

# Evaluation of Cultivate Africa's Future Fund (CultiAF)

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# Executive Summary

## Background

The Cultivate Africa's Future Fund (CultiAF) is a CAD \$15 million competitive grant facility created in 2013 by the International Development Research Centre (IDRC) and the Australian Centre for International Agricultural Research (ACIAR) to increase high-quality scientific research with a focus on the adoption of existing and new research results to tackle persistent problems in food insecurity in Eastern and Southern Africa (ESA). It is funding five large applied agriculture and nutrition research consortia in five countries (Kenya, Malawi, Uganda, Zambia and Zimbabwe), each involving a mix of public and private partnerships, and three cross-cutting projects on youth and use of ICTs for information dissemination and scaling up. The thematic foci of the current program are post-harvest losses and agriculture for nutrition.

The funding agreement between IDRC and ACIAR requires a formative mid-term evaluation to provide insights to the Governance Committee on the performance of the program and project results to date, and to provide recommendations to inform ongoing implementation and a potential second phase of the program. The primary users of the evaluation are the Governance Committee and IDRC/ACIAR management and program staff. Secondary users include other donors and international and developing country stakeholders working in similar areas.

Specifically, the evaluation is expected to: (1) assess the relevance, appropriateness, effectiveness and efficiency of CultiAF; (2) assess the scientific merit and achievements, outputs and outcomes that specific projects have made or are positioned to make at the scientific and community levels; and (3) provide strategic recommendations to guide implementation during the remaining period, and for a potential second phase of the program. These objectives were further adjusted in the inception phase and assess relevance, effectiveness, sustainability and operational efficiency (including the partnership between IDRC

and ACIAR, the Fund's governance arrangements, and program management). The evaluation also assesses the cross-cutting themes of gender and generational equality and environmental sustainability.

In terms of effectiveness, it is worth noting that all projects are very recent; five projects are approximately one and half years into their implementation cycle while the remaining three started implementation within the past year only. As such, the evaluation team has been directed to assess whether CultiAF is on track to meet expected immediate and intermediate outcomes and this has been done by taking a systems approach, looking at the quality of decision making, how research is managed and ongoing performance. As part of effectiveness, the evaluation also assesses research quality and the team has referred to the IDRC Research Quality Plus (RQ+) Assessment Instrument (2016) to assess research integrity, legitimacy, importance and positioning for use.

## Methodology

The CultiAF evaluation was undertaken from March to August 2016. It is based on an overall methodological approach which is utilisation-focused and participatory and used mixed-methods to gather qualitative and quantitative data from a variety of sources. Data were triangulated to ensure the accuracy of findings, all of which respond to questions in the evaluation matrix.

Sampling was purposeful, and included site visits in three of the five countries (Kenya, Malawi and Zimbabwe), joined by Ugandan representatives from multi-country projects. The evaluation covered six of the eight projects to some depth. The data sources included (i) extensive document and secondary data review, including IDRC datasets, (ii) site visits to the ROSSA office and projects in Kenya, Malawi and Zimbabwe, (iii) semi-structured interviews with IDRC, ACIAR and research managers, research teams and partners, and (iv) focus group discussions with farmers, fish

producers and agro-processors in Kenya, Malawi and Zimbabwe. In total, 219 individuals (111 females/108 males) were consulted. Evaluation findings drew on contextual analysis, quantitative data, interpretive content analysis, efficiency analysis and modified research quality plus (RQ+) assessment.

There were two limitations to the assignment: (1) the short timeframe from inception to delivery of the draft report, which was further compressed by a one-week delay in contracting, dealt with by agreeing to small delays in delivering milestones and by collecting data from some key individuals during the analysis phase; and (2) field missions that were scheduled very early in the data collection phase before high-level interviews with some key IDRC and ACIAR stakeholders were possible, limiting the evaluation team's ability to cross-check information provided in these interviews with field-level stakeholders.

## Relevance

The CultiAF geographic focus on ESA is highly relevant to tackling food insecurity as Eastern Africa accounts for 57% of the malnourished in Africa and land-locked countries in Southern Africa are also among those making the least progress tackling malnutrition. Its thematic focus on post-harvest losses – an estimated 30-40% of total production is lost to poor product harvesting, storage and marketing in Africa – is expected to significantly curtail losses and create value-addition in commodities relevant to smallholders and particularly women. The focus on agriculture for nutrition is expected to address serious and prevalent causes of malnutrition through improvements in the food system. Beyond these two themes, strategically targeting for youth opportunities is highly relevant because 65% of Africa's population is under 35 and 60% of 14 to 24 year olds are unemployed; the agriculture sector could absorb more young Africans currently entering the work force.

CultiAF is aligned with the development policies and priorities of the Governments of Canada and Australia which support research to improve food

and nutrition security among smallholder farmers, with a particular focus on gender equality and sustainable and inclusive economic growth.

Consistent engagement of the private sector in CultiAF research and early demand for research products are strong indicators of relevance. The continued relevance of research results to the private sector will depend to some extent on the overall enabling environment to allow for uptake and trade in new technologies.

Finally, there are many post-harvest and nutrition problems of smallholder producers and consumers in ESA which could benefit from targeted research. CultiAF methods and technologies are relevant to the food and nutrition research communities working on similar issues. CultiAF also provides training and capacity development support in science and research management, areas needing support in the region.

## Effectiveness

All of the CultiAF projects are making progress toward meeting Program immediate outcomes. The intermediate outcomes indicators specified in the performance measurement framework which are to be measured at the end of the funding cycle are not fully aligned with the timeframe and scale of the Fund. Given the innovative nature of the research and the performance of the research teams, and with more time and support, there is potential to reach these intermediate outcomes.

Capacity development has been one of the cornerstones of the CultiAF program. IDRC's "grants plus" approach provides significant research management and technical support to project teams at all stages of research design and implementation. Research teams relate that this support – considered unique to IDRC - has improved their productivity and the quality of research, as well as the dissemination of early results.

All CultiAF projects are on track to generate knowledge that meets the needs of target groups and most have developed mid-course research findings, are presenting early results to scientific audiences and are in the process of publishing.

The CultiAF program has been proactive in supporting research uptake with its three cross-cutting projects in youth entrepreneurship and the use of ICTs for disseminating information. Client groups continue to be engaged in participatory research, increasing the likelihood of uptake and use. To date, 25,756 farmers and agro-processors have been engaged in research activities. All CultiAF projects engage women and offer different types of dissemination and learning events to a variety of stakeholders. Some early results are already being taken up and there are also inquiries from external parties on research methods and technologies.

The CultiAF program and its projects have proactively engaged with different types of stakeholders - scientific, private sector, policy, donor, beneficiary and public audiences – through strong local communications efforts. Data on inquiries made by types of stakeholders indicate a need to further engage with international development assistance organizations and the private sector.

According to its new assessment tool for evaluating research quality, IDRC considers that high quality research must have scientific merit and be positioned for use. Evidence suggests that the CultiAF projects are well-designed, effectively managed and on track to meet their performance targets. Research quality of CultiAF projects has been enhanced through concerted program support to research management, including research design, methods, data management, results monitoring and reporting, communications, scaling-up and gender. There is considerable socio-economic research and beneficiary engagement, increasing the likelihood of relevant results. The projects are innovative in terms of technologies, methods and partnerships and have the potential to significantly impact smallholder farmers, agro-processors and consumers. IDRC has managed the research process at a program level in ways that increase the likelihood of probable use by providing clear proposal instructions and vetting proposals for scale-up; training research teams in scaling up; providing technical support in research management and communications; and engaging cross-cutting projects to support the uptake of

research results. The five technical CultiAF projects were designed to maximize the likelihood that research results would be used by taking a value chains approach involving the private sector and beneficiaries in technology development; developing communications for a wide variety of end users; conducting socio-economic studies to influence research and to tailor results to prospective users; engaging early with policy makers and regulatory agencies to work towards enabling the up-scaling of research results; and seeking interest of non-project funders to expand uptake and use.

## Sustainability

Sustainability has been approached in the evaluation by considering future research capacity and partnerships, and potential investors for scaling up.

CultiAF has strengthened the capacities of research teams and partners, who expect to apply these new skills throughout their careers. Several teams reported that these strengthened capacities have enabled them to find new partners and sources of funding. They further noted they would welcome capacity building for their host institution, not currently within the mandate of CultiAF.

CultiAF brought new partners into the research process, most notably the private sector, and research teams appreciate the perspective and support they offer, particularly for scaling up research results. However, sustaining these types of partnerships would likely require some external financial support after CultiAF ends.

Research results may not be fully consolidated in the time remaining for all projects. There is interest in scaling up expected results nationally and in the ESA region and in expanding research partnerships. The three cross-cutting projects in radio and youth entrepreneurship are expected to assist with scaling up in localized areas; however, to reach beyond this will require more strategic program and project engagement.

## Operational efficiency

CultiAF is the first joint collaboration between IDRC and ACIAR and all officials interviewed noted that the partnership has been relatively easy and straight-forward, and has strengthened the relationship between IDRC and ACIAR, especially at senior management level. While similar in institutional mandates and organizational culture, IDRC and ACIAR have different comparative advantages, and there is room to further explore how to best capitalize on them to ensure full benefit for the partnership.

Positive relations between IDRC and ACIAR are resulting in some collaboration outside of CultiAF and there is mutual interest in renewing CultiAF for a second phase. However, limited visibility of the Fund across ACIAR may limit broader buy-in. Organizational changes in ACIAR present an opportunity for further integration.

CultiAF has been governed by a two-tier structure involving a Governance Committee (GC), represented equally by IDRC and ACIAR, and a Scientific Advisory Committee (SAC). This structure has worked well and ensured scientific rigor in the projects selected. The Funding Agreement and positive relationships among GC members also allowed the Fund to be used in a flexible manner when opportunities arose.

The Fund's two-stage competitive call process led to high quality and innovative proposals. Grantees appreciated the clear instructions, transparency and feedback, though some also felt that the approval process was lengthy. The competitive call has the benefit to allow launching several projects concurrently, thereby achieving some economies of scale by providing joint services, such as training.

The "grants plus" approach, as noted earlier, provides considerable technical and research management support to research teams. IDRC maintains a close relationship with the projects, providing ongoing implementation support, training and networking opportunities. This approach is considered by grantees to be "unique" in the donor community.

Improved research communications has been supported by the Program through the engagement of an external firm to develop project communications strategies and to strengthen research team capacities to reach a variety of stakeholders. IDRC and ACIAR corporate communications may be better positioned to engage with their respective development organizations in Australia and Canada.

The timeframe between project approval and the disbursement of funds was reasonable – although perceived as lengthy by several grantees – but there have been some delays in project implementation, mainly due to adverse weather conditions. Most grantees felt they needed more time to consolidate research results and to conclude graduate training.

Overall, IDRC, who was responsible for the Fund's day-to-day management, has performed this task well and its strong practices in performance and financial management were much appreciated by ACIAR.

## Cross-cutting themes

IDRC has good processes for integrating gender equality across CultiAF: all projects have a gender strategy and accompanying budget, as well as gender expertise to ensure adequate implementation. It has taken several steps to strengthen the capacities of project teams for mainstreaming gender equality, including the commissioning of an external consulting firm to provide gender support to project teams. Projects are already integrating gender equality dimensions into their work. For instance, many have conducted assessments on the differentiated roles of women across value chains, including in decision-making and management processes. All projects are tracking gender inclusion in research and training activities. Women comprise 52% of the graduate students and 36% of the researchers. On the other hand, "generational equality" which was included in the Terms of Reference (TORs) for the evaluation, was less easy to assess beyond the emphasis given to youth in two of the cross-cutting projects.

There is inconsistency on how “environmental sustainability” is viewed within CultiAF. While not explicit in the Project Approval Document, it was incorporated into the program logic model and explicit in the Call for Proposal. The project proposals were generally superficial in analyzing potential environmental impacts and identifying mitigation steps, most considering their environmental impact to be either benign or beneficial. With some project exceptions, there is little evidence that projects are routinely monitoring environmental effects nor have environmental mitigation measures been costed. There has been no discussion of environmental sustainability in annual reports to date.

## Recommendations

### For the current phase:

- 1) To allow for the full consolidation of research results and the successful completion of graduate student training, IDRC and ACIAR with advice from the CultiAF program management team should consider no-cost extensions on a project-by-project basis. Such an extension would need to take into consideration other associated costs, including program management. If possible, decisions should be enacted as soon as possible to enable project teams to work most effectively.
- 2) ACIAR Senior Management should ensure that CultiAF is better integrated into its project management system to make information on CultiAF results and lessons learned more readily available to ACIAR staff. It should also explore other avenues to increase CultiAF visibility across ACIAR.
- 3) The CultiAF team should work in close collaboration with IDRC’s communications department to ensure the most effective approaches to disseminating CultiAF results to international audiences, including Canadian and Australian stakeholders. While not responsible for CultiAF communications efforts, ACIAR should consider how CultiAF can be most effectively communicated to DFAT and other Australian stakeholders.
- 4) The CultiAF program management team should give clear guidance and provide support, as necessary, to CultiAF research teams for the remaining of Phase 1 to ensure that they adequately report on environmental issues and mitigation measures.

### For future programming:

- 5) ACIAR and IDRC should map out their respective comparative advantages and explore how these could best benefit the CultiAF partnership and other potential collaboration. Based on the findings of this mapping, ACIAR and IDRC should decide whether CultiAF should be renewed for a second phase, taking into consideration their respective geographic priorities. If the Fund is renewed, ACIAR and IDRC should consider renewing ongoing projects, on a case-by-case basis.
- 6) In the event of a CultiAF Phase 2, ACIAR and IDRC should consider increasing the length of the project implementation cycle.
- 7) Should there be a second phase of CultiAF, IDRC and ACIAR program managers should review and revise the logic model and accompanying performance measurement framework (PMF) to ensure that indicators are better aligned with the time frame and scale of the Fund and that they capture any agreed priorities, such as generational equality and environmental sustainability.
- 8) In the event of a future phase of CultiAF, IDRC and ACIAR should maintain the current emphasis on capacity development of research teams, and potentially explore cost-effective ways to also provide institutional capacity development support to the lead organizations.



# Acronyms

ACIAR	Australian Centre for International Agricultural Research
AIFSC	Australian International Food Security Centre
ATDF	Africa Technology Development Forum
CAADP	Comprehensive Africa Agriculture Development Program
CGIAR	Consultative Group on International Agricultural Research
CIAT	International Center for Tropical Agriculture
CIFSRF	Canadian International Food Security Research Fund
CIMMYT	International Maize and Wheat Improvement Center
CultiAF	Cultivate Africa's Future Fund
ESA	Eastern and Southern Africa
FAO	Food and Agriculture Organization of the UN
FARA	Forum for Agricultural Research in Africa
FRI	Farm Radio International
GC	Governance Committee
GAC	Global Affairs Canada
ICIPE	International Centre of Insect Physiology and Ecology
IDRC	International Development Research Centre
INSFEED	Insects for Feed project
MOU	Memorandum of Understanding
M&E	Monitoring and evaluation
MTE	Mid-term evaluation
NGO	Non-governmental organization

OECD-DAC	Organization for Economic Cooperation and Development – Development Assistance Committee
PI	Principal Investigator
PMF	Performance Measurement Framework
PO	Program Officer
REC	Regional Economic Commission
R4D	Research for Development
ROSSA	Regional Office for Sub-Saharan Africa (IDRC)
RQ	Research Quality
TORs	Terms of Reference
USIU	United States International University- Africa

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# 1 Introduction

## 1.1 Purpose and Rationale of the Evaluation

In 2013, Canada's International Development Research Center (IDRC) and the Australian Centre for International Agricultural Research (ACIAR) jointly launched the Cultivate Africa's Future Fund (thereafter referred to as CultiAF), a CAD 15 million program to address issues of post-harvest losses, sustainable water use, and linkages between nutrition and agriculture through applied agricultural research in Eastern and Southern Africa (ESA).

As per the CultiAF Funding Agreement, ACIAR and IDRC commissioned an independent formative evaluation to provide information on the performance of the program at mid-term and recommendations to inform ongoing implementation and a potential second phase of the program. The evaluation was conducted by Universal Management Group Ltd between March and August 2016.

The primary users of the evaluation include: 1) CultiAF Governance Committee members who will use the findings and recommendations to inform future food security programming, including a potential second phase of CultiAF; and 2) IDRC and ACIAR management and program staff, to inform the second half of CultiAF's implementation cycle and communicate results to key stakeholders. Secondary users include other donors and international and developing country stakeholders working in similar areas.

## 1.2 Objectives of the Evaluation

As per the Terms of Reference (TORs) included in Appendix IX, the evaluation had the following objectives:

- Assess the relevance, appropriateness, effectiveness and efficiency of CultiAF;
- Assess the scientific merit and achievements, outputs and outcomes that specific projects have made or are positioned to make at the scientific and community levels; and
- Provide strategic recommendations to guide implementation during the remaining period, and for a potential second phase of the program.

These objectives were further adjusted during the inception phase into the questions of the evaluation matrix which examined relevance, effectiveness, sustainability, operational efficiency and cross-cutting themes of gender and generational equality, as well as environmental sustainability.

## 1.3 Methodology

This section describes the evaluation phases, design, the values and principals guiding the evaluation, the methods and sources of data, as well as the evaluation's limitations. The full methodology is presented in Appendix II.

### Evaluation Phases

- **Inception (March 2016):** Virtual consultations with IDRC informed the development of the methodology and workplan. The inception report was subsequently amended based on feedback provided by IDRC program staff. ACIAR was also encouraged to participate but was not available during the inception phase.
- **Data collection (April 2016):** Data collection included a document review, three country visits, and telephone and Skype interviews with additional stakeholders from IDRC and ACIAR.

- **Data analysis (May 2016):** This phase included data analysis, interpretation and triangulation. The evaluators presented preliminary findings to key IDRC and ACIAR stakeholders, who provided feedback which was considered in the reporting phase.
- **Reporting (June-August 2016):** Submission of the draft and final reports to IDRC and ACIAR.

## Design and scope of the evaluation

The evaluation was guided by a matrix (see Appendix III) that builds on the evaluation objectives and questions in the terms of reference (see Appendix IX). The evaluation assessed CultiAF relevance, effectiveness, sustainability and operational efficiency (including the partnership between IDRC and ACIAR, the Fund's governance arrangements, and program management). The evaluation also examined scientific merit, based on a simplification of IDRC's Research Quality+ Assessment Tool (see Appendix VII), which examines aspects of research management, engagement, importance and positioning research for use. Finally, the evaluation assessed the extent to which the CultiAF has integrated cross-cutting themes of gender and generational equality and environmental sustainability.

The evaluation examined eight CultiAF projects, including five technical projects and three cross-cutting projects (see section 1.5). The original CultiAF program concentrated on three thematic areas: post-harvest losses, nutrition, and water use. As no water use proposals were approved<sup>1</sup>, the evaluation did not cover this theme.

## Evaluation Approach

The evaluation team visited project sites and interviewed research teams and partners<sup>2</sup> in six of the eight projects and conducted interviews with lead investigators of the other two projects. It interviewed beneficiaries in three<sup>3</sup> of the projects. The sampling approach considered:

- 1) Amount of funding spent in a given country
- 2) Number of projects in a given country
- 3) Thematic representation covering post-harvest, nutrition and cross-cutting themes of agribusiness for youth and communications
- 4) Accessibility of projects/organizations/stakeholders given the time and resource constraints
- 5) Prospect for project managers from similar projects in neighboring countries to participate in meetings

Given the early stage of project implementation, the evaluation took a process approach (e.g., research management, effective partnerships, capacities, knowledge sharing, supportive policies, private sector linkages) to assess whether projects were on track to meeting immediate and intermediate outcomes. Referring to the program logic model (see Appendix I), the evaluation looked principally at activities and outputs and progress toward immediate outcomes.

## Data Collection and Analysis

The evaluation used a mixed-method approach to gather qualitative and quantitative data from a variety of sources. A significant amount of quantitative data was provided to the evaluation team from IDRC monitoring systems; unless otherwise noted, all statistics on projects are from the IDRC database. The evaluators triangulated qualitative and quantitative data to ensure the accuracy of findings developed to

<sup>1</sup> No water projects succeeded in the competitive selection process.

<sup>2</sup> "Partners" in this discussion include universities, public institutions, private sector organizations and NGOs; some receive project funding as third party organizations and others do not.

<sup>3</sup> Pre-cooked beans (107842); Malawi fish (107837); Aflatoxin (107838).

answer the evaluation questions outlined in the evaluation matrix. The evaluation's conclusions and recommendations are linked to findings.

**Interviews and focus groups:** The evaluation team consulted 219 stakeholders (111 females/108 males - see Appendix V): 12 IDRC and 5 ACIAR staff (including all 4 Governance Committee members); 4 Scientific Advisory Committee members; 1 WRENmedia staff; 97 researchers (including 65 from lead, 32 from partner organizations); and 100 community-level research participants or potential users, including farmers, fish producers and agro-processors. Overall, 84 individuals were consulted through semi-structured interviews and 135 were consulted through focus groups. All interviews and focus groups followed agreed-upon protocols (see Appendix IV) tailored to the different stakeholder groups and aligned with the evaluation matrix.

**Document review:** The evaluation team reviewed documents provided by IDRC and ACIAR (see Appendix VI) and also reviewed and analyzed quantitative data sets generated by IDRC's internal monitoring.

**Field visits:** Site visits and face-to-face interviews were conducted in three countries (Kenya, Malawi and Zimbabwe), covering six projects<sup>4</sup>. Representatives from the two multi-country projects in Uganda were able to participate in the field visits in Kenya.

## Values and Principles Guiding the Evaluation

Guided by the OECD-DAC's Evaluation Quality Standards and Guidelines and IDRC's Evaluation Principles, the evaluation is **utilization-focused** and offers useful and feasible recommendations to the identified primary users. The evaluation adopted a **participatory approach** whereby evaluators worked closely with primary users throughout all evaluation phases and ensured the gender-balanced participation of a wide range of stakeholders. Evaluators integrated **ethical considerations** by advising interviewees that their views would be presented in aggregate form only, thereby ensuring confidentiality, and quotes are presented in a manner that cannot be attributed to a single individual.

## Limitations

There were two limitations to the assignment: (1) the short timeframe from inception to delivery of the draft report, which was further compressed by a one-week delay in contracting. This limitation was dealt with by agreeing to small delays in delivering milestones and by collecting data from some key individuals during the analysis phase; and (2) field missions were scheduled very early in the data collection phase before high-level interviews with some key IDRC and ACIAR stakeholders were possible. This limited the evaluation team's ability to cross-check information provided in these interviews with field-level stakeholders.

## 1.4 Profile of CultAF

Launched in 2013, CultAF is a 4-year, CAD 15 million initiative jointly funded by IDRC and ACIAR. Its aim is to support local expertise in undertaking high-quality scientific research in three priority thematic areas that provide concrete solutions to address food security in East and Southern Africa (ESA): post-harvest management systems; linking agriculture to nutrition; and sustainable water use. Ten countries were eligible to receive CultAF funding: Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe.

Project proposals were solicited through a competitive call and were approved for funding by the Governance Committee, composed of IDRC and ACIAR senior managers, based on recommendations from

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<sup>4</sup> The Expanding Business Opportunities for Youth in Agri-food Systems in Southern Africa and Communicating Science for Impact were covered by document review and phone/Skype interviews.

the Scientific Advisory Committee (SAC). Five technical projects were approved in 2014 for a 30-month duration. With the remaining funds, the Governance Committee approved three additional projects. Through a closed call sent to 13 institutions, two youth entrepreneur projects were selected to provide support to projects in Southern Africa and Kenya. These proposals were vetted internally by IDRC and ACIAR program officers. The third project was a solicited proposal from Farm Radio International to promote the uptake of results from two technical projects. These three projects have an average duration of 18 months.

**Table 1.1** *CultiAF-funded projects*

PROJECT	CAD \$	COUNTRY
Improving fish post-harvest management and marketing in Malawi and Zambia (October 2014-April 2017)	\$1,596,000	Malawi, Zambia
Reducing maize-based aflatoxin contamination and exposure in Zimbabwe (October 2014-March 2017)	\$2,055,600	Zimbabwe
Integrating insects in poultry and fish feeds in Kenya and Uganda (October 2014-March 2017)	\$2,349,600	Kenya, Uganda
Better processing and marketing of healthy fish products in Malawi (October 2014-March 2017)	\$1,231,000	Malawi
Precooked beans for food, nutrition and income in Kenya and Uganda (October 2014-March 2017)	\$2,646,200	Kenya, Uganda
Communicating science for impact (June 2015-March 2017)	\$543,005	Kenya, Uganda
Expanding business opportunities for youth in agri-food systems in Southern Africa (October 2015-March 2017)	\$464,200	Malawi, Zambia, Zimbabwe
Expanding business opportunities for youth in agri-food systems in Kenya (June 2015-December 2016)	\$427,235	Kenya

Approximately CAD 11.3 million of CultiAF funds were used to finance these eight projects. The remaining funds were used for management (including the call for proposal, day-to-day management, and monitoring and reporting), as well as for support provided by IDRC to project teams. The capacity building approach used by IDRC, which is examined in the findings of this report, aims to use local capacities for research by providing continued support to research teams and their partners.

In total, 12 lead institutions are receiving funding from CultiAF to implement the eight projects, with one lead institution managing two projects. Twenty third-party organizations are also involved in implementing the research projects. In total, 32 partners – including lead and third party organizations – form the research teams: 11 universities; 9 public institutions; 5 INGOs; 1 NGO and 6 private sector organizations.

While both IDRC and ACIAR were equally involved in the design of the Fund and selection of projects, IDRC is responsible for its day-to-day management. The CultiAF team managing the day-to-day operations is composed of one senior program officer and one program management officer and benefits from the administrative support of the IDRC Regional Office for Sub-Saharan Africa (ROSSA). The IDRC Associate Director provided management oversight and the CultiAF team also receives support from other IDRC staff and the ACIAR manager.

## 1.5 Report Overview

Following this introduction, the report is organized as follows:

- Section 2 presents the findings of the Midterm Evaluation in terms of relevance, effectiveness (including research quality), sustainability, operational efficiency, and cross-cutting themes.
- Section 3 presents the conclusions and recommendations for: a) the second half of the ongoing implementation cycle; and b) future programming.
- Appendices include: I) the CultiAF Logic Model; II) the methodology; III) the evaluation matrix; IV) data collection instruments; V) the list of consulted stakeholders; VI) the list of documents reviewed; VII) an analysis of research quality; VIII) a biography of the evaluators; and IX) the terms of reference of this evaluation.

# 2 Findings

## 2.1 Relevance

### 2.1.1 *Relevance to the Food Security Needs of Small Farmers, Women and Youth in Eastern and Southern Africa (ESA)*

**Finding 1:** CultiAF research addresses the food and nutrition security needs of producers and consumers in ESA where smallholder farmers are among the most malnourished of Africa's populations. Its focus on women and youth makes it particularly relevant to the problems these groups face in the region.

Africa has a population of 218 million and the highest prevalence of undernourished people (23%) in the world. Eastern Africa accounts for 57% of the malnourished in Africa and land-locked countries in Southern Africa are also among those making the least progress in tackling malnutrition.<sup>5</sup> The CultiAF program focus on ESA therefore has the potential to improve food and nutrition security for a large number of producers and consumers. Addressing post-harvest losses and nutrition are priorities in the African Union Comprehensive Africa Agriculture Development Program (CAADP), as well as in regional and national agriculture and food security strategies. Post-harvest losses in Africa are estimated at 30-40% of total production, depending on the commodity, and can reach as high as 60%; low-income, smallholder farmers, fisher folk, agro-processors and marketers are particularly affected as they often do not have the means to access available post-harvest technologies. CultiAF is expected to offer practical technological solutions to significantly curtail losses and create value-added for different commodities produced and marketed by smallholders and particularly for women who play key roles in the selected value chains and who may have fewer opportunities to access resources. Beyond these two themes of post-harvest loss and nutrition, CultiAF's strategic targeting of youth is highly relevant as 65% of Africa's population is under age 35. The 200 million youth aged 14 to 24 make up 60% of those unemployed.<sup>6</sup> In a 2013 Policy

<sup>5</sup> FAO. (2015). Regional Overview of Food Insecurity: African Food Security Prospects Brighter Than Ever. FAO. Accra, Ghana.

<sup>6</sup> AfDB, OECD, UNDP (2012). *African Economic Outlook 2012: Promoting Youth Employment*.

Research Working Paper, the World Bank identified agriculture as a sector presenting unique opportunities to absorb the large population of young Africans currently entering the work force.<sup>7</sup>

Focus groups with farmers and fish producers in four projects noted that the problems being addressed – aflatoxin contamination in maize, high spoilage and poor markets for fish, and increasing bean production for consumption and incomes through cooperative marketing – were vitally important to their households and communities. The aflatoxin project in Zimbabwe was unique in targeting young women and children while encouraging inclusive participation by others in the farming community. Evaluation interviews with INSFEED project stakeholders noted a high potential to use research innovations for small-scale insect raising enterprises and for feed protein sources, both relevant for improving incomes. Those interviewed also believed that these novel technologies and marketing channels would interest youth and generate farm-based employment.

