



INCEPTION REPORT

May 2015

Evaluation of the

**CGIAR Research Program on
Climate Change, Agriculture and Food Security (CCAFS)**



Simon Anderson (Team Leader)
In collaboration with IEA



Independent
Evaluation
Arrangement

This evaluation has been commissioned by the Independent Evaluation Arrangement (IEA) of CGIAR.

The Independent Evaluation Arrangement (IEA) of CGIAR encourages fair use of this material provided proper citation is made.

Correct citation: CGIAR-IEA (2015), Evaluation of CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Rome, Italy: Independent Evaluation Arrangement (IEA) of CGIAR

<http://iea.cgiar.org/>

Table of Contents

List of Acronyms	iv
EXECUTIVE SUMMARY	1
1. Introduction	3
1.1 Origins of This Evaluation	3
1.2 Evaluation purpose	3
1.3 Structure of the report	4
2. Background and context	5
2.1 CGIAR reform	5
2.2 CCAFS – background.....	6
2.2.1. Design and approach.....	6
2.2.2. Evolution of the CCAFS structure	7
2.2.3. Work in the regions and at the global level.....	8
2.2.4. Governance and management	9
2.2.5. Reporting, monitoring and evaluation	11
2.2.6. Budget and expenditure	12
2.2.7. Portfolio and current activities	13
2.3 Evaluating research on climate change challenges to development.....	15
3. Scope of the Evaluation	19
3.1 What the evaluation will cover.....	19
3.2 Evaluability assessment	20
4. Evaluation questions and criteria	21
4.1 Key evaluation questions (KEQ).....	21
4.2 Evaluation criteria – programmatic performance	24
4.2.1 Relevance.....	24
4.2.2 Quality of the science	24
4.2.3 Effectiveness.....	24
4.2.4 Interrelationship between relevance, quality of science and effectiveness	25
4.2.5 Impact and likely sustainability.....	26
4.2.6 Efficiency	27
4.2.7 Gender	27
4.2.8 Partnerships.....	27
4.2.9 Capacity development.....	27
4.3 Evaluation criteria – organizational performance	28
5. Evaluation approach and methods	29
5.1 Evaluation approach.....	29
5.2 Evaluation methods.....	31
5.2.1 Case studies	32
5.2.2 Interviews	33
5.2.3 Document review.....	34
5.2.4 Databases	34
5.2.5 Portfolio analysis.....	35
5.2.6 Researcher survey.....	35
5.2.7 Field visits	35
5.2.8 Synthesis of evaluative information:.....	36
5.2.9 Science quality assessment.....	36
5.3 Main limitations of the evaluation.....	37

5.4	Deviation from the Term of Reference	37
6.	Organization and timing of the evaluation	38
6.1	Team Composition/Roles and Responsibilities.....	38
6.2	Evaluation governance/roles and responsibilities	38
6.3	Quality assurance	39
6.4	Timeline	40
6.5	Deliverables and dissemination plans	40

Annexes

ANNEX A.	Evaluation matrix.....	42
ANNEX B.	Evaluation Team profiles	47
ANNEX C.	People consulted during inception period	48
ANNEX D.	Documents reviewed during inception period.....	49
ANNEX E.	CCAFS POWB 2015 summary	50
ANNEX F.	List of reviews and evaluations.....	54
ANNEX G.	Case project trajectories.....	55
ANNEX H.	Evaluation report outline.....	56
ANNEX I.	CCAFS Theory of change	57
ANNEX J.	CCAFS Organizational Structure.....	58
ANNEX K.	Overview of interview questions.....	61

Tables

Table 1:	CCAFS Regions and priorities for 2015.....	9
Table 2:	CCAFS expenditures (2011-2014)and budget for 2015 in USD thousands	13
Table 3:	CCAFS project portfolio per Flagship in USD thousands	14
Table 4:	CCAFS project portfolio per lead centre/partner (2015) in USD thousands	14
Table 5:	Field visit purpose and timeline	35
Table 6:	Evaluation Team composition and responsibilities.....	38
Table 7:	CCAFS Evaluation Reference Group members	39
Table 8:	Evaluation Timetable and Tentative Deliverables	40

Figures

Figure 1:	CCAFS Flagships and targets leading to IDOs.....	8
Figure 2:	Share of CCAFS cumulative expenditure 2011 -2014 per centre.....	12
Figure 3:	Conceptual framework relating quality of science to relevance and effectiveness.....	26
Figure 4:	Triple loop learning	31
Figure 5:	Plan for the generation, analysis and synthesis of evidence.....	31
Figure 6:	Generalised project/programme Research for Development Theory of Change [CSIRO R4D Meta-analysis project (2015) unpublished)	55

Boxes

Box 1:	Major Sources of Funding in the CGIAR System	6
--------	--	---

LIST OF ACRONYMS

BOT	Board of Trustees
CCAFS	CRP on Climate Change, Agriculture and Food Security
CCEE	CRP commissioned external evaluation
CIFOR	Centre for International Forestry Research
CIP	International Potato Centre
CIAT	International Centre for Tropical Agriculture
CIMMYT	International Maize and Wheat Improvement Centre
CO	Consortium Office
CP	Challenge Programme
CRP	CGIAR Research Programme
CSA	Climate-smart agriculture
CSO	Civil society organisation
EA	East Africa
ESSP	Earth System Science Partnership
FP	Flagship Project
GRiSP	Global Rice Science Partnership CRP
IAU	Independent Audit Unit
IEA	Independent Evaluation Arrangement
ICARDA	International Centre for Agricultural Research in the Dry Areas
ICRAF	World Agroforestry Centre
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDO	Intermediate Development Outcome
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
ILRI	International Livestock Research Institute
IPCC	Inter-governmental Panel on Climate Change
IPG	International public good
IRI	International Research Institute for Climate and Society
IRRI	International Rice Research Institute
ISP	Independent Science Panel (CCAFS)
ISPC	Independent Science and Partnership Council
IWMI	International Water Management Institute
KEQ	Key evaluation question
LAM	Latin America
M&E	Monitoring and Evaluation
NGO	Non governmental organisation
OECD	Organisation for Economic Co-operation and Development

P&R	Planning and Reporting Platform (CCAFS)
PMC	Programme Management Committee (CCAFS)
POWB	Program of Work and Budget
PPA	Program Participant Agreement
RBM	results-based management
ROPPA	Network of Farmers' and Agricultural Producers' Organisations of West Africa
SA	South Asia
SEA	South East Asia
SLO	System-Level Outcome
SRF	Strategy and Results Framework
TOC	Theory of Change
TOR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change
WA	West Africa

EXECUTIVE SUMMARY

This Inception Report describes the context, background and plans for the independent evaluation of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). The evaluation of CCAFS is one of ten CRP evaluations commissioned by the IEA at the request of the CGIAR Fund Council to provide evaluative information for the preparation and approval of CRP proposals going into the 2nd call of CRPs.

CCAFS is a partnership between the CGIAR and Future Earth, approved in 2011, and it builds on a CGIAR Challenge Programme on Climate Change. It is led by CIAT and engages all CGIAR Centres. CCAFS is currently organized around four Flagship Projects (FP) and five Regional Programmes, with gender and social inclusion being a cross-cutting thematic areas. CCAFS has the highest level of Windows 1 and 2 funding (2011-14; 64%) among the CRPs. The Independent Science Panel (ISP) is the main oversight body of CCAFS.

In line with other IEA commissioned evaluation, there are six main evaluation criteria: relevance, quality of science, effectiveness, efficiency (related to organizational arrangements and resource use), impact and sustainability (as a dimension of impact but also programme effectiveness).

The CCAFS evaluation will look primarily at technical issues at the project and programme level. Organizational aspects will be assessed from the perspective of achieving the objectives of the programme. The evaluation will make use of evaluations commissioned by CCAFS which also include several assessments of governance and management issues. Thus less emphasis will be put on organizational performance (including governance and management). The evaluation will be primarily formative, and will focus on current and proposed future work. The summative part of the evaluation will look at achievements and outcomes from past research, including from its origins as Challenge Program. .

In the design of the evaluation, the team has drawn on literature concerning the evaluation of research on climate change challenges to development applying these in the context of agriculture and food security. In the programmatic evaluation emphasis is on effectiveness which encompasses elements of relevance and quality of research. On the basis of consultation with the ISP, CCAFS management and stakeholders, the evaluation will specifically address four key evaluation questions that address programme effectiveness in particular:

- How well is strategic collaboration and integration both within and outside the CGIAR being achieved – termed “looking left and right in the traffic”?
- To what extent is CCAFS generating unique international public goods for agriculture, food security and climate change?
- How well do the Flagship Projects link together and combine at output and outcome levels in the Regions; and, to what extent are successes toward outcomes transferable from region to region?
- How robust are the M&E and learning processes of the Programme?

The evaluation will follow a consultative process. It will apply a mixed methods approach with in-depth case studies as a central component. The case studies, nine in total, have been selected in a framework of regions and FPs to address the key evaluation criteria and key evaluation questions. The CCAFS Theories of Change at FP level are used as entry points for the evaluation's "triple loop" learning approach. This includes assessment of the approaches and research quality at the actions level (are things being done right?), relevance of the assumptions and framing of the research strategy (are the right things being done?), and the extent to which the shifting context of climate change challenges, what is known about them and their proposed solutions are taken into account in continuous learning (how do we know what is right?). The evaluation will use both qualitative and quantitative data collection tools and evidence will be generated across scales.

The sequence of investigation includes a review of key programme and project documents followed by field visit in East and West Africa, South and South East Asia and Latin America; and interviews during field visits and virtually, which will serve both the case studies and programme-level assessment. A researcher survey will be conducted. A science quality assessment will include both bibliometric analysis and a qualitative review of publications commissioned to a small expert panel. The inquiry and analysis phase will be completed by August and the team will share its preliminary findings with CCAFS management and evaluation reference group before the Programme will finalise the pre-proposal for the CRP 2nd call. The draft report for comments is due by end of September and the final report will be completed in October.

1. INTRODUCTION

1.1 Origins of This Evaluation

Research in the CGIAR is guided by the Strategy and Results Framework (SRF), which sets forth the System's common goals in terms of development impact (System-Level Outcomes [SLOs])¹, strategic objectives and results, in terms of outputs and outcomes. The first SRF was approved in 2011 and the new SRF in April 2015. The CGIAR's research agenda is implemented by the CGIAR Centres and their partners through multi-partner CGIAR Research Programmes (CRPs). Research is funded through a pooled funding mechanism in the Fund², and through bilateral funding to Centres.

The CGIAR's Independent Evaluation Arrangement (IEA) Office³ is responsible for System-level Independent External Evaluations. The IEA's mandate is to facilitate the implementation of the CGIAR Policy⁴ for Independent External Evaluations, through strategic evaluations of the CRPs and institutional elements of the CGIAR, and through the development of a coordinated, harmonized and cost-effective evaluation system in the CGIAR.

