Monitoring and Evaluation Plan
Food Security Centre (AIFSRC)

October 2014

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Abbreviations

ACIAR	–	Australian Centre for International Agricultural
AIFSRC	–	Australian International Food Security Research Centre
CEO	–	Chief Executive Officer
CFO	–	Chief Financial Officer
CSIRO	–	Commonwealth Scientific and Industrial Research Organisation
DFAT	–	Department of Foreign Affairs and Trade
FSC	–	Food Security Centre – preferred abbreviated version of AIFSRC
M&E	–	Monitoring and Evaluation
RPM	–	Research Program Manager

Executive Summary

The Australian International Food Security Research Centre (FSC) seeks to understand and improve adoption processes in agricultural research and ensure that its research projects contribute to development outcomes. To assess how well it is progressing towards these aims, the FSC has developed an M&E Plan that offers a framework for integrating data about its research programs and activities. Implementing the plan will help the Centre meet corporate requirements and ensure that its programs are contributing meaningfully to its dual outcomes of improved adoption and contribution to development outcomes.

The plan will monitor progress against the Centre's [10 year strategy (2012-2022)](#), enabling strategic reflections, operational improvements and transparency and accountability to the Australian government and current and future research partners.

The M&E plan outlines the conceptual basis and operational elements of the monitoring and evaluation system for FSC, notably principles, purposes and intended users and three underpinning pillars. The plan guides the work of the M&E coordinator, specifies the role of project leaders and partners, and describes how evidence will be generated and used to guide the Centre's work. It does not provide a methodological toolkit for each metric.

The M&E system will fulfil four purposes. It will guide the operational effectiveness of research activities hosted within the Centre; it will ensure the strategic direction of the Centre remains sound and its contributions to intended impact are effective; it will ensure accountability and transparency of the Centre's management of resources; and, finally, it will monitor and guide effective knowledge sharing of the Centre's activities.

These purposes relate to three areas of work being undertaken by the FSC, or the three "pillars" which will be monitored and assessed under the M&E plan.

- *Pillar 1* will generate information to demonstrate progress of research activities towards intended *intermediate development outcomes* of its five programs.
- *Pillar 2* will generate information to understand key *adoption mechanisms* that reduce impediments to research uptake.
- *Pillar 3* will generate information on the effectiveness of the Centre's *core management functions*.

The FSC will share information relating to its performance against the three pillars through the production of documented outputs. Most data will be collected and discussed on an annual cycle and reported using a range of mechanisms, including scorecard (Annex 1) and dashboard (Annex 2). A review of the Centre's strategic direction and performance will be independently contracted towards the end of the first tranche of funding.

1 Introduction

This document outlines the conceptual basis and operational elements of the monitoring and evaluation system for the Australian International Food Security Research Centre (Food Security Centre or FSC). It will guide the work of the M&E coordinator, help clarify the required contributions from project leaders and partners, and generate evidence for the Centre's Director and team, as required to guide the Centre's work. It will also provide a level of transparency and accountability to the Australian government and to potential partners who may wish to co-invest alongside the FSC. As the Centre evolves and M&E implementation starts, the M&E plan will be reviewed and adapted to ensure it remains useful and relevant.

The M&E system has been designed to fulfil four purposes: (1) guide the operational effectiveness of research activities hosted within the Centre; (2) ensure the strategic direction of the Centre and its contribution to intended impact; (3) ensure accountability and transparency of the Centre's management of resources; and (4) guide effective knowledge sharing of the Centre's activities.

To fulfil these purposes, the M&E is built around the three pillars of work of the FSC, each of which entails data gathering, data analysis and communication of findings.

- *Pillar 1* will generate information to demonstrate the progress of activities towards intended *intermediate development outcomes* of its five programs including: three research programs of (1) sustainable and productive farming systems; (2) strong and equitable economic and social systems, (3) food nutrition and safety; and two capacity building programs of (4) communications and knowledge management, and (5) education, training and capacity building;
- *Pillar 2* will generate information to understand key adoption mechanisms that reduce impediments to research uptake; and
- *Pillar 3* will generate information on the effectiveness of the Centre's core management functions. Information gathered under this pillar will allow monitoring and reporting annually on performance regarding delivering of corporate outputs and conditions for programmatic success.

Implementing the M&E plan will enable the FSC to review management and governance issues regularly, and produce required documentation and feed this into the ACIAR annual reporting cycle (including annual M&E progress reports, mid-term and final evaluation reports, Annual Operating Plan and Annual Report).

2   M&E Principles

The M&E framework is based on five key principles that have shaped the choice of approach and focus on data gathering, data analysis and communication of findings.

1. *Utilisation-focused*: The M&E plan prioritises information needed for decision making and identifies processes to ensure that it is actively used. Ensuring useful M&E processes and findings requires systematic discussion with projects, partners and funders about what they need to know and how they are using M&E data to become more effective.

2. *Accountability-conscious:* The FSC has a public good responsibility, hence the focus in the M&E plan on seeking and sharing information with specific stakeholders that can ensure transparency and probity about expenditure in line with expectations.

3. *Collaborative*: Given that the Centre involves multiple partnerships, the M&E plan is based on consultative development and implementation of the M&E plan, with the Research Project Managers (RPMs) of the projects and with the organisations implementing the projects.

4. *Behaviour change:* As adoption of innovations is tangible through demonstrated behaviour change, the M&E Plan focuses on tracking those behavioural changes exhibited by specific actors considered critical for each research project.

> *Example of Principle 4: Behaviour change.* Evidence that the small-scale mechanisation project is succeeding in accelerating the adoption of small tractors would be evidenced by the number of entrepreneurs starting small businesses to loan and/or service tractors and the number of target farmers adopting good use of tractors in their farming practices.

5. *Emergent:* Considering the recent establishment of FSC and the more recent changes in government aid priorities, regular revision and adaptation of the M&E plan in terms of content and implementation is anticipated, including annually as part of the FSC M&E Annual Review Discussion and through ongoing discussion with project leaders and other key stakeholders.

3 About the Food Security Centre

The Australian International Food Security Research Centre (FSC) is a centre within the Australian Centre for International Agricultural Research (ACIAR), announced by the Australian government at the end of 2011 to strengthen Australian Government's contribution to global food security and in particular to "*share Australia's world leading expertise in food production*" by giving *"farmers, government agencies and the private sector access to this expertise and other support from a large network of Australian, African and international research bodies*"[1].