### 2.1.2 Relevance to Canadian and Australian Development Assistance Policies and Programs

**Finding 2:** CultiAF is aligned with the development policies and priorities of the Governments of Canada and Australia which support research to improve food and nutrition security among smallholder farmers, with a particular focus on gender equality and sustainable inclusive economic growth.

Senior officials of IDRC and ACIAR have been actively involved in the design and governance of CultiAF and ensured that the Fund objective to address food insecurity among smallholder farmers in ESA was aligned with Canadian and Australian development policies and priorities. Increasing food security is one of Canada's top five development priorities<sup>8</sup> and is implemented through three strategic areas of programming: food assistance and nutrition, sustainable agricultural development, and research and development. The CultiAF program supports these aims by supporting nutrition considerations in broader food security initiatives: strengthening agricultural and rural development policies and management processes particularly those affecting smallholder and women farmers; practical, applied research in developing countries; strengthening national and regional research systems; and ensuring research results are benefiting developing countries. The CultiAF program was modeled after the Canadian International Food Security Research Fund (CIFSRF), a successful partnership between IDRC and Global Affairs Canada (GAC), and aligns with GAC's policy on gender equality, and particularly its pillars in women's participation in decision-making processes and reducing gender inequalities in access to and control over resources. It also aligns with the sustainable economic growth strategy which focuses on the economic empowerment of women and youth in its programming on inclusive, sustainable economic growth<sup>9</sup> as well as GAC's policy on environmental sustainability.

CultiAF is also strongly aligned with Australia's Department of Foreign Affairs and Trade (DFAT) *Aid Investment Plan for Sub-Saharan Africa 2015-2019*, in particular with two of the four overarching objectives: (1) to enhance agriculture's contribution to sustainable and inclusive economic growth and food security, and (2) to empower women and girls and improve gender equality outcomes. Based on an interview with one ACIAR staff, the Fund aligns with Australia's priorities on private sector development, though an even stronger emphasis would be expected in the future to align with the increased importance given to this sector in Australia's recently revised priorities for development assistance. In

<sup>7</sup> K. Brooks, S. Zorya, A. Gautam and A. Goyal (2013). *Opportunities for Young People in Africa, Policy Research Working Paper # 6473, World Bank, Washington, D.C. USA.*

<sup>8</sup> Increasing food security; securing the future of children and youth; stimulating sustainable economic growth; advancing democracy; and promoting stability and security.

<sup>9</sup> GAC (2016). *Global Affairs Canada International Assistance Review Discussion Paper.*

alignment with DFAT's revised geographic priorities for investment, the ACIAR Strategic Plan 2014-2018 notes a shift to increasing program resources in the Asia and Pacific region, while maintaining a commitment to ESA.

### 2.1.3 Relevance to Private Sector Interests

**Finding 3:** Consistent engagement of the private sector in the research and early demand for research products are strong indicators of CultiAF relevance. The continued relevance of research results to the private sector will depend, to some extent, on the overall enabling environment to allow for uptake and trade in new technologies.

Six private sector companies have formal agreements with CultiAF projects and all five technical projects have had active private sector participation, including in developing the research proposals. This increases the likelihood that research will be relevant to them. The private sector plays many roles in agricultural production, processing and marketing and CultiAF projects are trying to solve problems where the private sector can assume a significant role at both artisanal and commercial levels. At this mid-point in research project implementation, it is too early to see large private sector investments with the exception of the factory being built in Kenya to process precooked bean products. Thus far, CultiAF projects have received 28 requests for information from external firms and there is some uptake of early results taking place, such as in fish drying technologies.

Bridging the different "cultures" of research and business may require negotiating expectations of intellectual property and product ownership; all contracts in CultiAF are with IDRC and grantees have to follow IDRC policies in these matters.

The relevance of CultiAF research results to the private sector will ultimately rest on how enabling the overall policy and infrastructure environments are to facilitate trade. Although CultiAF projects are working on policies and regulations closely associated with their technologies, it is beyond their influence to advocate for higher-order change, such as in fiscal policies, trade policies or transport and energy infrastructure.

### 2.1.4 Relevance to Advancing Food and Nutrition Security Research

**Finding 4:** There are many post-harvest and nutrition problems of smallholder producers and consumers in ESA that are under-researched. CultiAF methods and technologies are relevant to the food and nutrition research communities working on similar issues. CultiAF also provides training and capacity development support in science and research management, areas needing support in the region.

IDRC and ACIAR developed the CultiAF program to address compelling needs in the ESA region<sup>10</sup> that were identified as under-researched,<sup>11</sup> aligned with regional strategies, and for which innovations could have a significant impact. There is considerable space for additional research in post-harvest management and nutrition in ESA to address problems associated with different commodities and farming systems, marketing channels and national contexts, including policies, infrastructure and access to productive resources for the smallholder populations. CultiAF's innovative methods and technologies are relevant to researchers working in similar areas.

<sup>10</sup> The 2014 Science Agenda for Agriculture in Africa (FARA) prioritized food systems and value chains as one of four thematic areas of focus, involving post-harvest losses, processing, storage and food safety.

<sup>11</sup> IDRC (2013) CultiAF Project Approval Document.

Four of the five technical projects are being implemented with international agricultural research centers;<sup>12</sup> this helps raise the profile of the research to regional and international levels. Through their clear communications objectives, projects have begun reporting on early results, and food security researchers in national, regional and international organizations are already demonstrating an interest.<sup>13</sup>

Capacity development in science and research management in Africa is under-funded and is critically important to creating solutions to the problems smallholder farmers face on the continent. Capacity development is central to IDRC's approach to managing grants and this support is enabling research teams to improve research quality and productivity, discussed under effectiveness in this report. In addition, CultiAF is providing education and research opportunities to 44 graduate students and young scientists who will comprise the future research community.

## 2.2 Effectiveness

This mid-term evaluation assessed the extent to which the CultiAF program has made progress toward the immediate and intermediate outcomes set forth in its program logic model (see Appendix I) and accompanying performance measurement framework (PMF). As requested in the TORs the evaluation team also examined research quality based on the modified IDRC Research Quality Plus (RQ+) Assessment tool by incorporating parameters under both effectiveness and efficiency in this report.

### 2.2.1 Overall Effectiveness

**Finding 5:** CultiAF is making progress toward meeting its immediate outcomes, however, the intermediate outcome indicators which are to be measured at the end of the funding cycle are not aligned with the time frame and scale of the Fund. With more time and support, there is potential to reach medium term intermediate outcomes.

The CultiAF program is financing five technical projects and three cross-cutting projects with approximately CAD 11.3 million over 30 months or less. Projects are meeting mid-point targets for achieving project outputs and are making progress toward immediate outcomes (improved capacities of research teams, increased knowledge, increased application of research results, improved awareness among policy makers and other stakeholders of research potential). These results are discussed in sections 2.2.2 to 2.2.5.

While the evaluation found evidence of progress toward the achievement of CultiAF immediate outcomes, at this early stage of implementation it was not possible to measure progress toward intermediate outcomes (see sidebar). The CultiAF Monitoring and Evaluation Strategy does acknowledge that the achievement of intermediate outcomes requires commitment beyond CultiAF Phase 1, as intermediate outcomes reflect change that is expected to occur over a longer period of time. However, the PMF also specifies that

#### Intermediate Outcomes

**2.1.5** To increase use by the research community of knowledge and resources to address post-harvest loss and nutrition problems in developing countries

**2.1.6** To increase crop, livestock and fisheries productivity, and related post-harvest losses from use of improved technologies by men and women smallholder farmers

**2.1.7** To support more informed gender responsive, environmentally sustainable and better developed public policies and programming related to food security and nutrition that integrate with ongoing food security initiatives in ESA

<sup>12</sup> Precooked beans (CIAT), INSFEED (ICIPE), two fisheries projects (Worldfish); originally, Zimbabwe aflatoxin work included CIMMYT but the Harare office was closed.

<sup>13</sup> As of March 2016, database recorded 36 researchers and 50 international researcher inquiries.

intermediate outcome indicators will be “tracked at the mid-way of CultiAF and thereafter”. It is unlikely that these will be achieved in the 30-month or less timeframe as they require widespread uptake of results by researchers and farm communities, reduction in gender inequalities and changes in policies – all of which can take some years to manifest after the consolidation of research results. However, with more time and support, the evaluation team believes there is potential for the research projects to contribute to these intermediate outcomes.

The mid-term evaluation did not find any evidence of unintended positive or negative results thus far in program implementation. It should be noted that project monitoring systems and documentation may not capture some of the results associated with innovative research; for example, there can be learning associated with trying and perhaps failing, benefits from taking more time to build institutional capacities, and unforeseen opportunities or risks. The CultiAF program has tried to monitor this through regular contact with project teams and has encouraged learning through support to communications and networking within and outside the Program.

### **2.2.2 Immediate Outcome: Improved Capacity of Research Teams and Dissemination of Research Results**

**Finding 6:** The CultiAF Program has improved the capacity of multi-partner project teams to conduct high quality research addressing the needs of smallholders and to disseminate results. There is widespread appreciation for the support received from IDRC to develop research management and other capacities.

The CultiAF Program has provided training to over 300 participants<sup>14</sup> during the five technical project inception workshops (in research design and methods, data management, results monitoring and reporting, scaling-up, communications and gender mainstreaming), and on-site monitoring, networking and advice to researchers and partners. The research

**Immediate Outcome 2.1.1** To improve the capacity of country, regional and international partnerships to conduct applied research on post-harvest and nutrition issues that address the needs of smallholder men and women farmers and to disseminate research results in the Eastern and Southern Africa region and beyond

teams interviewed in the five technical projects were highly satisfied with the support received and noted some “eye-opening” experiences with gender equality and communications. Consulted research teams also commented that they now know more about good practices in research management and that research quality and productivity have increased as a result. Graduate student training in nutrition, post-harvest management, gender, social sciences, economics and consumer studies has been supported by the CultiAF program with 44 students (23 female and 21 male) currently conducting research as part of their graduate studies.

Beyond developing specific research skills, interviews also indicated that many researchers and partners have developed a strong sense of identity with both their projects and the Program. This has translated into a high engagement by all types of partners. This is significant as national institutions, NGOs and the private sector see themselves as part of the research team and not recipients of research. Interviews and site visits denote good coordination among researchers and partners for planning, monitoring and reporting, reinforced through IDRC training and support.

There are already examples of new and expanding research partnerships and, according to research team interviews, some are attributed to their engagement with CultiAF. The precooked beans project team is collaborating further with Makerere University and Iowa State University on innovation platforms to link

<sup>14</sup> IDRC. (2015, June 5). Annual report: Cultivate Africa’s Future Fund, April 2014 – March 2015: p.4.

key value chain actors and has developed new partnerships with the University of Gottingen (Germany), the University of Hohenheim (Germany), Makerere University, the University of Nairobi, South Eastern Kenya University, Kenyatta University, Jomo Kenyatta University of agriculture and technology, Kenya Methodist University, and Master Card Labs for Financial Inclusion. INSFEED has expanded partnerships with several European organizations (Dutch NOW, EntoNUTRI and German GIZ/BMZ) and is involved in the World Bank-funded regional center of excellence.

An important part of research capacity is infrastructure and all projects were able to use CultiAF funding to purchase essential equipment. For example, the aflatoxin project in Zimbabwe was able to equip the university food science and human nutrition laboratory with grinders and a high performance liquid chromatography machine for aflatoxin analysis of grains. The precooked beans project helped to equip a pilot factory in western Kenya to develop, produce and market test precooked beans products; when it is at full capacity, it will be able to produce 9 tonnes of precooked beans per day.

### 2.2.3 Immediate Outcome: Increased Knowledge of New Research Applications

**Finding 7:** All CultiAF projects are on track to generate knowledge that meets the needs of target groups and most have developed mid-course research findings, are presenting early results to scientific audiences and are in the process of publishing results.

According to the most recent CultiAF Annual Report,<sup>15</sup> all projects are on track to meet work plan deliverables and most have developed midcourse findings or results that are being shared with the larger research community.

**Immediate Outcome 2.1.2** To increase global, national and local knowledge of new, environmentally sustainable and gender responsive research applications that reduce post-harvest losses and increase the nutritional value of food in Eastern and Southern Africa

The five technical projects funded in the first call for proposals have developed 24 technologies or solutions (e.g., ideas, business models, methods, frameworks) in areas such as solar tents for fish drying, insect rearing technologies, post-harvest handling techniques, and gender transformative tools<sup>16</sup>.

The two agribusiness for youth projects report developing methodologies, guidelines and frameworks and actively supporting youth entrepreneurs in the development of business plans; this work is ongoing and in support of technology results expected from the fisheries and INSFEED projects. The Communicating Science for Impact (farm radio) project reports creating interactive radio series on precooked beans, completing formative research with five focus groups and developing a radio series designed to address issues, and participating with INSFEED in formative research.

Interim and six-month progress reports for all projects show most research milestones identified in the project grant agreements are being met and they have active knowledge dissemination efforts. Of specific interest is the degree to which CultiAF projects are communicating with national, regional and international research peers:

- In the Zimbabwe aflatoxin project, five manuscripts are in progress for publication; in 2016, researchers will present three abstracts at the 25<sup>th</sup> International Committee of Food Microbiology and Hygiene (ICFMH) conference and two at the world's largest mycotoxins event combining the 9<sup>th</sup> Conference of the World Mycotoxin Forum and the XIVth International Union

<sup>15</sup> IDRC. (2016). Annual report: Cultivate Africa's Future Fund, May 2015 – April 2016.

<sup>16</sup> (7) fish Malawi/Zambia; (6) INSFEED; (5) precooked beans; (4) fish Malawi; (2) aflatoxin Zimbabwe

of Pure and Applied Chemistry (IUPAC) International Symposium on Mycotoxins in Winnipeg, Canada. Research activities were recently shared at a roundtable of aflatoxin experts organized by Platform for African European Partnership on Agricultural Research for Development (PAEPARD) in collaboration with the Directorate General Sante of the European Commission, the East African Farmer Federation, the Partnership for Aflatoxin Control in Africa (PACA) and the African Society of Mycotoxicology, in Brussels. The aflatoxin project also has transferred knowledge at a local level. The focus group held with representatives from five villages noted that training received on aflatoxin contamination in maize increased their knowledge of post-harvest management and nutrition issues and has improved “unity of purpose” at the family level due to nutrition training and the more effective use of local available food.

- The INSFEED project presented at the Forum for Agricultural Research in Africa (FARA) African Agribusiness Incubation Annual Conference (2015) and edible insects symposium in Benin, and there is considerable networking on this subject with three other entomophagy projects: GREEINSECT project led by JOOUST University (Kenya) and Copenhagen University (Denmark); Improving Livelihoods by Increasing Livestock Production (ILIPA) project led by Wageningen University (Netherlands) and ICIPE (Kenya); and EntoNUTRI project led by ICIPE (Kenya) and Bonn University (Germany). A total of 105 participants attended the conference from 13 countries from Africa, America, Asia and Europe.
- At the Pan Africa Grain Legumes Conference and World Cowpea Congress in Zambia (March 2016) the CultiAF Program co-organized a plenary session on public-private partnerships for value chain development in which the team from the precooked beans project presented three papers, one plenary session panel, and five posters. The private sector partner in the project, Lasting Solutions, gave the keynote address and participated in the panel discussion. The congress was attended by over 500 participants.

There is at least one case where the research community is already planning to build on CultiAF methods and results: the Food and Agriculture Organization (FAO) and the International Institute of Tropical Agriculture (IITA) are planning a nation-wide survey on aflatoxin contamination in the Zimbabwe food basket as a result of emerging research findings.

#### 2.2.4 Immediate Outcome: Increased Applications of Research Results

**Finding 8:** The CultiAF program has been proactive in supporting research uptake with its three cross-cutting projects. Client groups are engaged in participatory research, increasing the likelihood of uptake and use. All CultiAF projects engage women and offer different types of dissemination and learning events to a variety of stakeholders. There is already some evidence of uptake of early results and external party interest.

The CultiAF program has been pro-active in identifying ways to support bringing innovations to scale through its three cross-cutting projects.

- Farm Radio International (FRI) is developing radio programming to support the precooked beans and INSFEED projects, aiming to reach 650,000 people.
- In Kenya, the project on expanding opportunities for youth in the poultry and fisheries sectors has trained 40 entrepreneurs (23 men and 17 women) on business plan development and entrepreneurship and they are being supported by eleven business counselors. The project is expected to provide evidence on what works to inform further scaling up efforts.

**Immediate Outcome 2.1.3** To increase application of appropriate, environmentally sustainable and gender equitable food system-based solutions (post-harvest loss and nutrition) by men and women farmers in Eastern and Southern Africa

- In Malawi, Zambia and Zimbabwe, the youth entrepreneurship project is working with 141 people in the fisheries sector and in maize post-harvest management; in Malawi, 40 business plans have already been generated.

In addition to awareness raising and business skills development, the continued involvement of farmers and agro-processors in participatory research can be seen a proxy indicator that results will be taken up by producers and agro-processors as research is more tailored to their needs and circumstances. The 2016 CultiAF Annual Report notes that across the program 25,756 smallholder farmers and fisher folk (52% female) are involved in project activities, including trying innovations. Depending on the nature of the innovations, stage of development of the innovations and the approaches used, the numbers of users vary across projects. A number of beneficiaries have been trained in the CultiAF projects, including 7,248 smallholder farmers and fish processors (57% female) on the use of innovations, and 494 extension officers from government and NGOs working directly with smallholder farmers and processors.

Focus group participants in four projects showed a strong interest in participating in research and training events. Farmer group interviews in the pre-cooked beans projects noted the high potential for increasing incomes and generating youth employment and interviews with fish producers in Malawi confirmed the need to solve problems of significant post-harvest fish loss while understanding that more time is needed to test business models for solar tent driers and smoking kilns to ensure affordability. The Lake Chilwa focus group<sup>17</sup> was encouraged that their discussions in the innovation platform were bearing fruit in the form of a fish processing center in their village for which they also had made technical recommendations.

There has also been interest shown in the methods, products and services being developed, as noted in the CultiAF questionnaire data on inquiries to research teams from policymakers (32), development organizations (7), international development organizations (2), research communities (36), international researchers (50), the private sector (28) and the international private sector (1).

Some early results are already being taken up. For example, the pre-cooked beans project selected 12 varieties for cooking time, micro-nutrient content and agronomic traits; seed production is being evaluated using three models and farmer groups are being supported for seed and grain production.<sup>18</sup> In Kenya, the factory for processing precooked bean products has been set up in Kisumu with approval from the Kenya Bureau of Standards (KEBS). Several product prototypes have been developed and are undergoing process optimization and demands for precooked bean products are coming from outside of Kenya and Uganda, including for supplying the UN for its work in the DRC. In Zimbabwe, local businesses are already fabricating the recommended metal silos to reduce aflatoxin contamination in maize and there are inquiries from FAO and Goal Zimbabwe for scaling up the aflatoxin project results and innovative technologies. The INSFEED project is receiving requests for insect rearing technologies before it has published its research results, and is trying to balance demands with due diligence on issues of food and environmental safety. For the two fish projects in Malawi and Zambia, there is private sector interest in post-harvest technologies and the USAID Fisheries Integration of Society and Habitats project and World Vision International are exploring scaling up innovations at Lake Chilwa in Malawi. The Lake Chilwa focus group noted that they have already seen significant savings in labor and energy use with the smoking kiln, resulting in significantly better fish quality which is in high demand and fetches higher prices.

### ***2.2.5 Immediate Outcome: Improved Awareness of Policy Makers, Development Organizations and the General Public***

<sup>17</sup> Focus group comprised of 25 women and 20 men in Lake Chilwa district, Malawi

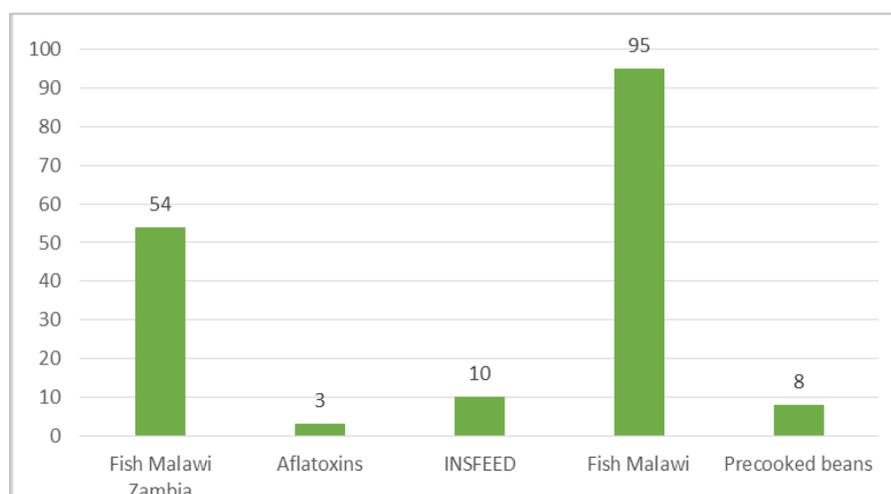
<sup>18</sup> There are 13,650 farmers (6,442 men/7,208 women) organized into groups and 10,225 farmers (5,005 men/5,220 women) involved in seed and grain production. A total of 517.5 tonnes of seeds have been produced and made available to farmers.

**Finding 9:** CultiAF has proactively engaged with different types of stakeholders through strong communications efforts, mostly in developing countries but also with the international research community. In the remaining time, further engaging with Canadian and Australian policy makers, development assistance organizations and the international private sector would increase the likelihood of achieving expected results.

Improving CultiAF awareness with policy makers, the development assistance community and the general public (including the private sector) is both a program- and project-level responsibility. The CultiAF Program Communication Strategy aims, *inter alia*, to promote the wide dissemination of results through a suite of outreach materials for different audiences, including media events and web content. This strategy is discussed in detail in section 2.4.3, finding 21. The Program has also convened scientific events and workshops to build awareness and networking in the region. In addition, some projects have hosted annual meetings or information sessions to inform government organizations, the development community and the private sector of early or prospective results.

**Immediate Outcome 2.1.4** To improve awareness and understanding among policy makers, the development assistance community and the general public of potential application-ready solutions to food security issues in Eastern and Southern Africa and beyond

**Figure 2.1** Number of policy makers engaged in CultiAF technical projects <sup>19</sup>



#### Influencing policy makers:

Engaging policy makers is an important aim of CultiAF. The evaluation found that CultiAF projects have been designed and implemented taking policy into account and that involving policy makers and regulators has been included in project communications strategies. Policy makers have been engaged in joint field visits and policy workshops and projects have worked with

regulatory authorities to develop appropriate standards. Up to April 2016, projects engaged 173 developing country policy makers in various ways (see Figure 2.1) but it is still early to know whether policy engagement will lead to policy change.

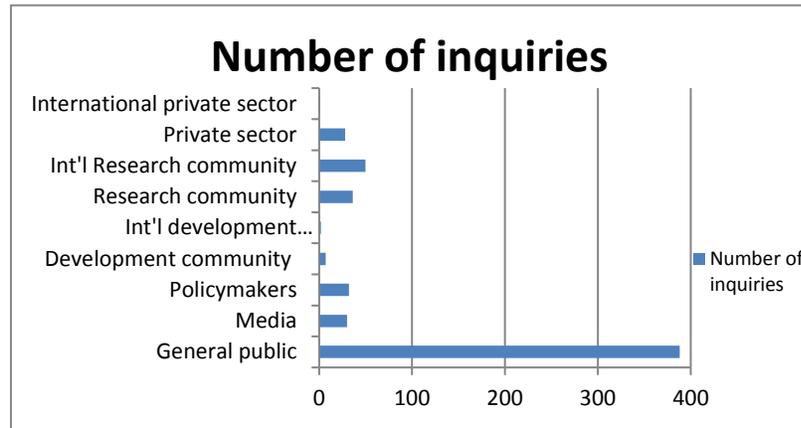
**Influencing development programming and private sector investment:** Project teams have made efforts to inform and engage the private sector and the development community to scale up research results. They were supported with scaling up training in inception workshops; technical assistance to develop communications strategies and skills; and three cross-cutting projects that were developed to encourage entrepreneurship and communicate with client populations about research results and opportunities. Though it is too early to assess the extent to which research results might be extended through Canadian and Australia development programming, there is already evidence that the Canadian High Commission in

<sup>19</sup> IDRC. (2016). Annual report: Cultivate Africa's Future Fund, May 2015 – April 2016.

South Africa is interested in scaling up results of the precooked beans project. Some CultiAF program and project information has been available on the IDRC and ACIAR websites though it is difficult to determine how much effect they have. The evaluation team has not found evidence yet of engagement between CultiAF and the development branches of GAC or DFAT at corporate level.

**Influencing the general public:** CultiAF research teams have made considerable efforts to disseminate information in a user-appropriate way to a variety of stakeholders, including to the general public. WRENmedia reports that to date 16 stories have been published in national newspapers and international news services and 8 radio programs have been produced.

**Figure 2.2** Number of inquiries per stakeholder group<sup>20</sup>



**Inquiries for information:** To date, efforts to engage with these different stakeholder groups have resulted in 574 requests to research teams for information (Figure 2.2). These data indicate that most inquiries are coming from the countries involved with international interest thus far mostly from the research community.

## 2.2.6 Research Quality

According to its assessment tool on research quality, IDRC considers that high quality research must have scientific merit and be positioned for use. The evaluation team has taken this more holistic approach to assessing research quality and has modified the IDRC RQ+ evaluation methodology by incorporating parameters within the effectiveness section of this report. We have included a more in-depth treatment of research quality in Appendix VII. To accord with the RQ+ assessment tool, most of the research quality parameters are discussed here.

**Finding 10:** The research quality of CultiAF projects has been enhanced through concerted program support to research management. There is considerable socio-economic research in the projects and beneficiary engagement in research evaluation, increasing the likelihood of relevant results.

Site visits, interviews and document review confirm that the eight CultiAF projects are well managed and productive. Project teams note that research management practices were improved by IDRC technical support in term of methods and data management, monitoring and reporting, communications, gender analysis and scaling-up, from project design through the inception workshops and ongoing in implementation. The five technical projects are addressing important problems, have clear expected results, are based on extensive literature reviews, and have multi-disciplinary research teams, integrating technical and social sciences. All projects were subject to either internal or external ethics reviews depending on national or institutional requirements. The evaluation team did not determine how project beneficiaries were involved in problem identification, a recognized indicator of research relevance. However, all proposals were vetted by the SAC comprised of six regional experts who were selected for their deep knowledge of the needs in the region.

<sup>20</sup> SOURCE: CultiAF program management team, ROSSA.

The interviews and document review provided evidence that CultiAF projects used a participatory approach in technology development and research evaluation; in 2016, 25,756 beneficiaries have been involved in the research itself and are providing feedback on early results. This type of research engagement helps to ensure that the research process takes into account the concerns and insights of stakeholders, including potentially negative consequences, gender-responsiveness, inclusiveness of vulnerable populations, and engagement with local knowledge. CultiAF projects are innovative in terms of technologies, methods and partnerships. All have the potential to significantly affect smallholder farmers, agro-processors and consumers. CultiAF's participatory and multi-disciplinary approaches are helping to promote client adoption.

To evaluate "innovation", the team refers to commonly understood concepts of research which builds on existing knowledge in unique ways, tries new approaches and methods, expands partnerships, or attempts completely novel ideas of potentially high impact. Risk of failure or low client acceptance can be higher in innovative research. The CultiAF program was conceived to seek innovation and to accept some risks associated with new technologies and approaches. Appraising innovation and risk were important considerations for vetting and approving CultiAF projects. In this regard, it is a valuable program, allowing for potentially more creativity and experimentation than other funds.

To assess the value of research – whether innovative or not – it is important to understand the views of intended user groups. Interviewed users – which include national university and research organizations, social enterprises and NGOs, agri-business enterprises and farmer associations – are committed to the research and optimistic about expected results. Where potential problems have been identified by participating beneficiaries, such as the affordability of some fish processing technologies, the projects are taking steps to promote adoption by using multi-disciplinary teams to further investigate issues, engaging with policy and regulatory bodies and even trying to arrange loan facilities where this has been identified as a bottleneck.

IDRC has managed the research process at a program level in ways that increase the likelihood of probable use by providing clear proposal instructions and vetting proposals for scale-up; training research teams in scaling up; providing technical support in research management and communications; and engaging cross-cutting projects to support the uptake of research results. The five technical CultiAF projects were designed to maximize the likelihood that research results would be used by taking a value chains approach involving the private sector and beneficiaries in technology development; developing communications for a wide variety of end users; conducting socio-economic studies to influence research and to tailor results to prospective users; engaging early with policy makers and regulatory agencies to work towards enabling the up-scaling of research results; and seeking interest of non-project funders to expand uptake and use.