The IEA's Rolling Work Plan for 2014-17, approved in November 2013 by the Fund Council, foresees the evaluation of up to 10 CRPs over the 2013-2015 period. The CRP on Climate Change, Agriculture and Food Security (CCAFS) is one of the CRPs evaluated in 2015.

1.2 Evaluation purpose

The principal purpose of this evaluation is to identify ways to maximise the contributions that CCAFS will make to reaching CGIAR goals, in particular future food security in the context of climate change effects. The CCAFS Evaluation is to inform decision-making and planning by the Programme management, CRP sponsors, partners and other stakeholders on aspects of programme performance and options for the future of the Programme.

In November 2013, the Fund Council of the CGIAR agreed that all current CRPs should undergo some form of evaluation by the time preparation of the full proposal for the second call of CRPs begins. The evaluation of CCAFS is therefore expected to provide evidence and information for the preparation of the Programme proposal and its assessment in the second call.

The Evaluation will provide a means for mutual accountability among the Programme, its donors and partners. It will enable learning to improve on Programme's relevance, effectiveness, efficiency,

¹ The three SLOs in the new SRF are: Reduced poverty; Improved food and nutrition security for health; and Improved natural resource systems and ecosystem services. CGIAR Strategy and Results Framework for 2016-2025. April 2015.

² The CGIAR Fund is a multi-donor, multi-year funding mechanism that provides funding to (i) CRPs through two "Windows"; Window 1 across CRPs as per Consortium decision and Window 2 to donor-specified CRP; and to (ii) donor-specified Centres through Window 3.

³ <http://iea.cgiar.org/>

⁴ http://www.cgiarfund.org/sites/cgiarfund.org/files/Documents/PDF/CGIAR_evaluation_policy_jan2012.pdf

impacts and sustainability of results. It will look at the extent to which CCAFS, within its mandate, is responding to the key aspirations underlying the CGIAR reform related to vision and focus, delivery orientation, synergy through efficient and effective partnerships and accountability.

The main stakeholders of this evaluation are the management of CCAFS, the members of the ISP, all 15 participating CGIAR research centres, the CIAT Board of Trustees (BOT) given the role of CIAT as a lead Center, the CRP's core strategic partners (e.g. Future Earth and IRI⁵), other partners associated to the Programme, and the CGIAR's governance and management at the System level.

1.3 Structure of the report

The report sets out the scope and framework of the evaluation and outlines the approach, methodology and methods to be used. Following the executive summary and Section 1, introduction and framing of the Evaluation, Section 2 provides the background for the evaluation in terms of the reform context and the CCAFS structure, content, finance and management. Section 3 sets out the scope and approach to be taken during the Evaluation. Section 4 provides details on the Evaluation questions and the other areas to be addressed and the criteria to be applied. Section 5 describes the Evaluation approach, methodology and methods. Finally Section 6 gives the Evaluation organisation and schedule of work. The Annexes provide the Evaluation matrix, team member profiles, people consulted during the inception, documents reviewed, the workplan, supporting studies and some of the data and information collection instruments.

⁵ International Research Institute for Climate and Society

2. BACKGROUND AND CONTEXT

2.1 CGIAR reform

The current CGIAR reform was set in motion in 2008. The CGIAR donors, in a Joint Declaration, agreed on the following main principles for the reform:

- 1) to harmonize our approach to funding and implementing international agricultural research for development through the CGIAR Fund (the Fund), The Strategy and Results Framework (SRF) and the consortium established by the Centres (the Consortium), respectively;
- 2) to manage for results in accordance with the agreed SRF and the Mega Programs that derive from the SRF;
- 3) to ensure effective governance and efficient operations in the provision and use of our resources; and
- 4) to collaborate and partner with and among funders, implementers, and users of SRF research, as well as other external partners supporting the SRF.

The SRF was approved in 2011 at a time when the Centre-led CRPs had already been developed, and two of them (CCAFS and GRiSP) had been approved. Thus the current CRPs did not emerge as a direct response to the SRF, although the SRF is intended to provide the broad rationale and context for the development, implementation and evaluation of all CRPs.

The CRPs were developed and appraised following a set of common criteria: (i) strategic programme coherence; (ii) focus on delivering outcomes and impacts towards the SLOs; (iii) quality of science; (iv), management of partnerships, including both research and development partners; (v) efficiency of programme management; and (vi) accountability, sound financial planning and efficiency of governance.

Under Consortium Office coordination and instructions, CRPs collectively and individually have worked on defining Intermediate Development Outcomes (IDOs). The IDOs link the CGIAR research to the SLOs and should facilitate priority setting, both at the CGIAR and CRP levels. The articulation of Theories of Change (TOC) and impact pathways – leading from research activities to the achievement of the IDOs – has also been required. CRPs were expected to define clear target domains (agro-ecologies and end user groups) and measurable results at outcome level.

A new SRF was approved by the funders in April 2015. Instructions for the 2nd call for funding CRPs are to be agreed in May-June 2015. The new SRF defines the CGIAR's mission, vision and a results framework at three levels: SLOs, IDOs and sub-IDOs that CRPs will directly target. It will determine accountability at CRP level and for aspirational high level targets at CGIAR levels. The experience and work on impact pathways and targeting will contribute to a Results-based Management (RBM) approach that currently is being piloted in five CRPs, including CCAFS.

The funding sources available to CRPs are shown in Box 1.⁶ The level of W1/W2 funding for each CRP was initially set on basis of the core funding in the period preceding the CRP (i.e. 2010).

The CGIAR has also adopted templates for annual reporting to the Consortium regarding all sources of funding. In parallel, bilateral funders have their own specific reporting requirements. Given that bilateral funding remains a significant proportion of all funding, the reform has not yet resulted in the anticipated reduction in reporting burden.

Box 1: Major Sources of Funding in the CGIAR System

To maximize coordination and harmonization of funding, donors to CGIAR are strongly encouraged to channel their resources through the CGIAR Fund. Donors to the Fund may designate their contributions to one or more of three funding “windows”:

- Contributions to **Window 1** (W1) are the least restricted, leaving to the Fund Council how these funds are allocated to CGIAR Research Programs, used to pay system costs or otherwise applied to achieving the CGIAR mission.
- Contributions to **Window 2** (W2) are designated by Fund donors to specific CRPs.
- Contributions to **Window 3** (W3) are allocated by Fund donors to specific CGIAR Centres.

Centres also mobilize financial resources for specific activities directly from donors as **bilateral funding** and negotiate agreements with their respective donors for the use of these resources.

2.2 CCAFS – background

2.2.1. Design and approach

The Challenge Programme (CP) preceding CCAFS was launched in 2009 for a ten-year period. It started as a collaborative endeavor between the international agricultural (CGIAR) and The Earth System Science Partnership (ESSP) representing global environmental change research communities, and their respective partners.⁷ The CCAFS proposal was fast-tracked and approved in 2011 as one of the first CRPs to be launched. The CRP addresses the increasing challenges of global warming and declining food security in terms of agricultural practices, policies and measures. The CRP is implemented in strategic collaboration between CGIAR and Future Earth⁸, an umbrella organisation established to lead global science initiatives on planetary change, including climate modelling, land cover change, earth system governance and greenhouse gas emissions.

The CCAFS goal is to “promote a food-secure world through the provision of science-based efforts that support sustainable agriculture and enhance livelihoods while adapting to climate change and conserving natural resources and environmental services”. In its ToC there are emphases on

⁶ <http://www.cgiar.org/who-we-are/cgiar-fund/>

⁷ ESSP was transitioned into Future Earth on December 2014.

⁸ Future Earth has been going through a lengthy start-up phase.

strategic partnerships, capacity building, communications, open access data, real time monitoring and evaluation (M&E), and a focus on gender and social inclusion.

2.2.2. Evolution of the CCAFS structure

From its inception in 2011 until the end of 2013 CCAFS was structured along four different Research Themes:

- I. Adaptation to Progressive Climate Change
- II. Adaptation through Managing Climate Risk
- III. Pro-Poor Climate Change Mitigation
- IV. Integration for Decision Making

In 2014 CCAFS continued working within the four themes and additionally piloted a FP on Policies and Institutions for Climate-Resilient Food Systems.

The first phase of the programme was cut by one year and for its extension period (2015-2016) CCAFS sharpened the focus of the programme. It introduced a FP structure (following Consortium Office discussions)⁹ which also meant shifting some of the major output groups:

- | | |
|-------|---|
| FP 1. | Climate-smart agricultural practices |
| FP 2. | Climate information services and climate-informed safety nets |
| FP 3. | Low-emissions agricultural development |
| FP 4. | Policies and institutions for climate-resilient food systems |

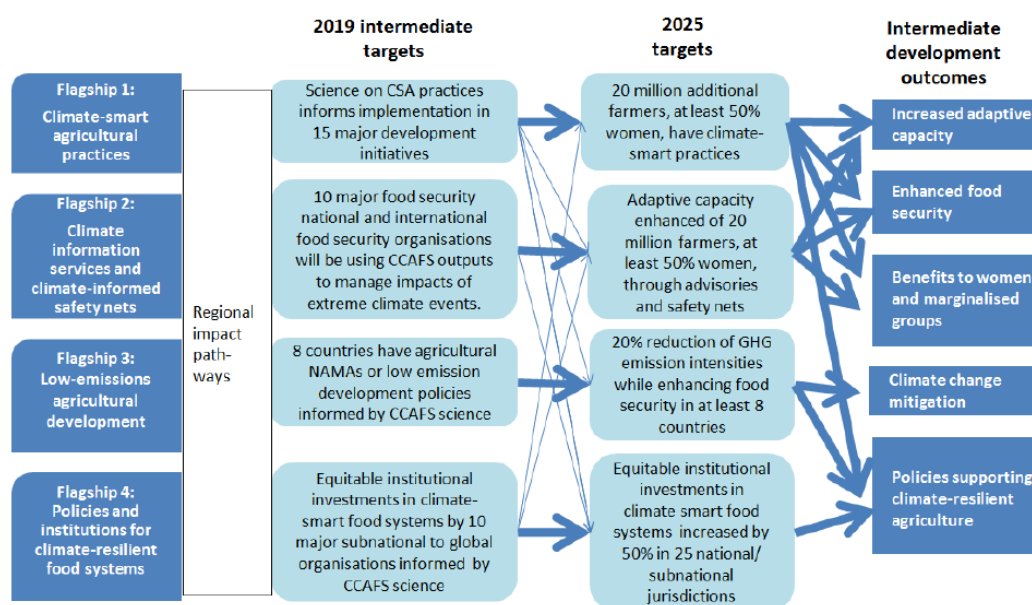
Prior to 2015 the issue of **gender** was organized as a body of research under FP 4 (part 4.1), and the intention was that it would be mainstreamed throughout the Programme. However, performance on gender work was not sufficiently good and so in 2014 the Programme decided to hire a "Gender and Social Inclusion Research Leader". This post, starting in April 2015, has the same status as a Flagship Leader (i.e. thematic or content leadership), but with responsibility to ensure mainstreaming of gender in all other FP activities. Gender is a thematic area of work, but is not formally called FP.

