RESULT MEASUREMENT MANUAL

Australia-Indonesia Partnership for
Rural Economic Development

AIP-Rural | May 2017

TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ANNEXES

Table. 1

List Of Abbreviations

AAER	Adopt-Adapt-Expand-Response-Matrix to assess systemic changes	IDR	Indonesian Rupiah
AIP	Australia-Indonesia Partnership	IP	Intervention Plan
AIP-Rural	Australia-Indonesia Partnership for Rural Economic Development	ISD	Intervention Steering Document
ARISA	Applied Research and Innovation Systems in Agriculture	ISP	Intermediary Service Provider
BAC	Before After Comparison	KBI	Key Business Indicator
BACO	Before After Comparison with Opinion	KPI	Key Performance Indicator
BEE	Business Enabling Environment	M4P	Making Markets Work for the Poor
CG	Comparison Group	MP3KI	Master Plan for Acceleration and Expansion of Poverty Alleviation in Indonesia
CMT	Core Management Team	MRM	Monitoring and Results Measurement
DCED	Donor Committee for Enterprise Development	NGO	Non-Government Organisation
DFAT	Department of Foreign Affairs and Trade	NTB	Nusa Tenggara Barat
DGM	Deputy General Manager AIP-Rural	NTT	Nusa Tenggara Timur
DiD	Difference in Difference	PPI	Progress out of Poverty Indicators
EoI	Expression(s) of Interest	PPP	Purchasing Power Parity
FGD	Focus Group Discussion	PRISMA	Promoting Rural Incomes through Support for Markets in Agriculture
GM	General Manager AIP-Rural	PSP	Private Sector Partner
GoA	Government of Australia	QED	Quasi Experimental Design
GoI	Government of Indonesia	QMT	Quality Management Tool
GSD	Growth Strategy Document	RI	Research Institute
GSI	Gender and Social Inclusion	RM	Results Measurement
HoP	Head of Portfolio	SAFIRA	Strengthening Agricultural Finance in Rural Areas
HMIS	Head of Management Information System	SP	Service Provider
HRML	Head of Results Measurement & Learning	TIRTA	Tertiary Irrigation Technical Assistance
ICN	Intervention Concept Note	TL	Team Leader

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Major revisions will be in whole numbers. E.g. 1.0

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FOREWORD

It is important for a development program to have a rigorous results measurement system. Especially as a market development program, the output from results measurement system can then be used as a strong foundation for managing internal performance, showing progress to stakeholders, and improving future works through learning. To ensure a good quality output, a manual providing standardized requirement for result measurement activities is a clear necessity.

This version of AIP-Rural (Australia-Indonesia Partnership for Rural Economic Development) Result Measurement Manual tries to answer to that need. The manual consists of eight chapters, in which each of them explains the stages and aspects related to result measurement system applied in the program. From understanding the result chain, choosing the commodity, creating monitoring plan, to methods and approaches for measurement, this manual covers each step of required measurement thoroughly. Moreover, the manual also covers the monitoring and measurement of cross-cutting issues, such as poverty, gender and social inclusion, food security, and environment.

With this manual, it is hoped that the results from the program's result measurement activities to be more robust and lead to better decision-making process to achieve systemic change. Since AIP-Rural is a program that follows the Donor Committee on Enterprise Development (DCED) standards on result measurement, this manual also can be used as a guideline for other market development programs that follow the same standards. This is a manual that will be beneficial for both the result measurement team and the sector team.

Goetz Ebbecke
General Manager AIP-Rural

FOREWORD

Sending a legion of trained army to a battle without providing them adequate weapons would be such a waste of skilled resources. Whereas, sending a search group to a foreign place in a mission to obtain something might lead to lack of expected result. Hence, to avoid those from happening in the program, we developed this Results Measurement (RM) manual.

While in market development program we are required to be innovative in implementing the program, there is still a set of standards we need to comply to ensure robust result. AIP-Rural (Australia-Indonesia Partnership for Rural Economic Development) Result Measurement Manual presents to you steps to conduct a rigorous result measurement activities for market development program. While the sector team would want to claim as many numbers of outreach as possible, it is the duty of the RM team to be the conservative counterpart and paying attention to the Donor Committee on Enterprise Development (DCED) standards on result measurement. Hopefully this manual can help bridging both objectives and lead to the best output for the overall program.

However, it is realized that the manual still requires constant review and revision as the program goes. As the whole team progress with the implementation of their interventions, more ideas and lessons learned will be gained from the field. Such findings are invaluable input for future, more comprehensive versions of this manual.

Khaled Khan
Head of Result Measurement and Learning AIP-Rural

EXECUTIVE SUMMARY

This document is a unified manual of the results measurement system applied for three projects under the Australia-Indonesia Partnership for Rural Economic Development (AIP-Rural) program. It fulfils the 2016 Mid Term Reviews recommendation that AIP Rural merges existing result measurement systems into a single system. Thus, this manual is developed based on PRISMA's, TIRTA's, SAFIRA's and ARISA's Result Measurement Manuals.

The document starts, in Chapter 1, with the background of AIP Rural. The chapter explains the goal of the overall AIP-Rural program and how PRISMA,TIRTA, SAFIRA, and ARISA fits into that overall goal. Further, it explains the purpose of the results measurement system in the program, namely to prove results, improve performance, and inform wider community on how AIP Rural facilitates impact on farmers. The chapter ends by explaining the purpose of the results measurement manual, what it covers, and what it does not cover.

Chapter 2 covers the core of the AIP Rural's results measurement system. It begins by explaining the key elements of the results measurement system. The chapter continues with a presentation of individual program's results chains, common performance indicators among three programs, and unique indicators that SAFIRA and ARISA are mandated to. The overall results chain and performance indicators are highly important since those are the ends that the results measurement system aims for. The chapter also highlights the importance of systemic change in achieving targets and how the program could facilitate such a change using the Adopt-Adapt-Expand-Response matrix and Maturity model for ARISA.

Chapter 3 provides an overview of the results measurement system. It underlines the need to integrate program implementation and results measurement in achieving program effectiveness. Thus, AIP Rural develops a program management process in which results measurement is an integral part of portfolio management. The process consists of the following steps: 1) a careful selection of commodity, 2) sub-sector analysis, 3) intervention design, 4) intervention monitoring and assessment plan, 5) implementation and monitoring of intervention, 6) intervention review, sub-sector and, portfolio review, 7) aggregation of results, and 8) reporting. The process will help AIP Rural to plan, implement, and monitor interventions that contribute to pro-poor change, both through direct influence and systemic change. The process will also facilitates review of achievement and changes at intervention and portfolio levels, document lessons learnt, and act upon the lessons learnt continuously.

Chapter 4 draws attention on the monitoring and results measurement at intervention level which comply with the Donor Committee for Enterprise Development. The initial step for monitoring and results measurement is to develop a logical and sufficiently detailed results chain. The next step is to establish performance indicators for each box in the results chain, develop projections for key quantitative indicators, and develop a monitoring and measurement plan for the indicators. In addition to the plan, determining attribution strategy for the measurement is needed. Before an intervention takes into effect, it is important to establish a baseline so that information related to key indicators are known. The following step is to monitor and measure results throughout the intervention, both direct impact and systemic change. The results and findings from measurement will be used to analyze and learn from the results of and findings from the measurement. Finally, the results that have been verified using measurement methods must be recorded, consolidated and used to review strategies.

The results measurement system must be able to aggregate results across different interventions and
sub-sectors, both to guide decisions on program portfolio and to report aggregate program progress. Aggregation methods must consider degrees of overlap among interventions to avoid double counting; how to do this is explained in Chapter 5. The results measurement system must also ensure that cross-cutting issues (such as gender, social inclusion, environment and food security) are integrated into interventions and are measured. As a minimum, the program has a do-no-harm policy with regards to all these issues, and where possible will aim to do more; this is explained in Chapter 6. It is important to mention here that a results measurement system must be driven by those who implement interventions; their roles and responsibilities are also described in this manual in Chapter 7. A significant part of the responsibility for carrying out results measurement falls on the sub-sector team, while a significant part of the responsibility for carrying out results measurement robustly and accurately falls on the results measurement team. Good and useful results measurement for the program is thus only possible with both teams working together while carrying out the roles set out for them in this manual.

Finally, chapter 8 explains that AIP Rural will carry out audits of the unified results measurement system. As the first step, PRISMA has passed a full audit in June 2016. The audit informed that one of AIP Rural programs has demonstrated a credible results measurement system. The next step will be a mock audit for TIRTA, SAFIRA, and ARISA by mid 2017. Finally, the entire AIP Rural program will go through full audit in 2018.

This manual will be reviewed at least once per year and updated when needed by the Head of Results Measurement and Learning.

Introduction

1.1. Background Of AIP-Rural

1.2. Purpose Of The Result Measurement System

1.3. Purpose Of This Manual

Introduction

1.1. Background Of AIP-Rural

Despite considerable progress in fighting poverty in Indonesia over the last ten years, there is still much work to be done to achieve equitable and inclusive economic growth. Under the Australia- Indonesia Partnership (AIP), both governments share a goal of increasing growth in rural incomes in Indonesia, including in the less developed areas of eastern Indonesia. As a result, the governments of Australia (GoA) and Indonesia (GoI) developed the Australia-Indonesia Partnership for Rural Economic Development Program (AIP-Rural). AIP-Rural is designed as a 10-year program ending in June 2022. The program works in five provinces in eastern Indonesia: East Java, Nusa Tenggara Timur (NTT), Nusa Tenggara Barat (NTB), Papua and West Papua. The focus of AIP-Rural is to increase male and female smallholder farmer incomes and competitiveness in a market-oriented manner through sustainable solutions. The rationale for support for agriculture in Indonesia is that the sector is typically estimated to be up to three times more efficient in reducing poverty compared to other major economic sectors in developing economies. Agriculture provides livelihoods for millions of workers in Indonesia, particularly in rural areas, and underpins food security and nutrition.

AIP-Rural's goal is to contribute to a 30 percent or more increase in net income for 1,000,000 smallholder rural female and male farmers, 300,000 of whom will be reached by December 2018. AIP-Rural consists of five distinct but complementary funding streams:

a. The largest is Promoting Rural Income through Support for Markets in Agriculture (PRISMA), which commenced in November 2013.
b. Tertiary Irrigation Technical Assistance (TIRTA) – a program that is designed to boost agricultural productivity through improving farmer access to water.
c. Strengthening Agricultural Finance in Rural Areas (SAFIRA) – A financial inclusion program that will address value chain finance.
d. Applied Research and Innovation System in Agriculture (ARISA) – an agricultural research and innovation program designed to improve farmer access to new processes and technologies. program designed to improve farmer access to new processes and technologies by brokering and strengthening partnerships between Indonesian research institutes and the private sector. It is important to note that as the only project under AIP-Rural implemented by CSIRO, and not Palladium, ARISA will have some variations in program management and processes in comparison to the other three projects, which will be reflected in this manual
e. Advanced start-up activities managed directly by DFAT to develop local capacity in agricultural value chain promotion and market development. This part has been ended when PRISMA started.

Introduction

1.1.1. Background Of PRISMA

PRISMA shares the same "Goal" and quantitative target as AIP-Rural (an increase in farmer incomes), the "Objective" of PRISMA is more specific: to increase competitiveness of poor female and male farmers. The competitiveness of farmers is influenced by access to effective public and private services, as well as the wider policy, infrastructure and regulatory environment.

PRISMA's outcomes: To achieve improved competitiveness of poor farmers[1] , the program focuses on three key outcome areas:

Ourcome. 1

Farmers apply improved farm practice

Ourcome. 2

Farmers utilise improved access to inputs and output markets

Ourcome. 3

Improved business enabling environment is achieved at sub-national level.

Outcomes 1 and 2 will lead to male and female farmers having better access to inputs, services and markets to improve their farm practices and performance, resulting in more efficiency and more production, hence creating more income for the farmers. Developing new products, substituting imports, prolonging the production period and increasing exports are the main areas to address. PRISMA will engage with private sector partners and assist them to develop their capacity to establish and develop linkages with local enterprises and service providers who will then provide those services and products to the farmers. Examples are the support to seed suppliers to improve their distribution channel, by expanding their number of retailers and assisting them to provide advice to male and female farmers. Outcome 3 will address the business-enabling environment at the subnational level, by assisting private and public partners to take action to improve the business environment for the selected sub-sectors. The results of these initiatives will affect the private sector partners and their service providers, and result in better services, inputs and markets for the poor farmers. Support to local governments to change business regulations affecting the private sector partners, and support to private sector partners to lobby the government to remove hindrances in the sub-sector are just two examples that target outcome 3.

[1]Here and throughout the rest of this document, 'poor farmers' means poor 'farm households.' The definition of 'poor' is given in section 3.11.

Introduction

1.1.2. Background Of TIRTA

TIRTA will focus exclusively at the tertiary irrigation level (including village systems), where some of the systemic failures are most evident.

With a clear geographic coverage of eastern Indonesia in this phase, TIRTA will limit itself to the provinces of East Java, NTT, and NTB. Out of these three provinces the main attention will be placed on East Java. Within East Java, three districts (Tuban, Bojonegoro and Lamongan) have been chosen for the initial focus of the program operation.

Because of AIP-Rural's orientation to finding market-based solutions to constraints in agriculture, TIRTA's core approach to supporting tertiary irrigation will be to find and work with willing and competent market actors. Within these geographic, methodological and time bound parameter's the program aims to reach approximately 10,000 small male and female farmers with attributable agricultural income increases of 60% through the facilitation of approximately 35 locally financed and sustainable irrigation schemes of about 100 hectares each.

1.1.3. Background Of SAFIRA

SAFIRA believe that access to finance for male and female farmers from financial institutions is the path to achieving the goal. Access to finance for farmers, specifically credit, will increase their ability to access higher quality inputs/technology, improve their competitiveness, and eventually increase their income. For many smallholder farmers in Eastern Indonesia, access to finance can be difficult because of the scarcity or unavailability of assets that can be pledged as collateral, their low financial education, the limited range of risk mitigation options such as insurance schemes, and the lack of a robust asset base to help ease shocks. On the other hand, financial institutions are reluctant to provide credit to smallholder farmers due to high transaction cost for lending in small amount and other risks associated with lending smallholder farmers.

Recognizing these constraints, SAFIRA aims to leverage the intangible assets that smallholders do have, namely their long term relationships with their suppliers and buyers, to access small credits from financial institutions. This credit scheme is called as Value Chain Financing (VCF).

Introduction

SAFIRA's principal delivery strategy is to implement 10-12 interventions that focus on facilitating financial institution in developing VCF services and delivering these services to farmers. If SAFIRA could facilitate financial institutions to increase their skills and capacity to engage in profitable applications of VCF, then farmers will have greater access to the kinds of small-scale loans. To do this, SAFIRA adopts Making Market Works for the Poor (M4P) in its operation. Therefore, the aim of this project is to develop value chain finance with selected financial institutions in eastern Indonesia as a sustainable lending to smallholder farmers in rural areas.

1.1.4. Background Of ARISA

The ARISA project has identified that the main challenge in an innovation-led increase in farm productivity and farmers' incomes lies less with the generation of good ideas – these exist in significant numbers in the research institutions (RIs) – but rather more with adoption. This is due largely to an absence of incentives for commercialising research, the lack of match-making capability between RIs and industry, and relatively few examples, models or mechanisms for effective public-private collaboration.

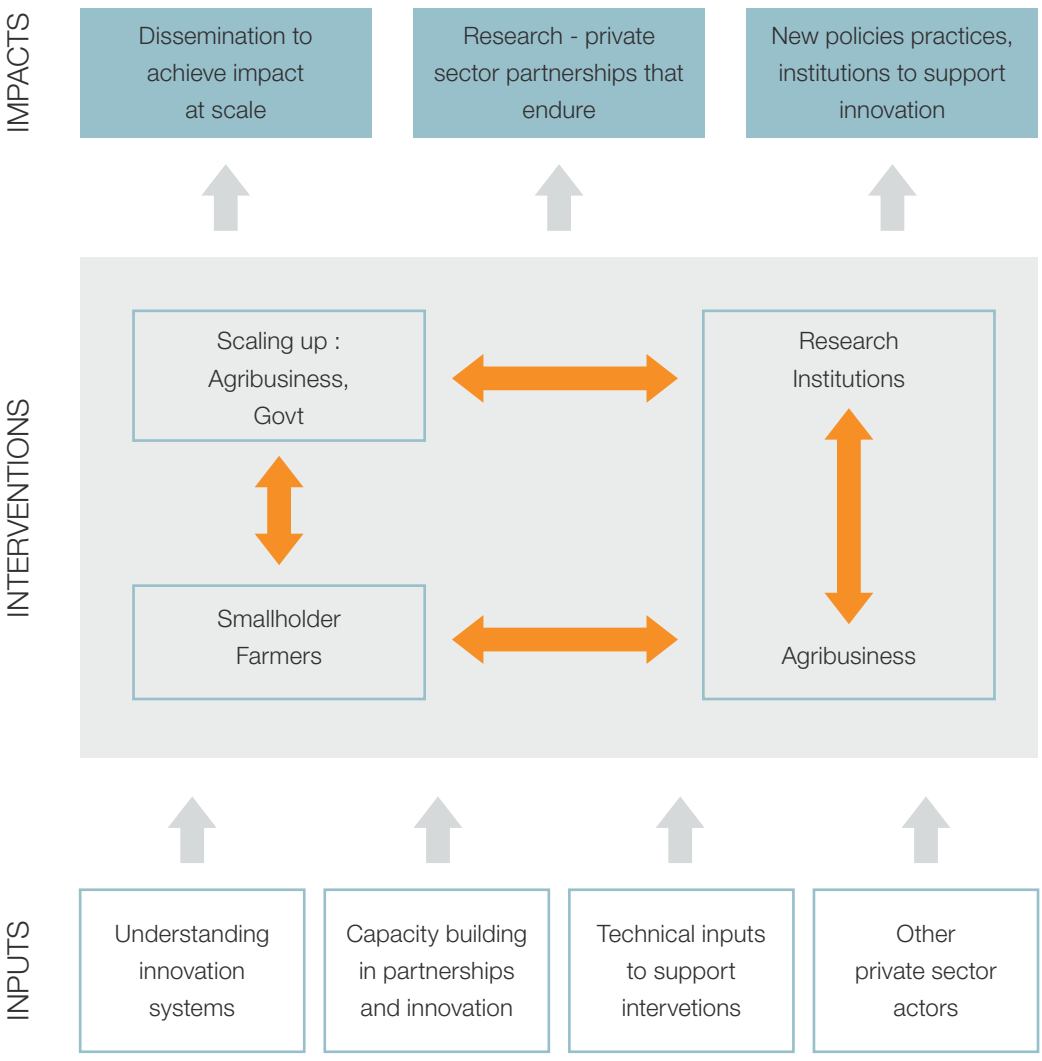
ARISA aims to strengthen linkages between RIs and the private sector (PS) to commercialize new innovations to smallholder farmers. ARISA's principal delivery strategy is to develop 7-8 interventions comprised of research institution and private sector collaborations that commercially test and scale up innovations in areas relevant to smallholder farmer needs in eastern Indonesia. These interventions will be supported by capacity building and technical assistance tailored to the individual collaborations, as well as collaboration with the GoI to feed lessons learned into innovation policy.