## 2.3 Sustainability

Sustainability has been approached in the evaluation by considering future research capacity and partnerships, and whether there are potential investors for scaling up research results. As this evaluation is looking at relatively recent research initiatives whose results are forthcoming, it is early to fully describe some of these aspects.

### 2.3.1 Sustainability of research capacity and partnerships

**Finding 11:** CultiAF has strengthened the capacities of research teams and partners, who expect to apply these new skills in their careers. Several teams report that strengthened capacities have enabled them to find new partners and sources of funding. Most agree that some additional funding would be needed to maintain or develop new partnerships at the level of collaboration they currently have under CultiAF.

One of the unique and much-appreciated aspects of CultiAF is the emphasis placed on capacity development with research teams, partners and beneficiaries and the investments made in research facilities. Funding for national agricultural research has diminished in much of the developing world, and, while most institutes have talented scientists, they often have inadequate facilities, low operating budgets, and weak research management practices. IDRC invests considerably in research teams in its competitive grants programs and many of the CultiAF scientists report being much more capable and productive. These researchers expect to use these skills throughout their careers. Some researchers cited that they are now also better able to compete for funds and attract partners, as referenced in section 2.2.2 of this report. Some of the CultiAF project teams have requested that similar support be given to their parent organizations to institute best practices, for instance, in research methods, data management, communications, and gender mainstreaming. Doing so could be a building block of sustainability – good research management practices at work long after CultiAF is over. This is currently not within the scope of the CultiAF program.

CultiAF has enabled some new partnerships and particularly so with private sector organizations; for some researchers, this new type of private sector relationship with the potential for scaling up will become part of their future mode of working. Some project partnerships have been long-standing and have been strengthened through CultiAF support. Some of these partners are in networks, such as the Pan-African Bean Research Alliance (PABRA), which will enable future collaboration. Most research teams expect to continue some level of work on the topics at hand with their current partners. They have developed skills in participatory approaches and in how to partner more effectively. These approaches and partnerships, however, usually require additional financial resources which might not be available in the future without some level of donor support.

### 2.3.2 Potential investment for scaling up

**Finding 12:** Research results may not be fully consolidated in the time remaining for all CultiAF projects. There is interest in scaling up expected results nationally and in the ESA region and in expanding research partnerships. The three projects in radio and youth entrepreneurship are expected to assist with scaling up in localized areas; however, to reach beyond this will require more strategic program and project engagement.

While many systems are in place in CultiAF to facilitate the uptake and use of research results, the greatest barrier to doing so may be that research results will not be fully consolidated by the time CultiAF ends, in part due to some delays during the implementation period (see Section 2.4.3, Finding 22).

As noted in the 2016 CultiAF Annual Report, at least two CultiAF research teams – INSFEED and precooked beans - are attracting donor funds to do related research and development. There are also some early signs of potential support for scaling up, for example, FAO and IITA are looking at possibilities for a country-wide program in Zimbabwe on the bio-control of aflatoxins; the CultiAF fisheries projects are attracting the interest of USAID, World Vision International and the Global Environmental Fund; and private sector organizations are investing in INSFEED and beans technologies with business models for expansion if results are confirmed.

CultiAF has been proactive in trying to support the uptake of research results through its three cross-cutting projects in radio and youth entrepreneurship. There is however interest in scaling up expected results beyond the reach of these projects – both nationally and in the ESA region – and in expanding research partnerships; doing so may require more strategic program and project engagement.

As noted earlier, some projects have identified important policy issues that need to be addressed and several, notably the Precooked Beans and INSFEED projects, have involved policy makers from the inception of the project, investing in both awareness raising and changes in the policy and regulatory environments. These efforts are what could reasonably be expected from research teams. They do not however have influence over the larger enabling policy environment needed for agricultural economies to thrive.

## 2.4 Operational Efficiency

In this section on operational efficiency, the evaluation team examined the partnership between IDRC and ACIAR, the CultiAF program governance arrangements, and program management of the Fund. Overall, the evaluation found that the partnership has been mutually beneficial for both organizations, with some scope for further capitalizing on their respective comparative advantages, that the governance arrangements have worked well and that the program was well managed.

### 2.4.1 Partnership between IDRC and ACIAR

**Finding 13:** With similar institutional mandates and organizational cultures, IDRC and ACIAR collaboration has been easy and straightforward. Both parties appreciate relative comparative strengths though there is room to further explore how best to capitalize on them.

CultiAF is the first joint collaboration between IDRC and ACIAR. The Fund was created in 2013, following informal discussions among senior managers from both organizations who were participating in global agricultural research meetings. All IDRC and ACIAR stakeholders interviewed noted that, thus far, the partnership is proving to be relatively easy and straightforward, especially in terms of expectations and reporting requirements, likely owing to similar research mandates, organizational cultures and like-mindedness. Strong similarities may be due in part to the fact that ACIAR was created in the 1980s based on the IDRC model.

“  
The two organizations have a very similar outlook (...) on the role of innovation and research based-evidence to support development thinking.  
- IDRC staff at headquarters

IDRC and ACIAR have been equally involved in the design and governance of the Fund. Based on the CultiAF funding agreement, IDRC is responsible for the day-to-day management and administration of the Fund. The CultiAF collaboration has enabled both organizations to leverage funds for ESA, giving them more financial capabilities overall.

While similar in nature, ACIAR and IDRC have some comparative advantages that benefit CultiAF and the partnership overall. However, the evaluation team also found that some ACIAR and IDRC stakeholders interviewed were not fully aware of these or how they benefit the partnership; in future collaboration, a better understanding of each organization's capabilities might increase the likelihood of more fully capitalizing on them. The table below outlines the main comparative advantages as perceived by consulted IDRC and ACIAR staff.

**Table 2.1** IDRC/ACIAR Comparative advantages as perceived by interviewed stakeholders

IDRC COMPARATIVE ADVANTAGE	ACIAR COMPARATIVE ADVANTAGE
<ul style="list-style-type: none"> <li>• Experience managing large funds</li> <li>• Experience managing competitive calls</li> <li>• Strong in-house capacity and regional presence</li> <li>• Strong management processes (due diligence, M&amp;E, communications)</li> <li>• Strong approach to grantee capacity building, networking and mentoring</li> <li>• Longstanding experience funding African-led R4D</li> <li>• Gender mainstreaming and R4D</li> <li>• Engagement with policy makers in ESA</li> </ul>	<ul style="list-style-type: none"> <li>• Strong disciplinary coverage and among the world's leaders in agricultural research</li> <li>• Long-standing networks with international agricultural research providers, including strong linkages with CGIAR centers</li> <li>• Experiences in end-user driven, collaborative R4D</li> <li>• A wide network of partners in Africa, particularly in ESA</li> <li>• Strong relationships with agricultural policy makers and government ministries in ESA</li> </ul>

All ACIAR stakeholders consulted highly valued IDRC's strong in-house capacity and experience in managing competitive grants, including the two-stage proposal call process which has the potential to attract new research partners and innovative ideas, and the support IDRC provides to build capacities of African researchers and their organizations; ACIAR more typically would select known partners and commission research conducted jointly with Australian researchers. IDRC also has a strong reputation for undertaking due diligence on grantee organizations to ensure adequate use of resources and to mitigate financial risks.

Consulted IDRC stakeholders considered ACIAR's strong networks, developed through its more recent involvement in the region, as an asset. They appreciated ACIAR for bringing its deep understanding of policies and networks to the CultiAF program, including its strong linkages to the Forum for Agricultural Research in Africa (FARA) and with ministers in the region.

ACIAR's technical expertise in several research areas was also valued by IDRC staff interviewed. As one IDRC staff noted, ACIAR has one of the "finest track records of agricultural research in the world." While it is clear that ACIAR's technical expertise was useful in program planning and the selection of projects, it is unclear whether this expertise has been used to support research teams during implementation. One ACIAR stakeholder suggested that, in the future, CultiAF could benefit from a greater involvement of ACIAR's technical experts.

### *CultiAF benefits from IDRC Experience*

CultiAF has benefitted from another competitive grants program that IDRC has managed since 2009 in partnership with Global Affairs Canada (formerly CIDA). The Canadian International Food Security Research Fund (CIFSRRF) has financed 39 projects in 24 countries in Latin America, Asia and Sub-Saharan Africa.

Through CIFSRRF, IDRC developed and fine-tuned numerous research management processes, including the two-stage call for proposal mechanism, systems for clarifying results, monitoring and reporting, gender mainstreaming and communicating results. IDRC adapted these processes for use in CultiAF, based on lessons learned,

**Finding 14:** CultiAF is not yet fully integrated into ACIAR's organizational processes, which limits its visibility outside of ACIAR's small CultiAF team.

The evaluation team found that CultiAF is not integrated into ACIAR's strategic documents and internal management systems, resulting in less awareness of CultiAF. CultiAF was not even mentioned in the ACIAR strategic documents consulted by the evaluation team. As noted above, IDRC is responsible for managing the fund and CultiAF is therefore integrated into its project management system. As one ACIAR stakeholder underscored, designating one partner to manage the fund reduces duplication and generates economies of scale. However, the main issue is that CultiAF reporting is not integrated into ACIAR's

project management database thereby impeding the dissemination of results and lessons learned from the CultiAF experience across the organization. According to this stakeholder, if ACIAR wants to know about a CultiAF project, “it has to go back to IDRC to obtain the information.” This issue has resulted in limited visibility of the Fund outside of ACIAR’s small CultiAF team. Reportedly, the ACIAR CultiAF team is aware of this issue and has already started taking steps to address it. The evaluation team understands that ACIAR is currently revamping its project management system, which presents an opportunity for ACIAR to better align CultiAF or similar funds with its internal processes.

**Finding 15:** CultiAF has strengthened the relationship between IDRC and ACIAR and has led to some collaboration outside CultiAF. Stakeholders are interested in renewing CultiAF for a second phase, though limited visibility of the Fund in ACIAR may limit broader buy-in.

Before CultiAF, communication between IDRC and ACIAR was largely limited to senior managers participating in global agricultural meetings. Since the beginning of CultiAF, interaction between the organizations has become much more regular through planning exercises, the calls for proposals and Governance Committee meetings. The relocation of the ACIAR office into the same suite of offices as IDRC in Nairobi has allowed program managers to interact with each other on a regular basis. Overall, all consulted IDRC and ACIAR stakeholders valued their collaboration and have developed a strong sense of trust with their sister organization. However, according to the 2016 CultiAF Annual Report, IDRC and ACIAR have not conducted joint monitoring visits as envisaged; between May 2015 and April 2016, only one joint field mission was undertaken in Zambia which involved ACIAR program officers from ACIAR headquarters.<sup>21</sup>

### Non-CultiAF collaboration

One of the most evident benefits of the CultiAF partnership is the close collaboration emerging between IDRC and ACIAR on Consultative Group on International Agricultural Research (CGIAR) reforms. In terms of programming, while there is nothing concrete yet in the pipeline, IDRC and ACIAR stakeholders noted an interest in working jointly on livestock vaccines, capitalizing on IDRC’s experience and its recent development of a competitive grants facility on vaccines (based on prior work in CIFSRE). IDRC and ACIAR have also started exploring their comparative advantages for potential work on agriculture and nutrition in Asia and an agricultural research forum in Cambodia. Overall, the majority of ACIAR and IDRC respondents are interested in collaborating in non-CultiAF initiatives, but mentioned that ACIAR and IDRC need to define potential synergies and possible changes in roles.

### Collaboration in a CultiAF Phase 2

All interviewed IDRC and ACIAR staff members were quite satisfied with the collaboration to date in Phase 1 and are interested in renewing the partnership for a second phase. They noted that the modalities would have to be discussed based on evolving priorities and interests, including any geographic shifts in priorities by Australia (i.e., from Africa to Asia). One ACIAR staff noted that the Australian government still has an interest in ESA but expanding the Fund to other African countries outside that region would likely not be envisaged. When stakeholders were asked about expanding the Fund into Asia, IDRC stakeholders welcomed the idea while also highlighting the need to define IDRC’s added value in such a scenario considering ACIAR’s longstanding experience and considerable on-the-ground capacity in this region.

The evaluation found that CultiAF’s limited visibility across ACIAR could limit broader buy-in for a second phase of the Fund. CultiAF managers are planning to showcase some of the results at a side event of the African Green Revolution Forum in September 2016 in Nairobi. This event will be key to increasing CultiAF’s visibility, including within ACIAR.

<sup>21</sup> IDRC. (2016). Annual report: Cultivate Africa’s Future Fund, May 2015 – April 2016.

## 2.4.2 CultiAF Governance

The evaluation examined the governance arrangements of the Fund, which includes the rules, procedures and bodies used to make decisions and oversee the Fund. Good governance is based on mutual trust and good communications and coordination among those governing the Fund.

**Finding 16:** The two-tiered governance structure of the Fund worked well and ensured scientific rigor in the competitive proposal calls. Written agreements and positive relations among Governance Committee members enabled flexibility in how the Fund was used.

CultiAF's Governance Committee (GC) is the decision-making body and is composed of two ACIAR and two IDRC senior-level staff. Its responsibilities include, *inter alia*, providing strategic advice and financial oversight of the Fund, approving short-listed concept notes that will move to the proposal stage, and selecting proposals for research funding. All consulted GC members felt that governance arrangements generally work well and that the GC is adequately fulfilling its responsibilities. Having only met once face-to-face, GC members acknowledged that the physical distance and time difference between Canada and Australia pose a challenge, but noted that regular communication is sustained through emails and video-conferencing.

The CultiAF funding agreement, which stipulated that "the Governance Committee [would] oversee the direction, strategy and main priorities of CultiAF on an ongoing basis"<sup>22</sup> has enabled flexibility in the way the Fund is used and, based on interviews with senior staff, positive relationships between GC members have greatly facilitated this process. For example, the INSFEED project was an innovative idea that did not fit neatly into any of the three thematic areas, but it was approved because it held potential for improving fish and poultry value chains in ways that could generate incomes and increase production and consumption. This flexibility also allowed the GC to approve funds for the three new cross-cutting projects not originally planned. ACIAR also appreciated the flexibility that allowed it to decide when payments could be made to IDRC, which allowed it to take better advantage of exchange rates. According to one ACIAR stakeholder, such flexibility is seldom allowed in most financial agreements.

The GC is supported by a Scientific Advisory Committee (SAC), which is responsible for reviewing shortlisted concept notes and proposals and for making recommendations to the GC for their approval. This governance structure ensured scientific rigor in the competitive call process. Concept notes and proposals were reviewed based on pre-established criteria to ensure relevance of the research and its potential for innovation, the robustness of research teams, value for money of the proposed research, and the integration of CultiAF's two cross-cutting themes (gender equality and environment) into the proposed research.

The SAC was composed of six individuals appointed by the GC and two co-chairs (one from IDRC and the other from ACIAR) whose work was invaluable in designing the program and managing the project approval process. The SAC was well balanced in terms of gender composition, regional geographic distribution, and technical expertise in post-harvest management, sustainable water use, agriculture economics, agriculture, gender and policy.<sup>23</sup> There was no SAC expertise in nutrition (one of CultiAF's thematic areas), so the concept notes and proposals dealing with nutrition were sent out for external review. There were also some gaps in epidemiology but this was covered by expertise in the GC. The evaluation team interviewed four of the six SAC members and all appreciated the rigorous process of vetting concept notes and proposals, highlighting that the instructions provided by the GC to fulfill their responsibilities were clear. The Terms of Reference for the SAC also included in their roles and

<sup>22</sup> CultiAF. (2013). *CultiAF Funding Agreement: ACIAR & IDRC*. Unpublished internal document.

<sup>23</sup> IDRC. (2014). *CultiAF Annual Status Report 2013-2014*. Unpublished internal document.

responsibilities the provision of advice on program development and management but it appears SAC members were not involved beyond the selection of concept notes and proposals. Two of those interviewed were expecting more communication from the Program during project implementation.

Highlighted below are the main strengths and challenges of the CultiAF governance arrangements identified by the evaluation team.

**Table 2.2** *Strengths and challenges of CultiAF governance arrangements*

STRENGTHS	CHALLENGES
<ul style="list-style-type: none"> <li>• Two-stage proposal call process well-managed</li> <li>• Frequent communication among GC members and cost-effective use of communication technologies</li> <li>• GC demonstrated flexibility in using the Fund to support innovation and cross-cutting projects</li> <li>• Good relationship among SAC members and flexibility in decision-making processes</li> <li>• SAC well balanced in terms of gender, regional geographic distribution, and most thematic expertise</li> </ul>	<ul style="list-style-type: none"> <li>• Time difference and distance separating Canada and Australia</li> <li>• Breadth of CultiAF's three themes resulted in some thematic areas not being covered by the SAC (i.e. nutrition, epidemiology)</li> <li>• Lack of CultiAF communications with SAC members after project approval</li> </ul>

### 2.4.3 Program Management

The section examines the strengths and challenges of CultiAF's program management, from planning (including project selection) to implementation and reporting. It also examines the extent to which IDRC's model – which uses a two-stage competitive call for proposals process and a capacity development (grants plus) approach – is economical in relation to its purpose and what it intends to achieve.

The table below outlines the main strengths and challenges of the CultiAF program management. It should be noted that the ACIAR project manager was away during 2015 and this position was not backfilled, explaining some of the challenges highlighted below. It is also important to highlight that, despite ACIAR's interest in the Fund, day-to-day management of CultiAF was entrusted to IDRC and without additional resources ACIAR could not engage its staff in a more substantive way during implementation.

**Table 2.3** *Strengths and challenges of CultiAF program management*

STRENGTHS	CHALLENGES
<ul style="list-style-type: none"> <li>• Grantee capacity building model</li> <li>• Strong IDRC staff support to projects</li> <li>• Call for proposal process can attract new partners and innovative ideas</li> <li>• Call for proposal process was clear and transparent</li> <li>• Call for proposal is efficient in launching several projects simultaneously</li> <li>• Strong financial and technical reporting</li> <li>• Good communications support</li> <li>• Technical support for research management, scaling up and gender equality</li> <li>• IDRC perceived as strong by all ACIAR stakeholders for day-to-day management of the Fund</li> </ul>	<ul style="list-style-type: none"> <li>• Vetting proposals was intensive and sometimes additional to IDRC and ACIAR staff, considered an in-kind contribution to the program. This was less of a challenge for IDRC program officers who have had similar experiences</li> <li>• Call for proposal perceived as lengthy by some grantees</li> <li>• Unplanned delays (mainly due to weather conditions) reduced the number of months for implementation</li> <li>• Implementation cycle may be too short to fully consolidate research results</li> <li>• Corporate communications aimed at Canadian and Australian stakeholders could be strengthened</li> <li>• Considerable unrealized potential to engage with ACIAR technical officers</li> </ul>

All consulted ACIAR stakeholders appreciated IDRC's management of the Fund, as detailed in the findings below.

**Finding 17:** The CultiAF two-stage competitive call for proposals led to high quality and innovative proposals. Grantees appreciated the clear instructions, transparency of decision taking and feedback, though some felt the process was lengthy. Vetting concept notes was time intensive and was considered by some ACIAR technical staff as an add-on to their normal work.

The call for concept notes was widely disseminated in July 2013, following the launch of the CultiAF at a side event of Africa Science Week organized by FARA in Accra, Ghana. By September 2013, 171 concept notes had been received; these were reviewed by ACIAR and IDCR staff and 24 were submitted to the SAC for a thorough review. The SAC recommended that 11 concept notes move onto the proposal stage. Of the 11 proposals submitted, 5 were approved for funding by the Governance Committee in June 2014, to commence in October of that year.<sup>24</sup> Three cross-cutting projects were later approved for funding the following year, as noted in Section 1.4.

The competitive call for proposals provided an opportunity for a variety of organizations in ESA to submit concept notes, based on clear instructions provided by IDRC. As opposed to a closed call for proposals or direct commissioning, an open call has the potential to attract new organizations, new research teams and innovative ideas as the pool of candidates is much larger, as evidenced by the 171 concept notes submitted. The open call resulted in a new relationship with one lead organization (Action Against Hunger), five new third party private sector partners, and new relationships with two bureaus of standards (Kenya and Uganda). The closed call resulted in new partnerships with two lead institutions (ATDF - Africa Entrepreneurship Hub and USIU-Africa).

### **Benefits of the two-stage open call for proposals**

- Widely advertised
- Transparency in the selection of grantees
- Valuable feedback on concept notes and proposals
- Potential to attract new lead institutions, research teams and partners
- Attracts new and innovative ideas

The evaluation found that the call for proposal process was quite successful in attracting new and innovative ideas. Grantees from all five technical projects that were approved noted that the feedback they received from the SAC on the concept notes and proposals helped them develop stronger proposals. They appreciated the two-stage process, the clarity of instructions, the transparency of decision taking and the feedback received on what needed improvement. The CAD \$5000 travel grant provided to develop the proposal with CultiAF team members was credited with increasing the quality of proposals and creating a clearer understanding of roles and expectations. This was especially helpful in bringing together multi-country project partners. Some grantees felt that the process, from the call for proposals in July 2013 to project approvals in July 2014, was lengthy.

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On the Governance Committee, we are very satisfied by the projects, as they are more innovative than we had even hoped.

-Governance Committee member

All IDRC staff interviewed found the level of effort required for reviewing the concept notes to be adequate, especially because they had similar experiences with CIFSRF and knew what to expect. On the other hand, ACIAR stakeholders had mixed views: Some felt the process was manageable, especially because IDRC agreed to take on an important proportion of the reviews, commensurate with its stronger

<sup>24</sup> IDRC. (2014). *CultiAF Annual Status Report 2013-2014*. Unpublished internal document.

in-house capacity; others felt the review process was onerous, during the few weeks that it lasted, because the reviews were an added task for ACIAR staff who were already busy with their own workloads.

**Finding 18:** The CultiAF program provides significant and ongoing support to project research teams. Some economies of scale were achieved by launching projects simultaneously and providing joint project support.

The terms of reference asked the evaluation team to assess whether the implementation of the CultiAF program to date has been efficient and economical in relation to its purpose and what it intends to achieve. It was not possible to determine if IDRC management fees were high in relation to the services offered as this would have entailed undertaking a comparative analysis with another organization offering similar services.

However, the Evaluation found that the IDRC model offers numerous benefits in attracting and supporting innovative research initiatives. One of the main benefits, as mentioned above, is the competitive call for proposal process which attracts innovative ideas and strengthens proposals through a two-stage vetting process. Another benefit is the continued support provided to research teams from project inception to implementation. Grantees interviewed from all projects were very appreciative of the support provided by IDRC and the continued availability of the IDRC program officer, and emphasized that this type of support is usually not provided by other donors.

At the beginning of each project, IDRC conducts project inception workshops to clarify IDRC rules and expectations and monitoring and reporting requirements; helps teams revise project objectives and develop results framework; and supports them in finalizing project strategies (initially developed at the proposal stage) in communications, gender equality, scaling-up, and impact pathways. Some project teams commented that the inception workshop was very helpful because IDRC helped them revise their strategies and objectives to make them more realistic and achievable. Continued support has also been provided to all projects in the areas of gender equality and communications.

Following the initial call for proposals, CultiAF launched five projects simultaneously; they benefitted from a joint program-level inception workshop in Zambia where IDRC provided training to all principal investigators (PIs) and some partners. This allowed CultiAF to reduce some costs and also helped research teams gain a better understanding of the program as a whole. The CultiAF program also facilitated project level inception workshops. A joint steering committee was formed in the two fisheries projects, providing opportunities for networking and learning from each other; they also held a joint inception workshop.<sup>25</sup> The Program also facilitated program-wide communications and gender workshops, providing additional opportunities for cross-learning and networking. The evaluation team believes that such networking opportunities are not only important for the success of the project but can also bring sustained benefits for participants who are making contacts in their areas of expertise and in the ESA region.

**Finding 19:** IDRC adequately monitors CultiAF performance and the use of financial resources.

At project level, all project teams are required to develop an M&E strategy and an accompanying results framework, against which they report to IDRC. Every six months, lead organizations are required to submit a progress update in which they report on progress toward project results and milestones set in the project grant agreement, as well as any challenges encountered during implementation. Project teams must also submit interim technical reports at mid-project and final technical reports providing a synthesis of activities undertaken and results achieved. An annual online questionnaire is also administered to project teams. This questionnaire collects quantitative data on a set of indicators that are common to all projects and which can be rolled up at program level. Many indicators collect sex-disaggregated data to

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<sup>25</sup> IDRC. (2015). *Annual report: Cultivate Africa's Future Fund, April 2014 – March 2015*.

measure the extent to which the program is reaching women. The evaluation team did however note that improvements are needed to adequately capture generational equality and environmental sustainability in monitoring and reporting.

In general, project teams perceived the M&E requirements to be clear and felt that the M&E module in the inception workshop was very helpful. Some project teams commented that IDRC's support during project inception was very beneficial because the IDRC program officer helped them revise their M&E strategy and make objectives more realistic. Project teams from the precooked beans project and the INSFEED project also noted that the tablet technology promoted by IDRC for M&E improved the quality of data and speed at which it is collected. According to the CultiAF M&E strategy, household surveys must be conducted at different stages of project implementation to measure change. Of the three interim project reports reviewed, all reported that they had conducted surveys to collect baseline data.

The IDRC controller conducted due diligence on all grantee organizations, which are required to provide 6-month financial reports to IDRC. The schedule of financial reporting is established based on the degree of financial risk the organization represents, as per the IDRC controller's due diligence report. This ensures that IDRC and ACIAR resources are spent according to the established rules of the Fund. Project teams also said that the 6-month financial reporting period, which is associated with subsequent disbursements, helped them with their own financial management and helped to buffer projects from extreme fluctuations in currency exchange rates which might occur over a longer reporting period. Most ACIAR staff consulted noted IDRC's practices for due diligence and financial oversight as being among IDRC's most important strengths.

At program level, CultiAF has a monitoring and evaluation strategy including a logic model (see Appendix I) and performance measurement framework (PMF) which includes outcome and output indicators, data collection methods, and the frequency of data collection. The IDRC CultiAF management team reports annually to the Governance Committee on program performance and budget. According to interviews, GC members are quite pleased with the data reported to them and the program's performance overall.

**Finding 20:** The CultiAF program has actively supported research communications and engaged an external firm to help project teams develop communication strategies and messaging capabilities. While CultiAF communications was entrusted to an external firm, ACIAR and IDRC may be better positioned to engage with their respective development organizations in Australia and Canada.

As noted in the CultiAF funding agreement, to minimize the "high transaction costs and workload implications" which can be associated with funding partnerships, it was decided that the CultiAF program would develop a communications strategy to improve the communication of research results to a variety of stakeholders and that it would be implemented through a contract with an external communications firm. IDRC contracted WRENmedia, Ltd., an external communications firm with expertise in science communications and agricultural research in Africa, to develop program and project level communication products. WRENmedia conducted a one-week workshop in Nairobi in which PIs and communication officers developed project communications strategies and honed their skills in different types of messaging, such as scientific presentations, popular radio programming, and print and social media. WRENmedia is supporting project teams to develop outcome stories on their results and how they are reaching beneficiaries, including women; these will be presented at the CultiAF side event planned to take place at the African Green Revolution Forum in September 2016 in Nairobi.

Program-level communications products include a program brochure with all projects mapped, and project profiles related to program scope and objectives. These profiles contain information on the challenge being addressed by each project, the research, research locations, innovations being tested, expected outcomes and the project teams and their organizations. The Program also convenes scientific events and workshops to build awareness and networking in the region. In addition, CultiAF contracted

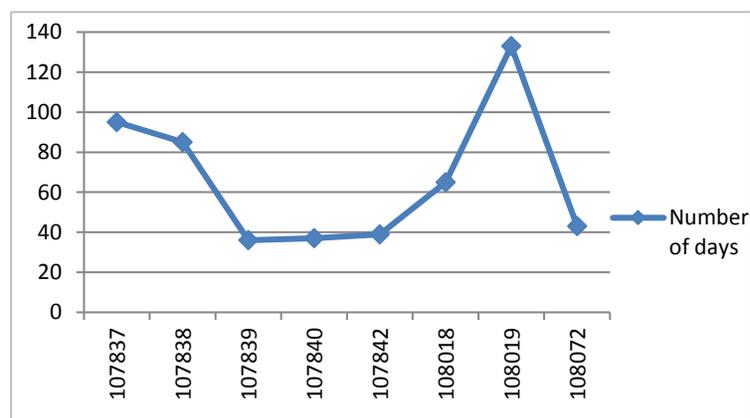
with Farm Radio International to conduct research on listening methods and to support two of the CultiAF projects with radio programming.