CCAFS targets five IDOs on food security, gender and social differentiation, adaptive capacity, policies and institutions, and mitigation.¹⁰ In its Extension Proposal CCAFS outlines Regional impact pathways (for each target region) as well as Flagship impact pathways.

⁹ According to the CGIAR Guidance Note for the Second Call of Proposals (Dec 2014): "Each FP has specific objectives and may produce several outputs and research outcomes in order to achieve in due course two or three Intermediate Development Outcomes or IDOs (rarely more)."

¹⁰ Of the IDOs agreed in 2014 amongst CGIAR Science Leaders (there is now a different agreed set in the new SRF), the following were selected by CCAFS: Increased and stable access to food commodities by rural poor ("**Food security**"). Increased control by women and other marginalized groups of assets, inputs, decision-making and benefits ("**Gender and social differentiation**"). Increased capacity in low income communities to adapt to climate variability, shocks and longer term changes ("**Adaptive capacity**"). Policies and institutions supporting sustainable, resilient and equitable agricultural and natural resources management developed and adopted by agricultural, conservation and development organizations, national governments and international bodies ("**Policies and**

Figure 1: CCAFS Flagships and targets leading to IDOs



Source: CCAFS Extension Proposal 2015-2016.

Furthermore CCAFS developed a programme level TOC which can be found in ANNEX I.

2.2.3. Work in the regions and at the global level

Apart from the FPs, CCAFS is also organized along Regional Programmes. Initially (2010 and 2011) CCAFS focused on three regions: East Africa (EA), West Africa (WA) and South Asia (SA). Two additional target regions [Southeast Asia (SEA) and Latin America (LAM)] were added in late 2012, whereas SEA is the least advanced region and was only rolled out in 2014, with full capacity expected only for 2015.¹¹

As shown in Table 1 below, the regions have different research priorities and types of activities. However, the aim is to also have cross-regional coordination, synthesis, partnerships, policy engagement, communications and events.

institutions”). Increased carbon sequestration and reduction of greenhouse gases through improved agriculture and natural resources management (“Mitigation”).

¹¹ This is due to the lag time in the recruitment of the Regional Programme Leader.

Table 1: CCAFS Regions and priorities for 2015

Region	Countries	Priorities for 2015
East Africa	Ethiopia, Kenya, Tanzania, Uganda	<ul style="list-style-type: none"> • decision tools and business models for scaling out climate-smart agriculture (CSA) • promote the science-policy dialogues on national adaptation plans in Kenya and Uganda
West Africa	Burkina Faso, Ghana, Mali, Niger, Sénégal	<ul style="list-style-type: none"> • expand the scaling up of equitable climate services • support the development of country action plans for CSA • conduct pilot tests on CSV models with the ROPPA farmer networks
Latin America	Colombia, El Salvador, Guatemala, Honduras, Nicaragua, Peru	<ul style="list-style-type: none"> • gathering evidence from climate-smart villages • focusing on agroclimate and extension services as key components
Southeast Asia	Cambodia, Laos, Vietnam	<ul style="list-style-type: none"> • participatory approaches in organizing the CSVs • evaluating CSA innovations from other partners
South Asia	Bangladesh, India, Nepal	<ul style="list-style-type: none"> • Developing the evidence base for CSVs • improve crop insurance products • developing decision support tools for national and sub-national adaptation plans

Source: CCAFS POWB 2015.

CCAFS also works at the global level as a theme leader e.g. advancing the CSA concept through the Global Alliance on CSA, strengthening regions' influence in global spheres e.g. capacity strengthening of the African Group of Negotiators in the UNFCCC, by strengthening the bodies of research reviewed and systematised by the Inter-governmental Panel on Climate Change (IPCC), and through informing and influencing the global climate change negotiations under the UNFCCC.

2.2.4. Governance and management

Due to its history, CCAFS has had an independent governing body from the start of the CP. The CRP's management arrangements were based on lessons learnt from the implementation of the CPs.¹² At the time of developing CCAFS as a CRP, CIAT was selected by the CP Steering Committee as the lead Centre based on a competitive call. The CRP involves participation of all the CGIAR Centres.

However, for the extension period 2015-16 the portfolio was reviewed and the involvement of Centres in the different FPs and regions was decided in late 2014, based on past performance and possible contribution to the new portfolio. As a result, the involvement of three centres (Africa Rice, ICARDA, CIP) has been reduced significantly and Bioversity's budget was reduced by 9 % (Table 4).

¹² "a governance body that is composed of independent individuals with no institutional connection to consortium members or CP partners appears to have more advantages and higher potential for effective and efficient performance. However, it should also take into account the need for support provided by a host institution as a legally constituted entity. Programmatic decisions should be left entirely to the CP's steering committee." CGIAR Science Council and CGIAR Secretariat, 2007.

The main oversight body of CCAFS is the Independent Science Panel (ISP); with both scientific and development expertise) which meets twice a year. The ISP is accountable to, and appointed by, the CIAT BOT, which has final decision power relating to CCAFS. The ISP is responsible for (among others):

- setting overall programmatic priorities;
- considering annual business plans and provide advice to the CIAT BOT;
- reviewing proposed annual budget allocation and providing advice to the CIAT BOT;
- approving the activity plan and budget of each Programme Participant;
- considering an annual report as submitted by the Programme Director.

The Programme Director is based at the University of Copenhagen together with a small Coordinating Unit totalling six staff (as well as several student interns from the University). Furthermore, CIAT as the lead centre undertakes some of the administrative functions for the CRP.

The CRP has a Programme Management Committee (PMC), which consists of the Programme Director and five selected Theme and Regional Programme Leaders. Its main responsibilities include:

- ensuring coherence across Centres, CRPs, Themes, Regions and partners through strategic planning, and reporting at the CCAFS level;
- ensuring outcomes and impact through the development of a research programme that interfaces appropriately with key stakeholders on the impact pathways;
- managing partnerships and networking;
- building relationships with funding agencies and raise resources for the programme;
- helping build a well-functioning and efficient CCAFS management collaboration.

Flagship leaders define strategic directions for their Theme and ensure coordination between the activities. Regional Programme Leaders are responsible for strategic direction and coordination of CCAFS in their region. In addition, there are CGIAR Climate Change Contact Points at each CGIAR Centre to facilitate linkages with Centres and other CRPs.

A Governance and Management Review of CCAFS¹³ carried out in 2013 was overall positive regarding the programmatic, governance and management structures. It acknowledged also the challenges to managing a programme that involved such a high number of participating centres. This was confirmed by the IEA commissioned CRP Governance and Management Review of 2014¹⁴.

For an organigram as well as a full list of current ISP, PMC members and CCAFS management staff, please see ANNEX J.

¹³ Maureen K. Robinson and Brian P. Flood (May 2013): Governance and Management Review. CGIAR Research Programme Climate Change, Agriculture and Food Security.
<https://cgspace.cgiar.org/bitstream/handle/10568/33706/CCAFSGovernanceManagementReview.pdf?sequence=1>

¹⁴ CGIAR-IEA (2014): Review of CGIAR Research Programs Governance and Management.
<http://www.iea.cgiar.org/sites/default/files/Final%20report%20CRP%20G%26M%201%20April%202014.pdf>

2.2.5. Reporting, monitoring and evaluation

CCAFS operations are guided by the CCAFS Strategy for Priority Setting, Monitoring and Evaluation (2012)¹⁵ which outlines foresight and priority setting, work planning and reporting and M&E of research outcomes.

There are several levels of planning and reporting of CCAFS. On a programme level, CCAFS has annual Programme of Work and Budget (POWB, former Business plans). Furthermore, there are centre activity plans that outline the activities within CCAFS for each centre and are reviewed by the ISP. There are annual CRP-level reports to the Consortium as well as reports per theme and region that include a consolidation of activity reports and reports at output level as well as lists of publications and communication outputs.

As CCAFS started earlier than most CRPs and had already been operating as a programme, it is relatively advanced regarding its monitoring framework. Furthermore a number of CRP commissioned external evaluations (CCEE) and reviews have been conducted. For instance, in 2013 the CCAFS ISP commissioned a review of the effectiveness of its region by theme matrix management.¹⁶ The review came to the conclusion that regional function plays an important role in on-ground delivery of activities, in implementing participatory action research and in setting priorities for research and outcome delivery.

For a full list of reviews and evaluations please see ANNEX F.

In 2014, CCAFS was selected as one of five CRPs to pilot RBM. This work in six new multi-year projects is embedded in Flagship 4.

While CCAFS has relied on a logframe-based programme design and management system, it will move in 2015 to a system, which monitors and measures progress along impact pathways and at the outcome level. CCAFS has been drafting regional impact pathways, which fit into global FP level impact pathways including performance indicators at the outcome level. The recently (Jan 2015) launched Planning and Reporting Platform (P&R), a web-based system, allows reporting at FP level and also monitoring and reporting against set targets up to outcome level.

¹⁵<https://cgspace.cgiar.org/bitstream/handle/10568/25108/CCAFS%20Strategy%20%20for%20priority%20setting,%20monitoring%20and%20evaluation%20FINAL.pdf>

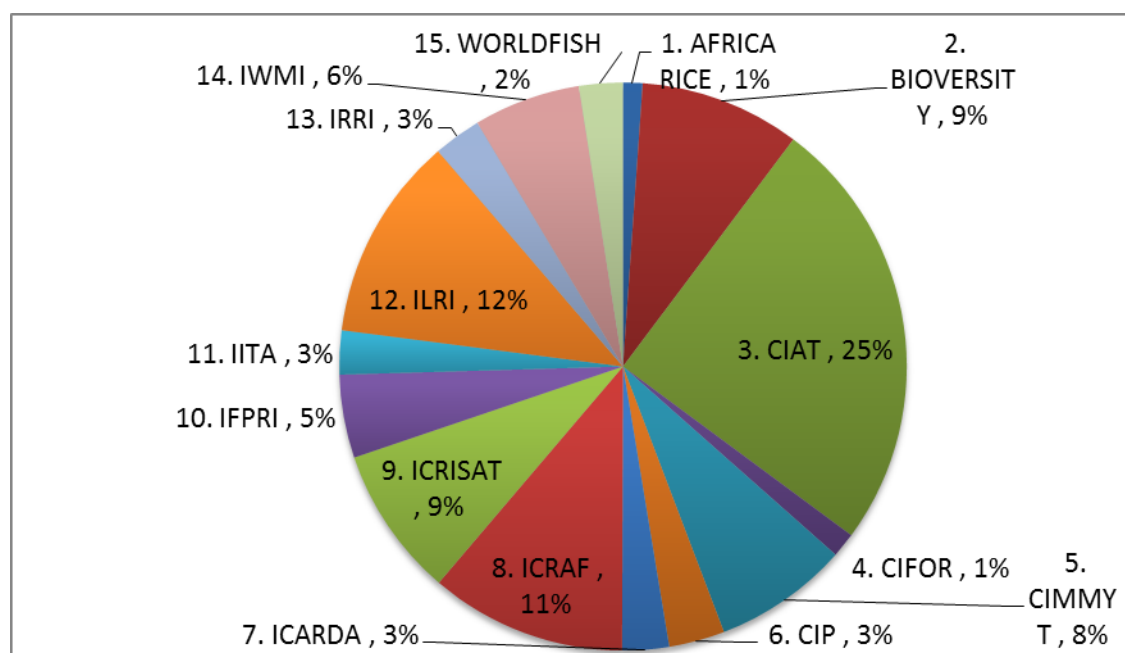
¹⁶ Andrew Ash (Dec 2013). Managing the CCAFS Theme by Region matrix for international public goods and development outcomes. Report on an evaluation commissioned by the CCAFS Independent Science Panel. CSIRO, 102 pp

2.2.6. Budget and expenditure

With annual budgets around USD 60-70 million, CCAFS is one of the largest CRPs. In comparison to other CRPs, it has the largest share of Window 1/2 funding as a proportion of total funding (in 2012 this was about 74%). In the approved proposal, the CRP presented a budget for five years of Phase 1 (2011-2015). The budget was expected to increase from USD 71.1 million in 2012 to 90.3 million in 2015, with Window 1/2 funding increasing to about 90% of total annual funding. In actual finance for 2011-13, 64 % of total expenditure has been funded from Windows 1 and 2.