The mission of the FSC is to accelerate the delivery and adoption of research innovations for food security. The Centre's focus on better understanding adoption processes in order to facilitate research uptake by smallholder farmers was also supported in the ACIAR External Review recommendations[2]. The FSC's goal is to help smallholder farmers and other poor households access sufficient, accessible and nutritious food. It is part of Australia's overseas development assistance program and, as such, is guided by the priorities of the Australian government.

The FSC ten year strategy[3] was developed in response to priorities, gaps and research capabilities identified during a significant consultation process with Australian, African and international stakeholders. It was endorsed at FSC's first international conference in November 2012 by the then Foreign Minister and high level delegates.

The FSC has programs that contribute to fulfilling its mission (see Figure 1), three programs are focused on research:

- Sustainable and productive farming systems
- Strong and equitable economic and social systems
- Food nutrition and safety

and two programs are focused on capacity building:

- Communications and knowledge management
- Education, training and capacity building.

The Centre's Theory of Change
Figure 1 illustrates how the Centre's priorities are shaped by significant global policy frameworks and will contribute to the goal of *enabling smallholder farmers and other poor house-holds to access sufficient accessible and nutritious food*. The FSC aims to achieve greater food security by implementing research and capacity building programs. Each program is accountable for outputs that are essential to achieve the intermediate development outcomes (IDOs):

- increased food production
- increased income
- improved nutrition and diversity of diets
- improved access to knowledge
- increased institutional and individual capacity contribute towards.

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[1] Former Prime Minister Julia Gillard, 28 Oct. 2011.
http://aciar.gov.au/aifsc/sites/default/files/images/media_release_australia_strengthens_food_securit_81768_1.pdf
[2] Independent Review of the Australian Centre for International Agricultural Research (ACIAR) available at
http://aciar.gov.au/files/node/15299/aciar_review_report_pdf_12817.pdf
[3] Australian International Food Security Centre (AIFSC) Strategy 2012 – 2022.
http://aciar.gov.au/aifsc/sites/default/files/images/aifsc_strategy_2013.pdf

There are many assumptions built into this diagram of the Centre's longer term ambition. The premise of the FSC is that research for development <u>outputs</u> can be aggregated to form <u>IDOs</u> (expressed as quantitative or qualitative, time-bound and measurable result statements for specific target regions/groups) which can contribute to higher level <u>development outcomes,</u> if the programs and projects have been carefully designed and implemented using explicit impact pathways. For example, the combined research outputs from the projects under the Food Nutrition and Safety program will contribute to increased availability and access to nutritious food in local markets for smallholder farmers, in turn contributing to improved nutrition and diversity in diets.

The CGIAR is prioritising a Theory of Change logic to ensure that the CGIAR Research Programs are well able to deliver the development outcomes that contribute to program objectives.

Figure 1 FSC Core Theory of Change
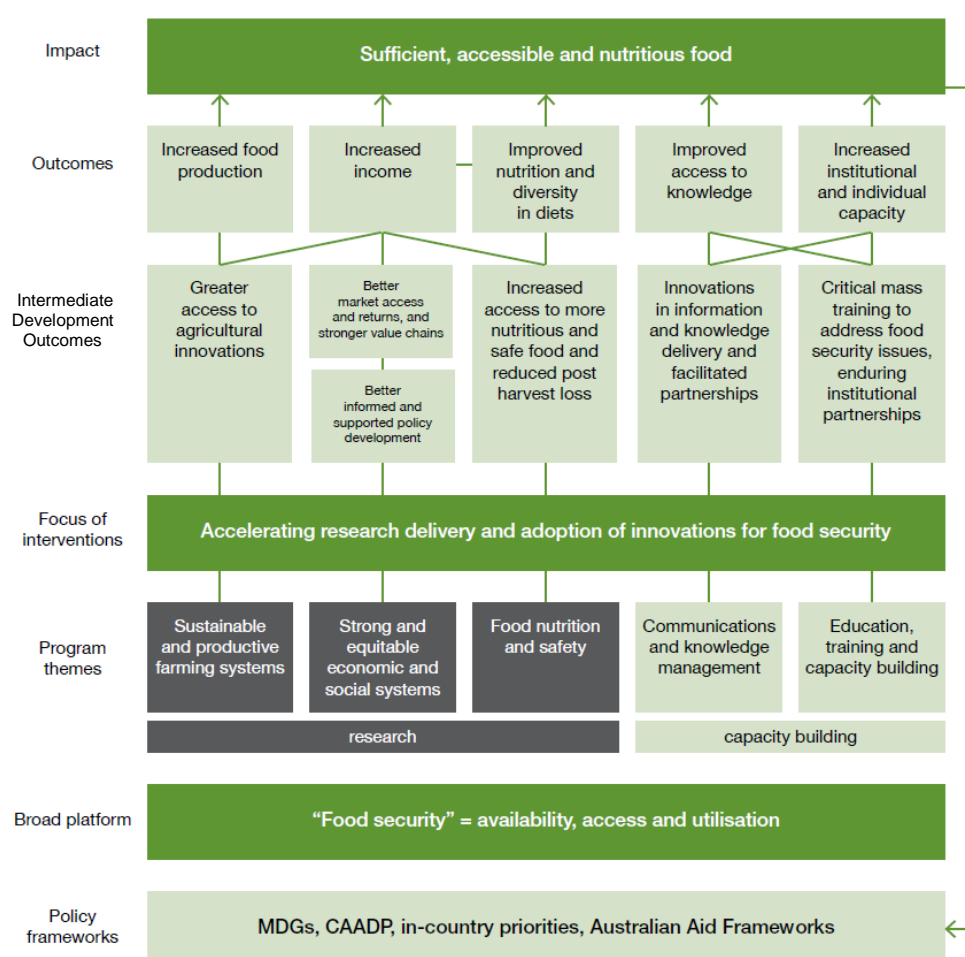
4   Purpose and Users of M&E

The FSC's M&E system will generate information that helps the staff, partners and stakeholders answer the following questions:

1. Are we doing what we said we would do? And are we getting the most out of the resources we have?
2. Are we doing the right things?
3. Can we show that we are using resources responsibly?
4. Are we able to demonstrate and share what we achieve and can achieve?

These questions form the backbone of the four M&E purposes, each with related audiences and outputs.