The communications strategy also aims to engage with Canadian and Australian audiences, including policy makers, with a view to inform development programming in Canada and Australia. While WRENmedia is responsible for CultiAF communications, IDRC and ACIAR may be better positioned, given their close relationship with GAC and DFAT, to engage with and disseminate results to these stakeholders.

**Finding 21:** The timeframe between project approval and the disbursement of funds was reasonable considering the procedures required for due diligence, though it was considered lengthy by most grantees. There were some delays in implementation, mainly due to adverse weather conditions. Most project teams felt they needed more time to consolidate research results.

The time between project approval and the disbursement of funds to grantees was within the expected time frame for most projects, considering the procedures that had to be conducted before the funds could be disbursed, including due diligence processes. As demonstrated in Figure 2.2 below, funds for half of the projects were released to grantee organizations within one and half month of project approval and, for three other projects, those funds were released within 3 months. For the remaining project, because the grantee organization could have represented high financial risk, funds were disbursed four and half months after project approval. Even so, the majority of grantees interviewed perceived the time between project approval and fund disbursement lengthy.

**Figure 2.3** Number of days between project approval and the release of the first payment by project<sup>26</sup>



Adverse weather caused delays in some projects. This was the case for the precooked beans project<sup>27</sup> and the aflatoxin project<sup>28</sup> which may not have quarterly samples ready on time for analysis. The fishing project in Malawi and Zambia also reported delays in data collection and the formation of Participatory Action Research Groups due to delays in the start of the fishing season caused by high water levels<sup>29</sup> and some delays in decision-making processes due

to coordination issues among researchers located in two different countries.

While most projects have achieved their established milestones to date, seven of the eight project teams told the evaluators that they needed more time to consolidate results and enable graduate students to finish their research.

<sup>26</sup> Source: IDRC grant administrators, ROSSA (2016)

<sup>27</sup> This issue was highlighted by research teams during the field visit.

<sup>28</sup> Nyanga, LK., Ambali, CP., and Chidewe, C. (2015, September 30). First Interim Report: Postharvest management technologies for reducing aflatoxin contamination in maize grain and exposure to humans in Zimbabwe. Unpublished internal report.

<sup>29</sup> Kefi, AS., Katandu, M. and Mkandawire, NL. (2015, September 30). First Interim Report: Improving Livelihood Security and Gender Relations in Rural Zambia and Malawi Through Post-Harvest Fish Value Chain Innovations and Social Change Interventions. Unpublished internal report.

## 2.5 Cross-cutting themes

### 2.5.1 Gender and Generational Equality

**Finding 22:** CultiAF has strong processes in place for gender equality, including project level gender strategies, as well as accompanying budgets and gender expertise to ensure implementation. IDRC provides ongoing support to build gender capacities among project teams.

CultiAF aims to generate new gender-sensitive applications that increase women's access to resources and nutritional benefits and reduce their drudgery in agriculture. The Fund has practices and systems in place to ensure gender equality mainstreaming at program level and project level to facilitate the achievement of gender outcomes.

At program level, IDRC's Strategy for Gender in Agriculture and Food Security (AFS) guides its approach to integrating gender equality in the CultiAF program. The AFS gender strategy was recently updated based on lessons learned from gender mainstreaming in CIRSRF and strongly emphasizes the need for project-level gender strategies and accompanying budgets, as well as gender expertise among project teams. All projects are complying with these requirements. The AFS gender strategy also emphasizes the need for gender capacity strengthening among project teams. IDRC has taken several steps to strengthen their capacity for integrating gender equality. It introduced a gender module in the project inception workshops in which the IDRC Senior Program Officer, who is also a gender expert, introduced gender concepts in agriculture and helped project teams finalize the gender strategies. IDRC also commissioned an external consulting firm, Firetail, to provide gender support to project teams. Based on a baseline gender audit conducted by the firm in 2016, Firetail developed tools that are tailored to project needs and is conducting a series of workshop to build the capacities of the different projects for integrating gender equality. Firetail will also provide continued support through online webinars and will conduct another gender audit to measure the extent to which project capacities have increased.<sup>30</sup> Several consulted project teams noted their appreciation for the gender support provided by as part of the CultiAF.

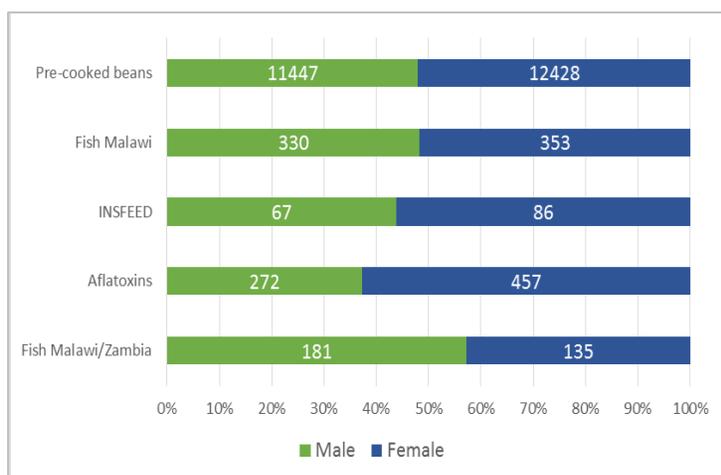
The evaluation team found evidence that projects are making good progress in conducting gender analyses and baseline assessments on the differentiated roles of women across value chains, including in decision-making and management processes.<sup>31</sup> As an example, in the focus group<sup>32</sup> held to discuss the aflatoxin project in Zimbabwe, women noted that the project was unique as it targeted young mothers and children while encouraging inclusive participation of men and women in training on post-harvest management and nutrition; this has resulted in more men showing interest in nutrition thereby enhancing family relationships.

All projects are tracking gender inclusion in research and training activities. Women comprise 52% of the graduate students in the projects and 36% of the researchers. Four of the five technical projects have more women than men engaged in testing and using innovations. As of 2016, 52% of the 25,756 farmers, fisher folk and agro-processors involved in field testing research were women (see Figure 2.3) and 57% of the 7,115 smallholder farmers trained were women.

<sup>30</sup> IDRC. (2016). *IDRC AFS Portfolio: Desk-based Gender Audit*. Draft, unpublished internal document.

<sup>31</sup> IDRC. (2016). Annual report: Cultivate Africa's Future Fund, May 2015 – April 2016.

<sup>32</sup> Focus group comprised of 30 women and 12 men from five villages.

**Figure 2.4** Farmers involved in Project Activities (Male/Female)<sup>33</sup>

The evaluation team was also asked to assess "generational equality". As we could not find functional definitions of generational equality or of "youth" in CultiAF documentation, we have interpreted this to mean the inclusion of women and men under 35 in CultiAF programming. None of the project data sets available to the evaluation was disaggregated by age, but interviews with research teams and beneficiary groups noted efforts to involve young farmers, fisher folk and agro-processors. Clearly, the second call for proposals in January 2015

"Expanding Business Opportunities for African Youth in Agri-Food Systems" aimed to support action research on effective business models to help Africa's youth develop profitable enterprises. Thus far, the Kenya projects supporting poultry and fish production have selected 40 youth (23 male, 17 female) for training in business development and 11 business counselors (all youth) have been employed to support them. The Southern Africa project supporting fish producers and processors is working with 141 potential youth entrepreneurs.

### 2.5.2 Environmental Sustainability

**Finding 23:** There is inconsistency on how "environmental sustainability" is viewed within CultiAF. Though most projects presume to have benign or beneficial effects on the environment, they are not monitoring or reporting on these effects or on any mitigation measures.

There is inconsistency on how "environmental sustainability" is viewed within CultiAF. While not explicit in the Project Approval Document,<sup>34</sup> it was incorporated into the program logic model and explicit in the first call for proposals.<sup>35</sup> Even so, the project proposals were generally superficial in analyzing potential environmental impacts and identifying mitigation measures, most considering their environmental impact to be either benign or beneficial.

Once approved, projects were not required to undergo an environmental impact assessment and only the Malawi fish marketing project completed one. Feedback from one project noted the perception that there was less need for environmental analysis and monitoring if an assessment was not required. Other projects were guided by the environmental guidelines of their institutions.

While the Program logic model includes several results statements which refer to "environmentally sustainable applications", only one indicator in the PMF captures this aspect and it is unclear how this is

<sup>33</sup> IDRC. (2016). Annual report: Cultivate Africa's Future Fund, May 2015 – April 2016.

<sup>34</sup> IDRC (2013). CultiAF Project Approval Document.

<sup>35</sup> applicants were asked to provide an assessment of potential environmental impacts, identify steps to maximize positive impacts and minimize negative impacts, and clarify how impacts would be measured and reported; environmental, economic and social sustainability accounted for a 20% weight in the selection criteria in the first call; it was weighted as 12.5% in the second call on youth in agri-business projects.

defined and therefore measured.<sup>36</sup> In the 2015 and 2016 Annual Reports, there is no discussion of environmental sustainability. The 2016 report notes that “All projects were evaluated for potential environmental impacts during the selection process. Projects are tracking environmental implications of the innovations and these will be reported in the next report.” For monitoring, there is one question on environmental sustainability in the interim and annual report template and an indicator in the AFS annual questionnaire. The evaluation team found some evidence in progress reports of projects working on environmental assessment and mitigation in the five technical projects though these were not reported in much detail. Overall, the projects do not appear to be measuring environmental sustainability nor have mitigation measures been costed.

To date, the CultiAF program has not offered capacity development training or support for analyzing environmental factors, designing mitigation measures, or monitoring environmental sustainability.

## 3 Conclusions and Recommendations

This section presents the conclusions for the CultiAF Evaluation (Section 3.1), as well as recommendations for the second half of the current implementation cycle (Section 3.2) and for future food security programming, including a potential Phase 2 of CultiAF (Section 3.3). Some recommendations in Phase 1 suggest improvements that should also be maintained in Phase 2 but are not repeated in the sections on Phase 2 recommendations, which are more strategic in nature.

Some more detailed concluding remarks are presented under each recommendation to provide the rationale for the recommendation. In each section, the recommendations are presented in order of priority.

### 3.1 Conclusions

CultiAF supports innovative and important research on post-harvest and nutrition issues facing smallholder farmers, fisher folk and agro-processors in ESA. The participatory and multi-disciplinary research approaches and the array of partnerships are expected to generate relevant research results, and the program is on track to meeting its immediate outcomes. Because the intermediate outcome indicators are not fully aligned with the timeframe and scope of the fund, it was not possible to measure progress toward intermediate outcomes, though with more time and support there is potential for CultiAF to achieve these. Particularly positive are the multi-faceted efforts being made to communicate research progress to a variety of stakeholders, especially in target countries. There is room to further engage with international audiences, especially in Canada and Australia. The emphasis placed on capacity development of research teams and partners in effective research management practices is also laudable, with researchers noting that productivity and research quality have improved as a result. The skills they have acquired have enabled some research teams to enter into new partnerships and secure new sources of funding. Though not part of its current mandate, some grantees have requested that their institutions receive some of the same capacity development supports to ensure longer-term sustainability of the good practices learned in the program. CultiAF has been quite successful addressing gender equality and youth has been particularly addressed through two projects in entrepreneurship. It has not been possible to determine the degree of attention paid to generational equality or environmental sustainability, as requested by the TORs of the evaluation, because of lack of monitoring data.

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<sup>36</sup> Output indicator 211.1: “Number and quality of application-ready environmentally sustainable practices, technologies and methodologies for improved food security based on field research developed”

CultiAF has been well managed overall and IDRC's strong performance and financial monitoring processes have been much appreciated by ACIAR. The two-stage competitive call for proposals was carried out in a transparent manner and led to high quality and innovative proposals. It was judged by some to be lengthy and intense. The governance arrangements ensured scientific rigor of the concept note and proposal vetting processes and allowed for flexibility in the use of funds. The funds were disbursed in a timely manner but delays, mainly due to adversely whether conditions, have effectively reduced the implementation cycles of some projects. Overall, the 30 months or less timeframe is short considering the time required to undertake and scale-up agricultural research and most grantees felt they needed more time to consolidate results.

The evaluation found that IDRC and ACIAR have some comparative advantages that have been beneficial to CultiAF. For instance, IDRC has longstanding experience in Africa, with competitive calls for proposals and with research capacity building while ACIAR has extensive technical expertise. Yet, IDRC and ACIAR stakeholders interviewed were not always clear about the comparative advantages of each organization and how these benefited the partnership overall. Finally, the evaluation found that CultiAF is not adequately integrated into ACIAR's internal processes resulting in low visibility of the Fund across the organization; this may limit broader buy-in within ACIAR for a second phase of the Fund.

## 3.2 Recommendations for ongoing programming

**Recommendation 1:** To allow for the full consolidation of research results and the successful completion of graduate student training, IDRC and ACIAR with advice from the CultiAF program management team should consider no-cost extensions on a project-by-project basis. Such an extension would need to take into consideration other associated costs, including program management. If possible, decisions should be enacted as soon as possible to enable project teams to work most effectively.

The original five technical projects have ambitious work plans for their 30-month implementation periods and the cross-cutting projects have even shorter timeframes. Some projects have experienced delays due to weather and other unforeseen issues. While teams can be credited with trying to stay on schedule and they are progressing towards results, nearly all project teams expressed a need for more time to fully analyze, consolidate and disseminate research results to partners and beneficiaries. All projects also have graduate students conducting research and additional time is needed in some cases to finalize their research and support them in publishing their research.

This recommendation is linked to Findings 21.

**Recommendation 2:** ACIAR Senior Management should ensure that CultiAF is better integrated into its project management system to make information on CultiAF results and lessons learned more readily available to ACIAR staff. It should also explore other avenues to increase CultiAF visibility across ACIAR.

The evaluation found that CultiAF is not mentioned in ACIAR's strategic documents, nor is it integrated within ACIAR's project management systems. Information from CultiAF monitoring reports has not been included in the ACIAR database and CultiAF results are therefore not readily available to ACIAR staff. CultiAF is not visible outside of ACIAR's small CultiAF team. ACIAR management should take advantage of the current revamping of the ACIAR project management system to integrate CultiAF monitoring data without creating duplicate management systems. This would increase CultiAF visibility across the organization and allow ACIAR managers to integrate lessons learned from CultiAF into other programs. ACIAR senior management should also consider other ways to make CultiAF more visible, for instance, by participating fully in the side event to the African Green Revolution Forum in Nairobi in September 2016.

In the event of a second phase of CultiAF, ACIAR should consider integrating CultiAF into its next strategic plan to further increase visibility across ACIAR.

This recommendation is linked to Finding 14.

**Recommendation 3: The CultiAF team should work in close collaboration with IDRC's communications department to ensure the most effective approaches to disseminating CultiAF results to international audiences, including Canadian and Australian stakeholders. While not responsible for CultiAF communications efforts, ACIAR should consider how CultiAF can be most effectively communicated to DFAT and other Australian stakeholders.**

Senior management from both organizations should take the opportunity of ongoing reorganizations in their respective communications departments to consider cost-effective ways to raise awareness of CultiAF results among Canadian and Australian audiences. The Canadian Commission in South Africa is already engaging with the pre-cooked beans project; other projects should start proactively engaging with GAC and DFAT embassies/commissions and share results as they become available. One opportunity in this regard would be to invite GAC and DFAT representatives to take part in the CultiAF side event at the African Green Revolution Forum in September 2016 in Nairobi. Similarly, ACIAR and IDRC senior managers at headquarters should raise awareness of the CultiAF program with GAC and DFAT to increase the likelihood that results will be integrated, as they come in, into development policies and programming.

This recommendation is linked to Findings 9 and 20.

**Recommendation 4: The CultiAF program management team should give clear guidance and provide support, as necessary, to CultiAF research teams for the remaining of Phase 1 to ensure that they adequately report on environmental issues and mitigation measures.**

There is inconsistency on how "environmental sustainability" is viewed within CultiAF. While not explicit in the Project Approval Document, it was incorporated into the program logic model and explicit in the Call for Proposal. The project proposals were generally superficial in analyzing potential environmental impacts and identifying mitigation steps, most considering their environmental impact to be either benign or beneficial. With some project exceptions, there is little evidence that projects are routinely monitoring environmental effects nor have environmental mitigation measures been costed. There has been no discussion of environmental sustainability in annual reports to date.

The CultiAF program management team should provide guidance and support to CultiAF research teams so that they adequately track environmental implications of their projects and report on them in upcoming technical reports. The CultiAF program management team should ensure that the next annual report presented to the Governance Committee includes a sound discussion on environmental sustainability.

This recommendation is linked to Finding 23.

### 3.3 Recommendations for future programming

**Recommendation 5: ACIAR and IDRC should map out their respective comparative advantages and explore how these could best benefit the CultiAF partnership and other potential collaboration. Based on the findings of this mapping, ACIAR and IDRC should decide whether CultiAF should be renewed for a second phase, taking into consideration their respective geographic priorities. If the Fund is renewed, ACIAR and IDRC should consider renewing ongoing projects, on a case-by-case basis.**

All IDRC and ACIAR officials associated with CultiAF were open to considering a second phase of CultiAF, with options for continuing support to some or all of the current project teams, expanding to new geographic areas, reconsidering thematic areas of focus, and discussing the pros and cons of open versus

closed calls for proposals. They highlighted that the modalities of such a partnership would have to be carefully discussed based on evolving priorities and interests, including any geographic shifts by Australia from Africa to Asia, and considering the comparative advantages of each organization. Interviewed stakeholders from both organizations were also open to collaborating outside CultiAF.

Overall, the evaluation found that CultiAF is relevant, effective and efficiently managed with good prospects to generate sustainable results. As such, it merits consideration of a second phase. While both parties appreciate the partnership, there needs to be more clarity on each other's priorities and comparative strengths to enable ACIAR and IDRC to more fully capitalize on them, especially in a context where geographic priorities might shift. Both organizations should therefore map out their respective comparative strengths and, based on these findings, decide whether or not to renew CultiAF for a second phase. If so, and considering geographic priorities, they should consider renewing the current portfolio on a project-by-project basis to maintain momentum and accelerate scaling up. The mapping of comparative advantages and the decision to renew CultiAF for a second phase should be done soon to avoid a gap between Phase 1 and Phase 2.

This recommendation is linked to Findings 5, 13, 15, and 17.

**Recommendation 6: In the event of a CultiAF Phase 2, ACIAR and IDRC should consider increasing the length of the project implementation cycle.**

Considering the innovative nature of CultiAF research and the variable institutional environments in which they take place, a case could be made for lengthening projects beyond the current 30-month or less period. A longer implementation cycle would be more appropriate, in the view of the evaluation team, to the type of research projects implemented by CultiAF, which requires time to undertake research and consolidate, publish and disseminate research results. This would allow for more research consolidation and dissemination and also for graduate students to complete assignments more effectively.

This recommendation is linked to Finding 21.

**Recommendation 7: Should there be a second phase of CultiAF, IDRC and ACIAR program managers should review and revise the logic model and accompanying performance measurement framework (PMF) to ensure that indicators are better aligned with the time frame and scale of the Fund and that they capture any agreed priorities, such as generational equality and environmental sustainability.**

While the evaluation found evidence of progress toward the achievement of CultiAF immediate outcomes, at this early stage of implementation it was not possible to measure progress toward intermediate outcomes. The PMF specifies intermediate outcome indicators to be measured at midterm and end-of-program which does not appear to be feasible given the relatively short project timeline. In the event of a CultiAF Phase 2, IDRC and ACIAR program managers should therefore, under the strategic guidance of the Governance Committee, revisit the CultiAF logic model and its accompanying PMF to ensure that the indicators to be measured are commensurate with the time frame and scale of the Fund.

In addition, while the evaluation team appreciates the attention given to youth in two of the cross-cutting projects, these were initiatives taken after the development of the logic model and PMF. Any future programming would need to define whether youth and generational equality are to be program priorities and, if so, how to define and measure this using age-disaggregated data. Similarly, while the PMF includes several results statement that refer to environmentally sustainable applications, only one indicator in the PMF captures this aspect and it is unclear how this is defined and therefore measured. The PMF should be revisited to address these issues and IDRC management should also revise its annual questionnaire to ensure that age-disaggregated data and environmental data are collected for all projects.

This recommendation is linked to Findings 5, 22, and 23.

**Recommendation 8:** In the event of a future phase of CultiAF, IDRC and ACIAR should maintain the current emphasis on capacity development of research teams, and potentially explore cost-effective ways to also provide institutional capacity development support to the lead organizations.

One of the unique and most appreciated aspects of CultiAF has been its capacity development support to research teams, partners and beneficiaries. This increases the quality of research and the productivity of teams, and can improve their capacity to attract new funding partners and expand research. Funding for national agricultural research has diminished in much of the developing world, as has capacity development for scientists and research managers. Investing in institution-wide research management capabilities would help sustain gains made with research teams in following best practices and could have a reach beyond the Fund's projects. Graduate student training is another valuable investment in the future of African agricultural research which should be maintained in any subsequent program.

In future collaboration, IDRC and ACIAR should maintain CultiAF's approach to capacity development and consider expanding research management training to lead organizations, if possible. While acknowledging that CultiAF resources are limited, there may be some cost-effective ways to do this.

This recommendation is linked to Findings 4, 6 and 19.

# Appendix I CultiAF Logic Model

ULTIMATE OUTCOME	Increased, gender equitable and sustainable food, income and nutrition security for small holder farmers in Eastern and Southern Africa			
↑				
INTERMEDIATE OUTCOMES	Increased use by the research community of knowledge and resources to address post-harvest loss, nutrition problems and/or water use in developing countries.	Increased crop, livestock and fisheries productivity, water use efficiency and reduced post-harvest losses from use of improved technologies by men and women smallholder farmers	More informed gender responsive, environmentally sustainable and better developed public policies and programming related to food security and nutrition that integrate with ongoing food security initiatives in Eastern and Southern Africa (CAADP, FANRPAN, AGRA, Feed the Future etc).	
↑				
IMMEDIATE OUTCOMES	100. Improved capacity of country, regional and international partnerships to conduct applied research on food security issues (post-harvest loss, nutrition and/or water use) that addresses the needs of smallholder men and women farmers and to disseminate research results in the East and Southern Africa region and beyond.	200. Increased global, national, and local knowledge of new, environmentally sustainable, and gender responsive research applications that reduce post-harvest losses, increase the nutritional value of food, and support better management of agricultural water in Eastern and Southern Africa.	300. Increased application of appropriate, environmentally sustainable and gender equitable food system-based solutions (post-harvest loss, nutrition and/or water use), by men and women farmers in Eastern and Southern Africa	400. Improved awareness and understanding among policy makers, the development assistance community and the general public of potential application-ready solutions to food security issues in Eastern and Southern Africa and beyond.
↑				
OUTPUTS	110. Partnerships between academic, private sector organisations, Non-governmental organisations financially and technically supported 111. A participatory, gender responsive and coordinated approach to applied research projects implemented. 112. Resources/knowledge shared within the teams). 113. Partners endowed with new research skills and networks.	210. Research projects successfully completed on postharvest management, nutrition and water use related applications. 211. Application-ready environmentally sustainable gender sensitive (as applicable) practices, technologies, and methodologies based on field research.	310. <i>Knowledge and tools transferred to smallholder farmers, especially women, through research projects.</i>	410. Research results and new knowledge on food security made available to the general public in developing countries. 411. Information and resources prepared and shared to inform policy and programming in developing countries and Canada and Australia. 412. Research results widely disseminated in a user-friendly way to the development assistance community and private sector in developing countries, Canada and Australia.
↑				
ACTIVITIES	Establish research project partnerships. Coordinate Scientific Advisory Committee meetings/ hold inception workshops with all selected project teams to map out results expectations and goals of research partnerships. Partners develop a collaborative plan for research and reporting of their individual projects. Transfer research skills within partnerships (design, methods and management).	Conduct applied environmentally sustainable research on topics such as: post-harvest losses, genetic potential of crops, crop resilience, the nutritional value of crops and better and more efficient use of agricultural water resources. Develop practical environmentally sustainable applications that address the needs and priorities of men and women smallholder farmers.	3.1 Adapt and apply research and research solutions in developing countries through learning events, field experiments and demonstrations, emphasizing environmentally sustainable practices and women smallholder farmers. 3.2 Grant public access to solutions developed through the research.	4.1 Produce information and resources on CultiAF (e.g., annual reports, a CultiAF web site, and summary briefs). 4.2 Communicate and disseminate results through media such as publications, presentations to policy experts, and an international conference to share research results. 4.3 Engage with a variety of other stakeholders. (e.g. general public, NGOs, regional, Australian and Canadian policy makers, etc.).



## Appendix II Methodology

This Appendix describes the methodology approached used to conduct the evaluation.

### Utilization Focused

Guided by OECD-DAC's Evaluation Quality Standards and Guidelines, as well as IDRC's Evaluation Principles, the design and conduct of the evaluation was designed to respond to the primary users' needs and objectives, intent on favoring the uptake of relevant, useful and feasible recommendations. The evaluation provides guidance to CultiAF's Governance Committee to determine the extent to which the program is succeeding or not and to inform future food security programming, including a potential second phase of CultiAF. IDRC and ACIAR management and program staff will use the evaluation to inform implementation during the remaining period of the program and to communicate results to various stakeholders. The results of the evaluation will be shared with other donors, international and developing country stakeholders working on similar themes.

The evaluation assessed the progress made towards the immediate and intermediate outcomes related to research capacities, knowledge sharing, the application of research innovations, and awareness and influence on public policies and programs. Noting the early stage of implementation of CultiAF projects – which began in October 2014 and beyond – the *potential* for success was examined taking a **systems perspective** that considered good practices from program-level support (e.g. proposal calls, vetting and approval processes, inception stages) through project implementation (e.g. research management, effective partnerships, capacities, knowledge sharing, supportive policies, private sector linkages).

### Participatory

CultiAF research projects involve a spectrum of stakeholders in research organizations, academia, the private sector, and community and farmer groups. The Evaluation Team has developed approaches and methods to allow for the voices of these various stakeholders to be heard, with the expectation of gaining the best information possible while promoting a sense of ownership. The evaluators conveyed to participants the importance of learning, and their contribution became a key element in the articulation of accurate findings and utilization-focused recommendations. The evaluation team worked in close collaboration with the primary users of the evaluation to ensure that their views were taken into consideration in all phases of the evaluation process.

### Taking a Mixed-Methods Approach

#### Deliberate in the Assessment of Cross-Cutting Issues

CultiAF has been designed to advance both gender equality and environmental sustainability. Both cross-cutting themes are integrated across the evaluation matrix and have informed the specific data collection methods, the sampling approach and expected analysis.

Gender equality was specifically examined for the existence of a CultiAF gender and/or generational strategy; evidence of the extent to which gender equality has been strategically integrated into all stages of CultiAF programming and at project level; the sufficiency of resources available to implement gender activities; evidence of CultiAF activities which improve the inclusion and empowerment of women, youth and other disenfranchised stakeholders; and the existence of gender-dissaggregated data in M&E systems.

Environmental sustainability was specifically examined for the existence of program-level guidance on environmental requirements; project-level environmental analysis and mitigation approaches; measures to ensure costing of environmental measures; evidenced of environmental monitoring; and awareness raising and capacity development on sustainable technologies.

## Data Collection Methods

### Mixed-method approach

Mixed methods have allowed gathering qualitative and quantitative data from a variety of sources, which were triangulated to ensure the accuracy of findings, which respond to agreed-upon evaluation questions from the evaluation matrix. The matrix is based on the evaluation questions articulated in the RfP and were further developed during the inception process. The methods used for data collected are outlined below:

### Program and project document review

IDRC has considerable documentation on the CultiAF program and its projects and the evaluation team had access to documents and databases contained in the IDRC corporate electronic filing system (Basic Content System –BCS) on SharePoint. The documents cover program overviews, broader IDRC and ACIAR strategies, Fund governance and project selection, links to project documents and evaluation resources. This documentation was complemented with external documentation, most notably on issues of relevance and policy environments.

The evaluation team conducted a document review based on the indicators of the evaluation matrix. Project documentation was selected to give an overall picture of the project and not to delve into scientific details; the types of documents reviewed included Project Approval Documents, project profiles, updates, Interim Technical Reports and Outputs documents, such as reports on gender analysis, staff training and consumer analysis. These were referenced to better inform questions related to the Program as a whole. Documentary evidence to support evaluation questions was summarized and referenced in a document review matrix.

In addition to documents, IDRC assisted in providing statistics from their database on:

- Title, name of organization and country of Concept Note submissions and those put forward for full proposals
- Numbers of beneficiaries involved in research (disaggregated by gender and by project)
- Numbers and types of partners involved
- Number of beneficiaries trained in new research applications (disaggregated by gender)
- Number of graduate students (disaggregated by gender)
- Number of technologies produced/project
- List of institutional risk assessments undertaken
- List of media events per project (provided by WRENmedia)
- Number of inquiries made by beneficiaries and other stakeholders for information and access to new technologies
- Financial summaries: allocated and disbursed to date by project
- List of organization which conducted research ethics review for each project.