Until the end of 2014 a total of USD 257 million has been spent, of which the largest share has been spent by the lead centre CIAT (25%)¹⁷, followed by ILRI, ICRAF, Bioversity, ICRISAT and CIMMYT, followed by smaller shares by the remaining centers (see Figure 2). The expenditure rose from USD 56.3 million in 2011 to USD 63.5 million in 2012 to USD 65.8 million in 2013 to USD 68.9 million for 2014. In 2014 the budget included USD 4.1 million for the piloting of FP4 RBM that will now be part of the next phase of CCAFS.

Figure 2: Share of CCAFS cumulative expenditure 2011 -2014 per centre



Source: CCAFS Cumulative Expenditures (2011-2014), provided by CCAFS management.

Until the end of 2014 the expenditure has been highest in the Research Theme 1 on Adaptation to Progressive Climate Change (around 30%) and then relatively even among the other three Research Themes. Looking at the budget for 2015, this continues, with FP1 even increasing to a share of 36%, while gender is treated as a cross-cutting theme to be mainstreamed in all research themes. Gender had expenditures of around 10% of total on average between 2011 and 2014. Table 2 shows the

¹⁷ Funding registered under CIAT includes the funding to major partners, such as IRI, and the Universities of Vermont, Leeds and Copenhagen

expenditure and budgets since 2011. The reporting of expenditures also includes budget lines for gender and management, which for the 2015 budget are integrated in the Flagship budgets.

Table 2: CCAFS expenditures (2011-2014)¹⁸ and budget for 2015 in USD thousands

	2011	2012	%	2013	%	2014	%	2015	%
Theme 1/FP 1	25,915	19,838	31%	20,813	32%	19,129	28%	22,701	36%
Theme 2/FP 2	9,343	11,102	17%	9,003	14%	7,983	12%	11,616	19%
Theme 3/FP 3	8,406	10,526	17%	12,468	19%	10,899	16%	11,553	18%
Theme 4/FP 4	12,597	11,738	18%	13,093	20%	16,340	24%	16,601	27%
Gender		6,850	11%	5,442	8%	9,516	14%		
Management		3,400	5%	4,941	8%	4,993	7%		
Flagship 4 Pilot									
TOTAL	56,261	63,453	100%	65,761	100%	68,860	100%	62,471	100%

2.2.7. Portfolio and current activities

As mentioned above, the current work of CCAFS is outlined in its POWB 2015 (see ANNEX E for a summary). It is structured into the four Flagships which have a total of 17 clusters of activities which lead to specific outputs that target different countries and regions.

The portfolio is a compilation of projects led by different participating centres and partners who “bid” into the impact pathways through proposals, which are reviewed and approved by the ISP.

Each project has information on the P&R platform, which includes basic project description, budget information (for gender and partnerships), and project outcome information (outcome statement and expected progress). The projects are mapped to FPs as well as to Clusters of Activities (usually more than one cluster), which are called Major Output Groups in the P&R system. Projects are split up into activities which have clearly indicated deliverables and statements on how they contribute to outcomes.

Currently the project portfolio includes a total of 91 projects of which 20 are managed by CCAFS management/ regional programmes or Flagships and the University of Copenhagen. The projects can be a mix of bilateral and W1/2 funds, purely bilateral or purely W1/2 funding. The distribution of projects and budgets per Flagship is shown below:

¹⁸ These figures are taken from the Consortium L-series reports. However, CCAFS actual expenses directly reported by the participating Centers to CIAT are slightly higher.

ⁱ⁾ Once a Center receives W1&2 funds, part of this is subcontracted to other CG Center and is budgeted and reported to CIAT by the participating Center in “CGIAR Collaborate” Budget and expenses line. CIAT in consolidation captures the corresponding expenses in the CGIAR Partner line on reporting.

ⁱⁱ⁾ In the consortium L Series reports, these funds subcontracted to other CGIAR Centers are discounted from the Collaborators Expenses line. This is because, it is assumed that the receiving Center has already reported on those funds directly to Consortium. Hence, if CCAFS reports on them to Consortium, this may be a double counting when CO consolidates expenses from all Centers.

Currently, projects are distributed among participating centres, other partners and CCAFS internally as shown in Table 4 (in descending order according of total budget).

Table 3: CCAFS project portfolio per Flagship in USD thousands

FLAGSHIPS	Number of Projects	W1/2 Budget	W3 Budget	Bilateral Budget	TOTAL BUDGET
1	34	14,780	4,003	3,917	22,701
2	16	7,684	2,223	1,709	11,616
3	17	6,286	2,466	2,800	11,553
4	24	11,704	630	4,268	16,601
Grand Total	91	40,454	9,323	12,695	62,471

Source: P&R project database. The budgets shown are those after the implementation of some major changes as a result of the c. 20% cut made to the whole of the CGIAR. It is expected that bilateral projects will be added as the year progresses.

Table 4: CCAFS project portfolio per lead centre/partner (2015) in USD thousands

CENTRE	Number of projects	W1/W2 budget	W3 budget	Bilateral budget	TOTAL
GIAR centres:					
	Contact Point Involvement				
AfricaRice		28		38	66
Bioversity	9	2,660	2,074	2,026	6,761
CIAT	20	4,466	534	2,738	7,739
CIFOR	6	981		200	1,181
CIMMITY	13	3,108	714	805	4,627
CIP	4	523	100	30	653
	Contact Point Involvement				
ICARDA		28			28
ICRAF	22	3,717		1,525	5,241
ICRISAT	8	1,725		1,246	2,971
IFPRI	13	2,359		632	2,991
IITA	3	905	181	716	1,802
ILRI	12	1,952		1,230	3,182
IRRI	8	1,333		406	1,739
IWMI	6	1,232	115	340	1,686
WORLD FISH	7	796			796
CCAFS core team (support to impact pathways, research gaps, synthesis, management)					
CCAFS Coordinating Unit	3	3,342	619	421	4,382
CCAFS Region Programme-LAM	2	1,269			1,269
CCAFS Region Programme-SEA	3	1,274			1,274

University of Copenhagen	4	1,663	187		1,850
CCAFS Flagship 4	5	1,418			1,418
CCAFS Region Programme- EA	2	1,113	302		1,415
CCAFS Region Programme- SA	3	1,570	233		1,804
CCAFS Region Programme- WA	2	1,076	247		1,323
CCAFS Flagship 1:	1	797			797
Other partners					
University of Vermont (CCAFS Flagship 3)	3	519	2,291	343	3,153
International Research Institute for Climate and Society (CCAFS Flagship 2)	5	446	1,725		2,171
University of Oxford	1	153			153
CCAF total Portfolio budget		40,454	9,323	12,695	62,471
		65%	15%	20%	100%

The budget per partner includes the total project budget for which a partner is responsible in its role as a lead in a project, but some proportion of those budgets are allocated to other partners (including Centers) to implement portions of the projects.

In addition to the current project portfolio, the evaluation team has access to the list of activities from 2012 to 2014, which includes a total of around 880 activities (32 cancelled, 346 completed, 45 incomplete, 319 partially complete, 26 extended, 114 ongoing).

2.3 Evaluating research on climate change challenges to development

The performance of CCAFS, in terms of effectiveness in reaching objectives, needs to be evaluated in the context of how well research can identify and provide solutions to the ways that climate change challenges agricultural productivity and food security. In order to do this there are three important elements that in an evaluative context can be framed under what is called the “triple loop learning paradigm” – are things being done right, are the right things being done, and how well do we know what is right?¹⁹ This paradigm corresponds particularly with the evaluation criteria of quality, relevance and effectiveness (see section 3.1 for criteria and 5.1 for further explanation of the evaluation approach).

A core question is how fit for purpose is the research that addresses climate change challenges to development – in this case agriculture and food security. Here the evaluation first assesses how well, in terms of quality and approach, the research is being done. Second is the wider context of the ways that climate change will affect agricultural development and achieving food security. Here evaluation needs to ascertain if the right research is being carried out taking into account the assumptions underpinning the programme’s TOCs. And third, it is important to be cognizant of the methodological challenges of evaluating climate changes responses. Here the evaluation looks into how well the effectiveness of research on climate adaptation in particular can be assessed, and the extent to which the Programme uses learning for adaptive management.

¹⁹ For definition, see: http://www.thorsten.org/wiki/index.php?title=Triple_Loop_Learning

Is research up to the climate challenge?

The High Level Panel of Experts on Food Security and Nutrition²⁰, established in 2010, has made a series of key observations on the climate change challenges to World food systems. These include (para-phrased):

- climate changes in temperature and rainfall regimes may have considerable impacts on agricultural productivity;
- current crop and livestock agriculture globally accounts for about 15% of total GHG emissions;
- the climate adaptation of the food system will be most difficult for the poorest and most vulnerable regions and populations;
- there are significant uncertainties in the way the climate will change, and how these manifest at regional and local scales. As these changes and impacts interact with a plethora of other factors, climate adaptation should thus be seen in the broader context of building a more resilient food system.

Climate change challenges socio-economic development in different ways: climate change will be felt first and worst in the poorest and vulnerable communities that need to benefit from public policy and international aid; the climate vulnerability of people and their livelihoods and ecological systems may reduce the effectiveness of development investment implementation; and, development investments and their deliverables may have effects (positive or negative) on peoples' and systems' vulnerability to climate change (Klein, 2001).²¹ Hence, climate change may substantially challenge the eradication of poverty over the medium term and further undermine the capacity of the poorest people to adapt (Anderson, 2011).²² Response strategies including those developed through research will need to insulate vulnerable groups from multiple vulnerabilities and threats that climate change will otherwise multiply and exacerbate.