The interventions are vehicles through which new models of collaboration can be tested and assessed, and which, if successful, will provide an evidence base for further steps in policy reform and organisational change. Successful collaborations will also provide the basis for replication and scale-up of both ARISA and non-ARISA supported innovations. ARISA's starting point is therefore as much practical as it is exploratory and research-based: all of the innovations with which it deals must lead to a measurable impact on 10,000 smallholder farmers by early 2019.

Introduction

Figure. 1

ARISA Project Approach



Introduction

1.2.
Purpose Of The Result Measurement System

AIP-Rural result measurement system serves for three purposes:

1.

To help AIP-Rural provides credible report of the performance to DFAT of Australian Government.

A key activity in AIP-Rural result measurement system is regular documentation of programs' indicators stipulated in Strategy Document. The good documentation helps AIP-Rural to report an up-to-date data on the achievement of each AIP-Rural indicator to DFAT.

2.

To help AIP-Rural team improve project implementation in order to maximize pro-poor growth and poverty reduction.

Specifically, the system helps the team to design interventions that focus on sustainable poverty reduction for male and female, provides regular information on results at intervention and project levels, and lessons learned from interventions.

3.

To help AIP-Rural inform the wider community about its efforts in facilitating inclusive rural income increase.

Information on the results and lessons learned from AIP-Rural will be useful to the Government of Indonesia, other DFAT supported programs, and even other donors. A well-documented AIP-Rural experience in facilitating rural income for smallholder farmers may contribute in improving similar projects in the future.

Introduction

1.3.
Purpose Of This Manual

To maintain the coherence of the four separate AIP-Rural sub-programs, each will use the same results measurement system, based on the "Donor Committee for Enterprise Development Results Measurement Standard" (Standard). The Standard sets out the minimum requirements of any results measurement system needs to provide credible evidence of program achievements. Such a system is also designed to provide "real time" feedback loops to management on impact, outreach, and value for money and causal links. Results measurement starts from the very beginning of a program when markets are being studied and intervention ideas are being developed; it continues after intervention activities begin, becoming more rigorous and a regular occurrence, and finally concludes at the end of the intervention monitoring period.

This manual outlines how the results measurement system of AIP-Rural will work, but is not a step-by-step set of instructions. It rather gives the broad outlines of the results measurement process and the framework of key aspects of management of the program (e.g. developing results chains, defining indicators, using the system for reviews).

The manual assumes a basic familiarity with the requirements of the DCED Standard and the M4P approach, and thus does not give any introduction or explanation of these concepts. It is intended to provide program staff the conceptual background for the results measurement system and the link between the concepts and practical tools. For details on how to use the various tools and staff can refer to the annexes which describe the tools and how to use them in detail.

This manual is not a static document. As the needs of the program change, its results measurement system will need to evolve, and as the system evolves, so will this document. This version of the manual is based on version VII of the DCED Standard and therefore may also need updating based on any new versions of the Standard. In addition, it does not deal with every exception and eventuality; it aims to explain the application of the basic concepts of regular results measurement. Where exceptions occur, as they most certainly will, they will be handled on a case-by-case basis.

2.1. What Is Aip-Rural Result Measurement System

2.2. The Aip-Rural Results Chain

2.2.1. Aip-Rural General Indicator
2.2.2. Prisma Result Chain
2.2.3. Tirta Result Chain
2.2.4. Safira Result Chain
2.2.5. Arisa Result Chain
2.2.6. Assessing Impact Reflected In Results Chains

2.3. Pathways To Systemic Change

2.3.1. Adopt-Adapt-Expand-Response
2.3.2. Copying At Farmer Level
2.3.3. Assessing The Impact Of Systemic Changes

AIP-RURAL Result Measurement System

2.1.
What Is AIP-RURAL Result Measurement System

A system in AIP-Rural result measurement is defined as a set of interacting, interrelated, interdependent elements that operate together to support the performance of AIP-Rural program. The result measurement system consists of the following elements:

1.

AIP-Rural Result Measurement Strategy, Target at Program Level, and Overall Results Chain that establish overall program deliverables in terms of outreach and sustainability, Making Markets Work for the Poor (M4P) approach in the delivery of project outreach and sustainability.

2.

Key processes that are used in designing interventions, monitoring and measuring results of interventions at various stages, and scaling up of interventions.

3.

Documentation of processes and results (monitoring report, survey report, assessment report, and overall report) that provides valid and reliable data to feed useful and timely information into critical decision making for on-going or future interventions,

4.

Guidelines that provides the 'know-how' on the planning and implementation of result measurement related activities.

5.

People who are well-trained and with clear responsibilities in managing the delivery, measurement, and documentation of results both at intervention and program levels.

AIP-RURAL Result Measurement System

2.2.
The AIP-RURAL Results Chain

2.2.1. Aip-Rural General Indicator

Despite the fact that each program has a distinctive results chain, AIP-Rural has common indicators to be used to measure their achievement. There are two groups of common indicators: 1) Key Performance Indicators, 2) Key Business Indicators. The following tables list both indicators.

Table. 2

AIP Rural's Key Performance Indicators

Key Performance Indicator	
KPI #1.	Number of [poor] farm HH who increase their income due to PRISMA/TIRTA/SAFIRA interventions
KPI #2.	Net additional attributable income for targeted [poor] farm HH
KPI #3.	Number of service providers that increase their additional turnover due to PRISMA/TIRTA/SAFIRA interventions
KPI #4.	Net additional attributable turnover for service providers due to PRISMA/TIRTA/SAFIRA interventions
KPI #5.	Number of innovations introduced by private sector partners [2]
KPI #6.	Number of initiatives by Gov't to improve the Business Enabling Environment
KPI #7.	Number of private and public sector partners
KPI #8.	Investment value by private sector partners

[2] Innovation define as intervention. Hence every intervention has only one innovation

AIP-RURAL Result Measurement System

Table. 3

AIP Rural's Key Business Indicators

Key Business Indicator	Definition per intervention	Aggregated for each program
1. Contribution of PRISMA/TIRTA/ SAFIRA/ARISA	The investment grant defined in the contractual agreement with the partner, excluding operational and overhead costs of PRISMA/TIRTA/SAFIRA/ARISA per intervention	Total contribution, per year and cumulative, in IDR
2. Contribution of private sector partners	The investment (working capital and investments) defined in the contractual agreement with PRISMA/TIRTA/SAFIRA/ ARISA per intervention	The total contribution, per year and cumulative, in IDR
3. Contribution of public sector partners	The investment (working capital and investments) defined in the contractual agreement with PRISMA/TIRTA/SAFIRA/ ARISA per intervention	Total contribution, per year and cumulative, in IDR
4. Leverage ratio	The total contribution of private partners (KBI 2) or public partners (KBI 3) divided by the total cost for the intervention (KBI 1+ KBI 2 or KBI3)	Total of KBI 2 and KBI 3, divided by total cost of the intervention (KBI 1 + KBI 2 + KBI 3)
5. Return on investment	The net additional attributable income (KPI 2) divided by PRISMA/TIRTA/ SAFIRA/ARISA costs	Net additional attributable income (KPI 2), divided by total PRISMA/TIRTA/SAFIRA/ARISA costs (including operational and overhead costs)
6. Per farmer investment	The costs incurred by PRISMA/TIRTA/ SAFIRA/ARISA (KBI 1) divided by the total number of farmers (KPI 1)	Total PRISMA/TIRTA/SAFIRA/ ARISA costs (including operational and overhead costs), divided by number of farmers (KPI 1)

AIP-RURAL Result Measurement System

2.2.2. PRISMA Result Chain

As the first step in the development of a results measurement system, PRISMA has developed its own theory of change, reflected in the PRISMA program results chain below (Figure 1). PRISMA distinguishes 4 levels that are related to the actors and the changes they undergo within each intervention:

1.

Activities. The program logic is to support the public and private sector actors (1 Activity level). This is what the program does, manages and pays for.

2.

Partners. Activities lead to changes in capacity and behaviour of the partner (2 Partner outcome level).

3.

Intermediate service providers. As a result of the changes at the partner level, the partner is able to build the capacity and behaviour of the service providers (3 Service provider output level), who will then provide better or more services/products to the male and female farmers (3 Service provider outcome level).

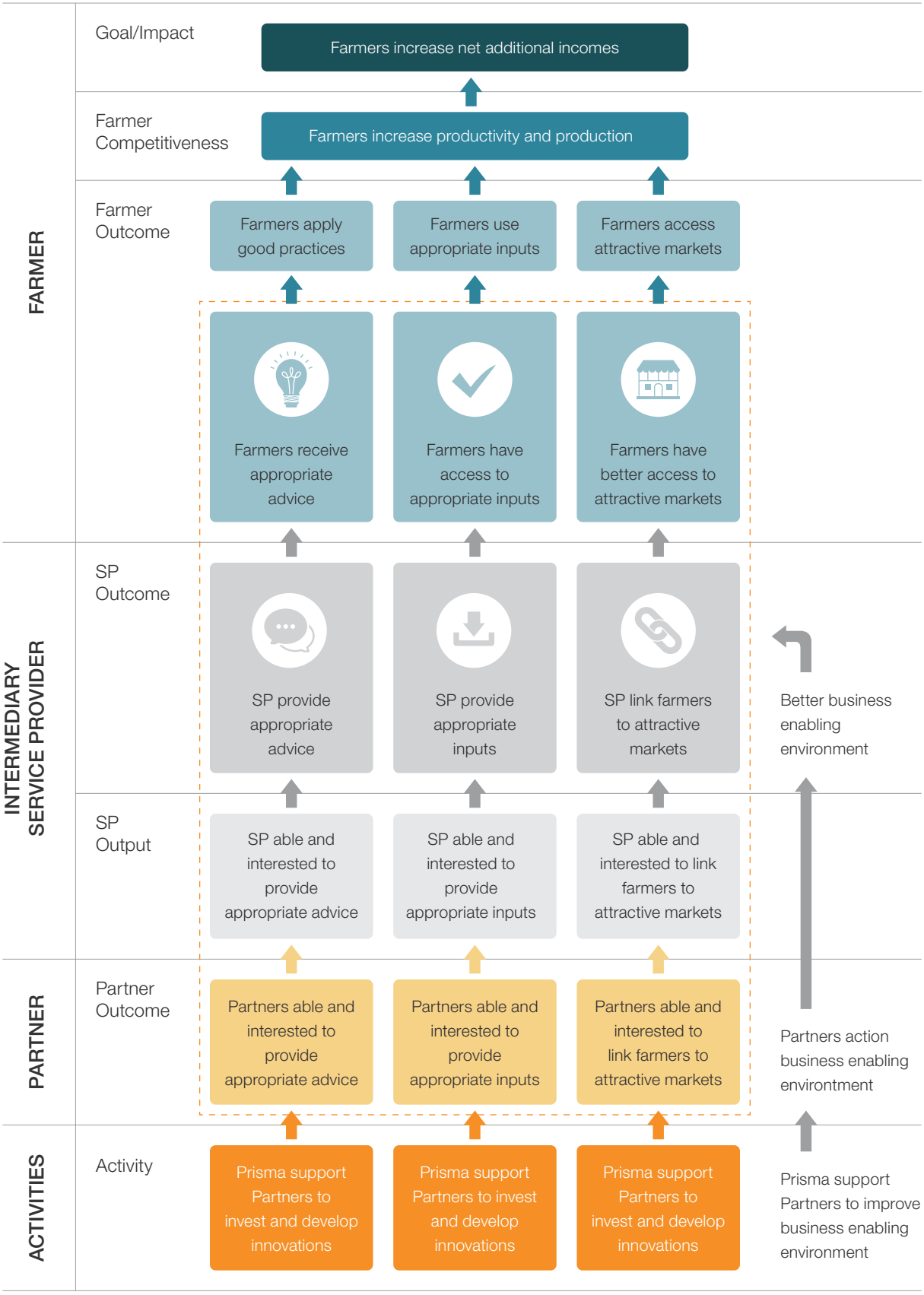
4.

Farmers: As a result, male and female farmers will receive and apply those services/products (4 Farmer outcome level), leading to more competitive farmers (4 Farmer competitiveness level) and increased income (4 Goal level).

Each intervention will have its own results chain modelled along the principles of the program results chain. These will be used to assess the impact from the interventions.

Figure. 2

PRISMA Program Results Chain



AIP-RURAL Result Measurement System

2.2.3. TIRTA Result Chain

The logic of the TIRTA is that there is significant scope for either increasing the efficiency of existing tertiary irrigation schemes or expanding their outreach or even starting new schemes. In all of these situations the starting point involves investment in civil works and pumping configurations. Farmer groups do not have the resources to invest, local government can only provide small grants, and banks are reluctant to invest in water user associations without tangible collateral from individual association members. If local investors can be encouraged, as they have in the past, to team up with existing WUAs/ HIPPAs to make these irrigation investments and if farmers make good use of this new access to irrigation and apply improved farm practices then they will increase their overall land productivity.

Scale up will be further supported through a phased approach involving demonstration sites, facilitated training and information dissemination. Part of the exit strategies will be to embed capacity in government, private sector and civil society organisations for continuation for similar programs.

TIRTA will develop its result chain and indicator based on certain level:

1.

Activities Level: With series of interventions, TIRTA expects to prove the concept that farmers and more in particular farmers' groups (HIPPAs) and irrigation entrepreneurs / investors can find solutions for the irrigation of their land through quality service providers in the market. Each intervention does not necessarily address all the intervention areas. It depends on what type of constraints encountered by the scheme

2.

Service Provider Level: Capable investors and HIPPAs will have been identified, been upgraded and showing interest in scaling up. Quality pump suppliers, repair services and referenced HIPPAs will have been strengthened and capable of providing the necessary advisory services to starting / expanding irrigation entrepreneurs / HIPPAs.

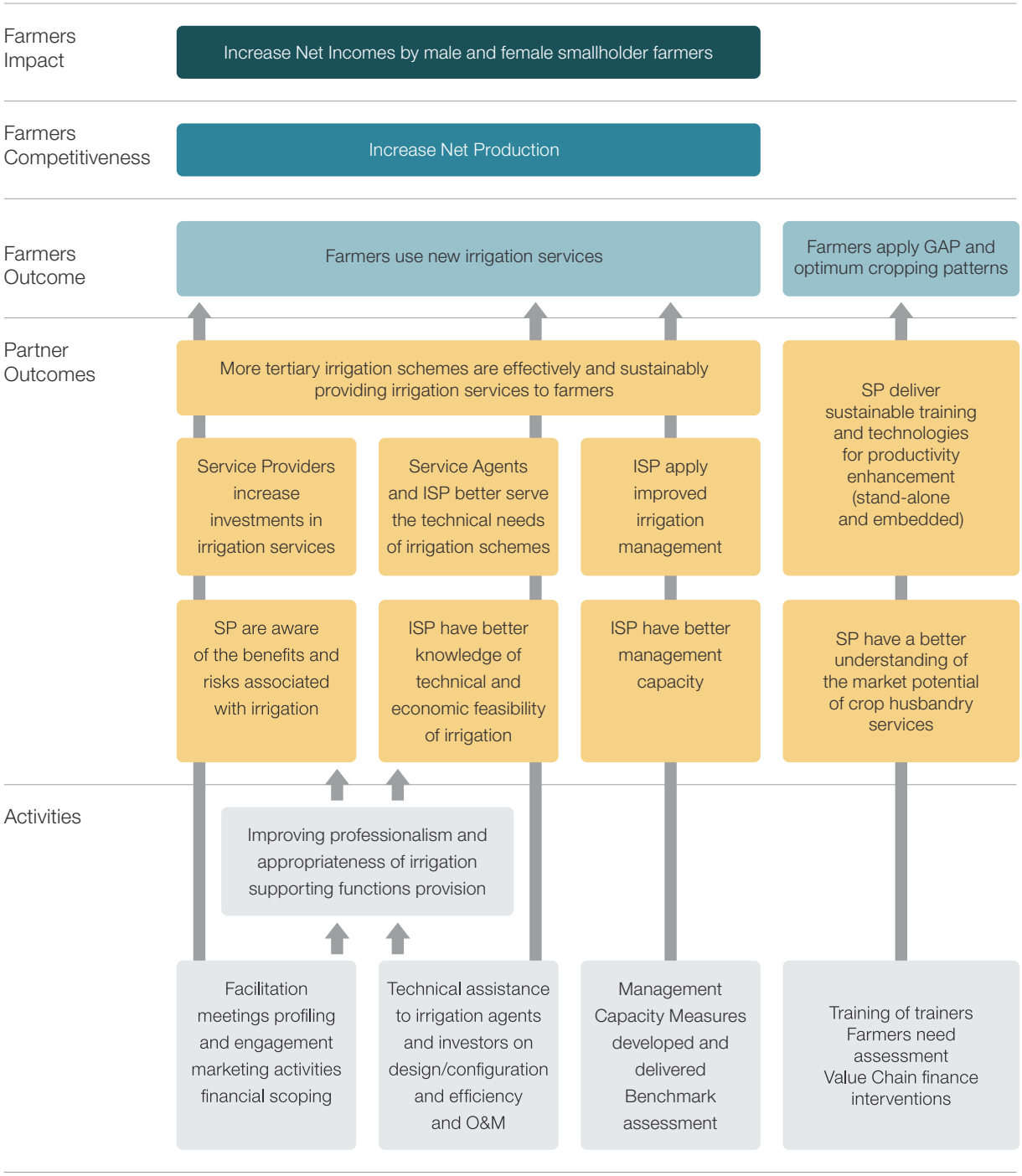
3.