## Semi-structured interviews

Semi-structured interviews (face-to-face, Skype, phone) were undertaken with key CultiAF stakeholders, including IDRC and ACIAR management and staff, the Governance Committee, the Scientific Advisory Committee, project research and partner organizations, graduate students and private sector organizations, as per the overall sampling strategy. The Evaluation Team followed a prepared protocol (See Appendix II: *Semi-structured Interview and focus group protocols*) and synthesized findings to answer program-level questions. Some respondents were consulted by email.

## Focus groups

Focus group discussions were undertaken with project beneficiaries, which include the farmer associations and community groups involved in CultiAF activities. These were guided discussions aiming to answer specific questions about inclusion and involvement, the importance of the research and suggested improvements. Focus groups were conducted in Kenya, Malawi and Zimbabwe (see below for details).

## Site visits

The Team visited project research facilities and some partner organizations for first-hand observations on the adequacy and quality of resources available to the projects. This was in conjunction with semi-structured interviews. Site visits took place in late April in Kenya, Malawi and Zimbabwe.

## Country/Project Sampling and Field Visits

The CultiAF program operates in five countries in ESA and involves eight projects, some which are shared across countries. As all countries could not be visited with the envelope of resources and the time allowed, a sampling approach was designed which allowed for site visits and face-to-face interviews covering six projects<sup>37</sup> but not in all countries. Representatives from the two multi-country projects in Uganda were able to participate in the field visits in Kenya. Three countries – Kenya, Malawi and Zimbabwe – were selected in consultation with IDRC based on the following criteria:

- Amount of funding spent in a given country
- Number of projects in a given country
- Thematic representation covering post-harvest, nutrition and cross-cutting themes of agribusiness for youth and communications
- Accessibility of projects/organizations/stakeholders given the time and resource constraints
- Prospect for project managers from similar projects in neighboring countries to participate in meetings

Project teams not available for face-to-face interviews were contacted by Skype or email.

For a detailed list of individual stakeholders consulted see Appendix V.

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<sup>37</sup> The Expanding Business Opportunities for Youth in Agri-food Systems in Southern Africa and Communicating Science for Impact were covered by document review and phone/Skype interviews.

*Sampling Strategy and Methods*

SAMPLING STRATEGY	METHOD
Program-level (22 total: 11F/11M)	Semi-structured interviews <ul style="list-style-type: none"> <li>• ACIAR HQ Staff (5)</li> <li>• IDRC HQ and ROSSA Staff (12)</li> <li>• Scientific Advisory Committee Members (4)</li> <li>• WRENmedia staff (1)</li> </ul>
Project- level (197 total: 100F/97M)	Semi-structured interviews with research teams, institution management, extension, academic and private sector partners, students (62) Focus groups (135) Site visits: Kenya, Malawi, Zimbabwe

## Appendix III Evaluation Matrix

The evaluation matrix reflects how the team will approach this assignment. The matrix relates to the overall objectives or the purpose of the assignment, which is to provide insights on the performance of the program and project results to date, and to provide recommendations to inform ongoing implementation and a potential second phase of the program.

Columns of the evaluation matrix describe the following:

- **Area:** refers to the OECD-DAC criteria used to evaluate programs and projects, including relevance, effectiveness, efficiency, cross-cutting themes and sustainability. This evaluation focuses on research quality as part of the analysis of effectiveness.
- **Question, sub-question:** Derived from the RfP and further specified, the questions and sub-questions direct the team on what information is needed.
- **Indicators:** pertain to information needs. They are specific measurements that would indicate progress on a given topic. These indicators are for guidance purposes as to how the evaluation team plans to address the questions and sub-questions, and will not necessarily all be included in the final report. Realizing that projects have only been ongoing for approximately 18 months, some relevance and effectiveness indicators have been selected to determine early stages of interest, awareness and adoption and not full uptake of results.
- **Methods:** refer to the sources of data and processes used to collect data on indicators; a variety of approaches helps to triangulate data, resulting in a higher validity of findings.

The evaluation matrix is used to both clarify and to improve through consultation with IDRC the overall approach and information expected from this evaluation.

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
1. Relevance	1.1 To what extent are CultiAF results and outcomes relevant	1.1.1 To address long-term food security in Eastern and Southern Africa, particularly for small farmers, women and youth	<ul style="list-style-type: none"> <li>Evidence that projects are based on sound analysis of food security needs of the poor</li> <li>Evidence that projects accord with national food security plans</li> <li>Degree of involvement of beneficiaries in project identification/ design/implementation</li> <li>Interest shown in results by Institutional and private sector partners</li> <li>Early adaptation of innovations by small-scale farmers, women and youth</li> <li>Engagement of policy makers and awareness building on innovation potential</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including CultiAF proposals, progress reports, country food security strategies/plans</li> <li>Key informant interviews</li> <li>Site visits</li> <li>Focus groups</li> </ul>
		1.1.2 To Canadian and Australian international development policy and programs?	<ul style="list-style-type: none"> <li>Expected results consistent with Canadian and Australian development policies and country programs</li> <li>Active involvement of Canadian and Australian representatives in design and governance of the fund</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including originating fund documents, governance documents, CultiAF proposals, progress reports</li> <li>Key informant interviews (Canada/Australia)</li> </ul>
		1.1.3 To the private sector?	<ul style="list-style-type: none"> <li>Degree of involvement of private sector in project identification/ design/implementation</li> <li>Evidence of potential of the private sector (producers, processors, market agents etc.) to take results to scale</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including CultiAF proposals, progress reports</li> <li>Key informant interviews</li> <li>Site visits</li> </ul>
		1.1.4 To the food security research community	<ul style="list-style-type: none"> <li>Degree of interest shown in CultiAF projects or results by research organizations, networks.</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including CultiAF proposals, progress reports, communications</li> </ul>

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
			<ul style="list-style-type: none"> <li>Participation in CultiAF activities, networking and sharing communications</li> </ul>	<ul style="list-style-type: none"> <li>Key informant interviews</li> </ul>
2. Effectiveness	2.1 For its stage of development, is CultiAF on track to meet the expected immediate and intermediate outcomes of the program?	<p><b>Immediate Outcomes</b></p> <p>2.1.1 To improve the capacity of country, regional and international partnerships to conduct applied research on post-harvest and nutrition issues that address the needs of smallholder men and women farmers and to disseminate research results in the Eastern and Southern Africa region and beyond</p>	<ul style="list-style-type: none"> <li>Evidence of partnerships field testing applications</li> <li>Perceptions of partners expressing satisfaction and usefulness of partnership</li> <li>Perceptions of partners of increased capacity to do research, manage research and/or influence policy/practice</li> <li>Number of women and men trained in implementing and partner organizations and among beneficiary groups to conduct research and disseminate research findings</li> <li>Appropriate information-sharing among all partners</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including CultiAF proposals, project approval documents, progress reports, CD plans</li> <li>Key informant interviews</li> <li>Site visits</li> <li>Focus groups</li> </ul>
		<p>2.1.2 To increase global, national and local knowledge of new, environmentally sustainable and gender responsive research applications that reduce post-harvest losses and increase the nutritional value of food in Eastern and Southern Africa</p>	<ul style="list-style-type: none"> <li>Evidence that new knowledge is being generated, which: <ul style="list-style-type: none"> <li>Has potential for positive environmental outcomes</li> <li>Has potential to meet needs of men, women and young farmers and consumers</li> </ul> </li> <li>Dissemination of early results or new knowledge in global, national and local modalities (e.g. publications, workshops, trainings)</li> <li>Number of references to CultiAF in the media (if tracked by IDRC)</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including progress reports, dissemination and training products, research publications database</li> <li>Key informant interviews</li> <li>Site visits</li> <li>Focus groups</li> </ul>
		<p>2.1.3 To increase application of appropriate, environmentally sustainable and gender</p>	<ul style="list-style-type: none"> <li>Number of women and men trained in new research applications</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including progress reports, MoUs,</li> </ul>

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
		equitable food system-based solutions (post-harvest loss and nutrition) by men and women farmers in Eastern and Southern Africa	<ul style="list-style-type: none"> <li>Perceptions of men and women farmers of utility of research applications</li> </ul>	<ul style="list-style-type: none"> <li>database, etc.</li> <li>Key informant interviews</li> <li>Site visits</li> </ul>
		2.1.4 To improve awareness and understanding among policy makers, the development assistance community and the general public of potential application-ready solutions to food security issues in Eastern and Southern Africa and beyond.	<ul style="list-style-type: none"> <li>Inquiries made to project partners for information and access to new technologies (men/women/youth)</li> <li>People/organizations in public and private sector organisations (not directly involved in the project) who are inquiring about or adopting project innovations</li> <li>Evidence of policy engagement by Program or project teams</li> <li>Number of knowledge sharing events/activities organized by project partners and the CultiAF program targeting the general public, development organizations and policy makers.</li> <li>References to CultiAF in the media (if tracked by IDRC)</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including progress reports, policy briefs, requests for policy support</li> <li>Key informant interviews</li> <li>Site visits</li> </ul>
		<b>Intermediate Outcomes</b>		
		2.1.5 To increase use by the research community of knowledge and resources to address post-harvest loss and nutrition problems in developing countries	<ul style="list-style-type: none"> <li>Researchers/organizations not associated with the projects express interest/ replicate/adapt/promote information and innovations emerging from CultiAF research</li> <li>New partnerships arising during the project time frame</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including progress reports, media reports, research correspondence, policy statements</li> <li>Key informant interviews</li> <li>Site visits</li> </ul>
		2.1.6 To increase crop, livestock and fisheries productivity, and related post-harvest losses from	<ul style="list-style-type: none"> <li>Evidence of early adoption by farmers and/or extension services and/or other relevant users/beneficiaries</li> </ul>	

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
		use of improved technologies by men and women smallholder farmers		
		2.1.7 To support more informed gender responsive, environmentally sustainable and better developed public policies and programming related to food security and nutrition that integrate with ongoing food security initiatives in ESA	<ul style="list-style-type: none"> <li>Evidence of awareness-raising and advocacy to improve public policies and programming in national and regional organizations in support of sound food security initiatives.</li> <li>Consultation or involvement of Program or project teams in policy guidance/briefs</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including program/project strategies and guidance materials on policy support, progress reports, media reports, policy briefs</li> <li>Key informant interviews</li> </ul>
	2.2 Are there unintended results, either positive or negative and why?	2.2.1 Have partnerships changed since project formulation?	<ul style="list-style-type: none"> <li>Evolution/devolution in numbers and types of partner organizations</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including progress reports, media reports, research correspondence, expressions of interest, requests for assistance, financial reports, annual reports</li> <li>Key informant interviews</li> <li>Site visits</li> </ul>
		2.2.2 Has farmer level involvement changed?	<ul style="list-style-type: none"> <li>Evolution/devolution in numbers and types of beneficiaries involved</li> <li>Reasons for increased or reduced involvement</li> </ul>	
		2.2.3 Have resources available to the project changed?	<ul style="list-style-type: none"> <li>Amount and type of resources available from what was originally planned</li> </ul>	
		2.2.4 Have expected research results changed?	<ul style="list-style-type: none"> <li>Degree to which research results reflect expectations</li> </ul>	
	2.3 Has the CultiAF partnership delivered non-research benefits from increased collaboration between IDRC and ACIAR?	2.3.1 Have IDRC and ACIAR increased collaboration or joint programming since the CultiAF program was initiated and how?	<ul style="list-style-type: none"> <li>Institutional understanding of mandates and competencies has increased</li> <li>Evidence that other joint programming is being envisaged</li> <li>Evidence of increased information sharing and institutional cross-fertilization</li> </ul>	<ul style="list-style-type: none"> <li>Document review, e.g., new proposals, media accounts, ACIAR/IDRC correspondence</li> <li>Key informant interviews (e.g., IDRC and ACIAR Program Manager/Dir.)</li> </ul>

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
	2.4 Are the research and research partnerships of high quality, innovative and contributing new evidence on agriculture and food security?	2.4.1 What is the technical quality/merit of the design and execution of the research?	<ul style="list-style-type: none"> <li>• Evidence of explicit, comprehensive and accessible account of research design and methodology</li> <li>• Evidence of quality literature review and explicit discussion of data collection/analysis</li> <li>• Data are systematically gathered and analyzed</li> <li>• Clear relationship between evidence gathered and conclusions reached</li> </ul>	<ul style="list-style-type: none"> <li>• Document review, including CultiAF project approval documents, progress monitoring reports, research outputs (e.g. publications, policy briefs, research reports, conference papers)</li> <li>• Key informant interviews (IDRC program staff, research project leaders, research teams, external stakeholders)</li> </ul>
		2.4.2 Are the research results derived from a process that takes into account concerns and insights of stakeholders? <ul style="list-style-type: none"> <li>• Potentially negative consequences</li> <li>• Gender-responsiveness</li> <li>• Inclusiveness of vulnerable populations</li> <li>• Engagement with local knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Evidence of Research Ethics Board review and approval</li> <li>• Evidence of gender-responsive research: sensitivity to needs of women/men in project design; disaggregated data; gender-sensitive engagement; understanding of gender power relations; systematic gender differentiated analysis of research activities and findings on women/men; appropriate solutions for women/men.</li> <li>• Evidence of inclusiveness in participation and for potential beneficiaries (for culture, language, religion, race, economic status, sexual orientation, ethnicity, language, gender or age)</li> <li>• Evidence of respect for indigenous knowledge, wisdom and practices in research and dissemination</li> </ul>	<ul style="list-style-type: none"> <li>• Document review, including CultiAF project approval documents, progress monitoring reports, research outputs (e.g. publications, policy briefs, research reports, conference papers)</li> <li>• Key informant interviews (IDRC program staff, research project leaders, research teams, external stakeholders)</li> <li>• Site visits</li> </ul>

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
		2.4.3 What is the perceived importance and value of the knowledge and understanding generated from research by intended users?	<ul style="list-style-type: none"> <li>Evidence that research is innovative, e.g., built on existing knowledge in unique way, advancing understanding, breaking new ground</li> <li>Evidence that research aims to solve important problem, aligns with development policies, and/or focuses on emerging problems</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including CultiAF project approval documents, progress monitoring reports, research outputs (e.g. publications, policy briefs, research reports, conference papers)</li> <li>Key informant interviews (IDRC program staff, research project leaders, research teams, external stakeholders)</li> </ul>
		2.4.4 To what extent has the research process been managed and products prepared to enable probable us?	<ul style="list-style-type: none"> <li>Extent to which research products are targeted to potential user groups, reflect an understanding of users' contexts, and are rendered in appropriate formats (e.g. policy briefs, publications, workshops)</li> <li>Evidence of whether researchers have examined potential to position the release of information and technologies to maximize use (e.g., capacity of users to apply findings, econ or environmental shocks that might limit use)</li> </ul>	<ul style="list-style-type: none"> <li>Document review, including CultiAF project approval documents, progress monitoring reports, research outputs</li> <li>Key informant interviews (IDRC program staff, research project leaders, research teams, external stakeholders)</li> <li>Site visits</li> </ul>
3. Efficiency (management and governance)	3.1 Has the implementation of CultiAF been efficient and economical, relative to its purpose and intended outcomes?	<p>3.1.1 Were IDRC and ACIAR <b>resources</b> used efficiently to manage program?</p> <p>3.1.2 Was the <b>call for proposal</b> process efficient to reach targeted audiences?</p>	<ul style="list-style-type: none"> <li>Cost of managing the fund relative to funds disbursed</li> <li>Efficiency (e.g. timeliness, administration) of proposal call</li> <li>Numbers and types of organizations submitting concept notes for all themes</li> </ul>	<ul style="list-style-type: none"> <li>Document review, e.g., financial statements, annual reports, project management reports</li> </ul>

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
		3.1.3 Were <b>projects initiated</b> and <b>outputs achieved</b> on time and on budget?	<ul style="list-style-type: none"> <li>• Capacities and performance of SAC and Governance Committee.</li> <li>• Evidence of project delays, termination, cost over-runs</li> </ul>	<ul style="list-style-type: none"> <li>• Key informant interviews (e.g., ACIAR and IDRC officials involved in governance, finance and management)</li> </ul>
	3.2 Are the mechanisms for research coordination and research quality management adequate?	3.2.1 What support did the IDRC program and project management teams give to CultiAF projects? <ul style="list-style-type: none"> <li>– At inception phase (including capacity assessments)</li> <li>– To set up quality research management processes</li> <li>– To enable information sharing/networking</li> <li>– To provide oversight to monitoring, evaluation and financial management</li> </ul>	<ul style="list-style-type: none"> <li>• Perceptions of IDRC support by implementing and other partners</li> <li>• Existence of capacity assessments and CD plans/resources</li> <li>• Availability of high-quality project data from information systems</li> <li>• Evidence of efforts to promote ideas and develop professional relationships for CultiAF teams</li> <li>• Existence of timely and transparent project progress and annual reports and action plans.</li> <li>• Level and quality of participation and coordination mechanisms</li> </ul>	<ul style="list-style-type: none"> <li>• Document review, e.g., financial statements, capacity assessments, inception workshop reports, progress reports, annual reports, project management reports</li> <li>• Key informant interviews (e.g., IDRC team management, project managers and research teams, partner organizations)</li> </ul>
	3.3 Are the systems for monitoring and evaluation, reporting and communication adequate and effective?	3.3.1 Are there clear and transparent results frameworks at program and project levels?	<ul style="list-style-type: none"> <li>• Evidence of clear results frameworks and M&amp;E plans at program and project levels</li> <li>• Availability of timely, reliable and readily retrievably data through the existing M&amp;E systems</li> <li>• Coherence and alignment of project and program level monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• Document review, e.g., planning documents, M&amp;E frameworks, progress reports, annual reports, communications strategies/guidance; communications activities</li> <li>• Key informant interviews (e.g., ACIAR and IDRC program management, IDRC project management, project managers and research teams, partner organizations)</li> </ul>
		3.3.2 Are there rigorous communications strategies and adequate resources at the program and project levels?	<ul style="list-style-type: none"> <li>• Coherence and alignment of project and program level communications</li> <li>• Extent and quality of relationship between IDRC and ACIAR for monitoring and communications</li> <li>• Satisfaction with external</li> </ul>	

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
			communications contracting process and performance	
	3.4 What have been the strengths and weaknesses of the program's management and governance arrangements?	3.4.1 Were all relevant disciplines (e.g. scientific, social, economic, environmental) represented on the SAC?	<ul style="list-style-type: none"> <li>• Appropriateness of roles and representation of the SAC</li> </ul>	<ul style="list-style-type: none"> <li>• Document review, e.g., calls for proposals and correspondence, SAC and GC proceedings, project management reports, annual reports</li> <li>• Key informant interviews (e.g., SAC and GC representatives, IDRC program managers, IDRC &amp; ACIAR finance officers)</li> </ul>
		3.4.2 Were recommendations to the GC acted upon in a timely and transparent manner?	<ul style="list-style-type: none"> <li>• Appropriateness of roles and representation of the GC</li> <li>• Transparency of the selection process</li> </ul>	
		3.4.3 Did IDRC provide quality management of the portfolio during selection and in the inception stages?	<ul style="list-style-type: none"> <li>• Perceived quality of relationship between IDRC and ACIAR</li> <li>• Adequate staff and resources at IDRC to fulfill roles in the proposal call, vetting and approval of projects</li> </ul>	
4. Cross-cutting themes	<b>4.1 Gender and generational equality:</b> Is the program implementing actions that are effective and innovative to ensure gender and generational equality? Refer also to 3.1.2	4.1.1 What measures are in place at CultiAF program and project levels to ensure gender and generational inclusion and equality?	<ul style="list-style-type: none"> <li>• Existence of a CultiAF gender (generational) strategy</li> <li>• Evidence of extent to which gender equality has been strategically integrated into all stages of CultiAF programming and at project level</li> <li>• Resources available to implement strategies to improve equity (gender and generational)</li> </ul>	<ul style="list-style-type: none"> <li>• Document review:; gender strategy, environment strategies/guidelines, program guidelines, project documents, project progress reports, annual reports</li> <li>• Key informant interviews</li> <li>• Site visits</li> <li>• Focus groups</li> </ul>
		4.1.2 Has CultiAF contributed to improving women's decision-making, access to and control of resources?	<ul style="list-style-type: none"> <li>• Evidence of CultiAF activities which improve the inclusion and empowerment of women, youth and other disenfranchised stakeholders</li> </ul>	
		<b>4.2 Environmental sustainability:</b> Are the potential innovations likely to be	4.2.1 Are projects planned and monitored for environmental sustainability of new technologies?	<ul style="list-style-type: none"> <li>• Existence of project level environmental assessments</li> <li>• Evidence that M&amp;E systems incorporate indicators on environmental factors</li> </ul>

AREA	QUESTION	SUB-QUESTION	INDICATORS	METHOD (DATA SOURCE)
	environmentally sustainable?	5.2.2 Are measures to ensure environmental sustainability identified and costed while developing the technologies?	<ul style="list-style-type: none"> <li>• Analysis of costs/resources associated with environmental sustainability of innovations</li> </ul>	<p>documents, project progress reports, annual reports</p> <ul style="list-style-type: none"> <li>• Key informant interviews</li> </ul>
		4.2.3 Is environmental sustainability supported through awareness raising, skills development?	<ul style="list-style-type: none"> <li>• Evidence of activities that raise awareness and skills to ensure environmental sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• Site visits</li> <li>• Focus groups</li> </ul>
		4.2.4 Are there emerging results which address environmental sustainability in an important way?	<ul style="list-style-type: none"> <li>• Existence of results which address environmental sustainability</li> <li>• Perceptions of beneficiaries and key stakeholders</li> </ul>	
5. Sustainability	5.1 What is the likelihood that results/benefits will continue after projects are finished?	<p>5.1.1 Will research organizations have the capacity to continue to conduct similar research?</p> <p>5.1.2 Are partnerships established during the projects likely to continue?</p> <p>5.1.3 Are results and research relationships appreciated by beneficiary groups?</p> <p>5.1.4 Are there plans for scaling up results when they are available?</p> <p>5.1.5 Are there policies in place or planned to support scaling up results?</p>	<ul style="list-style-type: none"> <li>• Research organization staffing and resources</li> <li>• Governments/donors provide additional financing or express support for doing so</li> <li>• LoA or other mechanisms enable continued partnerships</li> <li>• Perceptions of beneficiaries and key stakeholders</li> <li>• Evidence of scaling up plans</li> <li>• Existence of policy analyses, briefs to improve policy and regulatory environment</li> </ul>	<ul style="list-style-type: none"> <li>• Document review: project documents, project progress reports, annual reports</li> <li>• Key informant interviews</li> <li>• Site visits</li> <li>• Focus groups</li> </ul>

# Appendix IV Data Collection Instruments

## Interview Questions: ACIAR and IDRC Management

Person Interviewed:	Role in CultiAF:
<b>Relevance</b> <b>To what extent are CultiAF results and outcomes relevant to Canadian and Australian international development policy and programs?</b>	<ul style="list-style-type: none"> <li>• Are expected results consistent with Canadian and Australian development policies and country programs? Reference documents?</li> <li>• Have Canadian and Australian representatives been sufficiently involved in the design and governance of the fund?</li> </ul>
<b>Effectiveness</b> <b>Has the CultiAF partnership delivered non-research benefits from increased collaboration between IDRC and ACIAR?</b>	<ul style="list-style-type: none"> <li>• Have IDRC and ACIAR become better acquainted since the CultiAF relationship, e.g. is there greater Institutional understanding of mandates and competencies?</li> <li>• Is any other joint programming being envisaged?</li> <li>• Is there more information sharing and institutional cross-fertilization?</li> </ul>
<b>Efficiency</b> <b>Has the implementation of CultiAF been efficient and economical, relative to its purpose and intended outcomes?</b>	<ul style="list-style-type: none"> <li>• What are your views about the costs of managing the fund relative to the funds disbursed?</li> <li>• Has the fund moved forward efficiently (e.g. timeliness of proposal calls to implementation)? Have there been any large delays or cost over-runs in program or project implementation?</li> <li>• For IDRC: Are there any synergies between CultiAF and CIFSRF?</li> </ul>
<b>Are the systems for monitoring and evaluation, reporting and communication adequate and effective?</b>	<ul style="list-style-type: none"> <li>• How effective has the relationship between IDRC and ACIAR been for monitoring and communications? Have resources been adequate? Any suggestions for improvement?</li> <li>• IDRC competitively contracted an external communications firm to support CultiAF. Are you satisfied with this modality? If not, how could it be improved?</li> </ul>
<b>Governance</b> <b>What have been the strengths and weaknesses of the program's management and governance arrangements</b>	<ul style="list-style-type: none"> <li>• What are your views on the composition, capacities and performance of the <b>Scientific Advisory Committee (SAC)</b>?</li> <li>• Are there disciplines that should be better covered in a subsequent Phase?</li> <li>• How satisfied are you with the roles and representation of the <b>Governance Committee</b>?</li> <li>• Was the selection process timely and transparent?</li> <li>• Can you recommend any improvements?</li> <li>• How would you describe the quality of the relationship between IDRC and ACIAR?</li> <li>• Has IDRC been able to provide adequate staff and resources to fulfill roles in the proposal call, vetting and approval of projects (staff vacancies, workloads?)</li> </ul>

<b>Sustainability</b> <b>What is the likelihood that results/benefits will continue after projects are finished?</b>	<ul style="list-style-type: none"><li>• Do you think the collaborating research organizations will have the capacity to do similar research in the absence of CultiAF support?</li><li>• Do you envisage providing additional support (e.g. Phase 2) or have any other donors expressed an interest in this kind of mechanism?</li><li>• If so, do you envisage expanding the fund to more countries or more areas of focus?</li></ul>
<b>Strengths and Weaknesses</b>	What are the overall strengths and weaknesses of CultiAF?

## Interview Questions: ACIAR and IDRC Finance and Administration Officers

Person Interviewed:	Role in CultiAF:
<b>Effectiveness</b> <b>Has the CultiAF partnership delivered non-research benefits from increased collaboration between IDRC and ACIAR?</b>	<ul style="list-style-type: none"> <li>• Have IDRC and ACIAR become better acquainted since the CultiAF relationship, e.g. is there greater Institutional understanding of mandates and competencies?</li> <li>• Have Canadian and Australian finance and administration officers been sufficiently involved in the design and operations of the fund to support results and outcomes being achieved?</li> </ul>
<b>Efficiency</b> <b>Has the implementation of CultiAF been efficient and economical, relative to its purpose and intended outcomes?</b>	<ul style="list-style-type: none"> <li>• What are your views about the costs of managing the fund relative to the funds disbursed?</li> <li>• Has the financial and administrative relationship been efficient?</li> <li>• Has the fund moved forward in a timely and transparent way?</li> <li>• Have there been any large delays or cost over-runs in program or project implementation?</li> </ul>
<b>Are the systems for monitoring and evaluation, reporting and communication adequate and effective?</b>	<ul style="list-style-type: none"> <li>• How effective has the relationship between IDRC and ACIAR been for monitoring and communications?</li> <li>• IDRC competitively contracted an external communications firm to support CultiAF. Are you satisfied with this modality? If not, how could it be improved?</li> </ul>
<b>Governance</b> <b>What have been the strengths and weaknesses of the program's management and governance arrangements?</b>	<ul style="list-style-type: none"> <li>• Has IDRC been able to provide adequate staff and resources to fulfill roles in the proposal call, vetting and approval of projects (staff vacancies, workloads?)</li> </ul>
<b>Strengths</b>	What are the overall strengths of CultiAF?
<b>Weaknesses</b>	What are the overall weaknesses of CultiAF?
<b>Suggestions</b>	What suggestions would you put forward to improve CultiAF in the remainder of this Phase or in a subsequent phase?

## Interview Questions: ACIAR and IDRC Communications Officers

Person Interviewed:	Role in CultiAF:
<b>Efficiency</b> <b>Are the systems for monitoring and evaluation, reporting and communication adequate and effective?</b>	<ul style="list-style-type: none"> <li>• How have IDRC and ACIAR communications officers been involved in CultiAF project design and operations?</li> <li>• Are all CultiAF projects required to have a communications strategy and, if so, how would you assess the adequacy of these strategies?</li> <li>• How effective has the relationship between IDRC and ACIAR been for communications?</li> <li>• IDRC competitively contracted an external communications firm to support CultiAF. Are you satisfied with this modality? If not, how could it be improved?</li> </ul>
<b>Strengths</b>	What are the overall strengths of CultiAF?
<b>Weaknesses</b>	What are the overall weaknesses of CultiAF?
<b>Suggestions</b>	What suggestions would you put forward to improve CultiAF in the remainder of this Phase or in a subsequent phase?