Brown et al (2010)²³ have termed challenges such as those posed by climate change as 'wicked' because there is no unequivocal explanation of what the problems are, and analogues of solutions (similar previous cases) do not exist. Added to this, ways of dealing with climate change are so folded into social, economic and political causes and effects that further unforeseeable and unwelcome side effects are inevitable. Conventional modes of research enquiry have not gone far enough to address the problems of climate change. Much climate adaptation research is framed by the science of climate change impacts that does not deal well with the uncertainties of the interactions between climate impacts and development.

Mediation of climate change effects on development require addressing fundamental social, ethical and political factors such as chronic poverty, the rights and responsibilities of citizen and states, the ways that scientific knowledge is developed and deployed, and the role of technology in delivering

²⁰ <http://www.fao.org/cfs/cfs-hlpe/en/>

²¹ Klein, R.T.J. 2001. *Adaptation to Climate Change in German Official Development Assistance: An Inventory of Activities and Opportunities, with a Special Focus on Africa*. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit. (GIZ).

²² Anderson, S. 2011. *Climate change and poverty reduction*. Climate and development knowledge network Policy Briefing, August 2011. http://cdkn.org/resource/climate-change-and-poverty-reduction/?loclang=en_gb

²³ Brown, V. A., Harris, J. A. & Russell, J. Y. (eds) (2010) "Tackling Wicked Problems through the Transdisciplinary Imagination", Earthscan, 2010.

social resilience.²⁴ Research and enquiry are potentially crucial elements of climate responses for generating the public goods people need to overcome high uncertainty, high stakes challenges.

Assessment of research on climate challenges to agriculture and food security

Recent research on climate challenges to agriculture and food security has focused on developing the concepts of CSA. CCAFS defines CSA as “agriculture that sustainably increases productivity, enhances adaptive capacity, and reduces or removes greenhouse gas emissions where possible. At the local level, it shields farmers from the adverse effects of climate change, improves farm yields and household incomes, for stronger and more resilient communities. At the national level, it helps deliver food security and development goals, while reducing emissions.”²⁵

With regard to farming, the shift towards climate-smart practices is a highly knowledge-intensive process. As such, it not only requires scientific and technological support but also institutional and organizational changes. It is argued that beyond promoting additional scientific research and development on CSA, research and extension services need to be re-oriented and embedded in agricultural innovation systems that rely on participatory processes of knowledge generation and diffusion. Mutamba and Mugoya (2014) express the view that “even incentive systems for major agricultural research centres will need to be reoriented to encourage responsiveness to the most pressing problems facing farmers. Action research and farmer managed research trials must become the norm rather than the exception in agricultural research. Co-creation of knowledge with farmers should be a top priority, moving away from traditional top-down models of disseminating information that farmers had no role in generating. Innovative and more cost-effective extension models will need to be explored. These new models should facilitate greater involvement of the private sector, farmers' organizations and farmer-to-farmer exchanges.”²⁶

By strengthening local institutions, and including farmers' organizations, both the exchange of knowledge and technology and the promotion of risk mitigation tools could be encouraged. Also support to the collective changes needed to overcome cultural barriers and accept new ideas could be provided.²⁷ Context-specific strategies, including support to local innovation and existing

²⁴ Prof. Mike Hulme in <http://www.guardian.co.uk/environment/2010/may/13/right-wrong-tackling-climate-change/print>.

²⁵ See http://ccafs.cgiar.org/climate-smart-agriculture-about#.VT20g5O_UfE

²⁶ Manyewu Mutamba and Mainza Mugoya 2014. Climate-Smart Agriculture: Farmers' Perspective, SACAU, EAFF and CCAFS Brief, <http://ccafs.cgiar.org/publications/climate-smart-agriculture-farmers-perspectives#.VG9t7KNFCUK>

²⁷ See: Neufeldt H, Kristjanson P, Thorlakson T, Gassner A, Norton-Griffiths M, Place F, Langford K, 2011. ICRAF Policy Brief 12: Making climate-smart agriculture work for the poor. Nairobi, Kenya. World Agroforestry Centre (ICRAF); Harvey, C.A. et al. 2014. Climate-Smart Landscapes: Opportunities and Challenges for Integrating Adaptation and Mitigation in Tropical Agriculture. Conservation Letters, March/April 2014, 7(2), 77–90; FAO, 2013. Climate-Smart Agriculture Sourcebook, FAO, Rome, Italy.

traditional knowledge could also help promote a better acceptance of newer approaches by farmers and ensure higher inclusiveness.²⁸

Innovation and research for CSA does not focus only on farming. Enhanced information systems, early warning and other risk mitigation measures are needed for farmers to invest securely in new practices and technologies. To this regard, information and communication technologies (ICTs) can play a major role in regions where geographical and infrastructural limitations still present major challenges. Similarly, insurance tools as part of risk mitigation strategies are being tailored to smallholders needs (such as weather index insurance).¹²

For the above farm level Scherr et al (2012) point out that “one opportunity for fostering greater adoption of climate-smart landscapes is to ensure that there is a strong scientific evidence and sufficient technical guidance to identify the best options for changes in agricultural systems and landscapes.”²⁹ Research and innovation for CSA can help enhance the capacity to translate climate and other data into estimates of the impacts, i.e. the risks and the opportunities, associated to different technological options. Innovative tools such as data-intensive software including mapping, scenario analyses, and simulation models e.g. the *Africa Risk View*, developed by the World Food Programme, can assess the potential impacts of alternative agricultural development pathways on adaptation, mitigation, and other goals; and can thus help inform decision-makers of potential synergies as well as trades-off, and assess the economic costs, associated with different farming systems.

In conclusion, this Evaluation is faced with both methodological and thematic issues and large uncertainties that require careful consideration. The questions of how fit for purpose are the different components of CCAFS require to be answered in terms of how well the quality of the science meets the challenges and how relevant the research is in terms of addressing the right climate challenges to agriculture and food security in the right ways. The robustness of the Evaluation itself needs to be based on a sound assessment of how well the evidence of effectiveness now and into the future of CCAFS research can be known.

²⁸ Grainger-Jones, E. 2011. Climate-smart smallholder agriculture: What’s different? IFAD Occasional Paper 3, IFAD, Rome, Italy.

²⁹ Scherr, S.J., Seth Shames and Rachel Friedman 2012. From climate-smart agriculture to climate-smart Landscapes, *Agriculture & Food Security* 2012, 1:12

3. SCOPE OF THE EVALUATION

3.1 What the evaluation will cover

The evaluation will cover research and the processes related to its implementation since 2011 when CCAFS was launched, irrespective of funding sources (W1/2 or W3/bilateral).³⁰

As per the TORs, the evaluation will cover both programmatic and organizational performance addressing the key evaluation criteria: relevance, quality of science, effectiveness, efficiency (related to organizational arrangements and resource use), impact and sustainability (as a dimension of impact but also programme effectiveness). However, given that there are recent reviews available to the Evaluation Team on CCAFS's organizational performance (see ANNEX F), the emphasis will be on programmatic performance where four Key Evaluation Questions (KEQ) have been defined (see section 4.1).

Organizational performance will focus on research management, including (i) priority setting and planning; (ii) reviewing and reporting; (iii) learning; and (iv) internal and external communication and relationships and (v) stakeholder involvement.

The focus of the evaluation will be on the current portfolio, which will form the sampling frame. However, also past activities will be assessed for the projects and activities sampled when such research is continuing to-date. Given that CCAFS started as a CP in 2009, past activities will be included in assessing results in terms of outcomes and impact.

CCAFS is a global research programme with projects and activities that have different geographic scopes, and CCAFS's TOC includes impact pathways at the national, regional and global level. Structurally, CCAFS puts an emphasis on regional programming. Therefore the overall geographic scope of the evaluation is global, while the in-depth analyses will be done at the level of the five regions where CCAFS operates. This will include the research carried out and how CCAFS has taken on wider roles in facilitating decision-making processes, and informing and influencing policy development.

The unit of analysis to be covered by the Evaluation will be major research projects (or in some cases clusters of linked smaller projects) nested within FPs, operated within and across regions. These will be treated as 'cases' (see section 5.2) and they will be chosen purposively, to allow assessments of the key KEQs and the evaluation criteria (see section 4.2) at FP and Programme levels.

³⁰ The term research is used to refer to a set of investigative activities that the CCAFS programme and its partners conduct to achieve the objectives of the Programme. These activities could include research that is basic or applied, quantitative and/ or qualitative, conceptual or formal, participative, modelling and policy analysis. In addition, we widen the definition of the term to also include research for development approaches whereby CCFAS convenes and facilitates transversal investigative actions by partners and studies these as process phenomena e.g. establishing sub-national agro-climatic roundtables to develop advisories for producer groups.

Cases were chosen from the current portfolio and the timeframe of assessment will be defined by the duration so far of the projects and project clusters. Research processes and outputs, and where possible achieved outcomes, will be assessed.

The Evaluation will look at cases in all the regions where CCAFS is currently operating and visits will be made by members of the Evaluation Team to countries in all regions.

The programme, having started as a CP, is at an early maturity stage. There will be a balance of summative and formative dimensions to the case assessments. Several current projects have their origin in work started already earlier and this work will be subjected to summative assessments, as also achievements and outcomes from past research. Current and proposed future work will be assessed from a formative perspective.

3.2 Evaluability assessment

CCAFS has good evaluability. The Programme, initiated in 2009 as a CP, has been operational longer than other CRPs. The large extent of W1/2 funding has allowed a more programmatic approach to be taken in the Programme management.

The CCAFS portfolio currently includes 91 projects for which essential information is available in the P&R platform. The CCAFS TOC includes impact pathways at the national, regional and global level, all aligned. This move to TOC and impact pathways helps the Evaluation considerably. However, the methodological issues arising from assessing performance of a climate change adaptation related initiatives are many fold and were set out recently in a paper commissioned by the OECD.³¹ These are factored into the Evaluation process.

The CRP has adopted the impact pathways approach for the identification of linkages among activities, outputs and outcomes. In some cases – namely FP4 – projects have adopted the new RBM approach. Due to the P&R system, M&E information availability is good.

³¹ See http://www.oecd-ilibrary.org/environment/monitoring-and-evaluation-of-climate-change-adaptation_5jxrclr0ntjd-en

4. EVALUATION QUESTIONS AND CRITERIA

The evaluation will address six evaluation criteria consistently used in all CRP evaluations, namely: relevance, quality of science, effectiveness, efficiency, impact and sustainability.

Furthermore, on the basis of a review of programme documents and in consultation with members of the ISP, CCAFS management, other stakeholders and IEA staff, the Evaluation Team has identified four Key Evaluation Questions (KEQ) to provide focus to the evaluation.

An Evaluation Matrix is included in ANNEX A. It presents a set of questions that elaborate the evaluation criteria, and provides a plan for how each evaluation question, including the KEQs, is to be addressed in terms of methods, data and information needed and analysis to be done. The KEQs will be typically addressed through synthesis of evidence and analysis derived from criteria-specific questions.