Farmers Level: TIRTA's intervention will lead to more male and female farmers being served with more water. If male and female farmers make good use of this improved access to irrigation through the application of improved farm practices then male and female farmers will increase their overall land productivity, and in the end enjoy the benefits, of increased incomes.

The team will develop each intervention result chain as a tool for following the intervention logic alongside with the program result chain.

Figure. 3

TIRTA program results chain



AIP-RURAL Result Measurement System

2.2.4. SAFIRA Result Chain

The result chain of SAFIRA is built on the premise that access to finance for male and female farmers will increase their capacity to finance more inputs/technology, increase their competitiveness and eventually lead to increase income. In some cases, farmers only need additional fund to purchase more inputs/technology to achieve increase income. Finance from financial institutions, as opposed to finance from informal lenders, could also reduce interest fee and subsequently increase farmers' income. In some other cases, farmers also need new inputs/technology so that they produce higher product quantity or quality. In that regard, SAFIRA helps farmers to secure credit by working with financial institutions to develop and launch VCF. At the same time, SAFIRA catalyse improved access to inputs/technology for farmers by working with inputs/technology suppliers to take part in the VCF that financial institutions develop.

SAFIRA overall results chain (see figure 3) reflects the afore-mentioned theory of change. In the results chain, the causal link is distinguished into four levels:

1. **Activity level.**
This level describes on what the project does, invest in, manage to.

2. **Partner level.**
Activities lead to changes in Partner Financial Institution's capacity and behavior.

3. **Intermediate service provider level.**
Changes in PFI enable it to build the capacity of intermediate service providers who then provides VCF to farmers.

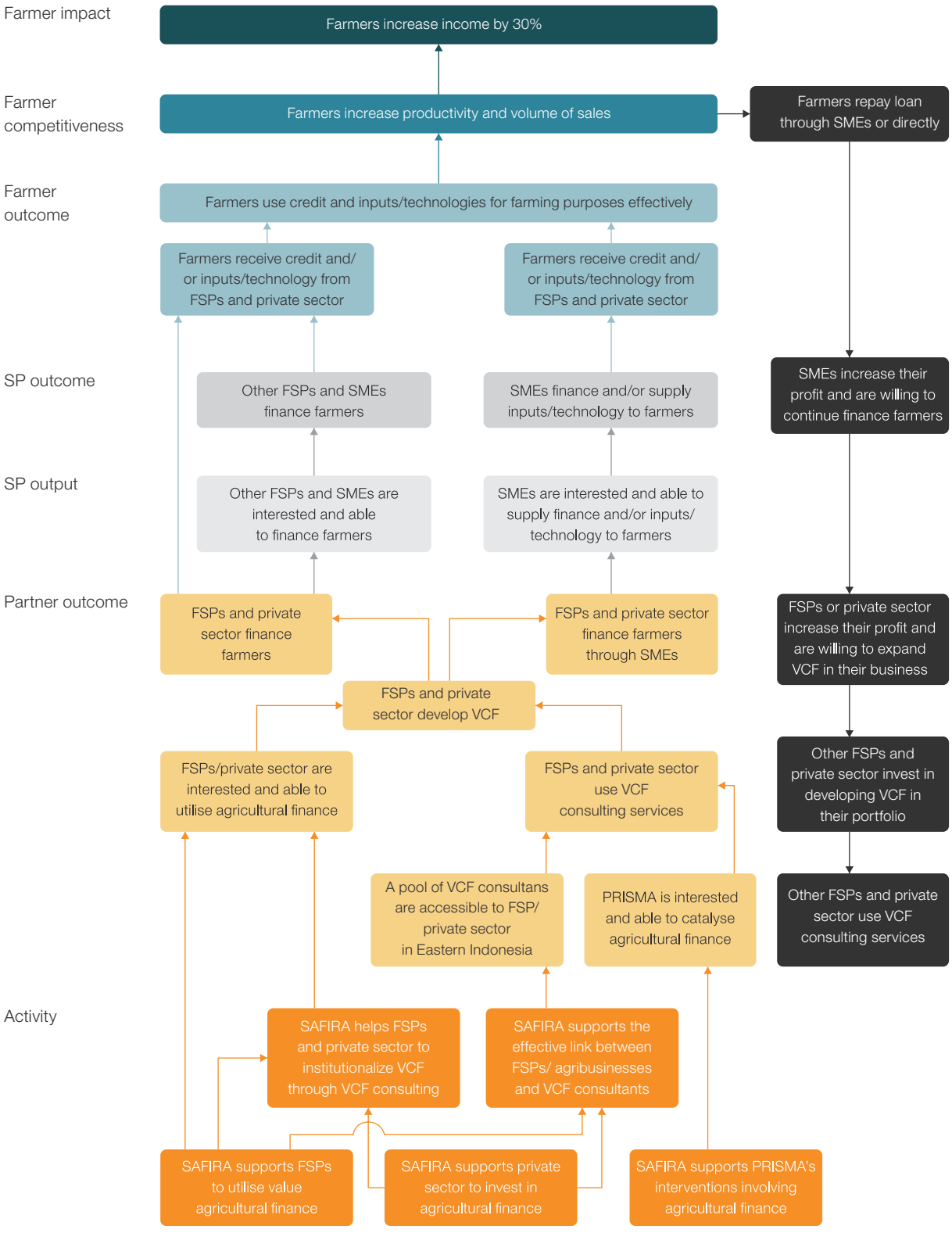
4. **Farmer level.**
Responding to provision of better product/service, farmers apply for loan from a financial institution, finance better inputs/technology from the loan they receive, apply the inputs/technology, increase their competitiveness, and eventually increase their income. In addition to the common indicators, SAFIRA is mandated to achieve several unique indicators. The indicators are:

Table 4: SAFIRA's Indicators

	Indicator	Target
Indicator #1.	Number of farmers who receive finance (unique indicator)	12.000
Indicator #2.	Number of farmers who increase their income by 30% (similar to KPI #1)	6.000
Indicator #3.	Number of farmers who benefit from inputs/technology purchased (unique indicator)	10.000
Indicator #4.	Numbers of SMEs in value chains that receive finance and on-lend (unique indicator)	250
Indicator #5.	Number of Partner Financial Institutions which increase their agricultural lending by significant amount (unique indicator)	80%
Indicator #6.	Percentage of NonPerforming Loans (unique indicator)	< 6%

Figure. 4

SAFIRA program results chain



AIP-RURAL Result Measurement System

2.2.5. ARISA Result Chain

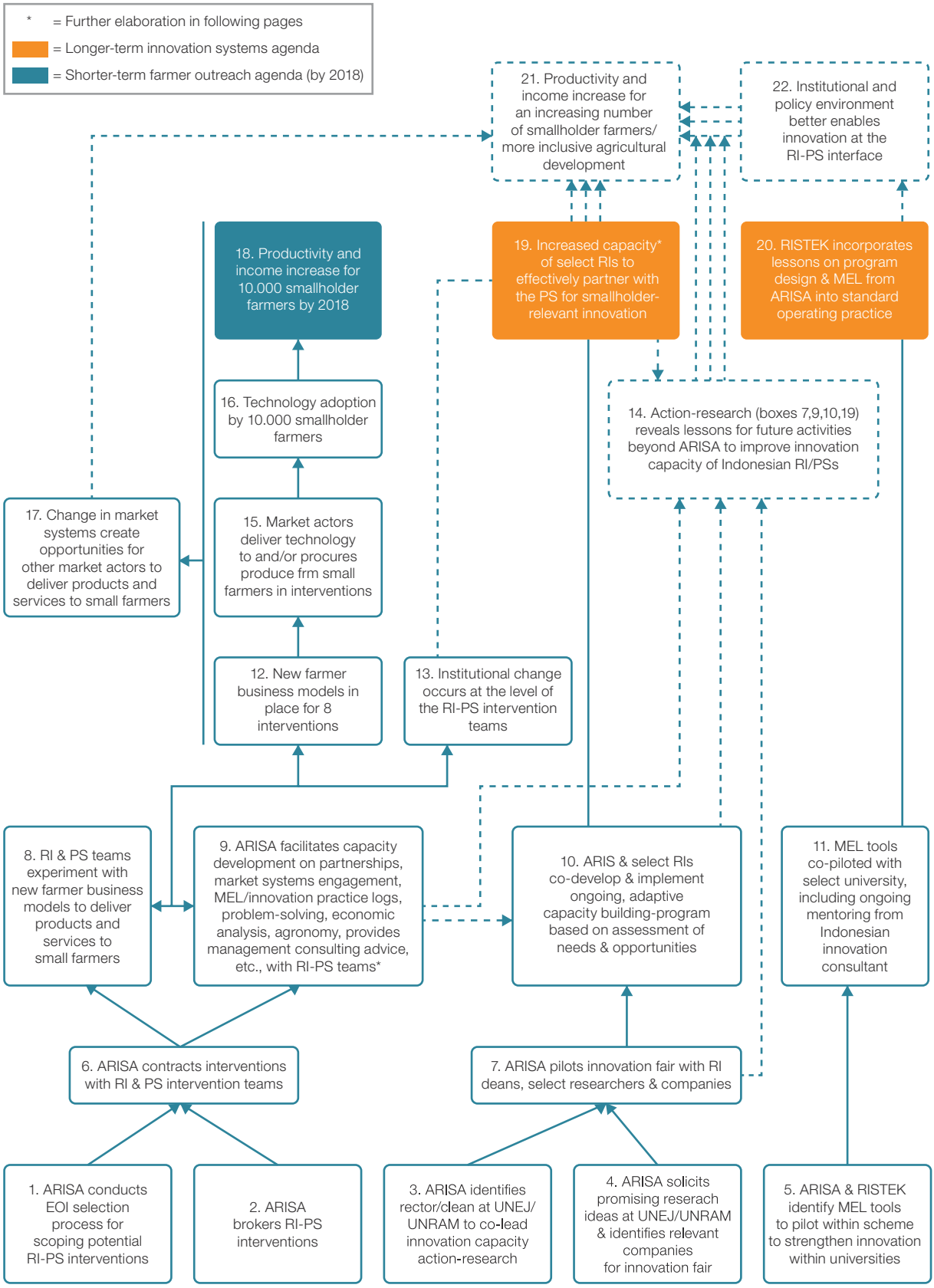
The way in which ARISA's interrelated deliverables relate to one another is delineated in the results chain. While ARISA itself is not expected to generate systemic change within the project lifetime, it is expected to operate with the larger systemic change agenda in mind and to take a few initial steps toward delivering systemic change. This broader systemic change refers to enhancing Indonesia's agricultural innovation system so that it continuously generates smallholder-relevant innovation at the RI-PS interface, which will in turn result in more inclusive agricultural development, in which an increasing number of smallholder farmers adopt technologies resulting from RI-PS collaborations. One of the necessary (but certainly not sufficient) steps toward achieving this broader systemic change is improving the capacity of RIs to partner with the PS for smallholder-relevant innovation. To this end, the results chain has been careful to differentiate terminology related to institutional change within ARISA's intervention teams and institutional change at the organizational level of the RIs.Due to the public-private partnership element, capacity building and linkages to wider efforts toward systemic change, ARISA's intervention results chains may be slightly more complex than those of PRISMA, for example.

Table 5: ARISA's Indicators

ARISA Indicators	
Indicator 1a.	Changes in 'innovation capacity' of research institute intervention teams
Indicator 1b.	Changes in 'innovation capacity' of targeted research institute faculties
Indicator 2.	Progress toward establishing policy dialogue mechanism to engage in learning from innovation at the RI-PS interface
Indicator 3.	Net additional and attributable income changes of farmer HH using project-supported innovations (impact)
Indicator 4.	Number of farming households who have adopted the project innovation (use)
Indicator 5.	Number of farming households who have been exposed to the project innovation (access)

Figure. 5

ARISA program results chain



2.2.6
ASSESSING IMPACT REFLECTED IN RESULTS CHAINS

AIP-Rural program will report results that have been measured and attributed to the program. Measurement and reporting of results will be determined within a specific time frame. The starting point for monitoring will be when the activities of an intervention start. The impact will be assessed up to two years after AIP-Rural's activities under that intervention end.

The results chain will inform how farmers will benefit. The total number of farmers who benefit and the total net additional attributable income will be "claimed" for two years. Changes in income and outreach beyond two years will not be claimed even though the benefits continue to happen after that period. This is because at the end of two years the change is likely to be part of the regular workings of the sub-sector and be influenced by other factors. There may be exceptions to this rule; for example, some interventions may take more than two years after activities end to show any benefits. How to measure such cases should be discussed and decided between RML team, sub-sector team and the head of that portfolio

For each intervention, the measurement plan will define when and how that impact will be assessed. If impact is expected to be minimal in the first year, AIP-Rural will assess the early impact through a less robust measurement during the first year, followed by a more rigorous assessment to assess impact after two years. The first assessment will lead to adjusted projections and the actual impact will not be reported as realized impact at goal level. If AIP-Rural expects considerable impact to be achieved in the first year, AIP-Rural will assess that impact using a robust measurement, and report that impact at goal level. Impact that is likely to be achieved in the second year will then be assessed using extrapolation and verification methods, and will be reported at goal level.

AIP-RURAL Result Measurement System

2.3.
Pathways To Systemic Change

2.3.1. Adopt-Adapt-Expand-Response

The core of AIP-Rural's approach and its goal is to create systemic change. Systemic change is likely to be the result of multiple interventions in a sub-sector, and the result of interventions leading to other interventions. Systemic change can also occur in many ways. The program will use the Adopt-Adapt-Expand-Response (AAER) matrix[3] to guide it in stimulating and in tracking systemic change.. The AAER matrix distinguishes four stages of systemic changes:

1.

Adoption – the partner has the capacity and provides the services/ products as envisaged,

2.

Adaption – the partner further develops/modifies its capacity and/ or service/product delivery,

3.

Expansion – other actors copy or modify the partners' business model and

4.

Response – other actors react to the changes in the previous three changes.

The table below shows the four stages of the matrix and what is reflected in each stage. The table will be reflected on ISD, there are two AAER matrix on the ISD. One will explain expected systemic changes and the other will shows the actual systemic change in the intervention or sub-sector.

[3] Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes, developed by Swisscontact amd supported by The Springfield Centre

AIP-RURAL Result Measurement System

Table. 6

AAER matrix

ADAPT	RESPOND
• Partner wants to adapt the new business model and/or wants to expand to other geographical areas • More ISPs that buy into the business model of the Partner	• Other stakeholders, not having similar functions that the partner or ISPs have, react to changes in the market as a result of the changes of the market players in the ADOPT, ADAPT or EXPAND stages.
ADOPT	**EXPAND**
• Partner takes up business model and shows concrete plans to continue with it in the future. • ISPs that have taken up the business model and show concrete plans to continue with it in the future	• Other market players with a similar function in this market that copy the business model of the partner. • ISPs that change their function in this market and copy the business model. • New entrants that copy the business model
PARTNER	**OTHER MARKET PLAYER**

2.3.2. Copying At Farmer Level

Copying occurs when other farmers adopt the behavioural change of farmers who changed their behaviour as a result of the intervention. Copying farmers do not make use of the embedded service or new products, but simply copy that behaviour; they are essentially “indirect beneficiaries”.

If interventions are able to create the conditions for copying this will be reflected in the intervention results chain This depends on the advantages (income changes), the ease of copying (is it feasible to copy the behaviour without having access to the same services which the intervention introduced), the visibility of the behaviour change (is it noticeable) and other factors.

In the case of copying the starting point for copying will be the ‘point of time when copying starts’; the claiming period will then be for two years after that point: the total number of copying farmers and their total net additional attributable income for two years after copying takes place. If copying is expected, the HoP/TL (together with the sub-sector team and RM focal) will make the decision to measure it, or not, and how. If it will be assessed, it should be shown in the results chain and indicators should be defined for measuring it. These indicators should include the reason for copying (attribution) and the ratio of copying (i.e. how many direct beneficiaries will lead to how many copying farmers).

AIP-RURAL Result Measurement System

2.3.3. Assessing The Impact Of Systemic Changes

For all interventions from PRISMA, TIRTA, and SAFIRA, systemic changes are tracked in the AAER matrix for all actors (except farmers). If systemic changes (Adapt-Expand-Response) will lead to new interventions, the measurement plan for the new intervention will be used to assess impact.

If there will be no new interventions, the ISD of the intervention will guide the impact assessment of due to systemic changes (Adapt-Expand-Response). The changes will be assessed to understand if they are likely to lead to significant changes at farmer impact level. In case they do, the sub-sector team and responsible RM focal will update the results chain to show how farmers are being affected by systemic change. This will lead to indicators in the measurement plan to help measure changes. Where the changes at farmer level is not significant (i.e. either income increase or outreach is low) the program will just record changes in the systemic change pages in the ISD but will not make changes to the results chains or claim impact at farmer level.