## Interview Questions: Governance Committee

<p><b><u>Introduction:</u></b></p>	<p>The purpose of the meeting is to (1) discuss strategic and managerial issues from the vantage point of the Governance Committee; (2) the efficiency and effectiveness of the proposal process; and (3) any suggestions for improvements in CultiAF in the near and longer terms (if a Phase II).</p>
<p><b><u>Governance</u></b>  <b>What have been the strengths and weaknesses of the program's management and governance arrangements</b></p>	<p>CultiAF uses a two-stage proposal approval process where Concept Notes and then Proposals are vetted through the Scientific Advisory Committee (SAC) and the Governance Committee (GC).</p> <ul style="list-style-type: none"> <li>• Regarding the <b>SAC</b>, what are your views on its composition, capacities and performance?</li> <li>• Regarding the <b>GC</b>, how satisfied are you with its mandate and the process followed?</li> <li>• Overall, was the CultiAF project selection process timely and transparent? Can you recommend any improvements?</li> <li>• Has IDRC been able to provide adequate staff and resources to fulfill roles in the proposal call, vetting and approval of projects (staff vacancies, workloads?)</li> <li>• How would you describe the quality of the relationship between IDRC and ACIAR?</li> </ul>
<p><b><u>Efficiency</u></b>  <b>Has the implementation of CultiAF been efficient and economical, relative to its purpose and intended outcomes?</b></p>	<ul style="list-style-type: none"> <li>• What are your views about the costs of managing the fund relative to the funds disbursed?</li> <li>• Has the fund moved forward efficiently (e.g. timeliness of proposal calls to implementation)? Have there been any large delays or cost over-runs in program or project implementation?</li> </ul>
<p><b><u>Sustainability</u></b>  <b>What is the likelihood that results/benefits will continue after projects are finished?</b></p>	<ul style="list-style-type: none"> <li>• Do you think the collaborating research organizations will have the capacity to do similar research in the absence of CultiAF support?</li> <li>• Do you envisage providing additional support (e.g. Phase 2) or have any other donors expressed an interest in this kind of mechanism?</li> <li>• If so, do you envisage expanding the fund to more countries or more areas of focus?</li> </ul>
<p><b>Strengths and Weaknesses</b></p>	<p>What are the overall strengths and weaknesses of CultiAF?</p>

## Interview Questions: Scientific Advisory Committee

<p><b><u>Introduction:</u></b></p>	<p>The purpose of the meeting is to (1) discuss strategic and managerial issues from the vantage point of the Scientific Advisory Committee; (2) the efficiency and effectiveness of the proposal process; and (3) any suggestions for improvements in CultiAF in the near and longer terms (if a Phase II).</p>
<p><b><u>Governance</u></b>  <b>What have been the strengths and weaknesses of the program's management and governance arrangements</b></p>	<p>CultiAF uses a two-stage proposal approval process where Concept Notes and then Proposals are vetted through the Scientific Advisory Committee (SAC) and the Governance Committee (GC).</p> <ul style="list-style-type: none"> <li>• Regarding the <b>SAC</b>, how were you selected to participate?</li> <li>• What are your views on its composition, capacities and performance?</li> <li>• Did it have the disciplinary representation it needed to vet all CNs and proposals?</li> <li>• Were the instructions you received on evaluating CNs and proposals clear?</li> <li>• Overall, was the CultiAF project selection process timely and transparent?</li> <li>• Has IDRC been able to provide adequate staff and resources to fulfill roles in the proposal call, vetting and approval of projects (staff vacancies, workloads?)</li> <li>• Can you suggest any ways to improve the SAC if there are subsequent phases of CultiAF or other similar funding mechanisms?</li> </ul>

## Interview Questions: IDRC Regional Office Director

<b>Person Interviewed:</b>	<b>Simon Carter</b>
<b>IDRC Regional Office Roles and Responsibilities</b>	<ul style="list-style-type: none"> <li>• What was the IDRC Regional Office role in the early stages of CultiAF negotiations with ACIAR?</li> <li>• Is your role formative in the sense of proposing changes or future programming?</li> <li>• Staff had to be hired and supported to implement CultiAF. Are you satisfied with this modality? Any suggestions for improvements?</li> <li>• Are you able to provide sufficient supports to CultiAF projects in capacity development, research management, partnerships, M&amp;E, etc. ? What could be improved?</li> </ul>
<b>Efficiency</b> <b>Has the implementation of CultiAF been efficient and economical, relative to its purpose and intended outcomes?</b>	<ul style="list-style-type: none"> <li>• What are your views about the costs of managing the fund relative to the funds disbursed?</li> <li>• Has the fund moved forward efficiently (e.g. timeliness of proposal calls to implementation)? Have there been any large delays or cost over-runs in program or project implementation?</li> <li>• For IDRC: Are there any synergies between CultiAF and CIFS RF?</li> </ul>
<b>Are the systems for monitoring and evaluation, reporting and communication adequate and effective?</b>	<ul style="list-style-type: none"> <li>• How effective has the relationship between IDRC and ACIAR been for monitoring and communications? Have resources been adequate? Any suggestions for improvement?</li> <li>• IDRC competitively contracted an external communications firm to support CultiAF. Are you satisfied with this modality? If not, how could it be improved?</li> </ul>
<b>Sustainability</b> <b>What is the likelihood that results/benefits will continue after projects are finished?</b>	<ul style="list-style-type: none"> <li>• Do you think the collaborating research organizations will have the capacity to do similar research in the absence of CultiAF support?</li> <li>• Do you envisage providing additional support (e.g. Phase 2) or have any other donors expressed an interest in this kind of mechanism?</li> <li>• If so, do you envisage expanding the fund to more countries or more areas of focus?</li> </ul>
<b>Strengths and Weaknesses</b>	What are the overall strengths and weaknesses of CultiAF?

## Interview Questions: Directors and Senior Research Managers

### Introduction:

The purpose of the meeting is to (1) discuss strategic and managerial issues from working with CultiAF, including program/project interactions; the adequacy of support received; results orientation and how this is managed; M&E; and communications; (2) how gender equality and environmental sustainability are mainstreamed in CultiAF projects; (3) overall views on early results and reach, including partnerships; (4) policy initiatives; (5) unexpected changes; (6) longer-term sustainability; and (7) suggestions for improvements. Ask for reference documents for any and all areas.

- Introduce yourself and the purpose of the meeting
- Discuss logistics (length: approximately 1-2 hours; extend offer to have more detailed conversations by email or Skype for individuals wanting more time)
- Document all attendees with sign-up sheet: name, gender, position, organization, email/phone, role in project

### Strategic and managerial issues from working with CultiAF

- How did your organization become involved with CultiAF? Did you initiate the proposal?
- Does your organization(s) participate in similar grant mechanisms? If so, how do they compare?
- Was the proposal call clear? Were decisions communicated in a timely manner? How did the Inception Phase of your project improve what was proposed?
- Has your organization(s) had any challenges fulfilling CultiAF requirements (e.g. staffing, facilities, funding, partnerships)? If so, how have you overcome these issues or are they still outstanding?
- How were partners identified to participate in this project and how are they helping you to realize intended results?
- How well does the Program relate to the Project (e.g. M&E and reporting, IT systems)
- Any other issues to discuss?

### Program/project management in terms of IDRC support.

- How do you assess the support you have received from IDRC:
  - during the inception stage
  - in ensuring research quality (res mgt processes)
  - In enabling better information sharing and networking
  - providing support to monitoring, evaluation and financial management (e.g., high quality data, timely and transparent reports)
- Can you suggest any improvements in the support you receive?

### Results frameworks and M&E

- Does your research team understand the results framework/impact pathway of CultiAF and your project?
- Are you satisfied with how the project is monitored and reported upon? Can you suggest any improvements?
- Are data from the project timely, reliable and readily retrievable?

<b>Communications</b>	<ul style="list-style-type: none"> <li>• How do you assess the communications around your project and the program as a whole?</li> <li>• How is new knowledge being disseminated (e.g. global, national and local levels)?</li> <li>• Can you suggest any improvements?</li> </ul>
<b>Gender and generational inclusion and equality</b>	<ul style="list-style-type: none"> <li>• Does your organization or the project have a relevant gender (or generational) equality strategy?</li> <li>• How has gender equality been integrated into the various stages of your project?</li> <li>• What are some specific ways you have tried to empower women, youth and other stakeholders?</li> <li>• What resources have been available to do this? Do you have any suggestions for improving this?</li> </ul>
<b>Environmental sustainability</b>	<ul style="list-style-type: none"> <li>• Are you satisfied with the thoroughness of project environmental assessments? If not, how could they have been improved?</li> <li>• How well does the research team track and report on environmental factors? Do you have all of the technical expertise on the team that you need?</li> <li>• Does the research include estimating costs/resources to comply with environmental standards?</li> <li>• Have there been activities that raise awareness and skills to ensure environmental sustainability?</li> <li>• Are any of your early results aimed at markedly improving the environment? If so, what?</li> </ul>
<b>Overall views of early results and reach</b>	<ul style="list-style-type: none"> <li>• Are there any early results showing innovation which has the potential for positive sustainable environmental outcomes and which meets the needs of men, women and young farmers and consumers?</li> <li>• Is there any early adoption by farmers and/or extension services and/or other relevant users/beneficiaries?</li> <li>• Are public and private sector organisations (not directly involved in the project) inquiring about or adopting project innovations?</li> <li>• Are researchers/organizations not associated with the projects expressing interest/ replicating/adapting/promoting information and innovations emerging from CultiAF research?</li> </ul>
<b>Relationship to policy environment</b>	<ul style="list-style-type: none"> <li>• Have you identified policies that need to be changed to facilitate uptake of your innovation? Have you yet engaged with policy makers and in what ways?</li> </ul>
<b>Unexpected positive or negative changes</b>	<ul style="list-style-type: none"> <li>• <b>Partnerships:</b> Has there been an evolution/devolution in numbers and types of partner organizations involved? If so, let's discuss.</li> <li>• <b>Beneficiaries:</b> Has there been an evolution/devolution in numbers and types of beneficiaries involved? If so, for what reasons?</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Resources:</b> Have amounts or types of resources available changed from what was originally planned? If so, let's discuss</li> <li>• <b>Results:</b> Thus far, how well do your research results reflect expectations that you had at the beginning?</li> </ul>
<b>Longer-term sustainability</b>	<ul style="list-style-type: none"> <li>• After CultiAF support, will your research organization(s) have the capacity to conduct similar research in the future?</li> <li>• Are the partnerships you established likely to be maintained in the future?</li> <li>• Has your government or other donors expressed an interest in providing ongoing support for similar research?</li> <li>• Have you yet started working on scaling up plans?</li> </ul>
<b>Main strengths and weaknesses of CultiAF</b>	<ul style="list-style-type: none"> <li>• What are the main strengths and weakness of the project?</li> </ul>
<b>Any suggestions for improvements</b>	<ul style="list-style-type: none"> <li>• Do you have any specific suggestions for improving the existing project ? Any future initiative of a similar type?</li> </ul>

## Interview questions: Research Teams

### Introduction:

The purpose of the meeting is to (1) discuss contextual and institutional issues related to the research under the CultiAF project; (2) results orientation and the quality of data and analysis; (3) research design; (4) how gender quality and environmental sustainability are mainstreamed in the project; (5) overall views on early results and reach, including partnerships (6) policy initiatives; (7) unexpected changes; (8) longer-term sustainability, and (9) suggestions for improvements. Ask for reference documents for any and all areas.

- Introduce yourself and the purpose of the meeting
- Discuss logistics (length: approximately 2 hours; extend offer to have more detailed conversations by email or Skype for individuals wanting more time)
- Document all attendees with sign-up sheet: name, gender, position, organization, email/phone, and roles in the project

### Contextual and institutional issues

- How would you describe the proposal call process (level of difficulty, timeliness, usefulness of advice from SAC/IDRC)?
- Has your organization(s) had any challenges fulfilling CultiAF requirements (e.g. staffing, facilities, funding, partnerships)? If so, how have you overcome these issues or are they still outstanding?
- How do you assess the support you have received from IDRC:
  - during the inception stage
  - in ensuring research quality (e.g., problem identification, research design, mentoring junior scientists, quality data, monitoring and reporting)
  - in enabling better information sharing and networking
  - providing support to institutional management (e.g., financial management, facilities, administration)
- Can you suggest any improvements in the support you receive?
- If your project is being implemented also in other countries, how do the separate research teams interact? Could this be improved and how?
- Any other issues to discuss?

### Results frameworks, monitoring and analytics

- Does your research team understand the results framework/impact pathway of your work?
- Would you describe the research as particularly innovative and in what ways (e.g., built on existing knowledge in unique way, advancing understanding, breaking new ground)?
- Are you satisfied with how the project is monitored and reported upon? Can you suggest any improvements?
- Have data been systematically gathered and analyzed and in a timely way by your research team? Are data readily retrievable?
- Do you see a clear relationship between evidence gathered and conclusions being reached (e.g. rigorous analytics)? What support is offered to stimulate rigorous analysis (e.g. senior researcher mentoring, peer review, external expert advice)?
- Thus far, how well do your research results reflect expectations that you had at the beginning?

<b>Research Design</b>	<ul style="list-style-type: none"> <li>• Are you satisfied with the way the research problem was identified, developed and implemented thus far? How inclusive was this (e.g., partners, beneficiaries, male/female, youth)? How could this have been improved?</li> <li>• Do you have the research team that you need in terms of disciplinary coverage, maturity, mentoring, etc? How could this be improved?</li> <li>• How were your partners identified and at what stage of research design and implementation?</li> <li>• Did you adequately anticipate all of the resources you need? Have amounts or types of resources available changed from what was originally planned (e.g. loss or addition of research staff, more funds made available from new sources, lack of expected institutional support)? Please discuss.</li> </ul>
<b>Mainstreaming gender and youth in research</b>	<ul style="list-style-type: none"> <li>• How has gender equality been integrated into the various stages of your project? What are some specific things you have done to ensure gender and youth inclusion, equality and empowerment? (e.g., sensitivity to needs of women/men in project design; disaggregated data; gender-sensitive engagement; understanding of gender power relations; systematic gender differentiated analysis of research activities and findings on women/men; appropriate solutions for women/men). What resources have been available to do this (e.g. do you have social scientists and/or gender specialists working with you, targeted funding)?</li> <li>• What problems have you experienced with gender mainstreaming and how could this be improved?</li> <li>• Were indigenous knowledge, wisdom and practices taken into account in the research and dissemination? Please elaborate.</li> </ul>
<b>Environmental sustainability</b>	<ul style="list-style-type: none"> <li>• How well does the research team track and report on environmental factors? Do you have all of the technical expertise on the team that you need?</li> <li>• Does the research include estimating costs/resources to comply with environmental standards?</li> <li>• Have there been activities that raise awareness and skills to ensure environmental sustainability?</li> <li>• Are there any early results to discuss? If so, are any of them aimed at markedly improving the environment? If so, what?</li> </ul>
<b>Overall views of early results and reach</b>	<ul style="list-style-type: none"> <li>• Do you have dissemination strategies? Are these based on an analysis of farmer/community constraints, resources needed and likelihood of success?</li> <li>• What roles do/will your partners have in disseminating and scaling up research results?</li> <li>• Are there any early results that are being adopted by partners, farmers and/or extension services and/or other relevant users/beneficiaries?</li> <li>• Are public and private sector organisations (not directly involved in the project) inquiring about or adopting project innovations?</li> <li>• Are researchers/organizations not associated with the projects expressing interest/replicating/adapting/promoting information and innovations emerging from CultiAF research?</li> </ul>
<b>Policy initiatives</b>	<ul style="list-style-type: none"> <li>• Have you identified policies that need to be changed to facilitate uptake of your innovation? Have you yet engaged with policy makers and in what ways?</li> <li>• Are there barriers to doing so?</li> </ul>

<b>Unexpected positive or negative changes</b>	<ul style="list-style-type: none"><li>• <b>Partnerships:</b> Has there been an evolution/devolution in numbers and types of partner organizations involved? Please discuss.</li><li>• <b>Beneficiaries:</b> Has there been an evolution/devolution in numbers and types of beneficiaries involved? If so, for what reasons?</li><li>• <b>Others:</b> Are there any other unexpected changes?</li></ul>
<b>Longer-term sustainability</b>	<ul style="list-style-type: none"><li>• After CultiAF support, will your research organization(s) have the capacity to conduct similar research in the future?</li><li>• Are the partnerships you established likely to be maintained in the future?</li><li>• Have you yet started working on scaling up plans?</li></ul>
<b>Any suggestions for improvement of CultiAF?</b>	<ul style="list-style-type: none"><li>• Can you suggest any ways to improve the CultiAF mechanism – now or in the future – in addition to what we have already discussed?</li></ul>

## Focus Group Questions: University, Public Institutions, Private Sector and Other Partners

### Introduction:

The purpose of the meeting is (1) to understand how your organizations were involved in the CultiAF project, (2) how important the research findings might be to you and (3) how doing this research together might be improved.

- Introduce yourself and the purpose of the meeting
- Discuss logistics (length: approximately 1 hour; extend offer to have more detailed conversations by email or Skype for individuals wanting more time)
- Document all attendees with sign-up sheet: name, gender, youth (under 25 Y/N), organization, email/phone, role in project

### Involvement and Value Added to Partnerships

1. What type of partnership do you have with the project (e.g. research, agri-business, extension, communications, scaling up)?
2. How did you first learn about this research project?
3. Why did you want to be involved? Were you approached or did you initiate the contact?
4. Who came up with the idea for this research?
  - Had you already identified the problem to be solved?
  - Was similar research work already being done on this issue and, if so, by whom?
5. How were you involved in designing the research?
  - Did researchers convene meetings with you to discuss how to move forward?
  - Did you offer ideas and, if so, were they incorporated into the research approach?
  - From your vantage point, does the research team have the disciplinary coverage necessary to maximize results and make them practically useful to your company? (Try to understand if the business/economic/social perspective has been adequately covered, e.g., not just the technical science approach)
6. What roles have you had in conducting this research?
7. Have some of you changed your type of involvement since the research project began? If so, let's discuss why. (e.g., too time consuming, personal interest in this changed, learned about it after it began and was interested)
8. Would you like to continue to be involved in future research projects and, if so, how?

### Importance of results

The \_\_\_\_\_ project expects to have the following results:

(insert here for each project).

1. Would these results meet important needs of yours?
  - For private sector: if so, can your organization profit from this technology and make the necessary investments to use and promote it into the future?
  - For universities: If so, how will you use these results?
  - For NGOs other partners: If so, how will you use these results?

2. How has your partnership with CultiAF contributed to achieving these results?
3. Do you think research results will have any particular effects – positive or negative – on the environment?
4. Do you think they will benefit men and women in similar ways? Let's discuss this a bit.
5. Are you aware of any early results from this research?
6. Are you already using some of the technology coming out of the project? Is anyone else?
7. Do you have any ideas about how this can best be scaled up and out?

**Suggestions for improvements**

8. Do you have any suggestions on how to improve this project for the next 18 months?



## Appendix V Stakeholders Consulted

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
<b>Program-Level Interviews</b>			
Austin, Nick (M)	Chief Executive Officer, ACIAR	Australia	Skype interview
Blair, Albert (M)	Chief Financial Officer, ACIAR	Australia	Skype interview
Carter, Simon (M)	ROSSA Director, IDRC Governance Committee member	Kenya	Face-to-face interview
Cartmell-Thorp, Susanna (F)	Director, WRENmedia	UK	Skype interview
Charron, Dominique (F)	Director of Agriculture and Environment, IDRC Governance Committee member	Canada	Skype interview
Egyir, Irene (F)	Lecturer – University of Ghana Scientific Advisory Committee member	Ghana	Skype interview
Faminow, Merle (M)	CultiAF Program Manager, IDRC	Uruguay	Skype interview
Guenette, Louise (F)	Senior Communications Advisor, IDRC	Canada	Telephone interview
Hatibu, Nuhu (M)	Chief Executive Officer, Kilimo Trust Scientific Advisory Committee member	Uganda	Skype interview
Henderson, Robyn (F)	Manager, Corporate Engagement and Communications, ACIAR	Australia	Email exchange
Kaaria, Susan (F)	Senior Gender and Policy Officer, FAO Scientific Advisory Committee member	Kenya	Skype interview
Mamba, Joseph (M)	ROSSA Grant Officer, IDRC	Kenya	Face-to-face interview
Markham, Richard (M)	Research Program Manager, Horticulture, ACIAR	Australia	Skype interview
McGurk, Stephen (M)	VP for Programs, IDRC	Canada	Skype interview
Njuguna, Josephine (F)	ROSSA Grant Administrator, IDRC	Kenya	Face-to-face interview
Njuki, Jemimah (F)	Senior Program Officer, ROSSA	Kenya	Skype interview & face-to-face
de Plaen, Renaud (M)	Director, AFS, IDRC	Canada	Skype interview
Sanginga, Pascal (M)	Former Senior Program Specialist, IDRC	Italy	Telephone interview
Rurii, Mercy (F)	CultiAF Program Management Officer,	Kenya	Face-to-face

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
	IDRC		interview
Tagwira, Fanuel (M)	Endowed Professor – University of Africa Scientific Advisory Committee member	Zimbabwe	Skype interview
Wesley, Annie (F)	Senior Program Specialist, IDRC	Canada	Skype interview
Wood, Mellissa (F)	Director, AIFSC and CultiAF Program Manager, ACIAR	Australia	Face-to-face interview
<b>Project-level Interviews</b>			
<b>Postharvest Fish Value Chain and Social Change (107837)</b>			
Binauli, Lucy (F)	Shared resource-Gender Specialist, Head of Dept, Uni of Malawi	Malawi	Focus Group
Masanko Bulirani (M) 107837 & 107840	Department of Fisheries, Ministry of Agriculture & Fisheries. Malawi Government, Lilongwe	Malawi	Face-to-Face interview
Chijere, Asaf (M)	Research Officer, World Fish	Malawi	Focus Group
Kambalane, Lusizi (F)	Lecturer & MSc programme	Malawi	Focus Group
Katunda, Mangani (M)	PI & Senior Lecturer, Food Science University of Malawi	Malawi	Focus Group & face- to-face interview
Likongwe, Martin (M)	Lecturer & MSc programme, Uni of Malawi.	Malawi	Focus Group
Magalasi, Mufunanji (M)	Shared resource-Communications specialist & Head of Dept, Uni of Malawi.	Malawi	Focus Group
Mwadzangati, George (M)	Deputy District Fisheries Officer, Department of Fisheries & Project Coordinator	Malawi	Focus Group
Nadzanja, Tissie (F)	MSc student, Lake Malawi Project	Malawi	Focus Group
Ndolo, Victoria (F)	Senior Lecturer & Researcher Food Science	Malawi	Focus Group
Sangala, Angella (F)	Research Officer/MSc Student, University of Malawi	Malawi	Focus Group
Individuals not recorded (25F, 20 M) 107837 & 107840	Project participants – fish processors/traders, Innovation Platform committee members, Traditional authorities (TAs, FUMs), Department of Fisheries, University of Malawi	Malawi	Focus Group
<b>Post Harvest Management Technologies for Reducing Aflatoxin (107838)</b>			
Loveness Nyanga (F)	PI, University of Zimbabwe	Zimbabwe	Face-to-face interview

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
Ambali, Charlene (F)	PI, Action Contre la Faim	Zimbabwe	Face-to-face interview
Bango, Busi (F)	Empretec Consultant, Expanding business opportunities	Zimbabwe	Face-to-face interview
Chaparapata, Admire (M)	Agriculture Extension Services, Agritex wards 14 & 15 and Shamva district - Agriculture Extension Supervisor (AES)	Zimbabwe	Face-to-face interview
Dembedza, Mavis (F)	University of Zimbabwe Research Team, MPH Student	Zimbabwe	Focus Group
Gocha, Ranwwe (F)	AEW Ward 15	Zimbabwe	Focus Group
Gomora, Zepheniah (M)	Ministry of Health, Provincial Nutritionist	Zimbabwe	Face-to-face interview
Gunzi, Gwangwava (M)	Councillor, Ward 3	Zimbabwe	Face-to-face interview
Kadumbure, Brighton (M)	Metal artisan, Ward 3	Zimbabwe	Face-to-face interview
Kahari, Lovemore (M)	DAEO	Zimbabwe	Focus Group
Koza, Tirivangani (M)	Deputy Director, Research and Standards, Department of Mechanization	Zimbabwe	Telephone interview
Madzanganwa, Etina (F)	AES Zone 6	Zimbabwe	Focus Group
Manema, Lucy (F)	University of Zimbabwe Research Team, Research Associate	Zimbabwe	Focus Group
Maringe, David (M)	University of Zimbabwe Research Team, MPH Student	Zimbabwe	Focus Group
Murashiki, Tatenda (M)	University of Zimbabwe Research Team, MPH Student	Zimbabwe	Focus Group
Ncube, Fadzai (F)	AEW ward 14	Zimbabwe	Focus Group
Ndhlovu, Logic (M)	AES Madziva	Zimbabwe	Focus Group
Ngaru, Moira (F)	University of Zimbabwe Research Team, Gender Consultant	Zimbabwe	Focus Group
Individuals not recorded (1F ,1M)	Homestead visit to Mufutumira Village	Zimbabwe	Face-to-face interview
Individuals not recorded (30F, 12M)	Project participant farmers	Zimbabwe	Focus Group
Individuals not	10 female farmers: 4 Control Group	Zimbabwe	Focus Group

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
recorded (10F)	members, 3 Silo participants and 3 Hermetic Technology participants		
<b>INSFEED Insect Feed for Poultry and Fish Production (107839)</b>			
Diiro, Gracious (F)	Economist - ICIPE	Kenya	Face-to-face interview
Ekesi, Sunday (M)	Head, Plant Health/ICIPE	Kenya	Face-to-face interview
Ensor, Owen (M)	Director, Partnership and Production Team, Sanergy	Kenya	Face-to-face interview
Fiaboe, Komi K.M. (M)	PI/ICIPE (Kenya)	Kenya	Face-to-face interview
Kibet Korir, Nicholas (M)	Marketing, Sanergy	Kenya	Face-to-Face interview
Kori, Nicholas (M)	Researcher	Kenya	Face-to-face interview
Mbi, Tanga (M)	Post-Doctoral Fellow - ICIPE	Kenya	Face-to-face interview
Mubangazi, Deus (M)	Manager, Uganda Bureau of Standards Technical Services	Kenya	Skype Call
Munguti, Jonathan (M)	Senior Research Officer – Fish Feed Specialist	Kenya	Face-to-face interview
Muyonga, John (M)	Dean, Makerere University	Uganda	Skype Call
Nakimbugwe, Dorothy (F)	PI/Makerere (Uganda)	Uganda	Face-to-face interview
Ndegwa, Paul (M)	Director – School of Biological Sciences, University of Nairobi/ Principal Investigator	Kenya	Face-to-face interview
Nyingi, Damaris (M)	Research Assistant - KALRO	Kenya	Face-to-face interview
Osuga, Isaac (M)	Animal Nutrition Researcher - ICIPE	Kenya	Face-to-face interview
Prideaux, Christopher (M)	Director of Research and Partnership/ICIPE	Kenya	Face-to-face interview
Wachira, Ann (F)	Principal Research Officer- KALRO	Kenya	Face-to-face interview
Waithanji, Elizabeth (F)	Gender Specialist	Kenya	Face-to-face interview

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
<b>Improved Processing and Marketing of Healthy Fish Products (107840)</b>			
Banda, James J. (M)	Research Officer, Head of processing section & MSc student on the project.	Malawi	Focus Group
Chiwaula, Levison (M)	Principal Investigator & Dean of Social Science. University of Malawi	Malawi	Face-to-face interview
Gumulira, Innocent (M)	Fisheries Research Officer & Head of Fish biology & Ecology	Malawi	Focus Group
Kamtambe, Kingsley (M)	Fisheries Research officer & M&E officer on the project	Malawi	Focus Group
Kanyerere, Jeffrey (M)	Principal Investigator & Chief Research Officer, Head of Capture Fisheries Research. FRU	Malawi	Focus Group
Ngochera, Marson (M)	Head of Station/Officer in Charge, FRU	Malawi	Focus Group
Sungani, Harold (M)	Chief Research Officer & Deputy Head of Station	Malawi	Focus Group
<b>Pre-Cooked Beans for Food, Nutrition and Income in Kenya and Uganda (107842)</b>			
Michael Ugen (M)	PI, Precooked Beans, NARO	Uganda	Skype interview
Aseete, Paul (M)	Agricultural economist	Kenya	Face-to-face interview
Birachi, Eliud (M)	Coordinator - CIAT	Kenya	Face-to-face interview
Chege, Christine (F)	CIAT: Economist/nutritionist	Kenya	Face-to-face interview
Karanja, David (M)	PI, Precooked Beans, KALRO	Kenya	Face-to-face interview
Katabalwa, Charles (M)	Program Officer - CEDO	Uganda	Face-to-face interview
Kimotho, Ngila (M)	Managing Director, Dryland Seeds	Kenya	Face-to-Face interview
Leley, Philip (M)	Centre Director/KALRO/Katumani	Kenya	Face-to-Face interview
Lungaho, Mercy (F)	CIAT: Nutritionist	Kenya	Face-to-face interview
Muriithi, Festus (M)	DDG/Crops - KALRO	Kenya	Face-to-Face interview
Mutua, Mercy (F)	CIAT – Economist Research Associate	Kenya	Face-to-face interview

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
Mutuku, Rose (F)	Managing Director, Smart Logistics	Kenya	Face-to-Face interview
Ochieng, Joseph A.W. (M)	Asst Dir/Food Crops/KALRO	Kenya	Face-to-Face interview
Omondi, Simon (M)	KALRO: Researcher	Kenya	Face-to-face interview
Joab Ouma (M)	Business Development Manager - Lasting Solutions	Kenya	Face-to-face interview
Scolastica Wambua (F)	Researcher	Kenya	Face-to-face interview
Noah Wawire (M)	Institute Director, Agricultural Mechanisation Research Institute/KALRO/Kutamani	Kenya	Face-to-Face interview
Individuals not recorded (3M, 3F)	Members Mua Hills Farmer Group	Kenya	Focus Group
<b>Communicating Science for Impact Radio for Reaching Farmers (108018)</b>			
Hampson, Karen (F)	PI, Communications for Science Impact project, Farm Radio Intern	Tanzania	Skype interview
<b>Expanding Business Opportunities for African Youth in Agricultural Value Chains (108019)</b>			
Tambatamba, Jonathan (M)	PI, ATDF	Zambia	E-mail exchange
<b>Expanding Business Opportunities for Youth in the Fish and Poultry Sectors (108042)</b>			
Asena, Salome (F)	Project Administrator/CultiAF Research team	Kenya	Face-to-face interview
Jonyo, Bonn (M)	M&E Specialist/CultiAF Research team	Kenya	Face-to-face interview
Eweg, Rik (M)	Professor, Van Hall Larenstein Univ.	The Netherlands	Email exchange
Mguru, Karen (F)	Program Manager/CultiAF Research team	Kenya	Face-to-face interview
Munithi-Thomas, Jane (F)	Head of Marketing and Communications/CultiAF Research team	Kenya	Face-to-face interview
Mutegi, Reuben (M)	M&E Specialist/CultiAF Research team	Kenya	Face-to-face interview
Ochieng, Koki (F)	Faculty Communication Researcher/Faculty- Journalism Program/ CultiAF Research team	Kenya	Face-to-face interview
Dr. Peterson, Chris (M)	Professor, Michigan State Univ.	USA	Skype interview

NAME (GENDER)	POSITION/ORGANIZATION	COUNTRY	DATA COLLECTION METHOD
Sikalieh, Damary (F)	Gender Expert – Faculty/CultiAF Research team	Kenya	Face-to-face interview
Wachana, Paul (M)	Technical lead and faculty, Chandaria School of Business/CultiAF Research team	Kenya	Face-to-face interview
Wambalaba, Francis (M)	Action Research – Head of Research/ CultiAF Research team	Kenya	Face-to-face interview
Individuals not recorded (2F, 6M)	United States International University counselors	Kenya	Focus Group



## Appendix VI Documents Reviewed

### CultiAF Background Documents

CultiAF. (2013). *CultiAF Funding Agreement: ACIAR & IDRC*. Unpublished internal document.