*1. Guiding **operational effectiveness** of the research activities housed in the Centre (are we doing what we said we would do? And are we getting the most out of the resources we have?).*

a) Are FSC projects on track?

b) Is FSC corporate activity on track?

Tracking project implementation allows the Centre and other key audiences to know if the Centre is delivering what was intended and obtaining value for money in the process.

Those who will use this information to guide decisions on how to improve project implementation are: the ACIAR CEO, FSC Director, the RPMs/project leaders, current co-investors and financial partners. The CEO, FSC staff and RPMs require annual updates on activity at both project and corporate level to ensure the right systems and processes are in place to track project progress and performance and guarantee corrective action is available to support adaptive management. On the corporate side, information and insights generated by implementing the M&E Plan will help meet the needs of FSC stakeholders for communicating key information about the Centre.

*2. Ensuring **strategic direction** to contribute to intended impact (are we doing the right things?)*

a) Is the FSC strategy relevant and delivering against its goal and priorities as set out in its strategy (see Box 1)?

Besides delivering on agreements, the Centre needs to reflect regularly on the strategic direction of its portfolio, to ensure its ongoing relevance and contribution to the Centre's goal and the Australian government's aid program priorities. These periodic discussions will draw on data about contribution to intermediate outcomes and, in particular focusing on the impact of FSC projects on changing behaviours to facilitate adoption of research. The information will be used by the CEO and FSC Director in discussion with its Commission and Policy Advisory Committee and DFAT and CSIRO, to identify achievements and agree on necessary adjustments.

> **Box 1. Food Security Centre Priorities as set out in Strategy 2012- 2022**
>
> The Food Security Centre's programs and the allocation of investment are assessed against a range of priorities, including:
>
> - location within focus countries (Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Uganda, Tanzania, Zambia or Zimbabwe);
> - addressing a country/sub-regional need;
> - providing opportunities to accelerate adoption;
> - providing opportunities for leveraging off existing work;
> - addressing a gap or weak area in existing agricultural research for development;
> - providing opportunities for co-investment, especially with private-sector partners;
> - focus on gender-responsive agricultural innovations, recognising the impact of gender on agriculture;
> - encourages south-south institutional support; and
> - provides opportunities for Australian comparative advantage to have impact.

*3. Demonstrating **accountability and transparency** in FSC's management of resources (can we show that we are using resources responsibly?)*

   a) Is the FSC managing its resources efficiently and transparently?

The FSC must meet ACIAR and Australian Government reporting requirements, showing that it is using resources responsibly and that expenditure is in line with expectations. This information is required by the ACIAR CEO, FSC Director, ACIAR corporate and DFAT, and its current co-investors and financial partners.

*4. Guiding effective **knowledge sharing** of the Centre's activities (are we able to demonstrate and share what we achieve and can achieve?)*

   a) Is the FSC effectively sharing what is being learned from its activities?

The FSC produces information as a public good, seeking to support those players actively involved in addressing food insecurity and food system innovation. It needs to ensure that it is sharing research process and outputs effectively with appropriate audiences in ways that inspires uptake and further implementation. This information will be used by ACIAR to report to partners in the Food System Innovation for Food Security (FSI) Community of Practice, including DFAT, CSIRO, RPMs, project leaders and research partners.

The intended users of information emerging from the Centre's M&E are detailed in Annex 1.

5 Implementing M&E: Three Pillars of FSC's M&E Plan

The four purposes of the M&E Plan will be fulfilled using information that relate to three pillars of FSC's work (see Figure 2):

- Pillar 1 – delivering intermediate development outcomes
- Pillar 2 – understanding adoption processes
- Pillar 3 – corporate accountability.

Figure 2. FSC M&E 'stool'

5.1 Pillar 1. Delivering intermediate development outcomes

The Centre is committed to achieving intermediate development outcomes for each of the five program areas. Pillar 1 of the M&E Plan involves generating information that can demonstrate the progress of projects towards intended intermediate development outcomes at a program level (Figure 1).

For example, in which ways and to what extent is the 'Trees for Food Security' project contributing to the intermediate development outcome of 'greater access to agricultural innovations'? Intermediate development outcomes are identified at the beginning of project inception so that M&E data needs can be established early on to serve as baseline data. Ongoing project level M&E, which is a core component of each project and managed by the Project Leader and relevant RPM, will feed into the FSC M&E. Project level M&E data, collected from various project activities and outputs will be used to provide the data requirements to demonstrate achievements against delivering the FSC intermediate development outcomes, as depicted in Figure 3 below. In some cases, project level M&E data may be aggregated to report against an intermediate development outcome, while in other cases M&E data from one key project level output will be sufficient.

Pillar 1
Project research activities together, contribute to one or more Program IDOs

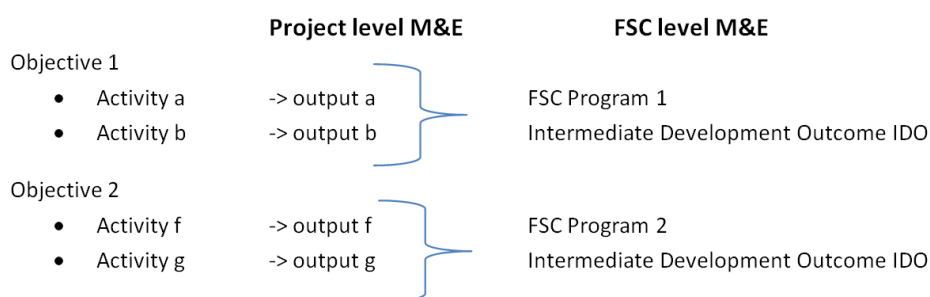|	Project level M&E	FSC level M&E
Objective 1		
• Activity a	-> output a	FSC Program 1
• Activity b	-> output b	Intermediate Development Outcome IDO
Objective 2		
• Activity f	-> output f	FSC Program 2
• Activity g	-> output g	Intermediate Development Outcome IDO

Figure 3. Relationship between project level M&E and FSC level M&E

The interdependent nature of the program themes and multi-sectoral approach of all projects, has resulted in each FSC project and scoping study having a primary program focus, while also contributing to intermediate development outcomes in other program areas. Each program and its intermediate development outcomes is summarised below.

Program 1. Sustainable and productive farming systems

This program focuses on ensuring sustainable and productive agricultural technologies (for example, new crops or farming practices) are underpinned by systems thinking, foresight and enabling policies that will enhance adoption and embody sound natural resource management. If the barriers to achieving more productive and sustainable farming systems are well understood and the appropriate solutions and uptake mechanisms identified and implemented, then greater access to and higher rates of adoption of agricultural innovations by smallholder farmers should result.