The starting point for measuring effects of systemic changes at farmer level will be the 'point of time when systemic changes takes place'; the claiming period will then be for two years: the total number of farmers who benefit from firms that have reacted to the partner's business model and the farmers total net additional attributable income for two years. For detailed explanation on how to assess systemic change, please refer to Annex 7.

Systemic change is measured in ARISA through a combination of a partnership agreements and reflections processes with the RI and PS intervention partners, qualitative indicators connected to the intervention results chains, and a maturity model approach using innovation practice logs. Additional methods will be developed moving forward for measuring the partnership outcomes set forth between ARISA and RISTEKDIKTI. ARISA has chosen to adopt these tools in lieu of AAER as they are fit for purpose for ARISA's specific aim of strengthening RI-PS linkages to deliver more and more effective innovations to increase the incomes of smallholder farmers beyond the timeframe of ARISA. Partnership agreements are reviewed by the intervention partners every 6-12 months through a facilitated process by ARISA, depending on the status of the partnership. An example of a partnership agreement can be found in Annex 9. The indicators within the maturity model are updated every 6 months, though innovation practice logs, which are conducted through interviews with the intervention partners, are updated on an annual basis. The conceptual foundation, methodology, and scoring framework for the maturity model are detailed in Annex 10.

PORTFOLIO

Management and Result Measurement

3.1. Sector Analysis

3.2. Sub-Sector Growth Strategy

3.3. Intervention Design

3.4. Intervention Monitoring And Assessment Plan

3.5. Implementation And Monitoring

3.6. Reviewing: Learning And Decision Making

3.7. Aggregation Of Results

3.8. Reporting

PORTFOLIO

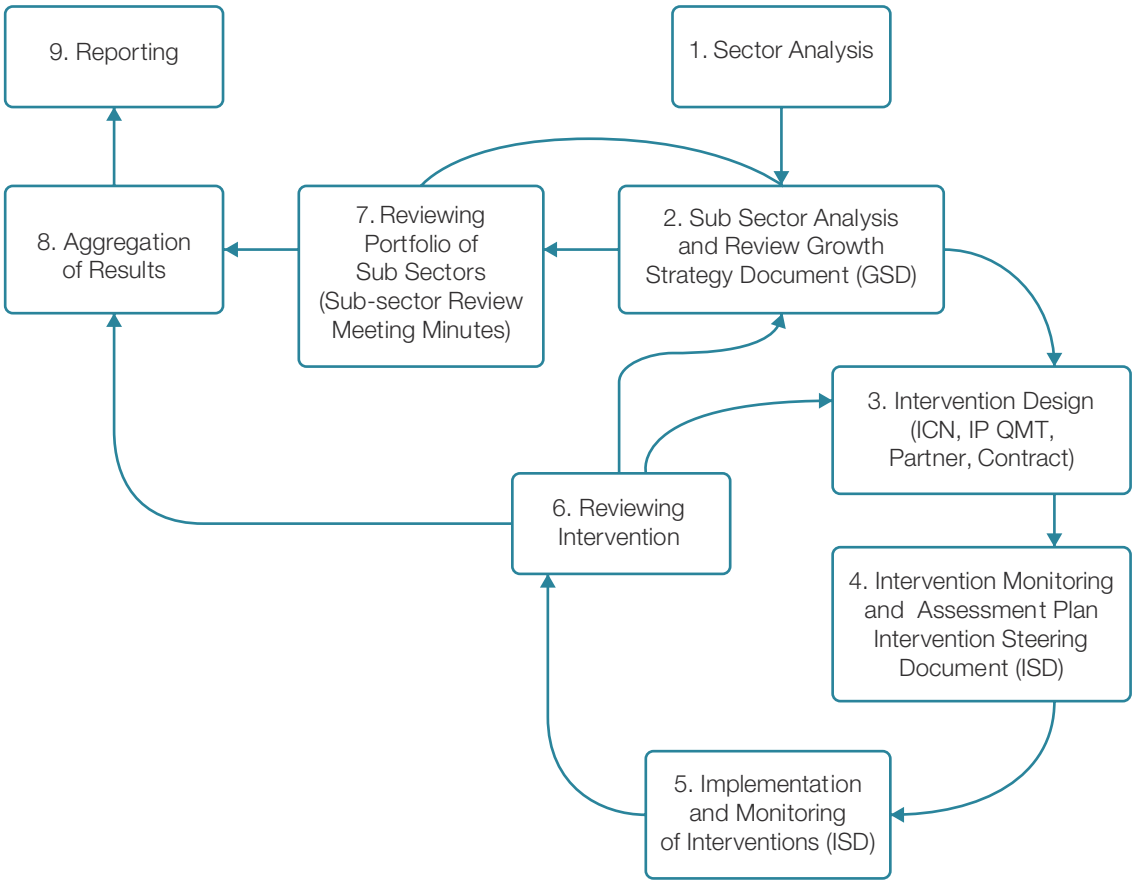
Management and Result Measurement

In AIP-Rural, portfolio management and results measurement are integrated into one program management system, which can be seen in Figure 2. The system is based on a learning cycle to ensure that results measured are used to improve project implementation and portfolio management. In addition, the system will be able to generate credible results that AIP-Rural can use to report accomplishments to date.

The process initially started with the analysis of the commodities or sector that AIP-Rural will focus on. During the program life cycle, portfolio review meetings will inform management whether to add or drop sub-sectors of different commodities. How these steps are taken is shown in the diagram below, which is followed by an explanation:

Figure. 6

Program management and review cycle



PORTFOLIO

Management and Result Measurement

3.1.
Sector Analysis (1)

AIP RURAL's mandate is to reduce poverty sustainably. For that reason, selection of appropriate agriculture commodities is crucial to ensure the feasibility of developing poverty reduction strategies. AIP RURAL has used the following three guiding principles to ensure that the right commodities were selected from the outset. A commodity was chosen when it fell at the intersection of all three criteria:

1.

Pro-Poor. AIP Rural must prioritize commodities with high poverty incidence and pro-poor potential. Sector growth and poverty reduction must go hand-in-hand. For people in selected commodities to come out of poverty, there has to be significant potential for those commodities to grow. This growth may be reflected in either demand that is growing or has the potential to grow.

2.

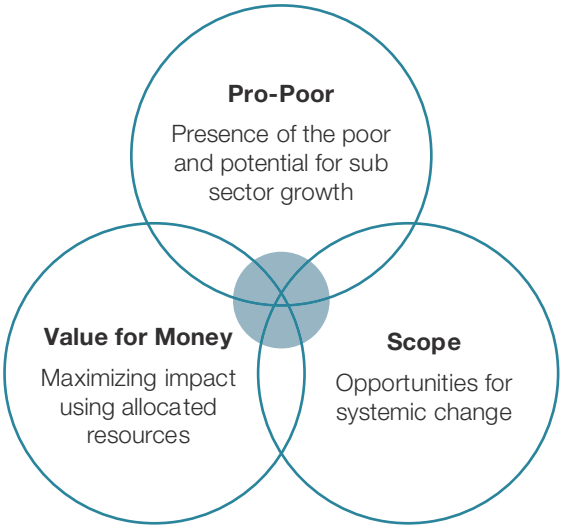
Scope for intervention. There has to be potential for partnering with the private sector, and there must be potential to achieve systemic change in the sector.

3.

Value for money. There should be significant potential to reach impact and outreach in relation to the costs that might be spent on the commodity for interventions.

Figure. 7

Guiding principles for selection of commodities



During the early stage of PRISMA, the analysis was documented in a commodity report. Being efficient, PRISMA does not develop such a report anymore. As a replacement, PRISMA integrate the assessment on the extent to which a commodity is pro-poor, has a sufficient scope, and demonstrates value for money in sub sector analysis and sub-sector growth strategies.

Similar to PRISMA, SAFIRA also carry out commodity analysis. For commodities that PRISMA has develop an analysis, SAFIRA will use the analysis. For commodities that SAFIRA is interested to intervene but PRISMA does not have an analysis on it, SAFIRA will carry out the same process that PRISMA go through, namely integrating commodity analysis into sub-sector analysis.

TIRTA sector analysis will be a bit different with PRISMA since TIRTA only has irrigation sector. TIRTA has conducted a two-staged survey5 for the team to establish a thorough understanding of the current pump-lift irrigation service market. This survey becomes the basis for TIRTA's strategy. Stage 1 survey identified potential sites for irrigation services expansion and stage 2 survey identified and assessed the actors and stakeholders in the pump-lift irrigation market and broader paddy cultivation market.

In the first two years of ARISA, sector analysis was based on the commodity value-chain analyses conducted by Collins Higgins Consulting. In addition, informally completed through a process of soliciting expressions of interest (EoIs) and full grant proposals from potential RIs triggered analysis of the potential of prospective interventions and their relevant sectors to deliver impact. At the time of integration of the MRM system of AIP-Rural, ARISA was actively implementing 7 interventions and finalizing an eighth intervention in collaboration with PRISMA. Given that ARISA is unlikely to develop any more interventions independently, hence ARISA will utilize PRISMA, TIRTA, and SAFIRA sector analysis when needed.

PORTFOLIO

Management and Result Measurement

3.2.
Sub-Sector Growth Strategy (2)

PRISMA's sub sectors are defined as a combination of the commodity and the province e.g. beef in NTT. For each sub sector, a Growth Strategy Document (GSD) is developed. The sub-sector data and strategy is reviewed semi-annually, and the GSD is updated annually. The GSD starts with an update of key changes and summary of the strategy, followed by a description of the sub sector, complemented with an analysis of the problems and underlying causes, and a weakness analyses of the services and enabling environment. The strategy for change section outlines the market potential, the vision of change, the intervention areas, the current status of the interventions and systemic changes resulting from them, and concluded with the sub sector vision of change logic. Reference is made to the GSD structure in annex 1[4]. If necessary, SAFIRA will provide inputs to PRISMA's sub-sector strategy to produce a deeper analysis on financial service. TIRTA's sub-sector strategy will focus on pump-lift irrigation situation on specific area. As ARISA works in a variety of commodities and regions, it can utilize relevant sub-sector growth strategies developed by PRISMA. As ARISA's focus is on strengthening linkages between RIs and industry, it has a separate strategy for its innovation systems research, which can be found in Annex 11.

3.3.
Intervention Design (3)

Intervention Concept Notes (ICN) are developed by the sub-sector team if and when the need or opportunity to design a new intervention occurs. These ICNs are Power Point Presentations that reflect the initial ideas of the intervention and link back to the GSD. This ICN is then presented and discussed with representatives of the CMT. This Panel will consist of 2 CMT members, excluding the HoP/TL for the sub-sector. This panel decides if the intervention has the potential to be taken forward based on the criterion of: the outreach potential, income change potential, strength of intervention rationale, potential value for money, possible agreement structure with partner, potential of systemic change, potential to reach poor, potential to affect gender and potential to affect environment. This assessment is done using the Quality Management Tool (QMT) which allows the panel to score ICNs and IPs based on the above criteria and come to a decision whether to go ahead or not with the intervention.
For selected interventions, an Intervention Plan (IP) is developed. The IP builds on the intervention concept developed and develops the concept into a concrete plan, using the same Power Point Presentation structure as for the ICN. The IP is also presented and discussed with the Panel. The Panel approves (or disapproves) the IP, using the QMT to guide their decision. Once approved, a contractual agreement will be made with the proposed partner. If the intervention design changes during the partner negotiations phase, the General Manager shall decide if and how the intervention will proceed. After that, the implementation of the intervention starts. Reference is made to the Power Point Presentation format for the ICN and IP in annex 2. ARISA situation is a bit different from others since ARISA use grant mechanism hence EoI and Grant Full Proposal will function as ICN and IP in this case.

[4]AIP-Rural continuously improves its system, and this GSD structure became effective in Jan 2016 for new GSDs. Existing GSDs will only be adjusted during reviews in 2016

PORTFOLIO

Management and Result Measurement

3.4.
Intervention Monitoring And Assessment Plan (4)

Once the intervention is approved and deals have been signed with the partner(s), the next step is to develop the Intervention Steering Document (ISD). The ISD is a living document that will be used to steer the project implementation as well as the result measurement activities. The ISD should be developed as soon as possible, but at least within 2 months after the start of the intervention (signed contractual agreement). The purpose of the ISD is to provide information on the progress towards its goals of increased incomes for poor farmers and sustainability. By doing this it triggers discussion around what works, what does not work and what needs to change. The ISD will be updated 'continuously' as new information is obtained during implementation and as laid out in the MRM plan that is part of that ISD. Any changes made to the intervention and reasons for these changes will be recorded in the ISD, thus providing a track record of what has been done and why.

3.5.
Implementation And Monitoring

During the implementation, it is important to monitor the implementation of the activities carried out by both AIP-Rural and the partners to ensure that the activities agreed are undertaken within the planned timeline. To monitor the activities and results of those activities, both quantitative and qualitative information is collected and analysed. This will help assess the progress of implementation, and the behaviour and capacities of the players in the sub-sector. Collected data and information will be processed and analysed, and are the input for the review process of the intervention (6), and subsequently of the sub-sector growth strategies (2) and the AIP-Rural portfolio (7). Through the on-going regular feedback loop, AIP-Rural will learn and adjust the implementation on a timely basis.

PORTFOLIO

Management and Result Measurement

3.6.
Reviewing: Learning And Decision Making (2, 6, 7)

One of the key functions of the system is to provide a feedback mechanism to managers to facilitate the learning and improvement of program implementation and portfolio management. AIP-Rural operates in a dynamic complex system and it is very important that a continuous learning mechanism is in place. Interventions are unlikely to work out as perfectly as planned. Since the system is complex and dynamic, AIP-Rural has to constantly try out interventions and continuously adjust and improve their implementation. In addition, AIP-Rural also needs to periodically review the performance of its sub-sectors and portfolio, decide whether it is likely to achieve the overall program intended impacts and adjust accordingly.

Although there will be ongoing communication and decisions made on a day-to-day basis, AIP-Rural will also have formal reviews scheduled to review progress, identify lessons learned and take action to improve project implementation. To address different aspects of the program, three reviews are scheduled to assess progress at three levels: the intervention (6), the sub sector (2), and the portfolio (7). The reviews are listed below; details of what will be discussed and who will be involved are given in Chapter 4.8

Intervention Reviews

The intervention review will focus on the interventions. The review will verify whether the overall progress of the interventions is still aligned with its projected reach and its goal of market system change. This should spur on the discussion around what worked or did not work, why, what lessons have been learned and what (if anything) needs to be adjusted. For PRISMA's co-facilitator, TIRTA, and ARISA interventions these are done monthly, for internal PRISMA sub-sectors and SAFIRA these are done as per needs of the team based on progress (or lack of progress) of the intervention.

Sub-sector Reviews

The sub-sector review meeting will focus firstly on the overall performance of the interventions and secondly on the effects and developments at the sub-sector level. The review will verify whether the overall progress of the interventions is still aligned with its projected reach and its goal of market system change. This should spur on the discussion around what worked or did not work, why, what lessons have been learned and what (if anything) needs to be adjusted. Secondly, it will review systemic changes that have happened and those that are likely to happen due to the program. Finally, it discusses the key changes the sub-sectors? How will interventions affect sub-sector growth strategies and interventions? Are the sub-sector growth strategies still valid? What worked or did not work and why? What are the lessons learned? Are there any unintended effects occurring in the sub-sector? Sub-sectors are reviewed once a year, some sub-sectors are reviewed in May and the rest are reviewed in November. Sub-sector reviews benefit from the presence of mentors. Mentors are members of the CMT such as GM, TL, HRML or HoPs who are not responsible for the sub sector. They provide an "external eye", chair the review meeting, and report findings and recommendations to the HoP/TL who is responsible for that sub sector

PORTFOLIO

Management and Result Measurement

Portfolio Reviews

The portfolio review will assess the performance of the current portfolio. With the current portfolio of sub-sector and interventions, will AIP-Rural achieve the overall program targets? What are the key lessons learned which could be applied across the portfolio? What needs to change? The portfolio review is done by the CMT twice a year, just after the sub-sector reviews. It discusses the understanding and thoughts of the mentors based on the sub-sector reviews. This builds a basis for a discussion on the direction of the portfolio, areas of focus and resource allocation. The GSDs, portfolio and annual plan are then adjusted accordingly.

The table below reflects the above reviews:

Table. 7

Overview Of Review Meetings

Review	Frequency	When
Interventions	On a needs basis (PRISMA internal and SAFIRA) Monthly and Quarterly (PRISMA Co-fac, ARISA, and TIRTA)	
Sub-sectors	Once a year	May, November
Portfolio	Twice a year (All AIP-Rural)	June, December

PORTFOLIO

Management and Result Measurement

3.7.
Aggregation Of Results (8)

The AIP-Rural result measurement system must be able to aggregate results at the program level. This is important not only for reporting purposes, but also to track the cumulative impact of the program against its overall goal. AIP-Rural's goal is to have a 30 percent increase in incomes for more than 1,000,000 male and female smallholder farmers by 2022; 300,000 of this will be reached by end 2018. In order to monitor the progress towards this goal, it is important to have a system in place that is able to aggregate (add up) the results over time, while making sure that there are no overlaps (double counting).

Not all indicators can be aggregated; for example, it makes no sense to aggregate productivity from a number of different interventions in different sub-sectors. These indicators have also been chosen because they can also be used to demonstrate progress of the program towards the ultimate goal. AIP-Rural has identified a number of indicators that can be aggregated across all interventions and sub-sectors. However, there are two level of aggregation. First on sub-program level PRISMA, TIRTA, SAFIRA, and ARISA will aggregate their own KPIs and generic indicators. The second aggregation happens on AIP-Rural level. For detail indicator per sub-program please refer to Annex 6-Protocol on Reporting Indicator.