CultiAF. (2014). *Monitoring and Evaluation Strategy*. Unpublished internal document.

IDRC. (2013). *CultiAF Project Approval Document*. Unpublished internal document.

IDRC. (2016, March 29). "CultiAF Approach."

[http://www.idrc.ca/EN/AboutUs/Donor\\_Partnerships/CultiAF/Pages/Approach.aspx](http://www.idrc.ca/EN/AboutUs/Donor_Partnerships/CultiAF/Pages/Approach.aspx)

IDRC. (2016, March 29). "CultiAF Program."

[http://www.idrc.ca/EN/AboutUs/Donor\\_Partnerships/CultiAF/Pages/default.aspx](http://www.idrc.ca/EN/AboutUs/Donor_Partnerships/CultiAF/Pages/default.aspx)

IDRC. (2016, March 29). "CultiAF Project Profiles."

[http://www.idrc.ca/EN/AboutUs/Donor\\_Partnerships/CultiAF/Pages/ProjectsList.aspx](http://www.idrc.ca/EN/AboutUs/Donor_Partnerships/CultiAF/Pages/ProjectsList.aspx)

### CultiAF Reports and Datasets

IDRC. (2014). *CultiAF Annual Status Report 2013-2014*. Unpublished internal document.

IDRC. (2015). *Annual report: Cultivate Africa's Future Fund, April 2014 – March 2015*.

IDRC. (2016). *Annual report: Cultivate Africa's Future Fund, May 2015 – April 2016*.

CultiAF. (n.d). *Beneficiaries*. [Excel spreadsheet]. Unpublished internal document.

CultiAF. (n.d). *CultiAF Inquiries*. [Excel spreadsheet]. Unpublished internal document.

CultiAF. (n.d). *CultiAF Knowledge Transfer Activities*. [Excel spreadsheet]. Unpublished internal document.

CultiAF. (n.d). *CultiAF Knowledge Transfer Activities*. [Excel spreadsheet]. Unpublished internal document.

CultiAF. (2016, May 9). *CultiAF Allocations and Disbursements*. [Excel spreadsheet]. Unpublished internal document.

### ACIAR Documents

Australian Government, Australian Centre for International Agricultural Research. (2013). *Cropping Systems and Economics Research Program Strategy*.

Australian Government, Australian Centre for International Agricultural Research. (2013). *Horticulture Program Strategy*.

Australian Government, Australian Centre for International Agricultural Research. (2014). *ACIAR: Strategic Action Plan 2014-2018*.

Australian Government, Australian Centre for International Agricultural Research. (2014). *Fisheries Research Program Strategy*.

Australian Government, Australian Centre for International Agricultural Research. (2015). *ACIAR: Annual Operating Plan 2015-2016*.

Australian Government, Department of Foreign Affairs and Trade. (2015, September 30). *Aid Investment Plan: Sub-Saharan Africa 2015-2019*.

### **Global Affairs Canada (GAC) Documents**

Global Affairs Canada. (2016). *International Assistance Review Discussion Paper*.

Global Affairs Canada. (2015) *Increasing Food Security*

### **IDRC Documents**

International Development Research Centre. (n.d). *Investing in Solutions: Strategic Plan 2010-2015*.

International Development Research Centre. (2009, October 27). *Innovating for Development: Strategic Framework 2010-2015*.

International Development Research Centre. (2015, December 23). *Agriculture and Food Security Implementation Plan 2015-2020*. Unpublished internal document.

International Development Research Centre, Program and Partnership Branch. (2010, February 22). *Agriculture and Food Security Program Prospectus for 2010-2015*. Unpublished internal document.

### **CultiAF Governance Committee (GC) and Scientific Advisory Committee (SAC)**

Austin, N. and Charron, D. (2013, December 18-19). *Governance Committee Meeting Cultivate Africa's Future (CultiAF) (Meeting minutes)*. Unpublished internal document.

Austin, N. and Charron, D. (2014, June 10). *Governance Committee Meeting Cultivate Africa's Future (CultiAF) (Meeting minutes)*. Unpublished internal document.

Austin, N. and Charron, D. (2015, March 2-3). *Governance Committee Meeting Cultivate Africa's Future (CultiAF) (Meeting minutes)*. Unpublished internal document.

Austin, N. and Charron, D. (2015, December 11). *Governance Committee Meeting Cultivate Africa's Future (CultiAF) (Meeting minutes)*. Unpublished internal document.

CultiAF (n.d). *Governance Committee Terms of Reference*. Unpublished internal document.

CultiAF. (2013). *Terms of Reference for the Scientific Advisory Committee (SAC) Cultivate Africa's Future (CultiAF)*. Unpublished internal document.

CultiAF (2013, October). *Manuel for the Assessment of Concept Notes and Full Proposals Call 1, 2013: Instructions for Scientific Advisory Committee Members*. Unpublished internal document.

Faminow, M. and Wood, M). (2013, November 28-29). *Scientific Advisory Committee Meeting (SAC) Cultivate Africa's Future (CultiAF) (Meeting minutes)*. Unpublished internal document.

Faminow, M. and Wood, M. (2014, May 15-16). *Scientific Advisory Committee Meeting (SAC) Cultivate Africa's Future (CultiAF) (Meeting minutes)*. Unpublished internal document.

### **Call documents**

CultiAF. (n.d.) Evaluation Grid for Full Proposals. Unpublished internal document.

CultiAF. (n.d) Youth and Agribusiness Evaluation Grid for Full Proposals. Unpublished internal document.

CultiAF. (2013, July). *Call for Concept Notes*. Unpublished internal document.

CultiAF. (2013, July). *Call for Concept Notes: Instructions*. Unpublished internal document.

CultiAF. (2013, July). *Concept Notes*. Unpublished internal document.

CultiAF. (2014, May 15). *CultiAF Project Profiles and Review for the GC: Recommended proposals*. Unpublished internal document.

CultiAF. (2015, January). *Call for Proposals: Expanding Business Opportunities for African Youth in Agri-food systems*.

### **CultiAF Communications**

CultiAF. (n.d). *Communications Strategy: Cultivate Africa's Future*. Unpublished internal document.

CultiAF. (n.d). *Cultivate Africa's Future: Program Overview*.

<http://www.idrc.ca/EN/Documents/CultiAF-4-pager-ENG-web-final.pdf>

CultiAF. (2015, March 9-15). *Cultivate Africa's Future – Communications Workshop Report*. Unpublished internal document.

WRENmedia (2016, May). *Summary document: CultiAF Media and Communications So Far*. Unpublished internal document.

### **Gender Strategy**

IDRC. (2015, December 8). *A Strategy for Gender in Agriculture and Food Security at IDRC*. Unpublished internal document.

IDRC. (2016). *IDRC AFS Portfolio: Desk-based Gender Audit*. Draft, unpublished internal document.

Australian Centre for International Agriculture Research. (2015). *ACIAR's Policy on Gender and Human Rights in Agricultural Research and Development*. <http://aciarc.gov.au/page/strategy-policy>

Australian Government, Department of Foreign Affairs and Trade. (2016, February). *Gender Equality and Women's Empowerment Strategy*. <http://dfat.gov.au/about-us/publications/Pages/gender-equality-and-womens-empowerment-strategy.aspx>

Government of Canada, Global Affairs Canada. (2016, June). *Gender Equality*. <http://www.international.gc.ca/development-developpement/priorities-priorites/ges/index.aspx?lang=eng>

Johnson, N.L., Kovarik, C., Meinzen-Dick, R., Njuki, J., and Quisumbing, A. (2016). *Gender, Assets, and Agricultural Development: Lessons from Eight Projects*. World Development. 85. 295-311. <http://dx.doi.org/10.1016/j.worlddev.2016.01.009>.

### **CultiAF & AFS Monitoring Strategies and Tools**

IDRC. (n.d). *Database Identifiers Tags Map AFS Questionnaire*. Unpublished internal document.

IDRC. (n.d). *IRDC Guideline for AFS database: For use by database editors and administrators*. Unpublished internal document.

IDRC. (n.d). *Template and guidelines for 6-months project update*. Unpublished internal document.

IDRC. (n.d). *Questionnaire Instructions*. Unpublished internal document.

IDRC. (2010, December 2). *Agriculture and Food Security: Monitoring and Evaluation Plan*. Unpublished internal document.

IDRC. (2012). *Final Report Monitoring Questionnaire*. Unpublished internal document.

IDRC. (2012). *Interim Report Monitoring Questionnaire*. Unpublished internal document.

IDRC. (2012, July 26). *Guidelines for Preparing Interim Technical Reports*. Unpublished internal document.

IDRC. (2012, October 30). *Grants to Institutions: Guidelines for Preparing Final Technical Reports*. Unpublished internal document.

- IDRC. (2015) *AFS Database Objectives Tree*. Unpublished internal document.
- IDRC. (2015, July 30). *Grants to Institutions: Guidelines for Preparing Final Technical Reports*. Unpublished internal document.
- IDRC. (2015, July 31). *Guidelines for Preparing Interim Technical Reports*. Unpublished internal document.
- IDRC. (2016, February 26). *Canadian International Food Security Research Fund (CIFSRF) Annual Questionnaire*. Unpublished internal document.
- CultiAF. (2015). *Draft Template and guidelines for 6-month project update*. Unpublished internal document.

### **Project Inception Modules**

- IDRC. (2012, November 5). *Inception Workshop Ideas*. Unpublished internal document.
- IDRC. (2016). *Communicating Research*. [PowerPoint Slides]. Unpublished internal document.
- IDRC. (2016). *Integrating Gender into Projects and Programs: A Guide for Research Teams*. [PowerPoint Slides]. Unpublished internal document.
- IDRC. (2016). *Project Finance and Administration*. [PowerPoint Slides]. Unpublished internal document.
- IDRC. (2016). *Project Technical Reporting*. [PowerPoint Slides]. Unpublished internal document.
- IDRC. (2016). *Scaling Up in the Context of AFS*. [PowerPoint Slides]. Unpublished internal document.
- IDRC. (n.d). *Financial Workbook: External User Guide*. Unpublished internal document.
- Larrousse, Delphine. (2016). *Communications: Resource Guide for AFS Grantees*. Unpublished internal document.
- Paz, Alvaro. (2016). *Scaling Up Handout*. Unpublished internal document.

### **Evaluation and frameworks for evaluating research for development and other documents**

- AfDB, OECD, UNDP (2012). *African Economic Outlook 2012: Promoting Youth Employment*.
- African Union (2014). *Science, Technology and Innovation Strategy (STISA- 2024, African Union*.
- Carden, F. (2009). *Knowledge to Policy: Making the Most of Development Research*. IDRC.
- IDRC. (2013, July). *Evaluation at IDRC*. Unpublished internal document.
- FARA. (2014). *Science agenda for agriculture in Africa (S3A): "Connecting Science" to transform agriculture in Africa*. Forum for Agricultural Research in Africa (FARA), Accra, Ghana.
- FAO. (2015). *Regional Overview of Food Insecurity: African Food Security Prospects Brighter Than Ever*. FAO. Accra, Ghana.
- Government of Kenya. (2011). *The National Food and Nutrition Security Policy in Kenya*.
- Government of Uganda. (2011). *Uganda Nutrition Action Plan 2011-2016: Scaling up Multi-Sectoral Efforts to Establish a Strong Nutrition Foundation for Uganda's Development*.
- Government of Uganda. (2003). *The Uganda Food and Nutrition Policy*.
- Government of Zimbabwe. (2014, June). *Zimbabwe National Nutrition Strategy 2014-2018*.
- IDRC. (2012, February). *Formatting Evaluation Reports at IDRC*. Unpublished internal document.
- IDRC. (2010, April). *Quality Assessment of IDRC Evaluation Reports*. Unpublished internal document.

- Jones, Harry. (2011, February). *A Guide to Monitoring and Evaluating Policy Influence*. ODI.
- K. Brooks, S. Zorya, A. Gautam and A. Goyal (2013). *Opportunities for Young People in Africa, Policy Research Working Paper # 6473*, World Bank, Washington, D.C. USA
- OECD and Eurostat. (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3<sup>rd</sup> edition*. The Measurement of Scientific and Technological Activities. OECD Publishing, Paris.  
DOI: <http://dx.doi.org/10.1787/9789264013100-en>
- OECD Development Assistance Committee. (2010). *Quality Standards for Development Evaluation*. DAC Guidelines and Reference Series.
- Pasanen, T. And Shaxon, L. (2016, January). *How to Design a Monitoring and Evaluation Framework for a Policy Research Project*. ODI.
- Policy and Evaluation Division, IDRC. (n.d). *Towards Research Excellence for Development: The Research Quality Plus (RQ+) Assessment Instrument*. Unpublished internal document.
- Ofir, Z., Schwandt, T., Duggen, C. and McLean, R. *RQ+: A Holistic Approach to Evaluating Research*, IDRC, 2016.
- Science, Technology and Innovation Council. (2010). *Imagination to Innovation: Building Canadian Paths to Prosperity, State of the Nation 2010*. STIC, Ottawa.

### CultiAF Project documents

#### **1. Combining Postharvest Fish Value Chain and Social Change Interventions in Zambia and Malawi (CultiAF) (107837)**

- CultiAF. (n.d). *Project Profile: Improving fish post-harvest management and marketing in Malawi and Zambia*.
- CultiAF. (2015, March). *Cultivate Africa's Future (CultiAF) Project Update- Improving fish post-harvest management and marketing in Malawi and Zambia. Reporting Period October 2014 – March 2015*.
- CultiAF. (2015, September). *Cultivate Africa's Future (CultiAF) Project Update- Improving fish post-harvest management and marketing in Malawi and Zambia. Reporting Period April – September 2015*.
- CultiAF. (2016, March). *Cultivate Africa's Future (CultiAF) Project Update- Improving fish post-harvest management and marketing in Malawi and Zambia. Reporting Period October 2015 – March 2016*.
- International Development Research Centre. (2014, October). *Approval Document: 107837 Combining Postharvest Fish Value Chain and Social Change Interventions in Zambia and Malawi (CultiAF)*. Unpublished internal document.
- Kefi, AS., Katandu, M. and Mkandawire, NL. (2015, September 30). *First Interim Report: Improving Livelihood Security and Gender Relations in Rural Zambia and Malawi Through Post-Harvest Fish Value Chain Innovations and Social Change Interventions*. Unpublished internal report.
- Milambo, Elvis. (2016). *Communications Report on the CultiAF Research Project: January 2016 to May 2016. Barotse Flood Plains, Western Province, Zambia*.

#### **2. Post Harvest Management Technologies for Reducing Aflatoxin Contamination in Maize Grain and Exposure in Humans in Zimbabwe (CultiAF) (107838)**

- Action Contre la Faim International/University of Zimbabwe. (2016). [www.CultiAFacf-uz.org.zw](http://www.CultiAFacf-uz.org.zw)
- CultiAF. (n.d). *CultiAF Zimbabwe Project Milestones*. Unpublished internal document.

- CultiAF. (n.d). Project Profile: Reducing maize-based aflatoxin contamination and exposure in Zimbabwe.
- CultiAF. (2015, March). Cultivate Africa's Future (CultiAF) Project Update- Reducing maize-based aflatoxin contamination and exposure in Zimbabwe. Reporting Period October 2014 – March 2015.
- CultiAF. (2015, September). Cultivate Africa's Future (CultiAF) Project Update- Reducing maize-based aflatoxin contamination and exposure in Zimbabwe. Reporting Period April – September 2015.
- CultiAF. (2016, March). Cultivate Africa's Future (CultiAF) Project Update- Reducing maize-based aflatoxin contamination and exposure in Zimbabwe. Reporting Period October 2015 – March 2016.
- International Development Research Centre. (2014, September). *Approval Document: 107838 Post Harvest Management Technologies for Reducing Aflatoxin Contamination in Maize Grain and Exposure in Humans in Zimbabwe (CultiAF)*. Unpublished internal document.
- Nyanga, LK., Ambali, CP., and Chidewe, C. (2015, September 30). *First Interim Report: Postharvest management technologies for reducing aflatoxin contamination in maize grain and exposure to humans in Zimbabwe*. Unpublished internal report.

### **3. INSFEED: Insect Feed for Poultry and Fish Production in Kenya and Uganda (CultiAF) (107839)**

- CultiAF. (n.d). Project Profile: Integrating insects in poultry and fish feeds in Kenya and Uganda.
- CultiAF. (2015, March). Cultivate Africa's Future (CultiAF) Project Update- Integrating insects in poultry and fish feeds in Kenya and Uganda. Reporting Period October 2014 – March 2015.
- CultiAF. (2015, September). Cultivate Africa's Future (CultiAF) Project Update- Integrating insects in poultry and fish feeds in Kenya and Uganda. Reporting Period April – September 2015.
- Egerton University. (2015). Nutritive profiling, formulation and postharvest report. Unpublished internal document.
- Egerton University. (2015, October). Annual Technical Report. Unpublished internal document.
- ICIPE. (n.d). INSFEED M&E Strategy. Unpublished internal document.
- ICIPE. (2015). Gendered Knowledge Attitudes and Practices among Pond Fish Farmers in Kenya. Unpublished internal document.
- ICIPE. (2015). Gendered Knowledge Attitudes and Practices among Poultry (Chicken) Farmers in Kenya. Unpublished internal document.
- ICIPE. (2016, March 31). *1<sup>st</sup> Interim Technical Report*. Unpublished internal document.
- International Development Research Centre. (2014, September). *Approval Document: 107839 INSFEED: Insect Feed for Poultry and Fish Production in Kenya and Uganda (CultiAF)*. Unpublished internal document.
- Komi, Fiaboe, et al. (2015, October) *Insects for Food and Feed: From the Nature Kindness to a Structured Business*. [PowerPoint Slides]. Unpublished internal document.
- Mutungi, C., Gichuho, F., Nduko, J., Affognon, H., Ekesi, S., and Fiaboe., K. (2015). *Understanding the processing, storage and preservation of insects for food/feed in Africa: A review of the methods, safety, and nutritional aspects*. Working paper.
- Mutungi, C., Gichuho, F., Affognon, H., Ekesi, S., and Fiaboe., K. (2015). *A review of the Literature on Methods for Processing of Edible Insects for use as Poultry and Fish Feed Ingredient*. Working paper.

Sepuuya, G., Lutwama, V., Mukisa, IM., Affognon, HD., Ekesi, S. Fiaboe, KM., and Dorothy, N. (2015, October). *Safety and policy situation concerning utilization of Insects for fish and poultry feed in Africa*. Unpublished internal document

#### **4. Improved Processing and Marketing of Healthy Fish Products in Inland Fisheries in Malawi (CultiAF) (107840)**

Chiwaula, LS., Nagoli, J., and Kanyerere, G. (2015, October). First Interim Report: Improved Processing and Marketing of Healthy Fish Products in Inland Fisheries in Malawi. Unpublished internal report.

CultiAF. (n.d). Project Profile: Better processing and marketing of healthy fish products in Malawi.

CultiAF. (2015, March). Cultivate Africa's Future (CultiAF) Project Update- Better processing and marketing of healthy fish products in Malawi. Reporting Period October 2014 – March 2015.

CultiAF. (2015, September). Cultivate Africa's Future (CultiAF) Project Update- Better processing and marketing of healthy fish products in Malawi. Reporting Period April – September 2015.

CultiAF. (2016, March). Cultivate Africa's Future (CultiAF) Project Update- Project Update- Better processing and marketing of healthy fish products in Malawi. Reporting Period October 2015 – March 2016.

International Development Research Centre. (2014, September). Approval Document: 107840 Improved Processing and Marketing of Healthy Fish Products in Inland Fisheries in Malawi (CultiAF). Unpublished internal document.

Nsomba N'chuma (n.d). Quality of dried small fish species (*Engraulicypris sardella*, *Copadichromis* & *Diplotaxodon*) processed in solar tent dryer & open sun drying. [PowerPoint Slides]. Unpublished internal document.

Nsomba N'chuma. (2015). *Baseline Survey May 2015*. Unpublished internal document.

Nsomba N'chuma. (2015). *Report on the Sensitization Meetings on the Use of Solar Tent Driers*. Unpublished internal document.

#### **5. Pre-cooked Beans for Improving Food and Nutrition Security and Income Generation in Kenya and Uganda (CultiAF) (107842)**

Akumu, A. (2015, March). *Pre-Cooked Beans Screening*. Lasting Solutions, Quality Control Department. Unpublished internal document.

Aseete, P., Katungi, E., Bonabana, J., Nakazzi, F., Birachi, E., Ugen, M., and Mugagga, I. (2015, September). Consumer Analysis Report on the Potential Demand for Precooked Beans in Uganda. Working paper.

CultiAF. (n.d). Project Profile: Precooked beans for food, nutrition, and income in Kenya and Uganda.

CultiAF. (2015, March). Cultivate Africa's Future (CultiAF) Project Update- Precooked beans for food, nutrition, and income in Kenya and Uganda. Reporting Period October 2014 – March 2015.

CultiAF. (2015, September). Cultivate Africa's Future (CultiAF) Project Update- Precooked beans for food, nutrition, and income in Kenya and Uganda. Reporting Period April – September 2015.

Gichangi, A., Birachi, E., Aseete, P., Karanja, D. and Ugen, M. (2015, March). Precooked Bean Project Baseline Documentation: Economic Analysis of Precooked Bean Grain Production in Kenya and Uganda. Unpublished internal report.

- Gichangi, A. Wambua, S, Kavoi, J., Birachi, E., Muriithi, P., Aseete, P., and Mutua, M. (2015). Economic Analysis of Bean Grain Production in Selected Bean Corridors in Kenya. Working paper.
- International Development Research Centre. (2014, September). Approval Document: 107842 Pre-cooked Beans for Improving Food and Nutrition Security and Income Generation in Kenya and Uganda (CultiAF). Unpublished internal document.
- NARO & KALRO. (2015). Beans Catalogue: Precooked beans for Improved Health, Food & Nutrition Security and Wealth Creation. Unpublished internal document.
- NARO/KALRO. (2015, September). Pre-Cooked Beans for Improving Food and Nutrition Security and Income Generation and Conservation of Natural Resources: Annual Review Meeting. Unpublished internal document.
- SGS Kenya Ltd. (2015). Beans Nutrient Analysis Report. Unpublished internal document.
- Ugen, M., Karanja, D., Birachi, E. (2016, March 30). Pre-cooked Beans for Improving Food and Nutrition Security and Income Generation in Kenya and Uganda: 2nd Interim Report. Unpublished internal document.

#### **6. Communicating Science for Impact: Radio for Reaching Farmers with Research Results (CultiAF) (108018)**

- CultiAF. (2016, March). Draft Project Profile: Communicating science for impact: radio for reaching farmers with research results. Unpublished internal document.
- CultiAF. (2015). Project Update (Under Development): Communicating science for impact: radio for reaching farmers with research results. Reporting period June 2015 – December 2015. Unpublished internal document.
- International Development Research Centre. (2015, June). Approval Document: 108018 Communicating Science for Impact: Radio for Reaching Farmers with Research Results (CultiAF). Unpublished internal document.

#### **7. Expanding Business Opportunities for African Youth in Agricultural Value Chains in Southern Africa (CultiAF) (108019)**

- CultiAF. (n.d). Draft Project Profile: Expanding business opportunities for African youth in agricultural value chains in Southern Africa. Unpublished internal document.
- CultiAF. (2016, April). Cultivate Africa's Future (CultiAF) Project Update- Expanding business opportunities for African youth in agricultural value chains in Southern Africa. Reporting Period October 2015 – March 2016.
- International Development Research Centre. (2015, June). *Approval Document: 108019 Expanding Business Opportunities for African Youth in Agricultural Value Chains in Southern Africa (CultiAF)*. Unpublished internal document.

#### **8. Expanding Business Opportunities for Youth in the Fish and Poultry sectors in Kenya (CultiAF) (108072)**

- CultiAF. (n.d). *Draft Project Profile: Expanding business opportunities for youth in the fish and poultry sectors in Kenya. Unpublished internal document.*
- International Development Research Centre. (2015, June). *Approval Document: 108072 Expanding Business Opportunities for Youth in the Fish and Poultry sectors in Kenya (CultiAF). Unpublished internal document.*

## Appendix VII Research Quality Analysis

To evaluate research quality<sup>38</sup> IDRC considers “(1) that scientific merit is a necessary but insufficient condition for judging research quality; assessment must take into account scientific expertise and whether research is perceived as salient and legitimate in the eyes of multiple stakeholders and potential users; and (2) it acknowledges that while research effectiveness is not solely in the hands of the researchers, funders or research project managers, they do however play a significant role in learning about and establishing, to a certain extent, those conditions that may enhance users’ interest in, and use of, the research. It is therefore reasonable to hold researchers, research managers, and research funders responsible or accountable for the extent to which research is well-positioned for use”.

The evaluation team has taken this more holistic approach to assessing research quality and we have modified the RQ+ evaluation methodology, incorporating the four principle lines of questioning under effectiveness in this report. We have looked at the context of research - both at the research itself and the support provided by IDRC to build capacities and support performance – as described by IDRC (Table 1).

**Table 1. The context of IDRC research**

<b>Attributes of IDRC-funded research:</b>
Provides “use-inspired” research that is policy/practice relevant, problem-focused, solution-oriented or informed by national and local priorities
Produces multi-, inter- or transdisciplinary research, sometimes across disparate fields
Uses mixed methods primarily
Addresses complex and integrative problems
Displays sensitivity to and respect for local voices, knowledge and contexts, specifically in the Global South
Displays sensitivity to risk for vulnerable individuals and society, as well as fragile institutions, systems and contexts
<b>Attributes of IDRC’s supplementary support to researchers:</b>
Strengthens research capacities of individuals and institutions, through long-term investment
Takes risks by, for example, supporting entirely new fields of work, engaging with complex regional or global challenges, and supporting work in conflict-ridden or poverty-stricken environments
Encourages knowledge generation in the global South
Facilitates research networks, research to policy linkages and access to resources
Builds constituencies and networks for change
Targets changes in policies, practices, institutional systems and technologies
Partners as a mentor, advisor, peer and broker

In line with these RQ+ parameters, the evaluation has examined four principal lines of questioning:

- Research integrity, including the design and technical merit of the research;
- Research legitimacy, or how much stakeholders were involved and how their views were incorporated into the research;
- Research importance, or the perceived importance of the researchers by intended users; and
- Positioning of research for use.