Projects under this program will show they have contributed to the following intermediate development outcomes:

- greater access to agricultural innovations by both female and male smallholders
- higher rates of adoption of agricultural innovations (for example, more widespread adoption of high-yielding, well-adapted varieties of food crops; incorporation of trees into cropping systems; and more efficient distribution and uptake of animal vaccines).

Indicators for Program 1

Increased number of innovations readily available to target groups

Increased number of women and men who adopt agricultural innovations

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Program 2. Strong and equitable economic and social systems

This program focuses on developing effective policies, inclusive institutions and strong markets to build food security and accelerate adoption of innovations, resulting in greater smallholder farmer access to markets, better understanding of farmer approaches to risk, increased returns on goods sold and stronger food value chains.

Projects under this program will show they have contributed to the following intermediate development outcomes:

- better market access by small holder farmers (enabling sale of surplus production in local, regional and international markets)
- increased return (income) on goods sold by smallholder female and male farmers
- stronger food value chains
- better informed and supported policy development to support small holder access to markets and technologies.

Indicators for Program 2

Increased number of smallholder farmers selling surplus produce at markets

Increased return (% income) for smallholder target groups from products sold

Better understanding of mechanisms needed to strengthen value chains in target regions

Target groups involved in food security-focused policy processes use knowledge generated by FSC research partners to support beneficial policy development and/or mechanisms

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Program 3. Food nutrition and safety

This program supports research to improve nutritional quality and diversity of crops and diets, improve food safety, reduce postharvest waste and apply value-adding technologies to food after harvest, resulting in increased availability of good quality, safe and value-added foods.

Projects under this program will show they have contributed to:

- increased access to quality and nutritious food
- improved efficiency of production of nutritious foods (e.g. vegetables)
- reduced postharvest losses
- improved food-safety systems
- more value-added foods (produced regionally) available.

Indicators for Program 3

Increased diet diversity of smallholder farmers

Increased availability (%) of diverse and nutritious food in local markets

Lower post harvest loss (% of harvested produce) among target groups per project

Necessary food safety standards, guidelines and protocols developed and applied by target groups

Increase in volume and diversity of value-added foods available from and for target groups

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Photo: The FSC aims to improve the availability and access to nutritious foods. This will benefit farming families like this family from Ethiopia (credit: Mandy Gyles, ACIAR).

Program 4. Communications and knowledge management

This program supports creative ways to enable access to information and knowledge about innovations in food production and food systems. The two key elements of this program are 1) providing access to innovative high-quality ICTs and other mechanisms that deliver technical advice and services to smallholder farmers, and 2) developing knowledge platforms for use by researchers and decision makers to support evidence-informed decision-making and policies.

Activities under this program will show they have contributed to the following intermediate development outcomes:

- innovations in FSC funded food and nutrition security-oriented information and knowledge mechanisms operational in target groups
- better informed and supported policy development.

Indicators for Program 4

Increase in relevant and accessible forms of knowledge generation being utilised

Target groups involved in food security focused policy processes use knowledge generated by FSC research partners to support policy development and/or mechanisms

Program 5. Education, training and capacity building

This program seeks to strengthen individual and institutional capacities (from research development and management practitioners to training and empowerment of farmers' organisations). It supports Programs 1, 2 and 3, as well as funding discrete activities to support research adoption. It should result in strengthening skills of critical stakeholder groups involved in the Centre's research projects who are essential for uptake, more capable research organisations, and partnerships established between African and Australian educational bodies strengthened.

Activities under this program will show they have contributed to the following intermediate development outcomes:

- adequate numbers of women and men from targeted smallholder groups trained to address a range of food security issues (for example, via production, processing, marketing, and policy);
- stronger organisational and institutional capacity built to address food security in the long term;
- enduring (formal) partnerships established between African and Australian educational and research institutions.

Indicators for Program 5

High quality and relevant capacity building activities developed for key areas to encourage adoption of innovations for target groups

High quality and relevant capacity building activities undertaken for (key areas) that strengthen organisational/institutional ability to address (food security issues) in the long term

Increase in the number of sustained and diverse partnerships and research activities between African and Australian educational and research institutions

5.2   Pillar 2. Understanding adoption processes

The FSC's strategic mission is "accelerating research delivery and adoption of innovations for food security". Pillar 2 will involve monitoring and evaluating how projects build expertise on and learning about adoption processes. Each project focuses on understanding key impediments on and how to reduce their influence on research uptake.

Adoption

Adoption is the term used to describe the process through which farmers make the decision to use agricultural innovations, such as technologies (e.g. seeds of improved varieties or small-scale tractors) or management techniques (e.g. zero-tillage or integrated pest management).

Photo: Female farmer using two-wheel tractor innovation, FACASI. Credit: Liz Ogutu

In order for a farmer to decide to adopt a research output, a number of conditions must be met. The existence of the innovation needs to be known to the farmer, who should be able to easily access it. The innovation must be perceived by the farmer as providing her/him with a relative advantage and should be compatible with local custom or knowledge. It should be fit for trialling and provide concrete evidence that can be readily observed. Thus, the adoption process can be summarised as a series of interactions that occur between knowledge – implementing/trying – persuasion – decision – continuation – confirmation.

Understanding the socio-economic and cultural drivers for adoption is important and therefore, assessing the need to include a social scientist or anthropologist on research teams makes good sense. Working with entrepreneurial farmers is key to ensuring the community is aware of an innovation, so identifying innovators who can pick up technology early on and creating pilot farmers who can demonstrate the results will provide strong incentives to others. The literature shows the adoption curve consists of 2.5% innovators, 13.5% early adopters, 34% early majority, 34% late majority with 16% laggards (see Figure 4).

Innovators

(2.5%) are risk takers who have the resources and desire to try new things, even if they fail

Early Adopters

(13.5%) are selective about which technologies they start using. They are considered the "one to check in with" for new information and reduce others' uncertainty about a new technology by adopting it.

Early Majority

(34%) take their time before adopting a new idea. They are willing to embrace a new technology as long as they understand how it fits with their lives.

Late Majority

(34%) adopt in reaction to peer pressure, emerging norms, or economic necessity. Most of the uncertainty around an idea must be resolved before they adopt.