As per Semester 2 2016, AIP-Rural have reached a considerable achievement in developing the Management Information System (MIS). The newly developed system is intended to facilitate and accelerate the aggregation process more quickly and accurately while striving for ease of accessibility for integrated information across RURAL's working area, and will encompass various aspects of the program reporting and management function. Such facilitation will involve the utilization of integrated database management system via various platform such as dedicated Enterprise Resource Planning (ERP) for each user (Microsoft GP), portfolio management tool in place of the current intervention steering documents (implemented in Microsoft Access), web based automated real time reporting (implemented in Power BI), centralized database for evidences and knowledge library (Sharepoint), up to various office support systems (Sharepoint & .Net). Currently AIP-Rural is in the middle of migration phase from the existing system into this new one, and it is expected that full adoption will be achievable by the Semester 1 2017 PRIP. And in the same time, AIP-Rural have started to utilize cloud based database management (via Microsoft Azure) to further improve the accessibility of the program reporting and management function.

PORTFOLIO

Management and Result Measurement

3.8.
Reporting

AIP-Rural will report measured and attributable progress made by the program every six months. These semester reports to DFAT will report progress and projections based on the KPIs and other indicators on Annex 9. Every sub-program has to submit separate report to DFAT. Thus the programs will use the KPIs to illustrate its projected change, cumulative change till date, and changes achieved over the last six months. Qualitative information will be used to explain the reasons behind changes in the KPIs and what these changes mean for the future of the program. Related to the RM system, there are two reports for DFAT, first is Progress Report and Implementation Plan (PRIP) and the second is Aggregate Development Results (ADR). PRIP will be submitted to DFAT Indonesia whereas the ADR will be submitted to DFAT Head Office at Canberra.

PRIP reports to DFAT will be submitted twice every year in January and July; the review cycle of the program has been timed to fit in with the reporting cycle. The sub sector reviews will take place in May and November, the portfolio review in June and December this ensures that reports to DFAT are as up-to-date as possible and reflect major management decisions made in the program. AIP-Rural General Manager will take a lead for PRIP report with support from AIP-Rural H-RML, SBC RM, PBC RM, and HMIS. The deadline for submitting PRIP are second week of February and August. HMIS will take a lead for ADR report whereas SB RM and PBC RM will provide the support during the process. The deadline for ADR is mid of March every year.

In addition, AIP-Rural will periodically report on a limited number of operational indicators. The process of reporting those indicators is further described in Annex 9 ‘Protocol: Reporting on Indicators’.

Methods & Approaches

For Measurement

Methods & Approaches

For Measurement

Measuring impact for each of the interventions needs to be carefully planned. The results measurement system, in order to be able to measure and report credible impact, implies the following steps:

1.

Develop sufficiently detailed and logic intervention results chains

2.

Define indicators which enable you to measure changes along the results chain

3.

Make a projection of the expected changes based upon key quantitative indicators

4.

Define attribution strategy and Measurement Plan

5.

Establish baselines

6.

Monitor and measure attributable changes due to the intervention

7.

Analyse, learn, and use results

8.

Aiming for and tracking systemic change

9.

Record and report

This chapter describes each of these steps.

Methods & Approaches

For Measurement

4.1.
Intervention Results Chain

Because AIP-Rural works with market players to introduce innovative business models, there are many steps between AIP-Rural activities and impact on smallholder male and female farmers; there are also many 'intermediate results' between them. AIP-Rural therefore needs a tool to track the changes along the chain of different market actors to where they impact on farmers. Mapping out this series of changes is done in a results chain.

The intervention results chain is a visual tool that shows how activities done and managed by AIP-Rural will lead to changes in partner (outcome) capacities and behaviour, leading to intermediary service provider output and outcome, farmer outcome, competitiveness and eventually impact. The results chain will form the backbone of the AIP-Rural result measurement system. All other elements i.e. indicators, measurement plan and reviews will follow the structure of the intervention result chain articulated. The result chain is based on some external assumptions such as price is stable, no el-nino/la-nina, no free seed program from government at the intervention area, etc. These assumptions should be recorded on the overall MRM strategy part.

The process of developing the intervention result chain will clarify the thinking and underlying logic of the interventions, as well as the key assumptions that need to hold true. The intervention results chain has to be arranged in a logical order. It represents the causal relationship between one change and the next, thus helping to identify critical tasks needed for a change to happen.

Well-articulated results chains will help AIP-Rural to deal with attribution challenges. If the changes happen along the logical and sufficiently detailed result chains, and changes in one level are caused by the changes in the previous level, AIP-Rural can demonstrate that its activities contribute to the smallholder farmer impacts. The additional step remaining is to isolate the impacts of other external factors on observed total changes.

The intervention results chains have to be sufficiently detailed in order to help AIP-Rural identify where the broken links are in the chain. If there is a gap (missing information) between two levels of a results chain, AIP-Rural might not be able to identify where the problems are and might not be able to solve them. For example, if the results chain jumps from the level "service providers provide the services" to "farmers increase yields", then if yields do not increase, AIP-Rural might not be able to identify why not. It could be that the farmers did not want to use the services or they did not use them properly, or simply that the yields were influenced by the weather. If there are gaps, it may be difficult to assess attribution. To develop a results chain, the following steps need to take place:

Methods & Approaches

For Measurement

Table. 8

Practical Tips on Developing Result Chain

Step 1 – Develop a proper analysis of the context

A proper analysis will clarify the problem that an intervention aims to solve, activities that are relevant to solve the problem, and the results that an intervention aims to achieve. The analysis should be comprehensive and articulated in a simple way to ensure that relevant stakeholders have a mutual understanding of the context. The analysis covers the following:

- What are the constraints and opportunities in the subsector?
- Why are potential beneficiaries facing problems?
- Who are the different actors present in the sector?
- Why are not the different actors already solving the problem?
- What are the incentives for these actors?
- What can the intervention do to assist players to solve the problem?
- Why would the solution work?
- How feasible are the intervention activities?
- What would be the results of the activities?

Step 2 – Draw a diagram of new the business model to be introduced by the intervention

The new business model should describe what the core business will be, who the actors are, and what are the envisioned market transactions to occur among the key actors that will continue even after the project ends. Once you already have a business model diagram, you are then ready to develop intervention result chain. Based on the business model, you develop the result chain.

Step 3 - Write down the main activities

The results chain does not need to show every detail of an activity. If there is more than one main activity, you will need to show the relationship between them by asking these questions:

- Does one activity lead to another? Or will they be independent to each other?
- Do they all target the partner/service provider?
- Do they all aim to produce one specific change in partner's or service providers' capacities? Or are they aimed at different changes?

Step 4 - Describe the main changes in market systems, intermediaries, and farmers, as well as the sustainability of the changes

The boxes in the results chain must be sufficiently detailed to enable changes to be measured. Add a different box for each major type of change. If the results chain is not sufficiently detailed or the statement of change is too broad, it is not possible to develop indicators. However, we should not be obsessed with the details of the results chain since an excessively detailed results chain will cause difficulties in monitoring and documentation.

Step 5 – Review the results chain

It is important to review the results chain once it is completed. The review will help us to identify if there are loopholes in the logic. Often a results chain does not show that the activities are not sufficient in triggering changes on partner or intermediaries. We may have to add activities or results box in the results chain to improve the logic. Or, we may find that the assumptions or external factors that influence the causal link between boxes are not true.

Methods & Approaches

For Measurement

4.1.1. Practical Tips

AIP-Rural intervention result chains should follow the logic of the overall program results chains (outlined in Chapter 2) by starting with activities, followed by intended partner outcomes, service provider outputs and outcomes, farmer outcomes, competitiveness and eventually farmer impacts. However, in each level there is often more than one change ("boxes"). There is no rule on how many boxes there should be: the rules are that a) there must be as many boxes as necessary, and b) the arrows have to represent the causal link between result chain boxes. The following table summarises the typical changes to each level of the PRISMA overall program results chain.

Table. 9

Typical changes in each level of the PRISMA overall program result chain

Step 1 – Develop a proper analysis of the context		
Farmer	Farmer Impact	• Smallholder farmers increase net attributable additional income
	Farmer Competitiveness	• Smallholder farmers increase sales revenue • Smallholder farmers reduce costs • Smallholder farmers sell products or services at a premium price • Smallholder farmers increase productivity • Smallholder farmers increase production capacity
	Farmer Outcome	• Smallholder farmers apply new or improved practices or utilise new or improved inputs, or establish contracts with new buyers • Changes in capacities and/or incentives of smallholder farmers related to received services or inputs or markets • Smallholder farmer receive new or improved services or inputs • Farmers receive improved inputs or technology from a VCF loan • Farmers' loan application is approved • Farmers apply for loan to the bank
Intermediate service provider	Intermediate service provider outcome	• Service providers provide new or improved services or inputs related to new business model to farmers • Service providers increase turnover for providing the services/products to farmers thus have an incentive to continue. • Service providers increase their turnover for supplying the services/ products to farmers through VCF
	Intermediate service provider output	• Changes in capacities and/or incentives of service providers related to implementation of new business model

Methods & Approaches

For Measurement

Partner	Partner outcome	• Partners provide support to service providers to implement the new business model • Changes in the capacity and/or incentive of partners to support service providers • Investments by the Partners to increase their capacity • Increased portfolio in agricultural finance • Research institute collaborate with private sector to disseminate the innovation
Activities	Activities	• Activities implemented by PRISMA to support partners • Activities implemented by TIRTA to facilitate service providers (local investors and WUAs) to develop new/improved business model. • Activities implemented by SAFIRA to support financial institution • Activities implemented by ARISA to support collaboration between research institute and private sector.

The following are additional tips for making result chains:

- Be clear on the intervention logic and make sure that the results chain represents the business model introduced.
- Be specific and clear: mention who does what, and use active voice.
- Avoid using jargon e.g. capacitate, facilitate, support, and be as clear as possible.
- Ensure logic: make sure that if the arrow goes from one box to another the first box is a “cause” of the following boxes.
- Start with as many boxes as necessary. Then remove the boxes that are repetitive. However, make sure that the results chains are sufficiently detailed. If something could go wrong between two boxes, you should add another box to monitor that step.
- The results chain should be self-explanatory. External persons should be able to understand the result chain with little additional explanation.

Results chains are first developed by the sub-sector teams, with support from their RM focal as part of the ICN and IP for interventions. These results chains are assessed by another member of the RM team for logical coherence as part of the assessment of ICNs/IPs. Later after contracts are signed with partners and activities have been finalized the sub-sector team revises the results chain and finalizes it with support from the RM focal. The results chains are documented in the result chain sheet in the Intervention Steering Document.

Methods & Approaches

For Measurement

4.2.
Define Indicators

After articulating the intervention results chain, the next step is to identify indicators to measure changes in each results chain box. For each box there should be one or more indicators to specify expected changes that need to be measured. Generally, good indicators should be:

SPECIFIC

Indicators must be clearly defined and specific to the changes described.

MEASURABLE

Indicators must be measurable, either quantitatively or qualitatively.

RELEVANT

Indicators must be relevant to the changes in the result chain box.

TIME-BOUND

Time-related indicators must be identified along with a specific timeframe e.g. “kg of produce per ha per annum”.

Both quantitative and qualitative indicators are needed to cover all aspects of change in an intervention. Quantitative indicators are required to measure ‘to what extent’ changes are happening. Qualitative indicators are useful to explore the nature of the changes: how and why, or why not, are changes taking place and will the changes be sustainable. Indicators should be developed carefully, for each intervention and for each ‘change’, and care should be taken that they reflect the actual change or changes that are described in the ‘box’. Where necessary, indicators will be gender disaggregated as described in chapter 6.2. The identification of indicators for each box must be done by the sub-sector teams with support/advise from the RM focal person.

Indicators for each box of the results chain will be recorded in the column for indicators in the MRM plan of the Intervention Steering Document. Annex 5 has a list of some common generic indicators that may be used for each level of the results chain. Secondly, it’s important that the indicators that are required to measure the KPIs mentioned in chapter 2.2 and in annex 6 are included.

Methods & Approaches

For Measurement

4.3. Projections

There are two type of projection, existing intervention(s) projection and pipeline projection. Existing intervention projection is made when an intervention idea is converted to a concrete plan. Making projections for interventions means we try to predict how much change will occur in the sub-sector as a result of our interventions. The ultimate aim of projections is to be able to predict how many poor farmers will be reached through our interventions and how much income increase they will have. As much as possible, projections should be based on 'facts' and 'assumptions', and are thus derived through calculations that are thought through carefully. Pipeline projection basically is the outreach estimation for intervention ideas. Every sector team has to estimate their outreach and also when they can report it. In order to get accurate projection about the number of poor farmers, Sector team needs to assess the ISP and/or partner capacity so the team can estimate how many farmers will get access to the innovations. Some access farmers will apply or use the innovation but the others will not. The farmers who apply/use the innovation are defined as user farmers. From this group, some farmers will get increase income hence AIP-Rural define them as Outreach or Beneficiary. From the access farmers number, sector team can estimate access to user ratio as well as user to outreach ratio. The ratios calculate how many farmers will move forward to the next level in term of using the innovation and then get benefit. The ratios are based on the other intervention's data, partner skill and will, and also impact assessment from the same sub-sector. The sector team also needs to put projection on correct semester. The projection is not necessarily the exact same time when the changes happen but when AIP-Rural can report the impact. For instance, maize farmers harvest on May and the impact assessment report can be done on July hence the sector team has to project it on second semester not in the first semester

There are very initial projections made in the ICN and IP. However, when making projections for the ICN and IP not all details are known; more specifically, the extent of the activities which will be carried out is not clear (e.g. how many people will be trained, how many demo plots will be developed). That level of detail is available after the team has done a lot of field investigations. It is at that point that detailed projections are made based on the intervention results chain in the ISD and pipeline projection tools.

Methods & Approaches

For Measurement

4.3.1. Practical Tips

Projections in should be made based on a combination of inputs.
These include:

1.

Experience and knowledge of the staff

2.

Data from primary research, such as field trials, case studies and opinions of stakeholders

3.

Data from secondary research, such as commodity studies, sub-sector studies, market surveys and case studies

The projections should be made only for a few selected key quantitative indicators; they should say how much the value of the indicator would change due to the intervention.
Do the projections before you make the measurement plan. It helps you to think through the intervention logic and plan. If it is difficult to make the projections, it might be that you don't know enough yet, or that indicators are missing or need to be adjusted. It also helps you to make the measurement plan.

Calculations for projections should be realistic, and in case of doubt, should be conservative. Don't assume all ISPs will provide all services, or that all farmers will apply the service correctly: adjust the 'ideal' change with a conservative estimation. Don't assume all farmers will increase their yields in the way it was done during a demonstration or pilot; some will not apply inputs properly and get a lower than possible yield.

Many assumptions will be made and these should be recorded next to the cell with the projected value. The source of information should also be referenced. Projections are recorded in the "projections and results" worksheet of the ISD.

This (detailed) projection is used to track the intervention during implementation. Whenever data are obtained on changes (e.g. outreach, or impact), these should be updated in the "projections and results" worksheet of the ISD. This can then be used by sub-sector teams to compare projections and actuals and understand what this means for the sub-sector and the portfolio. Projections are made by the sub-sector team, with the RM focal supporting and giving advice. The projections are peer reviewed by another RM person who are not the focal for the sub-sector.

Methods & Approaches

For Measurement

4.4. Attribution And Overall Mrm Strategy

The “Overall MRM Strategy” worksheet in the ISD needs to address:

1.

Whether or not universal indicators will measured

2.

The likelihood of overlaps between interventions

3.

The likelihood of displacement, and how it will be dealt with

4.

Which attribution method will be used

4.4.1. Universal Impact Indicators

The universal impact indicators[5] (number of poor farmers benefiting and net attributable income) are in principle measured for each intervention. Job creation is not measured, because even though jobs may be created, this is not one of AIP-Rural’s objectives.

Some interventions may not create attributable changes at goal level, or some may create extensive changes that makes it difficult to establish a counterfactual (regulatory changes for example will affect the whole sub-sector). For such interventions where measurement of attributable changes at goal level is not feasible, measurement will only be done up to lower level indicators and not up to goal indicators. Such a decision can only be taken on a case-to-case basis by the CMT, and will be made during the development of the Intervention Plan and recorded (along with the justification) on Overall MRM Strategy worksheet in the ISD.

[5]The term ‘universal indicators’ stems from previous versions of the DCED standard. These are now termed common impact indicators in DCED documents.

Methods & Approaches

For Measurement

4.4.2. Potential Overlaps With Other Interventions/Sub-Program

It is likely that there will be overlaps between different interventions: some farmers may benefit from more than one intervention. At the start of the intervention, the possibility of overlaps between interventions is recorded in the Overall MRM Strategy worksheet, with a reference to the other interventions from PRISMA, TIRTA, SAFIRA, and ARISA. Also record the geographical area (in terms of province or district). This information helps to define the measurement plan (for one intervention or combined for few interventions) and is useful information for aggregation across different commodities.

4.4.3. Displacement

Displacement is the negative effect that an intervention may have, whereby one group benefits at the expense of another (for example, some farmers will increase sales, causing other farmers to sell less). Displacement may occur at many levels of the results chain (partners, service providers) but is only considered at the level of the farmers. In most cases, AIP-Rural works in growth sectors, and displacement is unlikely to happen. However, if it does, AIP-Rural has to 'address it'. Thus sub-sector teams must explain to the RM focal if displacement is likely to happen due to an intervention along with supporting information. The RM focal then records this in the MRM strategy worksheet in the ISD. If displacement is likely then for the program this implies additional 'research'. How it will be measured will be decided on a case-to-case basis, a decision to be taken by the HRML. If displacement is expected or seen this should be brought to the notice of the CMT and a strategic decision made on whether (for example) to proceed with the intervention, or to scale up.