<sup>38</sup> Ofir, Z., Schwandt, T., C. Duggen and R. McLean. *RQ+: A Holistic Approach to Evaluating Research*, IDRC, 2016.

“Innovation” is cited often in program documents though is not defined nor is it specified in the logic model or through indicators in the PMF. The Science, Technology and Innovation Council of Canada defined innovation in the *State of the Nation 2008* report as “the process by which individuals, companies and organizations develop, master and use new products, designs, processes and business methods. These can be new to them, if not to their sector, their nation or to the world. The components of innovation include research and development, invention, capital investment and training and development.” In this evaluation we have examined this issue as part of the research quality assessment taking it to mean a novel method or technology which has high potential to help solve a problem or otherwise benefit smallholder farmers, food processors, post-harvest handlers and other value chain actors to improve food, income and nutrition security in a gender equitable and sustainable manner in ESA. In some cases this is most evident as “proof of concept” research; in others it may be the way multi-disciplinary partners are working together to influence change.

### Research Integrity

This is an assessment of the technical quality or merit, appropriateness and rigor of the design and execution of the research. Important factors include: research design and methods; literature review and data collection and analysis; evidence systematically gathered and analyzed; and clear relationship between evidence gathered and conclusions reached.

The five technical CultiAF projects were conceived to address one or more identified problems affecting CultiAF target groups. They have clearly defined impact pathways and were rigorously designed with ongoing IDRC support and peer review mechanisms in place. The project ideas and proposals were based on a current literature review and lessons learned, and the projects integrate technical and social science disciplines through a combination of senior researchers, younger scientists and graduate students, allowing for the prospect of mentoring. All projects were subject to either internal or external ethics reviews depending on national requirements, including a thorough bio-medical research review in the case of the aflatoxin project. Though not requiring full environmental impact assessments, projects have undergone some scrutiny during the approval and inception phases to determine how environmentally sustainable they are and to address any risks associated with the technologies involved; this is an area where more depth of coverage is warranted.

In addition to these good research management practices, the CultiAF program assisted in methodologies and in data management, including what was an innovation for some of using tablets to input field-level data directly into software. The Program also required that each project develop a clear monitoring and reporting framework, a gender strategy and a communications strategy. IDRC provided considerable support to these processes, all of which have been appreciated by research teams. In most cases, this was a new expectation and research managers see utility in extending these skills to their parent organizations. IDRC could consider providing this higher-echelon capacity support either in these projects or in subsequent projects to better institute these best practices.

Though commencing later and with smaller budgets, the three cross-cutting projects also followed a rigorous internal proposal review and have received IDRC technical support to clarify reporting, gender mainstreaming and communications. Though all of them conduct research, for example, on radio listening approaches or on small business development models, they were also conceived to enable the technical projects to be better disseminated and used.

Another good practice in CultiAF management was the fostering of a *program* identity among the participating projects, in spite of the fact that most of the projects were dealing with different commodities and different issues. This was enabled by a program-level Inception Workshop held in Zambia which brought together researchers and partners in the five initial projects and FRI for capacity development and cross-learning opportunities. These relationships across projects and across countries are being fostered subsequently by individuals and through periodic meetings organized by IDRC, such as

the one in May on gender and the upcoming learning event in September 2016. The importance of cross-learning could have been enhanced if the projects were working on similar commodities and problems; this was not the intent of the CultiAF program but might be something to consider in the future – the relative pros and cons of having an open versus a more focused call.

### Research Legitimacy

One gauge of research legitimacy or engagement is the extent to which research results are derived from a process that takes into account the concerns and insights of stakeholders, including potentially negative consequences, gender-responsiveness, inclusiveness of vulnerable populations and engagement with local knowledge.

All of the CultiAF project ideas were formulated to solve identified problems among smallholders in their selected commodities, based on a current understanding of the issues. The evaluation team did not determine how project beneficiaries were involved in problem identification, a recognized indicator of research relevance, however, all proposals were vetted by the Scientific Advisory Committee, comprised of six regional experts who were selected for their deep knowledge of the needs in the region.

The five technical projects are however being implemented with multi-disciplinary teams, using participatory approaches to situate research, including socio-economic and gender research. As noted earlier, field visits and interviews with research teams reveal a strong engagement with and commitment to gender-equitable programming that is expected to benefit small, resource poor farmers. In most of the projects, this relationship goes beyond the considerable training provided to build awareness, knowledge and skills, but rather also feeds information into research itself. By looking through a gender lens, the research teams have been able to consider how to explore different options for technology development and for uptake and use.

Across the program, 25,756 smallholder farmers and fisher folk and agro-processors are involved in project research and more than half of these users are women (52%). They have provided feedback on early results including:

- The fisheries post-harvest management and marketing project is working with fishing communities in Malawi and Zambia to analyze fish value chains, including the differing roles of men and women, to understand how losses occur in fish volume, nutrient content, and economic value. Men and women participate in the analysis and in developing innovations.
- The Malawi fish processing and marketing project is evaluating four fish product factors (drying rate, quality of fish and consumer acceptance, packaging and consumer acceptance, and shelf life) with women and men that process fish at three different sites; researchers note that the project has benefited from local knowledge on traditional processing that was incorporated into the design of the improved solar driers currently being tested.
- The pre-cooked beans project conducted research using the Women's Empowerment in Agriculture Index (WEAI); using data from the farmer group profiling in Central Uganda, the study analyzed women's participation and leadership in groups. The findings will be used to guide development interventions that use group-based approaches in grain legume production and marketing. Further research is needed on the influence of household factors of women in leadership to fully empower rural woman.
- The farm radio project which is expected to reach 650,000 rural listeners in Kenya and Uganda includes formative research on active listening which aims to influence communications approaches.

All projects – including the more “upstream” aflatoxin and INSFEED projects – are conducting socio-economic surveys to properly situate stakeholders in research.

An additional 7,248 smallholder farmers (57% women) have been trained on use of the innovations. Depending on the nature of the innovations, stage of development of the innovations and the approaches used, the numbers of users vary across projects. Examples of this engagement are available in the 2016 CultiAF Annual Report.

### Research Importance

This criterion refers to the perceived importance and value of the knowledge and understanding generated by the research to key intended users. Innovation, as discussed earlier, can be defined in CultiAF as building on existing knowledge in unique ways, trying new approaches and methods, expanding partnerships or attempting completely novel ideas of potentially high impact. Risk of failure or low client acceptance can be higher in innovative research, especially for “proof of concept” research.<sup>39</sup> The CultiAF program was conceived to seek innovation and to accept some risks associated with new technologies and approaches. In this regard, it is a valuable program, allowing for potentially more creativity and experimentation than other funds are comfortable supporting. Assessing whether innovations will be important, this aspect of research quality involves understanding how intended users perceive it.

“Users” in this context include producers, agro-processors, agri-business and policy makers. Some of the partners in the research projects are also “users”, such as Sanergy, Lasting Solutions and Smart Logistics. They in turn have client groups who are involved in the research process along the value chain continuum. From interviews, these partners – which include national university and research organizations, social enterprises and NGOs, agri-business enterprises and farmer associations - are committed to the research and find considerable value in expected results. It is interesting to note that many of these partners self-identify as being part of the research team.

Though only mid-course in research project implementation, there is already evidence in some projects of the early uptake of research results. For example, the fish post-harvest management and marketing project in Malawi and Zambia indicated that 316 people are already using the improved four technologies; 266 farmer households in Zimbabwe are using either metal silos and/or hermetic bags to control aflatoxin contamination in maize and 12 artisans are producing metal silos; in Kenya, the majority of poultry (91% of 388) and fish (81% of 278) farmers surveyed expressed awareness of the use of insects as feed and 93% would be willing to buy insect-based feeds; and there are 13,650 individual farmers organised in groups (6,442 men and 7,208 women) and 10,225 farmers (5,005 men and 5,220 women) involved in seed and grain production respectively in the pre-cooked bean project.

Where there has been some early feedback on issues of uptake, for example of fisheries technologies due to high costs, the projects are taking steps to maximize uptake and minimize rejection, for example, using multi-disciplinary teams to further investigate issues, engaging with policy and regulatory bodies and trying to arrange loan facilities where this has been identified as a bottleneck.

### Positioning for Use

Determining whether uptake of research findings and products actually occurred as well as tracking their influence and impact is beyond the RQ+ assessment; however, it can assess the extent to which management has positioned the research for use. This is evident as one of the key objectives of the CultiAF program is “to identify innovations and mechanisms for scaling-up in use of the most promising research results”. This also implicates improving the policy environment to enable adoption and use. IDRC has managed the research process at a program level in ways that increase the likelihood of probable use by:

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<sup>39</sup> In CultiAF, fish drying technologies, aflatoxin control measures, pre-cooked beans products and insect rearing for feed uses are novel technologies which challenge conventional production and post-harvest practices.

- Providing clear proposals instructions and a process to scrutinize research proposals against these stated objectives, including requiring that applicants “demonstrate the impact pathway to household income, food availability and nutrition with a high potential for being scaled up”;
- Facilitating a training module of the inception workshops on *Scaling Up in the Context of AFS*, which defined scaling up, discussed the factors that impact scaling up as well as methods for scaling up and how to influence policy, detailed the business case and its uses, and covered the challenges that come with scaling up.
- Providing support after approval in good research management practices, noted above, and specifically in communications support to enable research teams to describe progress and results to a wide array of interested stakeholders;
- Assisting with networking opportunities to raise the profile of what CultiAF projects are doing in both the scientific and development communities;
- Proactively engaging Farm Radio International to test models of improved radio communications to disseminate information on the pre-cooked beans and INSFEED projects; and
- Channeling available funds to a second round of proposals to “expand business opportunities for African youth in agri-food systems”. This call funded two projects to “identify and field test innovative business models for taking [the innovations developed in the first call for proposals] to scale”.

The five initial CultiAF projects were designed to maximize the likelihood that research results would be used by:

- Involving partners and stakeholders early in the project design stage to take a value chains approach to technology development;
- Developing communications for a wide variety of end users;
- Conducting socio-economic studies to influence research and to tailor results to prospective users;
- Engaging early with policy makers and regulatory agencies to work towards enabling the upscaling in use of research results; and
- Seeking interest of non-project funders to expand uptake and use.<sup>40</sup>

While many systems are in place in CultiAF to facilitate the uptake and use of research results, the single greatest barrier to doing so may be that results will not be fully consolidated by projects’ end. The 30-month implementation period – also lessened in some cases by poor weather in implementation – may compromise bringing research to its best stage of conclusion for passing on.

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<sup>40</sup> An example is the Fisheries Integration of Society and Habitats (FISH) project funded by USAID for extending solar tent drying and smoking kiln technologies for fish processing.



## Appendix VIII Biography of the evaluators

### Diana McLean – Team Leader

**Ms. Diana McLean (F)** has worked for over 30 years in agriculture, food security and nutrition research, policy development, programming and evaluation, mostly in sub-Saharan Africa. She was Regional Agronomist for West and Central Africa for USAID and a Research Officer for ISNAR before working as an independent consultant, principally for GAC (CIDA), GTZ, ISNAR, CARE, Team Technologies, the Chr. Michelsen Institute, the North-South Institute, World Bank, FAO, WFP and IFAD. She served for six years on the Board of WARDA. Ms. McLean holds a Master of Science in crop science with minor in soil fertility, and a Bachelor of Science in individualized studies in agriculture (agronomy and animal science) from North Carolina State University. ♦ **Organizational affiliation:** Universalia Management Group ♦ **Location:** Carleton Place, Ontario, Canada ♦ **Contact:** dm.cornucopia@gmail.com

### Ebbie Dengu – International Development Consultant

**Mr. Ebbie Dengu (M)** has over 30 years of experience in agriculture, rural development and food security in East and Southern Africa, where he has completed nearly 40 evaluation assignments for a variety of organizations, such as DFID, EU, FAO, USAID, SIDA, World Bank, and CIDA. His areas of expertise include: innovation systems, agri-business support and extension services, rural livelihoods, value chain development, conservation agriculture and climate change adaptation, institutional assessment, partnerships and capacity development. Mr. Dengu holds an MSc in Development Management from Open University and a BSc in Agriculture from University of Zimbabwe. ♦ **Organizational affiliation:** Technology Development Services Africa ♦ **Location:** Harare, Zimbabwe ♦ **Contact:** ebbiedengu@gmail.com

### Esther Rouleau – Intermediate Consultant

**Ms. Esther Rouleau (F)** has conducted several evaluations in the areas of food security, nutrition and gender equality using mixed-methods techniques and approaches. In 2014, she led a field mission to Nicaragua to assess the effectiveness and sustainability of an agricultural project aimed at using innovative agro-forestry techniques to empower indigenous cocoa farmers. She carried out MOPAN assessments of FAO and WFP, which included a gender mainstreaming component, and completed several gender equality assignments for clients such as CARE, OAS, UNAIDS and UN Women. Ms. Rouleau holds a Masters in Political Science from UQAM. ♦ **Organizational affiliation:** Universalia Management Group ♦ **Location:** Montreal, Canada ♦ **Contact:** erouleau@universalia.com

### Charles Lusthaus – Senior Internal Quality Assurance Advisor

**Dr. Charles Lusthaus (M)** is a founding partner of Universalia with over 35 years of experience leading and advising on complex evaluations of research institutions, knowledge platforms, and development agencies such as IUCN, GEF, FAO, IFAD, UNEP, CIDA, GDFRD and ILC. In the 1990's, he worked with IDRC to explore the performance of research institutions and the factors that support or inhibit their performance. Dr. Lusthaus possess extensive experience as Senior Evaluation Advisor, and holds a Ph.D. in Administration and Policy Studies in Education from State University of New York. ♦ **Organizational affiliation:** Universalia Management Group ♦ **Location:** Montreal, Canada ♦ **Contact:** clusthaus@universalia.com

# Appendix IX Terms of Reference



International Development Research Centre  
Centre de recherches pour le développement international

## REQUEST FOR PROPOSAL (RFP)

<b>RFP Title:</b> Evaluation of the Cultivate Africa's Future Fund	<b>RFP #:</b> 15160044
<b>Issue Date:</b> Monday, January 25, 2016	<b>Close Date &amp; Time:</b> Thursday, February 18, 2016 at 11:00:00 A.M. <i>Eastern Standard Time (EST)</i>
<b>Contracting Authority Division:</b> Procurement Management <i>Name:</i> Lindsay Empey <i>Title:</i> Procurement Officer <i>Email:</i> <a href="mailto:lempey@idrc.ca">lempey@idrc.ca</a>  (Tel #: 1-613-696-2150 / Fax#: (613) 563-9463 / Street address: 150 Kent Street, Constitution Square, Tower III, Ottawa, Ontario, K1P 0B2, Canada / Mailing address: PO Box 8500, Ottawa, Ontario, K1G 3H9, Canada)  <b>Head Office / Siège:</b> PO Box / CP 8500, Ottawa, ON, Canada K1G 3H9  (150 Kent Street, Constitution Square / 150, rue Kent, Complexe Constitution Square) Phone / Tél. : 613-236-6163 Fax / Téléc. : 613-238-7230  <b>Regional Offices / Bureaux régionaux :</b> Cairo / LeCaire • Montevideo • Nairobi • NewDehi	<b>Originating Division:</b> PPB

## SECTION 3 – STATEMENT OF WORK

This section is intended to provide Proponents with the information necessary to develop a competitive proposal. The Statement of Work is a complete description of the tasks to be done, results to be achieved, and/or the goods to be supplied.

### 3.1 RATIONALE, PURPOSE AND SPECIFIC OBJECTIVES OF THE EVALUATION

In 2012, the Australian Centre for International Agricultural Research (ACIAR), through the Australian International Food Security Research Centre (AIFSRC), and the International Development Research Centre (IDRC) of Canada announced a four year CAD 15 million “Cultivate Africa’s Future” (*CultiAF*) partnership. The main objective of this competitive research fund is to support applied research with a focus on the adoption of existing and new research results to achieve long-term food security specifically on post-harvest losses, nutrition and water use in Eastern and Southern Africa. The agreement establishing the fund was signed on June 24, 2013.

The funding agreement between IDRC and ACIAR stipulates that an independent mid-term evaluation of the CultiAF must occur 2.5 years into the fund (approximately September 2016). The Terms of Reference have been developed jointly by ACIAR and IDRC.

The evaluation will be expected to provide insights on the performance of the program and project results to date, and to provide recommendations to inform ongoing implementation and a potential second phase of the program

#### 3.1.2 Specific Objectives of the Evaluation

The specific objectives of the evaluation are the following:

- 1) Assess the relevance, appropriateness, effectiveness and efficiency of CultiAF
- 2) Assess the scientific merit and achievements, outputs and outcomes that specific projects have made or are positioned to make at the scientific and community levels
- 3) Provide strategic recommendations to guide implementation during the remaining period, and for a potential second phase of the program.

#### 3.1.3 Uses and Users of the Evaluation

The evaluation will provide guidance to the CultiAF’s Governance Committee to determine the extent to which the program is succeeding or not and to inform future food security programming, including a potential second phase of CultiAF.

IDRC and ACIAR management and program staff will use the evaluation to inform implementation during the remaining period of the program and to communicate results to various stakeholders.

The results of the evaluation will be shared with other donors, international and developing country stakeholders working on similar themes.

## 3.2 BACKGROUND INFORMATION

### 3.2.1 Evaluation Object: Development Context

Estimates of food insecurity and malnutrition indicate that Africa still has the highest proportion of undernourished people in the world. Research has considerable potential to improve the food security situation by identifying ways in which effective interventions can be undertaken. Investing in small-scale

agriculture is one of the most effective ways to meet the food security needs of vulnerable populations – especially women and children – while building economic livelihoods.

The Australian and Canadian governments both prioritize food security as key elements of their aid agendas and recognize the untapped potential of innovation for African smallholder farmers in helping food reach those who need it. There is also recognition of the considerable scope for additional research to find effective ways of reducing food losses while increasing returns through product quality control, market segmentation, processing and other forms of value addition. The Australian government thus established the Australian International Food Security Centre (AIFSC) within ACIAR to manage funding of agricultural research globally. The Canadian government also funds agricultural research in Africa through the Canadian International Food Security Research Fund at IDRC.

In 2012, the Australian Centre for International Agricultural Research (ACIAR) and the International Development Research Centre (IDRC) of Canada announced a four year CAD 15 million “Cultivate Africa’s Future” (*CultiAF*) Fund to further their agriculture and food security programming in the Africa region. IDRC and ACIAR had collaborated before and both organizations recognised the prospective gains in combining efforts and expertise. The collaboration would allow the harnessing and leveraging of Canadian and Australian science and technology expertise in areas such as nutrition, agribusiness and marketing and post harvest management.

Through extensive discussions between IDRC and ACIAR, a review of current food security initiatives in Africa as well as a review of previous and existing programs of the two organizations’ agriculture research portfolios, three key areas were identified as strategic opportunities for the CultiAF program; improving post-harvest systems, deepening understanding of linkages between agricultural production and human nutrition, and improving water usage and management practices especially in the face of climate change.

The principle objective of the Fund is to improve food security in Eastern and Southern Africa by funding applied research in agricultural development. An expected outcome is an increase in high-quality scientific research with a focus on the adoption of existing and new research results to tackle persistent problems of food insecurity.

The specific objectives are to:

- 1) Support innovative and complementary applied research on post-harvest systems, nutrition and sustainable water use.
- 2) Identify innovations and mechanisms for scaling-up in use of the most promising research results.
- 3) Support and underpin national and regional agriculture and food security policies and programmes.

Cutting across the three thematic areas of the fund are 2 cross cutting issues: gender equality and environmental sustainability.

**Gender equality:** The Fund recognizes that investing in small-scale agriculture is one of the most effective ways to meet the food security needs of vulnerable populations – especially women and children – while building economic livelihoods. Integration of gender in all areas of the fund-governance, management and programming-is critical. The Fund also recognizes the potential role of youth in agriculture and agribusiness development and the potential for agriculture to contribute to youth employment and has placed a special emphasis on working with youth and identifying modalities for more effectively engaging youth in agriculture.

**Environmental sustainability:** The implementation of CultiAF is intended to support increased environmentally sustainable food security for poor people, with a focus on women and men small holder farmers in targeted Eastern and Southern Africa countries. As a Canadian Crown corporation, IDRC is subject to the Canadian Environmental Assessment Act (CEAA) and has processes in place, which are audited, to ensure that all obligations under the Act are met.

### 3.2.2 Description of the Research Program

CultiAF was explicitly set up as a fund that would utilize competitive calls to identify and select proposals based upon merit from a list of 10 eligible countries. The 10 countries are Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe. The Fund was explicitly set up with three eligible areas of research: post-harvest management systems; linking agriculture to nutrition; and sustainable water use. The selection process was merit-based and did not require balance between the three eligible areas of research in actual selections, nor was it necessary to have projects in all eligible countries.

Key decisions about the Fund are made by a Governance Committee, made up of senior managers from ACIAR and IDRC. A Scientific Advisory Committee, composed of international experts (and also co-chaired by ACIAR and IDRC), is responsible for the scientific review of concept notes and proposals as well as making funding recommendations to the Governance Committee. The CultiAF program team has two dedicated staff (1 senior program officer and 1 program management officer) to manage the day-to-day operations of the fund, with administrative support from the IDRC regional office for Sub-Saharan Africa. It is supported by other IDRC program officers that contribute to project management, and a program manager that supervises overall implementation of CultiAF. The CultiAF team reports to the Governance Committee on progress and challenges, based on monitoring and oversight undertaken throughout the year.

The Fund budgeted at CA\$15 million, currently supports 5 large applied agriculture and nutrition research consortia in 5 countries, each involving a mix of public and private partnerships, and 3 cross cutting projects on youth and use of radio and ICTs for information dissemination and scaling up. The projects cover the first two areas of research-post harvest management and nutrition- with no proposals selected under the sustainable water use research area.

The projects are generating a portfolio of innovations (technologies, methodologies, and practices) that researchers believe have potential to improve food security in the countries where they are implemented and beyond. These range from multiple technologies for reducing fish post-harvest losses, technologies for reducing aflatoxins contamination in maize, insect based feed ingredients, precooked bean products amongst others.

More information on the Fund and the projects supported to date are available at: <http://www.idrc.ca/EN/AboutUs/DonorPartnerships/CultiAF/Pages/ProjectsList.aspx>

### 3.2.3 Intended Outcomes

The Fund was created to increase knowledge of new and effective applications that improve sustainable agricultural productivity and the nutritional value of crops and livestock in developing countries, and provide an increased capacity for developing country organizations to implement and support effective, cutting-edge solutions for agricultural productivity and nutrition.

Since no water projects were selected and, reference to water use outcomes in the Intended Outcomes section have been removed.

The following are the intended outcomes:

- **Ultimate Outcome** (long-term): Increased, gender equitable and sustainable food, income and nutrition security for small holder farmers in Eastern and Southern Africa.
- **Intermediate Outcomes** (medium-term):
  - Increased use by the research community of knowledge and resources to address post-harvest loss, nutrition problems in developing countries.
  - Increased crop, livestock and fisheries productivity, and reduced post -harvest losses from use of improved technologies by men and women smallholder farmers
  - More informed gender responsive, environmentally sustainable and better developed public policies and programming related to food security and nutrition that integrate with ongoing food security initiatives in Eastern and Southern Africa
- **Immediate Outcomes** (short-term):
  - Improved capacity of country, regional and international partnerships to conduct applied research on food security issues (post-harvest loss, and nutrition) that addresses the needs of smallholder men and women farmers and to disseminate research results in the East and Southern Africa region and beyond.
  - Increased global, national, and local knowledge of new, environmentally sustainable, and gender responsive research applications that reduce post-harvest losses and increase the nutritional value of food in Eastern and Southern Africa.
  - Increased application of appropriate, environmentally sustainable and gender equitable food system-based solutions (post-harvest loss and nutrition), by men and women farmers in Eastern and Southern Africa
  - Improved awareness and understanding among policy makers, the development assistance community and the general public of potential application-ready solutions to food security issues in Eastern and Southern Africa and beyond.

The CultiAF monitoring and evaluation strategy and accompanying monitoring and technical reporting tools will be provided to the evaluators.

### 3.3 EVALUATION CRITERIA

The evaluation will include a set of overarching questions that will address the whole program, and a set of questions tailored to the projects. The evaluation questions address key strategic and programmatic lines of inquiry, such as relevance, efficiency, effectiveness, contribution towards achieving food and nutrition security, value for money, and sustainability.

### 3.4 EVALUATION QUESTIONS

#### 3.4.1 Research Effectiveness

- a. Is CultiAF on track to meeting the expected immediate and intermediate outcomes of the program?
- b. Are there unintended results, either positive or negative?
- c. To what extent are CultiAF results and outcomes relevant to Canadian and Australian international development policy and programs?

#### 3.4.2 Research Quality

- a. Are the research and research partnerships of high quality, innovative and contributing new evidence on agriculture and food security?

### 3.4.3 Program Effectiveness

- a. Has the implementation of CultiAF been efficient and economical, relative to its purpose and intended outcomes?
- b. Are the mechanisms for research coordination and research quality management adequate?
- c. Are the systems for monitoring and evaluation, reporting and communication adequate and effective?
- d. What have been the strengths and weaknesses of the program's management and governance arrangements?
- e. Has the CultiAF partnership delivered non-research benefits from increased collaboration between IDRC and ACIAR?

### 3.4.4 Cross-Cutting Issues

- a. *Gender and Generational Equality:* Is the program implementing actions that are effective and innovative to ensure gender and generational equality?
- b. *Environmental Sustainability:* Are the emerging technologies/practices from CultiAF environmentally sustainable

## 3.5 CONCLUSIONS AND RECOMMENDATIONS 3.5.1 Current Programming

Having answered these questions, please provide conclusions and recommendations relevant to the overall purpose of the evaluation. In addition, indicate what the most important adjustments the program could make as it continues implementation are.

### 3.5.2 Future Programming

The evaluators should consider what patterns of strengths and weaknesses emerge from the evaluation and answer the following questions

- a. Is there a continued need for and relevance of the CultiAF program to IDRC and ACIAR?
- b. What are the implications of the strengths, weaknesses, and results of the CultiAF so far, for the design and implementation of a potential future phase?
- c. What else should the Fund consider to increase the uptake of research results, bringing results to scale, including increasing private sector involvement for a potential future phase?
- d. Do the evaluation results suggest important changes in direction to ensure future programming results in improved social and gender equity and environmental sustainability?

## 3.6 ROLES AND RESPONSIBILITIES

The evaluation is open to firms as well as groups of individuals. The firm or team must clearly identify one member as the team leader. IDRC will not consider individual applications, or applications that do not clearly identify the team leader. Only one contract will be issued with the selected proponents.

### Consultant

The Consultant will have the overall responsibility for:

- Ensure that appropriate ethical standards and guidelines have been developed and observed in the implementation of the evaluation;
- Ensuring to take into consideration the [OECD/DAC \(2010\) Quality Standards for Development Evaluation](#) and [IDRC's evaluation principles](#);

- Quality will be assessed on the extent to which the evaluation demonstrates that it has fulfilled its purpose using these standards.
- Reporting regularly on progress to IDRC;
- Ensuring they understand the scope, criteria and questions; and
- Ensuring the deliverables, milestones and schedules are met.

## IDRC

The IDRC responsible officer/manager will be responsible for the following:

- IDRC's Policy, Strategy and Evaluation Division will provide an ongoing appraisal of the maintenance of the ethical standards throughout the evaluation process;
- Act as the main contact person for the consultant;
- Approve the evaluation questions, work plan and evaluation methodology;
- Monitoring the evaluation process against a series of milestones articulated in these TOR's and informing the CultiAF Governance Committee Progress
- Coordinating input from ACIAR;
- Providing guidance to the Consultant throughout all phases of execution, approving all deliverables, and facilitating access to documentation and people deemed of importance to the evaluation process;
- Ensuring the quality control of all deliverables in collaboration with IDRC's Policy and Evaluation Division and Global Affairs and ensuring the usefulness of the evaluation for both institutions;
- Sharing deliverables with primary intended users (including CultiAF Governance Committee) and making the report available to those who may benefit from the evaluation;
- Collecting users' comments on the draft report; and
- Co-drafting, with ACIAR, the management response and include with the final Evaluation Report.