Laggards

(16%) are traditional and make decisions based on past experience. They are often economically unable to take risks on new ideas.
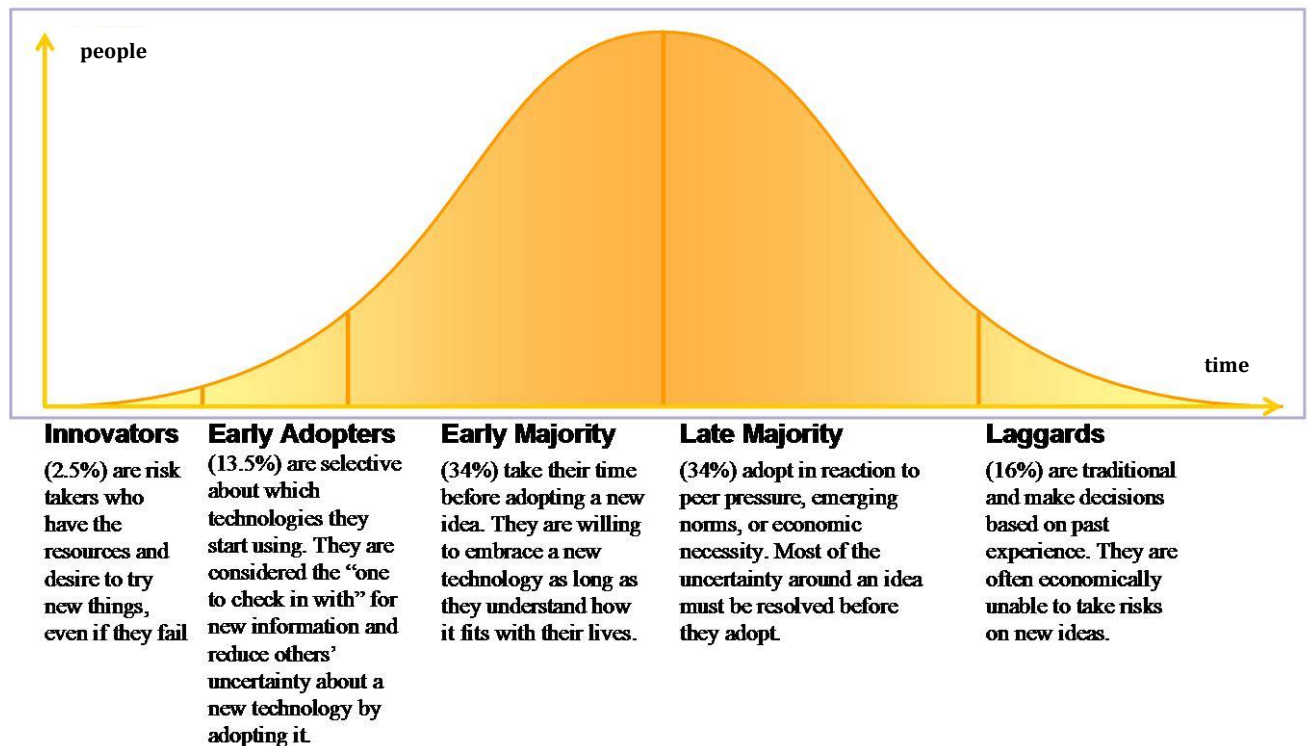
Figure 4. Adoption Curve Diagram, Bryce Ryan & Neal Gross (1943)

How the FSC frames 'accelerating adoption'

The FSC mission statement emphasises the intention to identify barriers to adoption and trial a variety of mechanisms to overcome these through its research projects. In late 2012, an External Review of ACIAR's operations[4] supported FSC's work with Recommendation 23 that "over the longer term the orientation of the Centre be directed towards understanding the adoption process within agriculture with a view to the Centre becoming a global centre of excellence on this topic".

This recommendation reaffirms the FSC's mandate to work on researching adoption processes, including the constraints and incentives to delivery and uptake, and testing modalities to overcome these constraints and improve uptake of research outputs over time. In the longer term, the FSC aims to provide information on approaches that could raise adoption levels over shorter time frames than is currently the case. Thus, the FSC frames 'accelerating adoption' as mediated through a better understanding of the barriers to adoption is the key.

For example, Africa has demonstrated a low uptake of agricultural technologies and improved varieties. Recent studies by Byerlee and others at the World Bank have shown that the uptake of new crop varieties by smallholders in Africa is around 35%, considerably lower than comparable uptake of new plant varieties in Asia (60%) and South America (80%). Several factors contribute towards this low uptake, including lack of access to seeds, credit and other inputs. One factor that has been little explored is the suitability of new varieties to meet customer demand, especially changing demands to meet new market opportunities. In West Africa, it is estimated that only 1 in 7 of farmers who might profit from adopting NERICA rice varieties has actually adopted[5]. Why is this and what are the impediments to farmers' adopting agricultural innovations?

Impediments can be described as behaviours, relationships or actions that inhibit the adoption of food security enhancing practises, policies or science. At the beginning of each project, project leaders are asked to assess two questions:

- What are the impediments to adoption the project is trying to understand and overcome?
- Whose behaviour are you trying to change and in relation to what?

Once active, each project will annually assess its success in relation to understanding and shifting critical behaviours in key stakeholders, and the impediments it seeks to reduce (see Table 1). Table 1 outlines a list of impediments to adoption, identified by FSC staff and ACIAR RPMs, which projects are aiming to address. Each project focuses on up to two of these impediments.

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[4] Independent Review of the Australian Centre for International Agricultural Research (ACIAR) available at http://aciar.gov.au/files/node/15299/aciar_review_report_pdf_12817.pdf
[5] Cited in CGIAR 2011 'Adoption' available at http://impact.cgiar.org/adoption

Table 1. Impediments to adoption identified across FSC projects

Type of impediment	Impediment
Access	Lack of access and opportunities to make use of financial resources, services, infrastructure and technologies
Mindsets and cultural practices	Culturally shared beliefs and values that influence perception of merits/relevance of innovations and therefore inhibit uptake
Knowledge	Lack of relevant and audience-appropriate information about the existence of an innovation and how to use it
Capacity	Lack of skills, resources and labour to access and make use of innovations, including managing associated risks
Market access	Inadequate information about prices, relationships with traders, infrastructure, contracting processes for farmers access to input and output markets
Policy framework	Inadequate set of principles and long-term goals that form the basis of making rules and guidelines related to any of the above areas

Photo: Farmers need information about prices, relationships with traders, infrastructure, and contracting processes to access to markets (Credit: Liz Ogutu)

5.3   Pillar 3. Corporate effectiveness

The Centre's projects are the focus of pillars 1 and 2. They can only thrive and deliver if the Centre's core functions are effective. Therefore, Pillar 3 outlines what will be monitored and evaluated to assess if the FSC is providing the environment within which projects can achieve development outcomes, and why or why not this might be the case.