4.4.4. Attribution

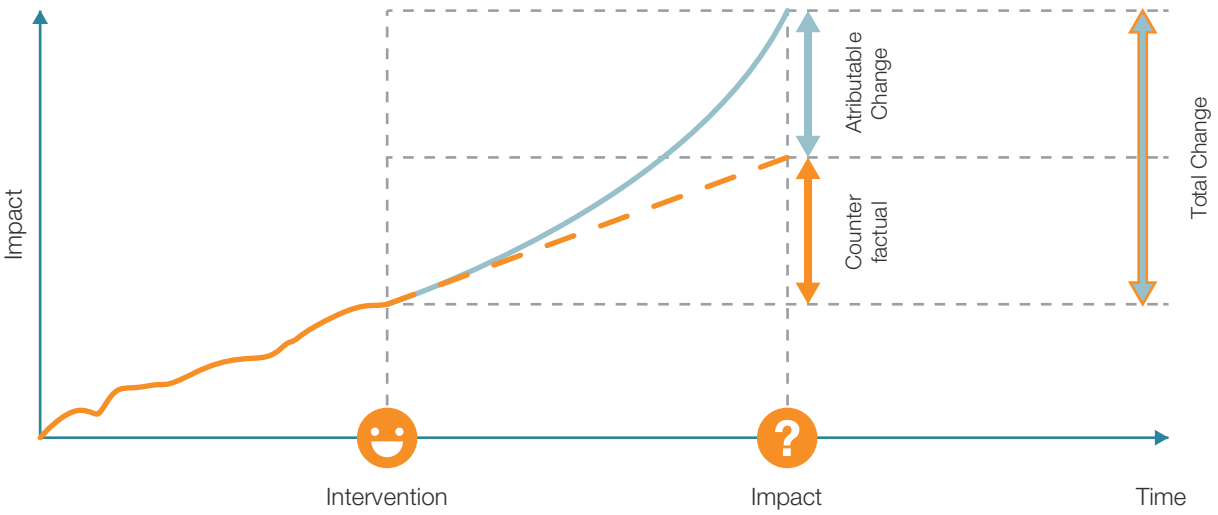
The changes we will measure are partly due to AIP-Rural interventions but also to other external factors such as weather patterns and macroeconomic changes which have an impact on the changes in the performance farmers. In order to isolate the changes and impacts which are attributable to our intervention AIP-Rural needs to estimate the changes and impact that would have happened anyway, even without the intervention. This is known as the "counterfactual". The impact attributable to our intervention is the difference between the counterfactual and the total change observed/measured.

Methods & Approaches

For Measurement

Figure. 8

What is attributable change



Various methods can be used to define the attributable impact. A number of these methods are briefly described below, with an indication of when to use them and when not. For each intervention, the first step is to define the attribution method.

Table. 10

List of attribution methods

Attribution Methods	When to use it
Before and after comparison (BAC)	
Measuring the value of the (key) indicators a) before the intervention takes place (baseline), and b) after the intervention (end line). The difference between those two measurements is the change that is then reported (e.g. net additional income).	When the change is very obviously due to the intervention, i.e. there are no external influences that might affect the counterfactual. Because AIP-Rural is targeting farmers and often aiming to improve their yields, it is very rare that there are no other external factors such as the weather. The BAC method can be used to measure changes at lower levels (like that of the ISP and partner). However, even in this case we prefer to understand why the change took place. Hence, we always prefer to combine this BAC with Opinion.

Methods & Approaches

For Measurement

Before and After Comparison with Opinion (BACO)	
The Before and After Comparison with Opinion is like the BAC method, with the addition that we also ask the opinion of the partner, ISP, farmers or other stakeholders involved. This provides us with confirmation of why the change took place or did not take place.	When there are no external factors possibly influencing the counterfactual, or when it is impossible to obtain data on the counterfactual either because the change affects the entire population or because it is not feasible to isolate those who are not affected. A BAC can be combined with collecting the opinions of respondents on whether the changes were due to the intervention. Opinions can also be collected from other stakeholders or key informants. Such consultations can be obtained using interviews, focuses group discussions or stakeholder workshops. The opinions are used to triangulate findings of the before and after studies. Sometimes the counterfactual is influenced by one or two key external factors that can be 'kept constant', and thus be isolated. Examples can be: purchase or sales prices that vary due to other factors, hence influence the "income". By freezing them, one can thus eliminate the influence of those factors.
Trend and other analyses using secondary data to establish the counterfactual (TA)	
A trend analysis compares the annual increase or decrease for a certain indicator (such as export value per year) over recent years and compares the change in that trend with the measured value of that indicator after the intervention. Other comparisons include comparing the smaller group of treatment farmers with the entire farmer population using secondary information.	If relevant and reliable statistical information is available on a number of key indicators, then one can compare the 'projected slope' (which would present the counterfactual) with the actual measured value; the difference is the change attributable to the intervention. This is only possible if the counterfactual is steadily changing (a trend), if it is very volatile it's often not feasible to make such comparisons. One may also compare actual measured data with other data available for the entire population. These comparisons are challenging and should only be made if reliable information is available and no other attribution methods are possible.

Methods & Approaches

For Measurement

Quasi experimental design (QED)	
To carefully select one group of farmers which will benefit our intervention (treatment group) and another group of farmers that will not benefit from our intervention (comparison group) before the intervention takes place. We measure the before and after situation of both the treatment and the comparison group. This implies we have to do a BACO for both groups and compare both differences (the 'difference-in-difference').	Provides credible numbers, and is thus in principle preferred. However, it is very challenging to apply to M4P interventions, as to do so means categorising groups into those which will be benefited and those which won't, which is restrictive. The two groups chosen will also have to be very similar so that a comparison of the counterfactual is feasible. In addition, it is resource intensive (two baselines, two end lines).
Comparison Group between user and non-user group (CG)	
To compare those farmers who benefited from our interventions (users) with farmers who did not (non-users). The identification of users and non-users is often done using the intervention logic: some ISPs will be providing the service (resulting from our intervention), while others may not: hence the farmers who are clients of the latter can be part of the comparison group. We can also sample a number of farmers who are clients of the applying ISPs, and compare those farmers who applied (the advice) with those who did not. We measure the before and after situation of both the potential user and non-user group. This implies we have to do a BACO for both groups and compare both differences (the 'difference-in-difference'). The difference with the QED is that we only 'allocate' the respondent to either user or non-user group 'after the changes have taken place'. With QED this is done beforehand.	This is easier to apply than QED as the program does not have to restrict farmers into groups of users and non-users. However, there may be a selection bias inherent in this method, i.e. those that used the product/services may be better off anyway than those that did not use the product/service. It can be used when we expect that not all potential users will actually become users (and leave no comparison group). The reason for farmers using or not using the service is crucial for us to understand. For many interventions, this will be a practical attribution method.
Randomized control trials (RCT)	
Identify at random from the entire population one group of farmers which will be using the service (treatment group) and compare it with a group which is not provided with the service (control group), also identified randomly. We measure the before and after situation of both the treatment and the control group. This implies we have to do a before and after comparison for both groups, and compare both differences (the difference-in-difference).	This method is considered by some the most statically rigorous. However it requires that AIP-Rural must have control of determining who will and who will not be using the service since those using and not using will be randomly selected from the same group (like flipping coins). It is rare that this method is appropriate for PRISMA interventions

Methods & Approaches

For Measurement

4.4.5. Selecting The Attribution Strategy

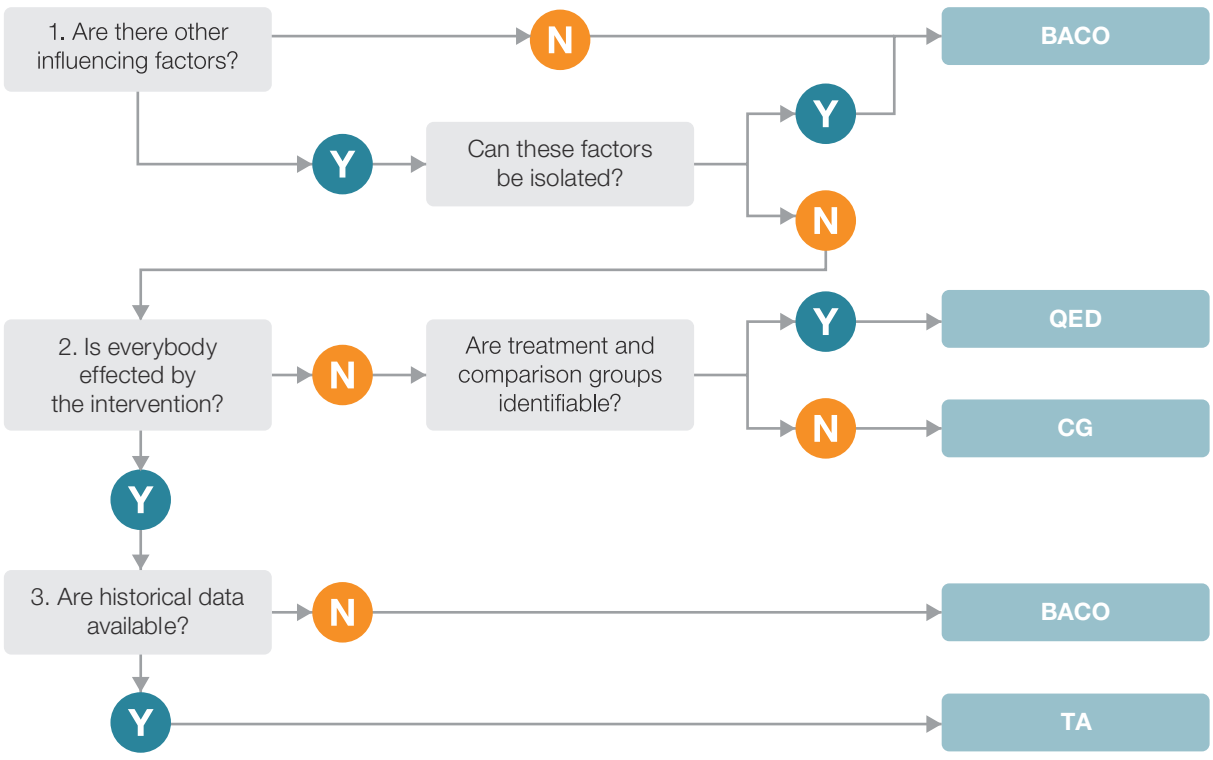
To select the most appropriate attribution strategy, the first step is to identify the key external factors that might also affect the changes observed, such as weather conditions, or other donor or government programs. This, together with our knowledge of the sub-sector, will enable us to select the best attribution method, balancing between most appropriate and feasible.

In selecting the right attribution strategy, the RM focal will discuss with the sub-sector team. The attribution method selected must be described in the Overall MRM Strategy worksheet in the ISD. In that worksheet, the description should include a concrete description of the counterfactual, a description of external factors (or absence of them explaining why) and the selected attribution methodology, and why.

The diagram below is a guideline that can help to decide which research method to use for attribution.

Figure. 9

Selecting an attribution method



Methods & Approaches

For Measurement

4.5. Establishing The Baseline

The baseline records the values of the key indicators in the results chain before the intervention has affected farmers. Baselines are useful for, understanding the situation before the intervention takes place, making projections of changes, estimating the required degree of change for uptake of a new intervention idea, and for estimating actual changes resulting from the intervention. Collection of baseline information is also a necessary part of establishing the counterfactual.

4.5.1. When And How To Establish Baselines

This is dependent on whose baseline we want to establish:

1.

For partners it is generally possible to establish a baseline before the intervention is started. As they are our partners we generally know their situation regarding the new product/service before the intervention and a separate baseline study is generally not necessary.

2.

For intermediary service providers a baseline may be constructed during the sub-sector study or during the development of an IP. However, if this is not done in a representative manner at that time than it will be necessary to construct one later.

3.

For farmers it is important to make sure that a representative baseline study is done for the sub-sector. Baseline study for sub-sector can be done together with development process of GSD. It may however not be necessary to have a baseline for each and every intervention. In a situation where the program is likely to have few interventions in the same area with the same target group (e.g. two interventions on beef cattle in Bima district), it will be sufficient to have one baseline study for both interventions. The best time for baseline is after the farmers get access but before they get benefit from the intervention(s). In TIRTA, SAFIRA, and ARISA the baseline can be done after the beneficiaries list is acquired.

Methods & Approaches

For Measurement

The second factor to consider when planning a baseline study is when the best feasible time is. Ideally, baselines should be established before the intervention starts to affect actors. However, although an intervention might be planned with a partner, changes may occur during implementation (for example, service providers might not provide the product or service as expected, or partners might decide to work with service providers in other locations). Constructing a baseline too early may run the risk of it not being representative and resources thus being wasted.

The key question is, “Can we postpone as long as possible but before the relevant actors are affected?” This optimum time might be when service providers are ‘about to start’ providing the service; we can then establish the baseline just before products/services are provided because more clarity is obtained about who is likely to be affected and who is not. If the program decides to conduct a baseline in this manner it should take care to over-sample in case some of those who form part of the baseline do not actually change due to the intervention, (e.g. service providers decide not to provide the new service/product, some farmers decide not to buy the new service/product).

In TIRTA case, there are two different situations. First in case of expansion of irrigation services, the baseline will normally be undertaken when the following criteria have been met: (i) the intervention has already had a cooperation agreement with the stakeholders, (ii) the service provider has entered into an investment agreement with the farmer, agreeing on who the farmer recipients are, the irrigation service provision, the start of the service and payment of the service, (iii) the list of irrigation recipients is available, and (iv) the pump-lift irrigation infrastructure system for the expansion area is in place and water is being provided to the new expansion area.

Similarly, in case of interventions that focus on productivity and crop protection in existing irrigation service areas to trigger irrigation expansion, some criteria to be met include; (i) the intervention has already had a cooperation agreement with the stakeholders, (ii) service provider has entered into an investment agreement with the farmer, agreeing on who will receive the technical assistance (eg. training or agricultural inputs), (iii) when a list of participants who receive technical assistance has been available, and (iv) when projection can be made in regards to the scale of adoption and copying by other farmers who do not receive training and inputs from the intervention.

However, before intervention-baseline could be too risky as the final beneficiaries are still likely to be quite different from the ones in the baseline. Alternatively, if it is not feasible to carry out a baseline before actors are affected by an intervention then we need to reconstruct the baseline later; this is also referred to as “recall”. The advantages and disadvantages of establishing a baseline based on recall are given in the table below:

Methods & Approaches

For Measurement

Table. 11

Advantages - disadvantages of using recall

Advantages of recall	Disadvantages of recall
Using recall questions implies we only have to do the survey once: measuring the actual situation, and asking recall questions about the situation before the intervention took place. It is thus less costly and time consuming. If we use the comparison group attribution methodology, we can interview a sample of the farmers, categorize them into either users or non-users, and through recall establish the baseline for both the users (treatment) and non-users (comparison group).	The risk, especially when dealing with interventions that are not changing much (where, for example, an additional service is leading to not too significant a change of yield) but also with farmers in general, is their ability to actual recall the before-situation. Before deciding to reconstruct the baseline, that ability to recall therefore should be tested. We should also investigate (before we develop the measurement plan) whether we can make use of additional data collection tools, such as reliable and relevant statistical data, and of company records: are our PSPs and ISPs recording information about our potential users which we can use?

In some cases, it may not be feasible to establish a baseline; this could be because the information could not be collected before the intervention, and/or because information based on recall is (or turns out to be) unreliable. In this case the program could use the situation of the comparison group as a baseline but only if it can ensure that the comparison and treatment groups are similar. If they are not, then the program could still report changes if the treatment group shows changes that are greater than two standard deviations away from the non-treatment group. Another alternative would be for the program to use trend analysis based on secondary data as a baseline; however, this would depend on whether the data for trend analysis is considered reliable.

4.5.2. Where Is It Recorded?

In the MRM Plan worksheet in the ISD we record when the baseline data was established or when it will be established. It is important that in the column “baseline information” it is specified for each indicator (row) when the baseline information is obtained, or if it is not applicable. Care should be taken that dates are appropriate to the expected changes. For each indicator. Once the baseline has been established (constructed or reconstructed) we record the baseline data in the “Projection and Results” worksheet in the ISD. Each baseline will need to be carefully planned: a research plan must be developed for the baseline (see Annex 3 for research design template). ARISA will use its own template for developing a TOR, which serves the same function as a research plan.

For ARISA, all of these indicators will be updated at least twice a year, with “N/A” noted for changes that have yet to occur. Therefore, it is not necessary for ARISA to predict in advance the exact month of expected changes, though we factor in the semester changes are expected in the projections.

Methods & Approaches

For Measurement

4.6. Monitoring And Measuring Changes

Continuous monitoring of changes resulting from the intervention will be carried out from activity level up to goal level. This will be done using various tools (such as company records, observations, FGDs and in-depth interviews). To be able to carry out continuous monitoring and measurement it is important to plan carefully:

- When the changes are likely to take place?
- What is the most efficient way to combine the measurement of various indicators in one go?
- What combination of tools and sources should be used to triangulate the findings?

Normally, measurement during the intervention is not rigorous, but informative. This may, for example, be a mini survey of carefully selected respondents in order to understand if the business model works and if the projected impact is likely to be realized. It is important to document the methodology and limitations of the findings. The method used for continuous monitoring must be appropriate for the indicator(s) being measured. For example, observation is sufficient to know how many participants are at a workshop; observation is not sufficient to know how many people apply a new practice.

4.6.1. Practical Tips:

For each and every indicator or set of indicators we must identify when the indicator will be measured (month and year), how it will be measured (using which method), and who is responsible for the measurement. Often a number of indicators will be measured at the same time, using the same tool. It is crucial to develop the most practical measurement plan, a plan that obtains information early and specific enough to assess changes (or lack of), yet avoids that the plan is so demanding that it will be too costly or time consuming. The plan is recorded in the MRM Plan worksheet in the ISD.