4.1 Key evaluation questions (KEQ)

The KEQs were discussed and consolidated during the Inception meeting. They are:

- KEQ 1. How well is strategic collaboration and integration both within and outside the CGIAR being achieved – termed “looking left and right in the traffic”?
- KEQ 2. To what extent is CCAFS generating unique international public goods for agriculture, food security and climate change?
- KEQ 3. How well do the Flagships projects link together and combine at output and outcome levels in the Regions; and, to what extent are successes toward outcomes transferable from region to region?
- KEQ 4. How robust are the M&E and learning processes of the Programme?

An elaboration of the KEQ follows.

KEQ 1. How well is strategic collaboration and integration both within and outside the CGIAR being achieved – termed “looking left and right in the traffic”?

This question relates primarily to the criterion on relevance of CCAFS in terms of the CRP’s coherence, targeting and added value relative to other initiatives. It requires a two-tiered approach. Firstly, the Evaluation will assess how well linkages and integration are occurring within CCAFS, by assessing (a) the coherence of activities within projects, how well are activities within projects linked? (b) what are the processes in including/excluding specific activities within a project? and (c) to what extent are projects the result of CGIAR centre legacy or new strategic direction setting by CCAFS?

Coherence of projects within clusters will be assessed by looking at the balance of top-down and bottom-up in selection, design and alignment to targets (2019, 2025) and IDOs of projects within a cluster. The evaluation will also assess how well project and cluster level pathways to impact are being operationalised.

External linkages will be explored by mapping other non-CCAFS research and development activities³² related to ‘food security’ and ‘climate change’ in the regions. This matching of CCAFS activities against related external activities will enable an assessment of the degree of uniqueness. Is only CCAFS doing this kind of work, and if so how best can CCAFS capitalise on this position?

This KEQ will also address issues of partnerships. Existing synergies where there are good linkages between CCAFS projects and other initiatives will be explored and options for enhancement identified.

KEQ 2. To what extent is CCAFS generating unique international public goods for agriculture, food security and climate change?

This question relates to Programme’s relevance, the CGIAR’s comparative advantage in generating and disseminating public goods and the quality of research. International Public Goods (IPG) are defined in the IEA glossary of terms.³³ The new CGIAR SRF³⁴ confirms that the CGIAR is expected to provide public goods ranging from global to sub-national. Knowledge products are most commonly identified as IPGs from research and typically disseminated through publishing and other forms of dissemination (see 5.8.3 for science quality assessment).

There are other products and services such as climate/weather information, insurance mechanisms, policy relevant information and policy recommendations that can contribute to reducing impacts of climate change on agriculture and food security. These can be assessed as IPGs. The quantity and quality of these IPGs and their ‘relevance’ to current variability in weather and likely climatic patterns of change will be a key determinant of the ‘uniqueness’ of the IPGs produced by CCAFS.

The candidate IPGs identified will be assessed in terms of accessibility, transmission and dissemination to different scales – local, national, regional and international. In the analysis of ‘relevance’ the Evaluation will also seek research that helps make the new or existing IPGs more accessible through either increasing supply (if the market does not exist or is affordable) or access through developing innovative ‘transmission’ methods that increases their consumption.

There is a natural overlap between this KEQ and the others. Assessment of transferability (KEQ3) of knowledge/ products/ services from one country to region, or region to global will define whether CCAFS knowledge products such as insurance and information services are indeed applicable in different contexts. The evaluation will also assess whether provisioning of some global goods competes with or duplicates similar efforts through other cooperative or market mechanisms and how well CCAFS performs in terms of non-rival consumption of goods as opposed to differentiated adoption?

³² Categories of other research and development activities comprise: other donor programs not involving CGs (DFID, B&MG, USAID, WB, IFAD...), NARS initiatives (NICRA – India; Agriculture and CC Mission – India, ...); other CGIAR activities (IRRI, CIMMYT, ILRI, IWMI, IFPRI) and/or CRPs (WLE, Grisp, ...)

³³ Also referred to as global public goods, these are defined as “goods with the three following economic properties: ‘non-rivalrous’ (i.e. consumption of this good by anyone does not reduce the quantity available to others), ‘non-excludable’ (it is impossible to prevent anyone from consuming it) and available worldwide. In the CGIAR the term of international public goods is used. It refers to issues that are deemed to be important to the international community; and typically cannot, or will not, be adequately addressed by individual countries or entities acting alone.”

³⁴ CGIAR Strategy and Results Framework 2016-2030. April 2015.

KEQ 3. How well do the Flagships projects link together and combine at output and outcome levels in the Regions; and, to what extent are successes toward outcomes transferable from region to region?

This question relates primarily to the criterion of effectiveness of CCAFS and the out-scalability of outputs. The first part of this KEQ refers to how FPs align in the regions for greater relevance and effectiveness. The ways that FPs combine and complement one another at output and outcome levels will be examined. During visits to all regions assessments will be made of the rationale for deciding which and how FPs are implemented in each region and if this is demand-oriented. Linkages among FPs will be assessed in all regions.

The KEQ second part evaluates 'transferability' in CCAFS. Transferability describes a process of applying the results of research in one situation to other similar situations. (It is expected that CGIAR programmes generate IPGs that have transferability as an essential attribute. Testing this is part of KEQ 2.)

In this evaluation we will consider transferability within CCAFS (e.g. from region to region) and beyond CCAFS (e.g. towards boundary partners and/or other stakeholders not directly involved in research activities). The Evaluation Team has defined three sub-questions for assessing transferability within and beyond CCAFS: i) what is transferable? ii) to whom has it been transferred? and, iii) how has this transfer occurred? These questions will allow understanding and assessing the object, the subject and the mechanisms of transferability within and beyond CCAFS.

KEQ 4. How robust are the M&E and learning processes of the Programme?

This question relates to research management in terms of learning and monitoring components of effectiveness. It will take into account and review how well the CCAFS programme addresses the methodological challenges involved in assessing the effectiveness of responses to climate change i.e. attribution, target setting and long-time horizons.³⁵ It will look at verifiability and documenting of outcomes and impact from CCAFS activities, including influence.

For a sample of cases (see 5.3.1 on case selection) the following areas will be assessed:

- Design of the impact assessments in particular how the approach balances attribution with contribution. TOC will be assessed for coherence and linkages at national, regional and global levels. The ways that assumptions and risks have been set and then tested as hypotheses will be examined.
- The methods used to set counterfactuals will be explored as will the extent to which realist approaches are used.
- The methods to set baselines and the gender and other differentiation.
- Approaches used to set domains and indicators.
- The use of contextualisation and/ or normalisation processes to adjust response variables for climate challenge.
- The use of M&E evidence for internal learning and adaptive management.
- How both value for money and benefit/cost ratios are estimated? What benefits have been monetised and how assessment of distributional aspects has been conducted?

³⁵ See: http://www.oecd-ilibrary.org/environment/monitoring-and-evaluation-of-climate-change-adaptation_5jxrclrOntjd-en

4.2 Evaluation criteria – programmatic performance

As part of programmatic performance assessment, the Evaluation will look at the six evaluation criteria and the cross-cutting aspects of partnerships, gender and social inclusion, and capacity development.

4.2.1 Relevance

The evaluation will assess the extent to which the objectives and design of CCAFS is consistent with current global and national priorities and policies, as well as those of intended beneficiaries, partners and donors. It also refers to the extent to which the CRP is consistent with the CGIAR SLOs and the Programme components and activities are consistent with the CRP's objectives at the level of its IDOs. Assessment of Relevance includes supply- and demand-side relevance, including relevance to end-users. The comparative advantage of the programme will be considered – not as a static condition but as an evolving state where the role of agricultural research, rather than other activities, in providing solutions and the role of other providers will be considered. KEQ 1 will collate much of the analysis done to address relevance.

The evaluation will assess the formulation of the IDOs and their relevance against the Programme's objectives and the CGIAR SLOs, and the logic underpinning the impact pathways linking Programme activities to the intended results. It will assess the integration of research within and among the FPs and the prioritization of activities for addressing the IDOs. Priority setting processes will be assessed, as will the use of W1/W2 funding, resource mobilization and strategic foresight. The evaluation will also assess the synergies among CCAFS partners, and opportunities for further enhancing the relevance of research results.

The assessment will be done primarily at FP level.

4.2.2 Quality of the science

The evaluation of science quality will look at several dimensions of quality including the make-up of the research teams and partnerships, research design, research management, quality assurance and research outputs.

The evaluation will look at the processes and incentives in place for ensuring high quality research across Programme components and partners. It will assess the track record of research leaders and the competences of research staff. It will look at the Programme design in terms of problem setting, the use of state-of-the art research literature and methods, and novelty. It will also look at the quality of research management regarding synthesis of research findings and new knowledge at theme and Programme level (see section 5.2.9. for science quality assessment framework).

4.2.3 Effectiveness

Effectiveness will be assessed primarily from the point of view of likely effectiveness of the current Programme, rather than past impact. The Evaluation will look at the Programme design, and particularly the plausibility of the TOCs underpinning the impact pathways (both generic and

specific). The assumptions underpinning the TOCs will be assessed as well as the Programme's use of the TOCs for informing the assumptions and monitoring changes towards outcomes. The evaluation will consider the extent to which risks and constraints influencing out-scaling, outcomes and impacts are being addressed in research design, partnerships and capacity building. It will look at the extent to which gender analysis and social analysis more broadly have informed the impact pathways. The evaluation will also consider the extent to which opportunities to link with other CRPs are captured for further enhancing the likely effectiveness of the research. Issues of transferability and scaling will be explored in-depth as part of KEQ3.

The evaluation will assess progress towards milestones and outputs across the research portfolio.