The aspects that will be assessed under Pillar 3 are:

- adequate resourcing to perform its mission
- effective communication that meets stakeholder needs
- attracting co-investment and partnerships
- meeting government reporting requirements
- producing and effectively sharing high quality and relevant knowledge
- active participation in important research debates and contributing to communities of practice
- open and transparent procurement processes.

Indicators for Corporate Effectiveness

- Level of resourcing compared to requirements for projects and corporate functions
- Level of sustained and new investments
- Number and diversity of financial partnerships
- Timeliness and quality of required reports
- Timeliness and relevance of communication about the FSC with stakeholders
- Presence in critical research debates and communities of practice (number and quality)
- Quality of procurement processes (adherence to ACIAR procurement processes)

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6 M&E Processes and Products

The FSC will share clear evidence and insights in terms of its performance related to the three pillars as outlined above. These findings will provide input for a range of documented outputs that will communicate the FSC's performance (see Table 2).

Most data will be collected and discussed on an annual cycle. Annual discussions will include a review of each project's theory of change. The theory of change will describe the causal logic underpinning each objective (from activities to outputs to outcomes), and will explicitly list critical assumptions about: context, problem and its causes, causal logic per objective, and stakeholders (needs, capacities, motivation, etc). Annual discussions will identify where the theory of change and assumptions need adapting, and feed into the annual operational plan.

Information about *development outcomes* (Pillar 1) will be shared with the FSC by each of the projects in their annual reporting. These annual reports will, themselves, emerge from discussions within each project with all research partners. Areas where excellent and sub-optimal performance is evident will be the focus of discussions between the RPM, Regional Manager, research partners and the FSC as this will form the basis to collectively agree on key strategic and/or operational adjustments. At an aggregate level, the FSC will compile an annual overview of performance per Program as per the Scorecard, Dashboard and commentary (see Annex 2), and areas of adjustment for discussions with relevant other users (see Section 4).

Information about *progress with adoption* (Pillar 2) will be sought per project as an additional line of inquiry. Much of the data can come from existing M&E plans, with additional discussions likely to be necessary with key stakeholders to provide further insight. Guidance notes for Pillar 2 will be produced by the FSC, in consultation with the RPMs, regional office and research partners. These will be produced and piloted in 2014.

Information about *corporate effectiveness* (Pillar 3) will be derived from budget data, communication through diverse media (see under 5.3), and project reports.

Projects will undertake independent evaluations at the end of their funding period. A review of the Centre's strategic direction and performance will be contracted independently as the first funding tranche ends. Impact evaluations will follow the protocol and timing of ACIAR's impact evaluation system, with a review and update of the FSC Strategy anticipated for 2022.

Table 2. Type and timing of M&E products

M&E products	2014	2015	2022
Annual Scorecard[6]	x	x	
Annual discussion with RPMs and project teams on Pillars 1 and 2	x	x	
Annual project reports	x	x	
ACIAR Annual Operation Plan and Annual Report[7]	x	x	
Reporting against Australian government aid program benchmarking	x	x	
Updates on progress using annual M&E reports on FSC website	x	x	
2022 report against strategy and review			x
Independent evaluation of individual projects			TBA
Independent review of the FSC[8]	x		

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[6] Questions within the scorecard (see Annex 2) relate to the pillars and guide the M&E strategy.
[7] Data from the project annual reports will feed into the dashboard, this can then be used as part of the AOP and other reporting requirements

Annex 1. Scorecard

1. Scope of Work
a) How many farmers have been impacted by FSC's work?
b) How many countries is FSC working in?
c) How many initiatives does FSC have?
d) How many national and international partners does FSC have?

2. Operational effectiveness

Research Activities

Are the FSC projects on track?
a) Are projects on track to deliver intended outputs which enable delivery of program outcomes?
b) Is there regular review and implementation of corrective action or changes in priority occurring at project level (demonstrated adaptiveness)?

Corporate
Is FSC corporate activity on track?
a) Is FSC sufficiently meeting corporate responsibilities (including across procurement, finance, M&E, and communication stakeholders)?

3. Strategic direction for impact

Is the FSC strategy relevant and delivering against its goal?

a) To what extent are the projects under the programs making progress towards meeting their intended intermediate development outcomes?
b) To what extent are the projects under the programs impacting on the identified behavioural change considered critical for improving innovation and its uptake, and delivering insights into adoption processes?
c) Is the FSC sustaining and attracting partners for co-investment?

4. Accountability and transparency

Is the FSC managing its resources efficiently and transparently?

