels are defined in the below diagram which shows an example of how aggregation within the Yapasa programme flows.



The MRM team will be responsible for tabulating the results for each individual intervention (level to the far right) in the first instance. This includes tabulating the results from the intervention into a programme aggregation tracking sheet. This process quantifies the actual and projected results from an individual intervention into the programme defined indicators (see Annex 1: Programme Indicators). For example, for the individual intervention for Outgrower 1 (a soybean outgrower partner for which an intervention was developed), the projected and actual results for any relevant programme indicators such as jobs, enterprises, applications to financial enterprises, increased productivity, etc. will be quantified on an annual basis. This is quantified as a tab within the relevant intervention guide.

At the next level, results from each individual intervention are aggregated into its associated collective intervention. For example, the actual and projected results tabulated from Outgrower 1 and Outgrower 2 are aggregated into the Outgrower Model aggregation tracking sheet. That is, if 150 and 100 jobs are projected to be created by Outgrower 1 and Outgrower 2 in year 2016, respectively, the aggregation of those results in the Outgrower Model aggregation tracking sheet will show a projection of 250 jobs for year 2016. This type of aggregation will be done for each programme indicator that is relevant to the intervention.

The aggregation strategy at the sector level is similar to the aggregation strategy at the collective intervention level. That is, for the soybeans sector, the aggregated results from all collective interventions in the soybean sector, such as those for all soy processors and outgrowers, are aggregated into the overall sector results tracking sheet. For example, if 250 and 150 jobs are projected for year 2016 for the Outgrower

Model and Processing (both collective interventions), respectively, the projected jobs in the aggregation tracking sheet for soybeans, as a sector, is 400 jobs. It is noted that an overlap in results at the collective intervention level is a considerable risk. Details on how to minimise this risk are included the below sub-section.

The last step in this process is to aggregate the results from the two sectors. Aggregation in this level is performed in the same manner as in the previous two aggregation levels such that 400 and 500 jobs created in 2016 within the soybean and aquaculture sectors, respectively, would be aggregated to 900 total jobs for the programme. A copy of the programme and sector aggregation sheets can be found [here](#).

By aggregating the results in the manner identified in this section, one can easily identify the benefit of a programme on a per indicator basis and any of the four levels. This is conducive to identifying value for money on any of those levels.

Guidelines for Adjustment of Overlap, and Aggregation

Overlaps can occur when aggregating data from the collective intervention level to the sector level as a result of geographic area overlaps between interventions or overlaps due to use of the same entry points for multiple interventions (service providers, companies, extension officers, associations, etc.). These may lead to the same group of end beneficiaries becoming the target of multiple interventions. Hence throughout the intervention management process, these possibilities should be kept in mind. Proper and timely identification of potential overlaps should be recorded. When updating the sector aggregation with verified impact data, these overlaps of scale should be adjusted so as to prevent any form of double counting. Every intervention plan contains a cover page which summarises the principal impact data and which can be used when calculating overlaps. Sector-level aggregation of data should be revised every six months. Key possible overlap could include:

- Youth enterprises: Yapasa is a programme that is aiming to create youth enterprises in soy bean and aquaculture sectors through market system changes, which in turn, will benefit the sectors, bring about growth, food security and more income to farmers. These youth enterprises can be any of the value chain members, they could be market actors (feed fillers, or agro dealers), or farmer, therefore, Yapasa must closely monitor these youth enterprises to adjust for overlaps.
- Market Actor – This overlap can occur if two or more interventions use the same service provider as their respective entry point (for example same seed dealers serving more than one intervention in Soya)
- Farmers/Beneficiaries – This overlap can occur when one particular farmers benefits from more than one interventions.

Since Yapasa is working in largely non-related value chains like soy beans and fish, there will be no overlap across the sectors, except in the case that a soy bean processor produces/sells the primary ingredient in fish feed. With the exception of the soy processor, Yapasa will aggregate data without overlap adjustment at the programme level. However, a careful screening should always be done to flag any possible overlap, for example, overlap of market actors, such using the same agro-dealers for both soy beans and fish, in such cases, the aggregated number of agro-dealers benefitted at the programme level needs to adjust to address double counting.

In order to identify overlap between beneficiaries, understanding overlap of market actors, can be a good starting point. If there is overlap of market actors, i.e. same service provider/agro dealer is being used; chances are that clients of the agro dealer are the same, hence higher possibility of overlap. The overlap can be further understood by looking at geographical coverage, if they interventions are covering the same sectors in the same villages, there is a higher possibility of overlap.

Assessing overlap is not always a scientific process, however, through use of information from various sources, triangulation can lead to reasonable estimate of overlap. To do this, the intervention manager and MRM team will always have to concrete information on market actors, geographical coverage of interventions, nature of youth enterprises created etc.

Annual Aggregation:

Since Yapasa will be conducting annual aggregation, intervention type and maturity will affect how the MRM team aggregates data. The duration and start date of an interventions along with the 24 month (or 3 business cycle) monitoring period can influence annual aggregation. In the figure below green represents the intervention-monitoring period and white represents implementation period. When results are aggregated at the end of 2016, interventions that started in 2014, the monitoring period will be completed and interventions started in 2015 will have only gone halfway through their monitoring period and will thus have partial impact data. Therefore, the aggregated impact figures for 2016 will include cumulative impact data for interventions starting in 2014 and partial impact data for interventions starting in 2015.