4.2.4 Interrelationship between relevance, quality of science and effectiveness

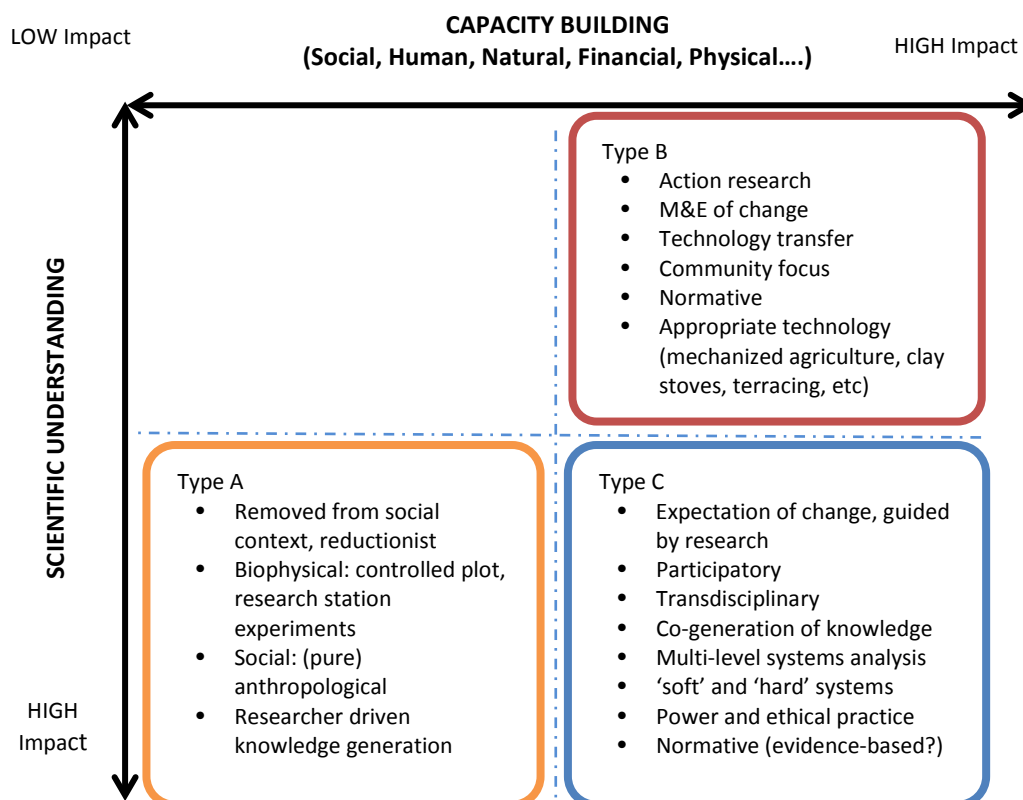
Relevance and quality of science are often closely related in terms of effectiveness and impact. As shown in the Pasteur's Quadrant presented in Figure 3, it is possible to differentiate three types of research intervention:

- Type A – science driven research, often reductionist and disciplinary, 'controlled' environments. Focus on process understanding
- Type B – emphasis on achieving change on the ground; often applied, on-farm research, at the expense of scientific rigor or depth
- Type C – research project design striving to combine scientific advance with change by next and end-users; likely to be inter- or transdisciplinary³⁶

The conceptual framework presented in Figure 3 constitutes the backdrop against which CCAFS projects and activities will be assessed. In a systems oriented programme such as CCAFS, with a strong desire to be producing both high quality science while at the same time having science leading to significant impacts, it would seem desirable to see a majority of the work reside in Type C. However, often a programme portfolio does need a balance of Type A and Type B interventions that feed into Type C projects. Through the evaluation cases (see section 5.2.1) the Evaluation will assess the earlier projects to evaluate how projects planned for the next phase of CCAFS have evolved from Type A and Type B projects into Type C projects.

³⁶ Inter-disciplinary research brings research from different disciplines together in coherent ways to solve problems that require knowledge and science from different research areas. Trans-disciplinary research combines different disciplines while developing paradigms for research that are above the disciplinary levels and identifies transformative resolution e.g. through post-normal approaches.

Figure 3: Conceptual framework relating quality of science (scientific understanding) to relevance and effectiveness (by building capacity for change)



4.2.5 Impact and likely sustainability

As part of the summative component of the evaluation the extent to which past research has led to positive outcomes and impacts will be assessed. The assessment will be largely based on studies, assessments and data on outcomes and impact, including influence. Evidence to support claims on outcomes and impact will be reviewed.

Sustainability will also be looked at in terms of viability and continuity of activities among partners.

It is acknowledged that the work that has contributed to effects among users may have been started at Centres before the Climate Change CP was initiated. However, to the extent possible, the evaluation will assess results and outcomes of CCAFS and the preceding CP, and gauge the perceptions and evidence of impact from stakeholders. Regarding sustainability of outcomes and impacts from CCAFS, the evaluation will assess measures taken by CCAFS to analyse and address factors enhancing the sustainability of the results. Assessment of impacts and sustainability and systems in place for monitoring and documenting *ex post* results in the future will be part of KEQ4.

4.2.6 Efficiency

Efficiency will be assessed from the perspective of the apparent ratios of resources used (inputs) for output generation. Resources include financial (capital and recurrent), human and technological. This report has already set out a summary of the financial resources investments in CCAFS components. Other inputs e.g. the work done at the costs of partners, will also be explored.

As part of the KEQ4 the systems in place to generate the evidence required to be able assess the efficiency of the CCAFS research and development processes will be examined. Donor allocations to research are gauged alongside other possible allocations in terms of value for money. KEQ4 will consider the opportunities and obstacles that CCAFS has to contribute to the evidence on benefit:cost ratios of research and development initiatives responding to climate change challenges.

KEQ2 will look at the relevance of CCAFS outputs to the IPGs necessary to enable CSA and food security, plus the uniqueness of CCAFS contributions to these. This assessment will enable some estimation of the value of CCAFS outputs. Further assessment of value or worth of the CCAFS outputs will be made through consultation of stakeholders.

From a benefit:cost ratio perspective financial efficiency can also be explored by assessing the break-even level of return to investments. Knowing what CCAFS outputs have cost to generate, the scale of benefits (or avoided losses) that must be achieved to justify the investment can be gauged and compared to the likely benefits over the lifetime of the outputs utility.

4.2.7 Gender

Gender and social inclusion is being treated as a research theme under the CCAFS Programme. The evolution of this area of work will be assessed as such alongside the FPs. However, the ways that gender has been addressed across all aspects of the Programme will be assessed through various methods including the cases and project portfolio analysis.

4.2.8 Partnerships

The evaluation will consider the partnerships among the implementing centres and other core partners, linkages with other centres and CRPs, and with other research and development partners. It will look at partners' involvement in Programme management. The evaluation will consider issues such as coordination, decision-making, joint ownership of results and transaction costs, and assess equity, transparency, efficiency and effectiveness of partnerships. Partnerships are also specifically considered in addressing KEQ1.

4.2.9 Capacity development

The evaluation will look at how capacity development is prioritized in order to address partners' needs both at individual and institutional level; the incorporation of capacity development into research activities for mentoring and enhancing the relevance and likely uptake of research results; the consideration of capacity issues among assumptions and risks related to the TOCs; and equity in targeting.

4.3 Evaluation criteria – organizational performance

Given that two recent reviews have addressed governance and management, one on CCAFS and one looking across CRPs, this evaluation will draw on the findings of those reviews. It will validate their findings through its own observations, rather than conduct an in-depth assessment of main governance and management functions. Furthermore, the completed audit of CCAFS conducted by the CGIAR's Independent Audit Unit will complement this evaluation.

5. EVALUATION APPROACH AND METHODS

5.1 Evaluation approach

CCAFS is a very large programme with complex partnerships and a unique evolution among the CRPs. Complementing its assessment of the criteria at the CRP level, the Evaluation uses a purposive strategy to sampling the components (cases – see below) of the Programme to be evaluated and to integrating the different sources of information into a properly triangulated evidence base that allows for robust analysis for the assessment of FP and Programme performance.

The evaluation will follow a consultative process. It will apply a mixed methods approach with in-depth case studies as a central component. The methodology developed for the evaluation is in line with other CRP evaluations carried out by the IEA. It includes qualitative and quantitative data collection. Evidence will be generated at different scales: programme level, cases representative of Flagships, and at the project portfolio level.

The cases selected will allow all of the evaluation criteria to be applied to a sample (circa. 10%) of projects across all FPs. Cases are based on current activities and they include previous projects that have been part of the evolution of the work now configured into current projects. All Team members will use the same project assessment and interview guides applied through project document review, semi-structured interviews and focus group discussion to generate evidence on the KEQ and against the evaluation criteria for assessing projects and FPs. All regions will be visited.

In addition, work of CCAFS at the global level will be examined. How CCAFS is advancing the CSA concept, and the Programme's contributions to the Global Alliance on CSA will be explored. There will also be assessments of CCAFS work on capacity strengthening for the UNFCCC Africa Group of Negotiators, CCAFS contributions to the development of scientific bodies of work through the IPCC, and the work CCAFS does to inform and influence decision-makers within the UNFCCC framework processes.

As the diagram in Figure 5 below sets out, the evaluation criteria will be applied largely to the evidence gathered on the cases studied – projects within FP. Projects and FP will be assessed on these criteria and then, through a systematised process of largely qualitative analysis, findings against evaluation criteria at project and FP levels will be compared and contrasted to be able to generate an aggregate assessment against the criteria.

The KEQ cut across the projects, FPs and global level initiatives of CCAFS. As such they provide another dimension to the Evaluation that seeks to understand key areas of the Programme's performance, particularly related to effectiveness. These KEQ will help render assessments of the CRP performance up to the current point, and will provide foci for identifying how performance can be streamlined and improved, and thus make recommendations for ways to enhance the Programme in any second phase.

The initial analysis of the evidence generated will be carried out by the Evaluation team together in a workshop with IEA staff and in consultation with representatives of the CCAFS management. This round of analysis will include evidence gathered at FP and Program level from all sources of information and considering the criteria-specific questions and the KEQs. Second round of analysis will be conducted by the Team member responsible for a KEQ and FP drawing on evidence generated by her/himself and others in the Team. The second round will incorporate further evidence to be collected and its analysis following from a gap-analysis that the team will do at the workshop. The third round of analysis will be the responsibility of the Team Leader in pulling together the aggregate analysis at FP and CRP levels to be reported.

The evaluation approach will be facilitated by the recent adoption and implementation by CCAFS of a TOC-based approach to programme planning and reporting. The Programme has TOCs at different levels – global, regions and FPs. These provide entry points for the Evaluation. They will be examined in terms of feasibility, ambition and coherence. The risks and assumptions developed as part of the TOC processes will be assessed from the perspective of how robust they are and the extent to which they have been tested.

The Evaluation has two complementary and parallel components – inquiry based upon the KEQ as set out above and the assessment of Programme components against the evaluation criteria. As a third and integrative component, the evaluation will use a “triple loop” learning approach to bring together evidence from the KEQ and the assessment against criteria (see Section 2.3 for introduction of the concept and Figure 4). The overall analytical process is illustrated in Figure 5.

The Evaluation will examine the questions related to each of the learning loops at the levels of FPs, regions and the global programme. From the evidence generated through the different inquiry methods answers to the following questions will be sought at the three levels:

- Are things being done right?
- Are the right things being done? and,
- How well can this be known?

Given the levels of uncertainty surrounding climate change effects on agriculture and food security knowing if things are being done correctly e.g. understanding how research can relate to probabilistic projections of climate change effects, and assessing if the right (i.e. the best use of resources to create the highest utility outputs and outcomes) research and development is being done are important. But the significance of the third loop assessing how well we can make these decisions is even more important and relates to the methodological issues mentioned previously on assessing the effectiveness of climate risk management, climate adaptation and mitigation.