a) Is the FSC meeting ACIAR and Australian Government reporting requirements?
b) Is FSC implementing its monitoring and evaluation strategy as planned, to ensure transparency and enable corrective actions where necessary?
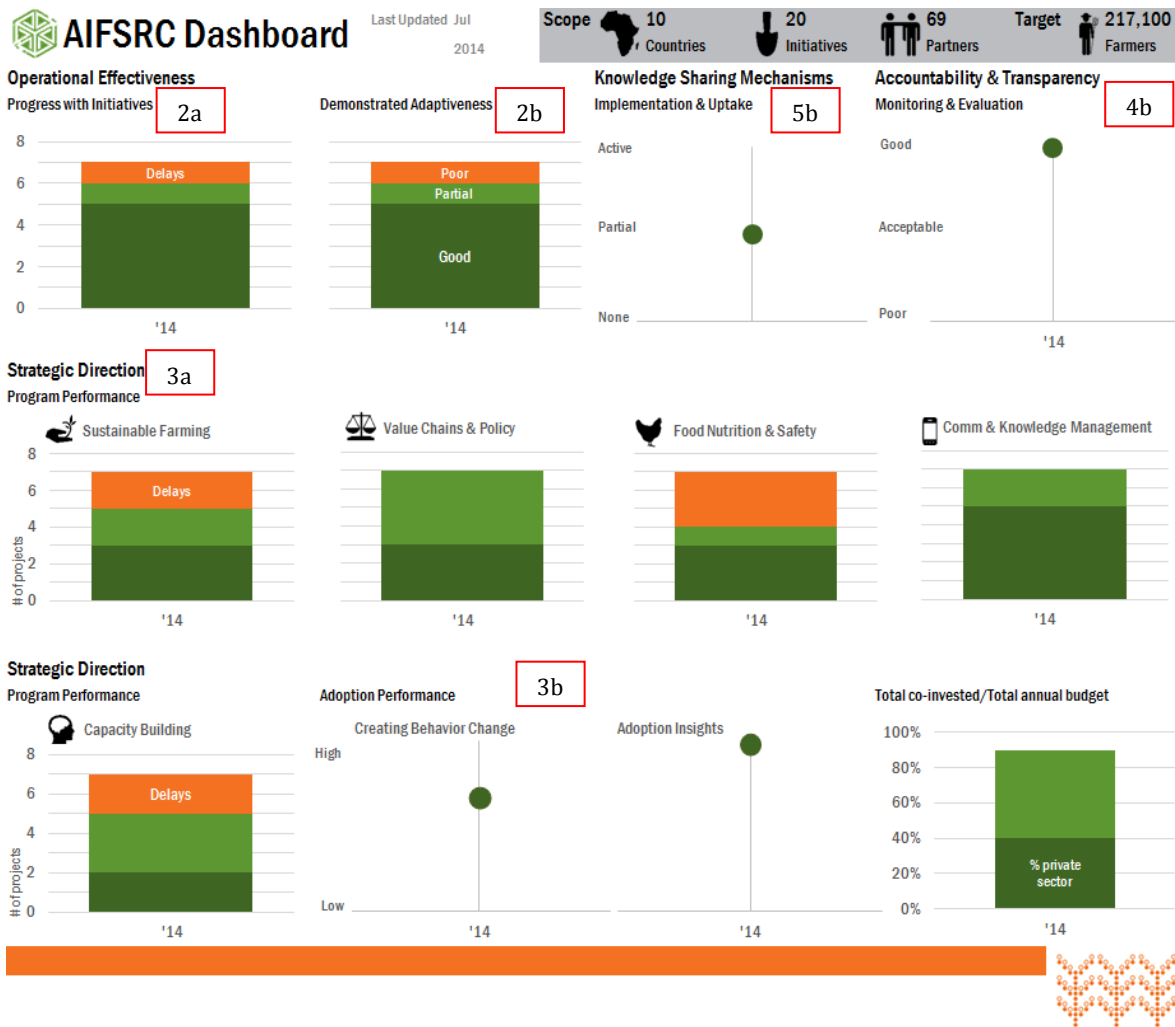
5. Knowledge Sharing

Is the FSC effectively sharing its learning from its activities?

a) Are knowledge sharing mechanisms being implemented and utilised by intended audiences?
b) Is the FSC (staff, RPMs, partners and members of project teams) actively participating in research debates and contributing to communities of practice?

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[8] The FSC first tranche of funding ($33 million) ends in June 2015.

Annex 2. Dashboard

AIFSRC Dashboard — Last Updated Jul 2014

Scope: 10 Countries · 20 Initiatives · 69 Partners · Target 217,100 Farmers

Generic Intermediate Development Outcomes and Indicators

		FSC Intermediate Development Outcomes	Generic Indicators
Baseline	B1	To collect baseline data to assist in analysing the indicators below; such as structure of farming systems, disposable income levels and nutrition awareness and status, and changes in markets	
Program 1. Sustainable and productive farming systems	1.1	Greater access to agricultural innovation by female and male smallholders	Increased number of innovations readily available to critical target groups
	1.2	Higher rates of adoption of agricultural innovations	Increased number of women and men who adopt agricultural innovations
Program 2 Strong and equitable economic and social systems	2.1	Enabling sale of surplus production in local, regional and international markets	Increased number of smallholder farmers (in target groups) selling surplus produce at markets (generated from FSC funded research)
	2.2	Increased return (income) on goods sold by smallholders	Increased return (% income) income for smallholder target groups from products sold
	2.3	Identification of how to strengthen food value chains	Better understanding of mechanisms needed to strengthen xxx value chains in target regions
	2.4	Better informed and supported policy development to support smallholder access to markets and technologies	Target groups involved in food security-focused policy processes use knowledge generated by FSC research partners to support beneficial policy development and/or mechanisms

Program 3 Food nutrition and safety	3.1	Increased access to quality and nutritious food	Increased diet diversity of smallholder farmers
	3.2	Improved efficiency of production of nutritious foods	Increased availability (%) of diverse and nutritious food in local markets
	3.3	Reduced post harvest losses	Lower post harvest loss (% of harvested produce) among target groups per project
	3.4	Improved food safety systems	Necessary food safety standards, guidelines and protocols developed and applied by target groups
	3.5	More value-added foods (produced regionally) available	Increase in volume and diversity of value-added foods available from and for target groups
Program 4 Communications and knowledge management	4.1	Innovations in (food and nutrition security) information and knowledge-delivery mechanisms operational in target areas	Increase in relevant and accessible forms of knowledge generation being utilised
	4.2	Better informed and supported policy development	Target groups involved in food security focused policy processes use knowledge generated by FSC research partners to support policy development and/or mechanisms
Program 5 Education, training and capacity building	5.1	Adequate numbers of female and male targeted smallholders skilled to address a range of food security issues	High quality and relevant capacity building activities undertaken for (key areas) to encourage adoption of (xx) innovations for target groups *E.g. High rates of women and men participants who continue to apply new knowledge and skills after capacity building activities (action research, training, farmer-to-farmer activities)*

	5.2	Stronger organisational and institutional capacity available to address food security in the long term	High quality and relevant capacity building activities undertaken for (key areas) that strengthen organisational/institutional ability to address (food security issues) in the long term
	5.3	Enduring (formal) partnerships established between African and Australian educational and research institutions	Increase in the number of sustained and diverse partnerships and research activities between African and Australian educational and research institutions

Annex 4. Example FSC M&E plan – Trees for Food Security project

Project summary

Smallholder farmers in countries of eastern Africa are resource-poor and find it difficult to afford expensive inputs to enhance agricultural productivity. Previous research has indicated that dryland crop yields can be doubled by incorporating the right trees and management practices into agricultural systems. In recent years, governments and NGOs working in this region have begun to promote the enhancement of tree cover on agricultural land as a cheap but effective way of improving soils and lifting agricultural productivity. The aim of this project is to enhance food security and livelihoods for rural people in eastern Africa by focusing on the introduction of trees within farming systems. The project will focus initially on Ethiopia and Rwanda for biophysical trials and initial adoption research, and then scale out the appropriate agroforestry technologies to relevant agro-ecological zones in Uganda and Burundi. It aims to reach 30,000 farmers in rural regions where an estimated 10 million people are facing acute food security problems.