Measurement of indicators thus follows the MRM plan, and is not per definition a periodic event (monthly, annually). The research, e.g. observation at training events or interviews with a few service providers or farmers, should be processed properly. The findings and conclusions should be recorded and stored in the evidence files for each intervention. These documents could be in the form of Back-to-Office reports, Minutes of Meetings, emails, and others.

The actual results (from the research) are recorded in the Projection and Results worksheet in the ISD. Here, the actual value per indicator is updated, if the measurements change any of the assumptions about the projections than that is recorded in the “actual validated assumptions” column of the projections and results sheet. ARISA does not have an ‘actual validated assumptions’ column, but its calculations are explained and tabulated rigorously in separate spreadsheets, incorporating validation/adjustments of assumptions based on results for calculating all of the relevant indicators on notes column.

Methods & Approaches

For Measurement

Data collection, analyses and documentation is the responsibility of the sector team. The RM focal is responsible for reviewing the updates, and for the quality control of the data collection and processing methods.

4.6.2. Data Collection Method

Rather than drawing conclusions from the single source, AIP-Rural will use a combination of methods and/or sources (triangulation) to assess the changes that take place. The table below summarises common tools that can be used to collect data and the situations when they should be used:

Table. 12

Data collection methods and when to use them

Tools	Explanations	When to use the tools
Observation	This is a technique whereby a researcher observes a group or event and takes notes on what takes place. The observation is direct when the researcher is present or indirect when other means of observing are used (for example, a video camera). The researcher should be aware that people might act differently when they know they are being observed.	• Quick assessment of what is happening and how particularly useful tool at activity and partner outcome level • To explore the process of change • Combined with regular field visit • To validate data from other sources
Records	Records or documents that partners, service providers or farmers keep	• Convenient way to get quantitative data related to those particular records and documents • When stakeholders have sufficient records and are willing to share them • To get an indication of the degree of adoption of a model among stakeholders
Secondary data	This involves a review of information that was collected in the course of another study or as part of a publicly available set of data. It may be in the form of official statistics or other informal sources not generated by the researcher.	• As sources for projection • For triangulation • In some cases, to established counterfactuals

Methods & Approaches

For Measurement

Tools	Explanations	When to use the tools
Key Informant Interview	These are qualitative in-depth interviews with individuals who have first-hand knowledge of the issues that will be addressed in the intervention.	• To gather information on specific issues which will be addressed in the intervention • To use as a source to enable projection • For triangulation • To explore causality
In-depth interviews	In-depth interviews gather qualitative information and explore the process of change extensively. They provide more in-depth analysis of the changes, which are taking place and explore causality.	• To gather qualitative and quantitative information from a small number of respondents • To explore the change process in depth (the nature of change processes and opinions of the changes) • To explore causality • Useful for reporting impact particularly if information is triangulated • Normal sample size is around 5-30 people purposively selected
FGD	Qualitative evaluation methodology in which small groups of people are brought together to discuss specific topics under the guidance of a moderator. FGDs are a good tool for getting the common view of participants but it is weak in understanding individual cases and socially sensitive cases	• To gather qualitative and quantitative information from small number of respondents. • To explore the change process in depth (the nature of change processes and opinions of changes) • To explore causality • For triangulation • To understand collective behaviour or perceptions • The normal group size is around 8-15 people purposively selected • It requires an experienced moderator
Survey	This is a data collection tool used to gather information about individuals based on a sample of target population. A survey normally used to gather quantitative data (also simple qualitative data) for a large number of respondents utilising structured questionnaires.	• To gather quantitative data (and simple qualitative data) from a large number of respondents • Survey can provide statically robust data required for impact assessment and reporting • Can be done in-house for small surveys or outsourced for larger ones • Samples can be drawn randomly or purposively as long as a) they are reasonably representative and b) method and limitations are documented • Samples sizes guidance in Chapter 4.4.3

Methods & Approaches

For Measurement

4.6.3. Conducting Surveys

Surveys will be used to measure many of the indicators of AIP-Rural, particularly key quantitative indicators such as outreach, productivity, incomes and service provider turnover. Surveys are usually conducted to assess the indicator value for the base-line situation, the intermediate and end-line situation. Reference is made to 2.1.1 that explains when and how AIP-Rural will assess impact during and after the intervention.

The proper planning and conducting of surveys will thus be key to accurate measurement. To ensure rigour of impact assessment and to optimise the use of resources, AIP-Rural will use the following table to prioritise its interventions in three different categories: low, medium and high priority. The sample size will then be identified by instructions related to each category. For example, for a high priority intervention, the number of samples will be based on 95 percent confidence level and 10 percent margin of error.

Table 13: Level of statistical rigor in impact assessment

Expected Impact				
High	Medium Priority	Medium Priority	High Priority	
Med	Medium Priority	Medium Priority	Medium Priority	
Low	Low Priority	Medium Priority	Medium Priority	
	Low	Med	High	**Expected Outreach**

Priority	Number of samples based on
High	95% confidence level 10% margin of error
Medium	90% confidence level 90% confidence level
Low	Minimum of 30 samples

For planning surveys, has a research design template to be used as a guideline. The template can be seen in Annex 3. Once the sample size of a survey has been decided on, the questionnaire or interview guideline will be developed for each respondent group. The initial checklist of what to measure will be collected from the MRM Plan worksheet in the ISD. This checklist will be developed into a draft questionnaire by the RM Focal or by the research firm to whom the study is outsourced. Based on this questionnaire the data entry template and an analysis plan may be developed by the RM Focal. For ARISA, a 'Farmer Survey Schedule' within the ISD documents the thought process behind the planning of farmer surveys, including types of respondents, numbers of each time, and what month each of the surveys will be conducted. This is discussed between the sector team and RM focal point and serves as the basis for the survey TORs.

Methods & Approaches

For Measurement

4.6.4. Practical Tips:

Quality of data is crucial to ensure the quality of the research. Regardless of how large the sample size is, if the quality of the data obtained is poor, the results of the research will also be poor. Quality control of the research, in particular, large surveys, is extremely important. It is better to have small samples with accurate data than very large samples with faulty data. The following is the list of issues related to the quality control of data collection and analysis that need to be considered, irrespective whether the research is done in-house or outsourced.

- Pre-test the questionnaire
- Train enumerators before the field work
- Roles and responsibilities: Who will do the interviews? Who will supervise? Who will perform other roles?
- How do you ensure the quality of the information gathering (for example, through spot-checks of staff in the field, random rechecking of completed questionnaires, oversampling to cover for errors)?
- How will you deal with the tendency of respondents to give 'desirable answers'?
- Quality of the data entry and tabulation/summarizing: supervision, check or double enter
- Data cleaning methods to use

The following are tips for conducting a good survey:

Tips for conducting good questionnaires.

- Keep it simple, clear, easy, and short
- Find and review similar surveys conducted by others
- Do not ask respondents for information that requires them to refer to a file or other source
- Conducting follow-ups minimizes non-response
- Make sure the questions are well worded
- Avoid double-barrelled or double negative questions
- Use multiple items to measure abstract constructs
- Do not use leading or loaded questions
- Pre-test the questionnaires
- If survey is conducted by external enumerators, then:
  1. Ensure they are properly briefed and trained.
  2. Conduct a mock interview session with them.

4.7.
Analyze, Learning, And Using Results

The key function of the results measurement system is to provide a feedback mechanism that will facilitate the learning and improvement processes. The information generated from the system will be used in several scheduled program reviews where the results are analysed and discussed; this will generate the lessons learned and measures will be taken to improve results. This section provides details about how to prepare and organise different types of review meetings (described in Chapter 3.1.6). Intervention reviews focus on the interventions (ISD-based). Sub sector reviews focus on the achievements of the intervention and the changes in the sub sector. (GSD-based) The portfolio reviews all sub-sectors, based upon the sub-sector-reviews.

Methods & Approaches

For Measurement

Table 14: Review meetings

Type:	Intervention review	
Frequency	Monthly and/or Quarterly for PRISMA co-facilitators, TIRTA, and ARISA As needed for PRISMA internal sub-sectors and SAFIRA	
Length of review	Maximum half day per sub-sector interventions	
Participants:	Led by:	Intervention/ Sub-sector task leader
	Participants:	Intervention / Sub-sector team RM focal (optional), Head of Portfolio (optional) Research Institute (for ARISA)
Inputs:	• Updated ISD for each intervention • Findings from any surveys done in the sub-sector	
Agenda:	• Assess if intervention activities are leading towards anticipated results • Undertake budget analysis and forecasting • Identify and document key changes needed to the implementation plan • Identify any changes in the market dynamic that will potentially affect progress	
Type:	**Sub-sector Review**	
Frequency	Annually for PRISMA's intervention. Some sub-sectors reviewed in May and some in November Semi-annually for TIRTA and SAFIRA. The meeting will be held in May and November each year	
Length of review	One day per sub-sector	
Participants:	Led by:	Mentor
	Participants:	Sub-sector team, RM focal GSI specialist (optional) HRML (optional) General Manager (optional)
Inputs:	• Updated ISD for each intervention • Findings from any surveys done in the sub-sector	

Methods & Approaches

For Measurement

Agenda:	• Preliminary analysis on results to date along the intervention result chains: - What is working or not working and why? - What probably caused the changes observed? • Preliminary analysis on overall performance of the sub-sector - Vision of systemic change and review of progress towards systemic change • Review of sub-sector background and GSD narrative based on points below: - Does the story still hold? - Are there changes or emerging trends in the sector that we need to be aware of? - Are there any unintended effects of our interventions/activities? - Are there any new opportunities for interventions? - Are there any corrections that need to be made to the GSD? - Are there any signs of systemic change?
Key decisions	• Adjustment to the interventions and sub-sector strategy • Prioritization and resources allocation among the interventions
Expected output:	• Sub sector review meeting minutes • QMT
Type:	**Portfolio Review**
Frequency	Semi-annually after sub-sector reviews are completed
Length of review	3-4 days
Participants:	AIP-Rural General Manager, AIP-Rural Deputy General Manager, Head of Portfolio(s), TIRTA Team Leader, SAFIRA Team Leader, ARISA Team Leader/HoP, Head of Results Measurement and Learning, Head of Management Information System, Head of Operations and Finance (optional), Communications Manager (optional)
Inputs:	• Mentor assessment of sub-sector
Agenda:	• Review of progress towards systemic change • Overall results achieved to date by sub-sector • What is working and not working? And why? • What are the key challenges and changes in the political, economic and social environment that will affect the program and its sub-sectors? • What need to be adjusted in the portfolio? • Are there any personnel related changes or next steps to work on?
Key decisions:	• Continue, drop or add new interventions/sub-sector • Changes in portfolio structure and resource allocation

Methods & Approaches

For Measurement

4.8. Systemic Change

There are many definitions of systemic change; no one definition seems to be widely accepted. The main reason for this is that what constitutes systemic change varies depending on the market systems and the contexts within which they operate. The DCED Standard has no set definition of what is systemic change; it allows the use of various definitions, but it expects each to have the following three characteristics[6]

- **Scale**. Systemic changes influence and benefit a large number of people who were not directly involved in the original intervention.
- **Sustainability**. Systemic changes continue past the end of the program, without further external assistance.
- **Resilience**. Market players can adapt models and institutions to continue delivering pro-poor growth as the market and external environment changes.

For each sub sector, a road map to systemic change is developed and reviewed annually during the sub-sector reviews. The road map for systemic change for each sub-sector is also revised by the sub-sector teams and presented as part of the ICN and IPs for new interventions. It provides the vision for systemic change and the systemic changes that have taken place as a result of the interventions in the sub sector.

During implementation, the sub-sector team will look out for signs of systemic change and assess if the changes are attributable to AIP-Rural interventions. How to assess signs of systemic change is outlined in annex 7. If the changes are attributable to PRISMA interventions the sector team with their HoP will take one of the following decisions:

1. To support the initial partner as it shifts from adopt to the adapt stage. This could be by supporting the partner to expand the business model to other areas, or to adapt the business model.

2. To support actors that are showing signs of reactions that fit in the Expand or Response stage. This could be by supporting them to copy, adapt, or develop a new business model. In such case, this support will lead to a new intervention, with a new ISD and thus a new MRM plan. These actors subsequently become partners and move to the adopt-adapt quadrants of the matrix.

3. Not to support actors in the Adapt, Expand or Response stage. In that case, no new intervention will be developed, and the measurement of systemic changes will be done using the existing ISD. If those changes and their resulting impact at farmer level is to be measured, the ISD needs to be adjusted to ensure that the impact at farmer level as a result of those systemic changes is reflected and captured. If the result of systemic change is not significant then the sector team and HoP/TL can decide not to measure and claim changes at farmer level.

[6] DCED paper on Assessing Systemic Change, August 2014

Methods & Approaches

For Measurement

For each intervention an AAER matrix is developed and used to track changes due to the intervention in the "systemic changes" worksheet of the ISD. The ISD will only be used to record the actual and attributable changes in the AAER matrix due to the intervention. Subsequently, if the AAER changes lead to a new intervention then further measurement will be through the new intervention. If the AAER changes does not result in a new intervention, the ISD of the existing intervention will be updated to aid in reflecting and capturing the changes at farmer level. Gathering evidence about the occurrence and attribution of systemic changes will be led by the sector teams, and measurement at farmer level will be led by the RM focal person. The steps to take to decide if systemic change at farmer level should be assessed are described in Annex 7.

ARISA takes a modified approach to measuring systemic change from the other 3 sub-programs. Systemic change is measured in ARISA through a combination of a partnership agreements and reflections processes with the RI and PS intervention partners, qualitative indicators connected to the intervention results chains, and a maturity model approach using innovation practice logs. Additional methods will be developed moving forward for measuring the partnership outcomes set forth between ARISA and RISTEKDIKTI. ARISA has chosen to adopt these tools in lieu of AAER as they are fit for purpose for ARISA's specific aim of strengthening RI-PS linkages to deliver more and more effective innovations to increase the incomes of smallholder farmers beyond the timeframe of ARISA.

Partnership agreements are reviewed by the intervention partners every 6-12 months through a facilitated process by ARISA, depending on the status of the particular partnership. An example of a partnership agreement can be found in Annex 9.

The indicators within the maturity model are updated every 6 months, though innovation practice logs, which are conducted through interviews with the intervention partners, are updated on an annual basis. The conceptual foundation, methodology, and scoring framework for the maturity model are detailed in Annex 10. The scoring can be found in the "Innovation Systems" tabs of the ARISA ISDs. Some of the ARISA interventions that have yet to form formal partnerships may not be assessed using the maturity model approach until the formalization of partnerships.

Lessons learned from the partnership reflection process, innovation practice logs, and collection of other indicators related to sustainability and systemic change are fed back to the RI-PSP intervention partners and into the capacity building that is done with the partners from ARISA. This helps ARISA utilize this information to make strategic recommendations to the RI-PSP partners related to sustainability and systemic change. As part of a larger effort toward systemic change, ARISA is collaborating with two Indonesian universities to improve their capacity to be more 'outward facing' toward the PSP by establishing business units. This capacity building is at a higher level than the capacity building conducted with the intervention teams, but draws lessons from the ARISA intervention teams.

Methods & Approaches

For Measurement

Linked to this are ARISA's activities aimed at influencing the GoI's innovation policy. Specifically, ARISA aims to support RISTEKDIKTI (Ministry of Research, Technology and Higher Education) to incorporate lessons into RISTEKDIKTI standard operating practice on monitoring, evaluating and learning (MEL) of its schemes, to enable adaptive management to improve its schemes, and to inform the design of future schemes. This will allow for improved innovation policy that is a small but important step to strengthening the effectiveness of future government schemes aimed at stimulating RI-PS collaboration in Indonesia.

4.9. Documentation And Record-Keeping

The AIP-Rural Portfolio and Result Measurement System will produce and utilise several documents and reports to manage the implementation and learning process, and to measure and report results. These documents have to be systemically organised and maintained to ensure that the most updated version can be accessed when needed. The following table summarises the key documents including the timeline and person responsible for their updating and maintenance.

Table 15: Summary of documentation and record-keeping

Document	Responsible for producing	Completion date	Responsible for maintaining	Updating
Sub-sector Growth Strategy Document (GSD)	Sub –sector Task leader	End of sub-sector analysis	Sub –sector Task leader	Annually
Intervention Concept Note (ICN)	Sub –sector team	On demand		None
Intervention Plan (IP)	Sub –sector team	On demand		None

Methods & Approaches

For Measurement

Agreement with Partner	Sub –sector team	On demand	Sub –sector Task leader	On demand
Intervention Steering Document	Intervention leader	Two months after the contractual agreement with partner is signed	Intervention leader	On demand, at least consolidated semi-annually
Field Monitoring Reports	Intervention leader and RM focal	One week after field visit		None
Research/study Report	Intervention leader and RM focal	One month after survey field work is completed	Head of Result Measurement and Learning	None
Sub-sector Review Meeting minutes	RM Focal	One week after the meeting		None
Portfolio Review Meeting minutes	DGM/HRML	One week after the meeting	GM	None
PRISMA/TIRTA SAFIRA/ARISA Aggregation System	SBC-RM PBC-RM ARISA RM Manager	Semi-annual: one week before PRIP report	Head of Result Measurement and Learning	Semi-annual
AIP-RURAL Aggregation System	Head of MIS	Semi-annual: one week before PRIP report	Head of Result Measurement and Learning	Semi-annual
Annual Report to DFAT (PRIP)	General Manager ARISA Team Leader	January, July		None

Aggregation

AGGREGATION

A Results Measurement system must be able to aggregate results at the program level. This is important a) in order to track the cumulative impact of the program against its overall goal, and b) for reporting purposes. AIP-Rural's goal is to achieve a 30 percent increase in incomes for more than 1,000,000 male and female smallholder farmers by 2022; 300,000 of these will be reached by June 2018. In order to monitor the progress towards this goal, it is important to have a system in place that is able to aggregate ('add up') the results over time, while making sure that there are no overlaps.

The aggregation system followed by AIP-Rural will need to be able to do the following:

1.