Pillar 1 – M&E of Development Outcomes

		FSC Intermediate development Outcomes	Project-specific Indicators
Baseline	B1	*To provide baseline data to assist analysing structure of farming system and agroforestry scaling up domains for improved income and food security for indicators below*	*Baseline data collected in Ethiopia, Rwanda Burundi and Uganda to determine the baseline conditions on agroforestry adoption, food security, etc. as well as to identify factors affecting their conditions (including gender, biophysical as well as socio-economic factors) to guide the interventions*
Program 1. Sustainable and productive farming systems	1.1	Greater access to agroforestry innovations by female and male smallholders	Increased number of integrated tree and cropping system innovations readily available to critical target groups of 30 000 women and men farmers
	1.2	Higher rates of adoption of agroforestry innovations	Increased number from target group of 30 000 women and men farmers who adopt integrated tree and cropping system innovations
Program 2. Strong and equitable economic and social systems	2.1	Enabling sale of surplus production in local, regional and international markets	Increased knowledge and skills within smallholder farmers (in target group of 30 000 women and men farmers) to better access markets with improved negotiations skills by farmers.

		FSC Intermediate development Outcomes	Project-specific Indicators
Program 3. Food Nutrition and Safety	3.2	Improved efficiency of production of food through agroforestry innovations	Increase in crop yields from integrated tree and cropping systems as supported through modeling
Program 4. Communications and knowledge management	4.1	Innovations in information and knowledge-delivery mechanisms for agroforestry operational in target areas	Increased use of information and knowledge delivery systems for agroforestry through national programs e.g. establishment of a resource centre (RRC) per site, the accompanying nurseries and advisory services which will be well linked to the results from the baselines.
	4.2	Better informed and supported policy development	Policy actors in partner countries use knowledge generated by Trees for Food Security research partners to support policy development and/or implementation
Program 5 Education, training and capacity building	5.1	Adequate numbers of female and male targeted small holders trained to address a range of food security issues	Increased number of people from target group of 30 000 female and male farmers who are trained and who adopt agroforestry innovations. *Training activities can be through volunteer farmer trainers, RRCs, farm demonstrations, farmer field days, working farmer groups etc. A survey / tool designed to document all these farmers will be implemented*
	5.2	Stronger institutional capacity available to address food security in the long term	High quality and relevant capacity building activities undertaken for supporting agroforestry schemes that strengthen organisational/institutional ability to address (food security issues) in the long term

Pillar 2. Understanding adoption processes

1) What are the top two impediments to adoption that the project should be held responsible for reducing
    1. Supply of quality germplasm for farmers
    2. Training farmers and extension workers on best fits for different sites and circumstances

2) Based on identified impediments, who are the key stakeholders whose behaviour the project is aiming to change (to address the impediment)?
    1. Farmers, extension workers, policy makers and researchers/scientists in partner institutions

3) What are the mechanisms in your project that reduces these impediments and supports behaviour change?
    1. Training of all stakeholders in appropriate tools, approaches and methods.
    2. Systems to ensure equitable access to adequate and quality germplasm and planting materials

Issue/impediment	Behaviour change stakeholder	Behaviour change being sought E.g. Researchers actively engaging farmers as informed (equals) to increase production in a participatory approach	Mechanism
Knowledge and approaches on best fits for different sites and circumstances	Farmers Extension workers Policy makers National scientists	Researchers actively inform farmers and key stakeholders (extension officers, policy makers etc.) about constraining/enabling factors of having optimal levels/management of trees on farm derived from the baseline data analyses (land fragmentation, tenure security condition, livestock grazing management, modes of extension services, market conditions and trends etc.), then offer appropriate training and present portfolios of actions needed	• Participatory training sessions for farmers • Use of modelling decision support tools • Implementation of different scaling up approaches
Supply of adequate and quality germplasm for extension	Extension workers, farmers, policy makers and national scientists	Participatory approaches in determining the most efficient ways of supplying quality germplasm Researchers actively engage extension workers to assess and build their capacity in extension	• Use of RRCs for dissemination • Workshops, face to face interviews

Annex 5. Detailed List of M&E Uses and Users

The table below details the information needs of key users for the four M&E purposes: (1) operational effectiveness of research projects; (2) strategic direction for impact; (3) accountability and transparency; and (4) knowledge sharing.

Use	Questions that need answering	Users
Operational effectiveness	Have projects been implemented well? How is each project contributing to FSC's goal of understanding and accelerating adoption? Are projects delivering intended outputs and contributing to the IDOs? How effective are partnerships?	ACIAR CEO/FSC Director/RPMS/project leaders/co-investors
Strategic direction	Is the strategy still appropriate? Are priorities being set and are they appropriate? Should future funding be invested in FSC? How are the activities of the FSC potentially useful for future ACIAR activities? Is the FSC delivering against the ACIAR Independent Review recommendation 23? Is the FSC aligned with Australian government agendas?	Commission/ACIAR CEO/FSC Director/Minister/ DFAT
Accountability and transparency	Is the FSC using funding efficiently? Are CEI protocols being followed? How is FSC contributing to the whole of government approach to ODA? Is the FSC meeting its corporate communication commitments? What value is co-investment delivering? Is money being appropriately spent (probity)?	ACIAR CEO/ACIAR CFO/FSC Director/ACIAR CFO ACIAR corporate (communications)/ DFAT/co-investors
Knowledge sharing	Is the FSC communicating learnings on adoption processes and progress towards intended development outcomes? Are FSC lessons about adoption and progress towards development outcomes being communicated in ACIAR corporate communications? Is the FSC contributing to the body of knowledge on adoption (FSI Community of Practice)? Is the FSC providing an effective knowledge management platform for FSI? Are lessons about adoption being shared with project teams?	ACIAR CEO/FSC Director/ACIAR corporate/RPMs, Project leaders (and their supervisors)/DFAT/ CSIRO