Be able to provide an overview of all interventions that are being developed, that are being implemented, that are completed and that are closed

2.

Be able to aggregate projections of KPIs for all the interventions of the program.

3.

Be able to aggregate actual values of KPIs for all the interventions of the program.

4.

Ensure that all aggregations (both projected and actual) are overlap-adjusted.

The process for providing the overview of all interventions and their status is described in the Protocol: Reporting on Indicators, annex 6.

All interventions and the values of their KPIs are collected from the ISDs into the Management Information System (MIS). This MIS hence has a record of all interventions and their KPI values (both projected and actual).

The next step for aggregating the KPIs is to account for overlaps between interventions. Typically overlaps mostly occur at the farmer level, thus other KPIs generally do not need to be overlap-adjusted. Nevertheless, the system for adjusting for overlaps will be the same. Adjusting for overlaps means that the program does not double count beneficiaries (that is, it makes sure that the same person/beneficiary has not been counted twice during aggregation and reporting).

Overlaps can occur when AIP-Rural has multiple interventions in the same sub-sector, or in different sub-sectors/sub-programs but in the same geographical area. This is illustrated in the table 13 below.

AGGREGATION

Table 16: Sub-sector and geographic coverage

	Type:	Type:	Type:	Type:	Type:
	Sub-sector 1	Sub-sector 2	Sub-sector 3	Sub-sector 4	Sub-sector 5
Area 1	Intervention A		Intervention B		Intervention I Intervention J
Area 2		Intervention C Intervention D	Intervention E		
Area 3				Intervention F Intervention G	
Area 4			Intervention H		

In table 13, interventions C and D both occur in Area 2 of Sub-sector 2; there is therefore potential for overlap to occur between those two interventions, and farmers benefiting from Intervention C might thus also benefit from Intervention D. Similarly, with Intervention F and G in Area 3, Sub-sector 4 there might be overlaps, and those benefitting from intervention F may also benefit from Intervention G. Also Intervention I and Intervention J might have same beneficiary farmers.

Overlap may also occur between sub-sectors within the same geographical area, for example between the beneficiaries of Intervention A, Intervention B, Intervention I and Intervention J, or between the beneficiaries of interventions C, D and E.

The first step in dealing with overlaps is to identify in which interventions they are likely to occur, and this is recorded in the Overall MRM Strategy worksheet in the ISD for each intervention. The next step is to determine if and how much overlap occurs, and how to handle them. The RM focal needs to check if there are potential overlaps between interventions in one geographical area, and discuss the potential overlaps with relevant sub-sector teams. In case it is concluded that overlaps might be there, the second step will be taken to assess the potential overlaps.

The second step takes place when surveys are being developed (for intermediate or end line situations). The RM focal will ensure that the survey will include questions that enable an assessment of the overlap between interventions. The overlap ratio from the surveys will be used to determine the overlap for the interventions' outreach. The third step implies recording the measured outreach and overlap into the MIS system with all KPIs. This is done by the SBC/PBC-RM/ARISA RM Manager, and reviewed and approved by the HRM/L. The overlap between AIP-Rural sub-programs are addressed by HMIS.

Additional income changes reported from interventions are generally mutually exclusive and attributable to an intervention. The issue of overlaps here is therefore less likely to occur and income changes can simply be added up. Sometimes however, it will be difficult to isolate the attributable impacts to income and ascribe them to a particular intervention. For example, where two interventions (one involving good seed, the other good fertilizer) working in the same area reach the same beneficiaries, ascribing income increase to either seed or fertilizer may not be feasible because the beneficiaries have used both. In a case like this the income increase for both interventions will be measured in one go and reported once. However, this has to be decided on a case-by-case basis.

Cross-Cutting Issues

6.1.
Poverty

6.2.
Gender And Social Inclusion

6.3.
Food Security

6.4.
Environment

Cross-Cutting Issues

AIP-Rural will also focus on a number of key issues that are central to the program and cut across all sub-sectors. These include:

1. Poverty reach
2. Gender and social inclusion
3. Environment
4. Food security

It is essential that these be integrated into every intervention and/or sub-sector. The decision as to how the integration occurs will be context-specific but what is important is that it is looked at. The sections below explain the boundaries the program will use to define these issues and how it will integrate them into its activities.

6.1. Poverty

The goal of AIP-Rural is to increase incomes for poor farmers. AIP-Rural's aim is in line with and supports Masterplan Percepatan Dan Perluasan Pengurangan Kemiskinan Indonesia[7] (MP3KI) sustainable livelihood development pillar, particularly in the rural areas, as the program seeks to increase the competitiveness of smallholder farm households. This includes landless farmers, poor and near-poor farmers as defined by the $2 PPP poverty line, as well as agriculture-based or agriculture-related small businesses in rural areas. 'Better-off' farmers are not necessarily non-poor: in PRISMA and SAFIRA target areas, around 60% of farmers are classified as poor and near-poor, whilst in TIRTA target areas around 34%[8] of farmers are classified as poor and near-poor (below the USD2 a day PPP poverty line, which is equivalent to the 150* national poverty line, or PL150).

However, the M4P approach works through markets and works according to business incentives. This means that many interventions will be designed so that all farmers can benefit including/especially poor farmers. In turn, this means that AIP-Rural will ensure that all interventions are designed to reach poor farmers and generate benefits for them. This is done through a number of steps.

[7] This refers to the GoI master plan for the acceleration and extension of poverty reduction in Indonesia
[8] Baseline Survey of Pilanggede Intervention June 2016

Cross-Cutting Issues

Firstly, a key factor when deciding which commodity, sub-sector and intervention to work in is whether poor can benefit from AIP-Rural's work. Commodities or sub-sectors which do not provide scope for the poor to benefit are not selected.

The same rule applies for interventions. The only exception is where the intervention has the scope to unlock a key constraint within the sub-sector in which it can create significant growth, or can open up opportunities for other pro-poor interventions. Decisions about these kinds of interventions need to be taken by the CMT and the reasons for taking them carefully documented. The integration of poverty reach is thus integral to all interventions within the program.

Finally the program will, as part of its measurement system, use the Progress out of Poverty Index (PPI) developed by the Grameen Foundation[9] to assess whether an intervention's beneficiaries are poor or not. Interventions where the beneficiaries do not have a significant likelihood of being poor will not be continued. Those where beneficiaries do have a significant likelihood of being poor will be considered for scale-up and continued investment by the program. This implies that when base-line and end-line surveys are conducted, these will include the PPI questions. Reports will subsequently include information on the poverty status of the respondents (PPI profile).

AIP-Rural will use the PPI to identify the poverty levels of its beneficiaries. However, due to the variation in the definition of poor across different provinces, the program is looking into the development of regional PPI's. The actual and expected PPI of each sub-sector is collected from each baseline and impact assessment survey, it is recorded in the KPI worksheet of the ISD.

6.2. Gender And Social Inclusion

[9] Grameen Foundation has developed a set of ten indicators that can be used to assess the likelihood of the respondents being poor. It has done this for a number of countries, Indonesia being one. The current PPI for Indonesia is based on the 2010 Indonesia National Social Economic Survey data conducted by Indonesia's Badan Pusat Statistik (BPS).

Cross-Cutting Issues

AIP-Rural will analyse the potential effect on gender and the socially excluded during the sub-sector analyses and this will be recorded in the sub-sector GSD. This information will be used in designing and selecting interventions, the aim being that the interventions are able to integrate gender and the socially excluded, or at the very least do no harm. In cases where it is obvious that a significant positive impact on women will be achieved and on the socially excluded, case studies will be developed on a case-to-case basis.

In June 2014, PRISMA developed a Gender and Social Inclusion Strategy that guides the program in how to integrate women and the socially excluded into its interventions. Sub-sectors with insufficient information on GSI will be revisited by the GSI Specialist to ensure that sufficient information is collected to allow the program to ensure gender and social inclusion is looked into. In March 2015, DFAT conducted a Gender and Social Inclusion study, which gave a preliminary analysis of gender and social inclusion aspects of TIRTA. In the following year, SAFIRA also developed the GSI strategy. Currently, AIP-Rural consolidate the gender strategy so for further reference, please look at the April 2017 Gender Inclusion Strategy and the April 2017 Gender Mainstreaming Guideline.

The GSI Specialist will also be involved in the review of interventions, particularly those which seem to have a significant GSI angle, to keep track of how the interventions are moving forward and what effect they have on women and the socially excluded.

AIP-Rural will measure and report using ‘smallholder farmer households’ as the unit of measurement. These households will include men and women. For most interventions, the effect on gender equality cannot be measured simply by disaggregating men and women at user level, because farm work and decisions on farm investment is generally done by the whole household, and the additional income is also used for the household and not for individual men or women. For all interventions, the program will collect and report how many women and men households are involved in the sub-sector. In the KPI worksheet of the ISD thus the program will record the average % of females per household that are involved in the sub-sector commodity. This will be used to report number of female and male individuals benefitted from the intervention.

In the “Background” worksheet of the ISD, there is a Gender and Social Inclusion box for listing the how the intervention will aim to benefit women, the gender implications or WEE objectives of the intervention. These WEE objectives are translated into quantitative and qualitative indicators in the MRM Plan worksheet.

AIP-Rural will conduct gender impact assessments for selected interventions that have an impact on indicators that are usually not captured in the ISD. These indicators may include women’s agency, leadership, decision making authority, change of perception on women’s role, impact on workload and quality of life etc. These assessments may also provide material for the selection of case studies and impact stories with the opportunity to disseminate information on program successes that can be replicated elsewhere.

Reference is made to the Gender mainstreaming guide, a step-by-step approach to gender mainstreaming in agricultural interventions, for more information. Please refer to the latest Gender Inclusion Strategy and Gender Mainstreaming Guideline.

Cross-Cutting Issues

6.3.
Food Security

The 1996 World Food Summit defined food security as the situation wherein every person always can physically and economically access an adequate amount of food which is nutritious, safe and culturally appropriate, thereby meeting their dietary needs and enabling them to lead a productive and healthy life.[10]

Availability

is related to the availability of sufficient quantities of food of appropriate quality. It deals with the "supply side" of food security. This is determined by the level of food production, stock levels, net trade, and the source of the supply (for example, household production, another domestic output, commercial imports, or food assistance). Food availability also depends on a sustainable food system, which includes the processing, distribution, logistics, marketing, acquisition and consumption of food.

Access

is related to how individuals can get access to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. It expresses spending on food as a percentage of total household expenditure. This depends on the household's income, income distribution within it, and the price of food.

Utilization

refers to the proper biological use of food which makes up the diet, and the provision of sufficient energy and essential nutrients, potable water and adequate sanitation. Effective food utilization depends in large measure on knowledge within the household – of food storage and processing techniques, basic principles of nutrition and proper childcare, and proper illness management.

Stability

hinges on the status of these three dimensions over time – specifically, on the balance between food prices and supply. In other words, an individual's food intake may be adequate today, but they remain food insecure if this access periodically becomes inadequate leaving them at risk of malnutrition. Adverse weather conditions, sudden shocks, political instability, and economic factors (such as unemployment and rising food prices) can all impact on food security status.

Interventions which have a direct positive effect on food security are those that lead to higher productivity and production of farmers' food crops. Food security can also be affected by poor farm households having sufficient income to spend on food or being less vulnerable to economic shocks due to having more income. AIP-Rural will therefore investigate the use of crops for food consumption and also, on a case-to-case basis, whether increased incomes lead to any significant positive or negative impact on food distribution and/or consumption. For this AIP-Rural will conduct a livelihood studies in a number of sub-sectors that will provide insight the significance of various commodities to food security. In addition, AIP-Rural will conduct longitudinal studies in 3 sub-sectors to track changes in consumption patterns of the program beneficiaries.

[10] http://www.fao.org/forestry/13128-0e6f36f27e0091055bec28ebe830f46b3.pdf accessed on June 28, 2016, and AIP Rural - Food Security Paper, A Stronger Agriculture Sector to Sustain the Country.

Cross-Cutting Issues

6.4. Environment

AIP-Rural has developed an environmental strategy to assess the environmental aspects for the sub-sectors. The AIP-Rural environmental strategy seeks to assess the environmental context of the sub-sectors in which the program works to ensure it does no harm through its interventions and, where possible, invests in activities that promote environmental conservation, mitigate adverse effects of environmental changes and improve poor peoples' resilience to environmental shocks and other effects of climate change.

The environmental context of the 7 sub-sectors selected by the project and the potential effects (either positive, negative or neutral) of the interventions in these sectors has been made.

During the development of the interventions, notably ICN and IP, the potential positive or negative impact on the environment will be reviewed. In particular, the following aspects will be reviewed:

1

Will the intervention take place in a vulnerable place or risky sector?

2

Could climate change or natural disasters impact on the intervention?

3

Could the intervention impact on ecosystems that sustain livelihoods?

4

Could opportunities to build resilience into people's livelihoods be incorporated?

5

Could the intervention have a significant impact on the environment, including increasing greenhouse gas emissions?

Where the impact of the intervention on the environment or the exposure of the intervention to the environment are considered to be moderate or low, it will be the responsibility of the sector task leader to decide what further action is undertaken. Where either impact is considered to be high, then the HRML will be responsible for undertaking a more formal risk appraisal - an Environmental Impact Assessment (EIA) - and for actively considering mitigation strategies.

At the start of the intervention, it should be mentioned in the ISD (worksheet 'background') what environmental effects their intervention is likely to have or what environmental threats the intervention faces, together with any mitigation activities. During the intervention, observed changes are recorded in the same 'background worksheet' of the ISD. Environmental aspects are part of the interventions and sub sector reviews.

Summary Of Staff Roles and Responsibilities

Summary Of Staff Roles and Responsibilities

Results Measurement is integrated in the AIP-Rural management system: it is everybody's job. Sub-sector teams are formed based on commodities, with one team focusing on one commodity across a number of sub-sectors. HoPs/ TLs lead a number of sub-sector teams, the teams will consist of intervention and sub-sector task leaders, supported by Results Measurement focal. Together they will be responsible to manage and monitor the interventions, but each will lead specific tasks. Table 14 below presents a summary overview of the Roles and Responsibilities.

Table 17

Tasks/ Outputs	Lead	Support/ Advise	Reviewing (Quality Control)	Approving
GSD	Sub-sector team	RM focal	Mentor (HoP / TL / HRML)	GM
Sub-sector review	Sub-sector team	RM focal	Mentor (HoP / TL / HRML)	GM
Intervention Concept Note				
ICN	Sub-sector team	RM focal	Panel (HoP / TL / HRML / DGM / GM / Senior Adviser)	Panel (HoP / TL / HRML / DGM / GM)
ICN – RC	Sub-sector team	RM focal	RM team member who is not sub-sector focal	HRML
Intervention Plan				
IP	Sub-sector team	RM focal	Panel (HoP / TL / HRML / DGM / GM / Senior Adviser)	Panel (HoP / TL / HRML / DGM / GM)
IP – RC	Sub-sector team		RM team member who is not sub-sector focal	HRML
Intervention Steering Document (development, major changes)				
Business model	Sub-sector team	-	HoP / TL	HRML
Results chain	Sub-sector team	RM focal	HoP / TL	HRML
Indicators	Sub-sector team	RM focal	HoP / TL	HRML
Projection	Sub-sector team	RM focal	HoP / TL	HRML

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Overall MRM strategy	RM focal	Sub-sector team	HoP / TL	HRML
MRM plan	RM focal	Sub-sector team	HoP / TL	HRML
Internal Review				
Sub-sector review	Sub-sector team	RM focal	Mentor (HoP / TL / HRML), Senior Adviser	GM
Collection and documentation of regular monitoring data				
Data collection	Sub-sector team	RM focal	RM focal	-
Data analysis and documentation	Sub-sector team	RM focal		-
Research/survey design				
Outsourcing (procuring research firm)	Sub-sector team	RM focal		HoP/TL
Methodology	RM focal	Sub-sector team	HRML	HRML
Questionnaire	RM focal	Sub-sector team	HoP / TL	HRML / RM peer review
Data gathering	RM focal	Sub-sector team	HoP / TL	-
Quality Control (data entry + cleaning)	RM focal	-	HRML	HRML
Data Analysis	RM focal	Sub-sector team	HRML	HRML
Interpretation and Summary on findings	Sub-sector team	RM Focal	HoP / TL	HoP / TL

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Aggregation and reporting				
Aggregation at Sub-Program Level	SBC-RM PBC-RM ARISA RM Manager	RM focal / Sub-sector team	HMIS	HRML
Aggregation at Program Level	HMIS	RM team	HRML	GM
Reporting to DFAT	GM ARISA Team Leader	HRML / HoPs / HOF / TL	Senior Adviser Board of Director Palladium Program Representative	DFAT
Special Report (ADR, PAF, etc)	HMIS	RM Team	HRML	GM

DCED Audit

The Donor Committee for Enterprise Development (DCED) is an organisation that is committed to the development and sharing of good practices in private commodity development. It currently has 23 members comprising of bi- and multi-lateral donors and agencies, one of which is DFAT. The DCED has developed a standard known as the DCED Standard for Results Measurement, which provides guidance on measuring and reporting credible results for private sector development programs/projects.

AIP-Rural is committed to upholding the DCED Standard and the Results Measurement System and has been developed from the ground up to comply with the Standard. In connection with the DCED Standard. PRISMA had a pre-audit review of its Results Measurement System in November 2015 followed by a formal audit in July 2016. The audit found the program 89% compliant with the DCED Standard. This shows that PRISMA has been able to implement a good results measurement system with the capacity to generate credible results for the program. TIRTA and SAFIRA will have a pre-audit on June 2017. AIP-Rural will have full audit on 2018. The DCED audit results will be valid for 2 years. In due course the CMT will decide if and when a next audit may take place.

RESULT MEASUREMENT MANUAL

AIP-Rural | May 2017

Australia-Indonesia Partnership for

Rural Economic Development