Figure 4: Triple loop learning³⁷

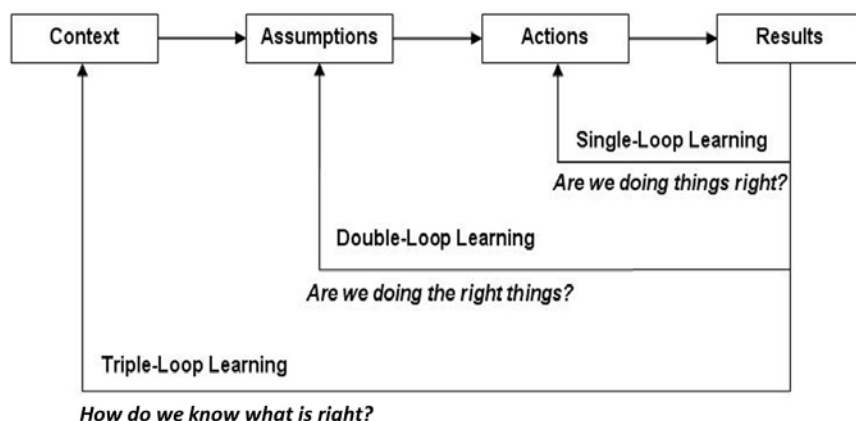
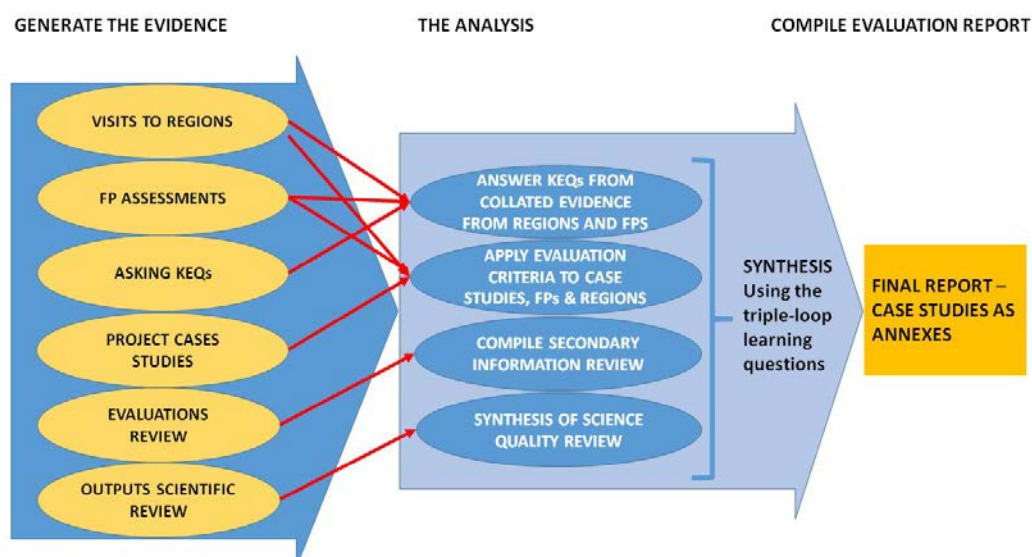


Figure 5: Plan for the generation, analysis and synthesis of evidence.



5.2 Evaluation methods

The methodology includes several components. The main components described below include inter-related methods (e.g. interviews and field observations will provide information for case studies), and frameworks (e.g. science quality assessment, assessment of impact). The methods to be used include document and project portfolio analysis, internet searches, Key Informant Interviews, researcher survey and site and field visits. These are used both in the case studies and for programme-level assessment and addressing specific evaluation questions in the Evaluation Matrix.

³⁷ See for further information: http://www.thorsten.org/wiki/index.php?title=Triple_Loop_Learning

Each KEQ and case study will involve gathering evidence from: documentary review; interviews and focus group discussions with CCAFS researchers and management; interviews with beneficiaries, CCAFS partners, other expert stakeholders; participant observation during field and other visits; and, review of social media and other communications.

The evidence gathered will be subjected to qualitative analysis whereby assessments by the Evaluation Team against the evaluation criteria and the different components of the KEQ. An assessment of the level of triangulation of evidence sources will be made, and comparisons and contrasts assessment made across case studies within and across FP.

5.2.1 Case studies

The unit of analysis for the in-depth case studies are major research projects (or in some cases clusters of linked smaller projects) nested within FPs (see Table 5). The cases are defined as both the current project and the previous activities and projects that represent the evolution of the work in the current project – the case genealogy.

The cases will be used to address the evaluation criteria and the four KEQs specifically. In addition, the case evidence will be used to assess cross cutting aspects of gender and social inclusion, partnerships and capacity development. Each team member has responsibility for one KEQ and one FP. During their region visits and the development of the case studies all team members will investigate the other KEQs and contribute this information to the aggregate evidence for the KEQ. The cases are intended primarily for evaluating FPs, but they will also be used for making CRP-level assessment on issues of quality, priority setting and other cross-cutting questions included in Annex A.

Cases were selected following extensive consultation with CCAFS management and Regional leaders. The cases were selected on the basis of being significant components of the FPs and being operated in the regions to be visited by the Evaluation Team member. The cases selected allow in-depth examination of both a sample of research under the FP and the KEQ.

The logic behind the management and distribution of evaluation cases can be summarized as:

- The Evaluation is taking a purposive approach to sampling parts of the Programme for evaluative examination.
- Each Team member selects two 'cases' for in-depth evaluation.
- Cases are selected from the list of 91 current projects in the P&R platform.
- Cases include all the current activities of the projects and all the projects/activities that have led up to the current projects – the linear/direct 'genealogy' of the projects.
- In consultation with FP and Regional leaders a selection of one case per region visited s made by each Team member for their FP. This results in a total of eight cases – two in each of EA, SA and LAM, and one in WA and SEA.
- As there are no FP3 projects in West Africa, the Team member will select a case from FP2 to develop in WA (the same Team member will select a case from FP3 in LAM).
- All Team members will examine all selected cases from the perspective of their KEQ.
- Each Evaluation team member visiting a region will examine cases in that region through face to face interviews and visits to project sites for the KEQ s/he is leading.

- For the other cases, where the Team member is not involved in site visits, the examination for the KEQ will be through ICT interviews of stakeholders and the review of documentary evidence.
- The Evaluation team members will also apply the evaluation criteria to the cases that are representative of the FP they are examining.
- The issues related to gender and social inclusion will be examined for all cases selected.

Table 5: CCAFS case study project selection

Region	FP1	FP2	FP3	FP4	Selected cases
SEA	KEQ1 KEQ2 KEQ3 KEQ4				FP1 2014-28 Integrated agricultural technologies for enhanced adaptive capacity and resilient livelihoods in climate-smart villages of Southeast Asia
SA	KEQ1 KEQ2 KEQ3 KEQ4	KEQ1 KEQ2 KEQ3 KEQ4			FP1 2014-25 Developing, adapting and targeting portfolios of CSA practices for sustainable intensification of smallholder and vulnerable farming systems in South Asia FP2 2014-45 (IFPRI) CSI India: Enhancing farmers' adaptive capacity by developing Climate-Smart Insurance for weather risk
EA		KEQ1 KEQ2 KEQ3 KEQ4		KEQ1 KEQ2 KEQ3 KEQ4	FP4 2014-6 (IITA-EA) Influencing and linking policies and institutions from national to local level for the development and adoption of climate-resilient food systems. FP2 2014-51 (CIMMYT) Develop index insurance for drought-prone maize and bean-based farming systems in East Africa to enhance farmer adoption of climate-adapted germplasm
LAM			KEQ1 KEQ2 KEQ3 KEQ4	KEQ1 KEQ2 KEQ3 KEQ4	FP4 2014-2 (CIAT LAM) Relevant climate change information meets decision-making to influence policy and institutions for climate-resilient food systems. FP3 2014-9 LivestockPlus: Supporting low emissions development planning in the Latin American sector.
WA		KEQ1 KEQ2 KEQ3 KEQ4			Activity P46A426: Scaling up climate information services to millions farmers through rural radios in Senegal
GLOBAL		KEQ1 KEQ2 KEQ3 KEQ4			FP3 2014-10 Low emission development strategies across scales.

ANNEX G presents the way that the case project trajectories are conceptualised in relation to TOCs.

5.2.2 Interviews

The Evaluation team will conduct both on-site and virtual interviews with the aim of covering all stakeholder categories, and involving both CCAFS partners and other stakeholders. Interviews will be conducted as part of the case study approach and for other analysis. Interviewees will be selected as part of the purposive sampling of evaluation cases (projects) and include both those CCAFS staff and

partners involved in conducting the research and boundary partners, and those people involved in CCAFS strategic management.

Members of the ISP will be interviewed and the Evaluation will be presented at ISP meetings at its initiation (April, 2015) and its conclusion (September, 2015).

The interviewee categories include the following:

- CCAFS management and oversight committee
- Lead-centre senior management and BOT
- Senior researchers contributing to CCAFS
- CGIAR centres involved in CCAFS, management and BOT
- Non-CGIAR core partners
- Advanced research institutes
- National research systems, including universities
- NGOs and CSOs
- International peers/external experts
- Donors

The team will develop a list and categorisation of the persons to be interviewed, as well as interview guidelines for the different types of respondents. Detailed notes of each interview will be taken. The team will not attribute comments and opinions to any one individual, and respect the right of any interviewee to remain entirely anonymous.

The overview of interview questions per KEQ is provided in ANNEX K.

5.2.3 Document review

The document review will be an important part of several components of the evaluations and will include:

- Key CRP documents, such as the Original 2010 proposal, Extension proposal, Annual reports, Annual POWB documents for background and assessment
- Evaluative documents, such as ISPC and Consortium Office assessments of CCAFS, CCEEs, External Programme and Management Review, ISPC cross-cutting reviews, selected documents related to Climate Change CP
- Selected documents on projects for the case studies
- Strategic and planning document, processes
- Main publication outputs
- Review of selected documents for the Management and governance assessment, including IEA commissioned review of cross-CRP governance and management.
- Reference documents, such as the SRF (2011, 2015), CGIAR guidance notes and instructions for the 2nd call of CRPs.

5.2.4 Databases

The evaluation will draw on information contained in the P&R platform, as well as project, research and financial management databases of the participating centres. The team's preferred modus

operandi will be to obtain connection to these databases, in order to allow for timely access and to avoid burdening the centres' information systems managers with repeated requests.

5.2.5 Portfolio analysis

The objective is to assess relevance and coherence, identify gaps, assess to what extent the objectives of W1/2 funded activities and bilateral projects objectives match the FP level objectives and CCAFS overall programme objectives. The distribution of W1/2 and bilateral funding across portfolio will be assessed and the extent to which cross-cutting issues have been considered in the projects. Portfolio analysis will also be used to assess partnerships, the extent to which gender is incorporated into research planning and implementation and capacity development issues are addressed at project level.

5.2.6 Researcher survey

The Evaluation team will undertake a survey of researchers who contribute to CCAFS research. The survey will cover research and programme management issues including aspects of relevance, quality of science and likely effectiveness, management effectiveness, cross-cutting issues (gender, partnerships and capacity strengthening) and value added by CCAFS. The survey will be confidential, and conducted on-line through Survey Monkey. The survey will be tested and launched in the first part of the inquiry phase to allow for follow-up and qualitative validation through other means.

5.2.7 Field visits

The visits to regions allow the Evaluation team to see on the ground how the projects are being conducted and to meet with regionally based researchers and their partners, plus other stakeholders e.g. policy makers that CCAFS is seeking to influence. Evaluation team members will visits all regions as shown in the table 5.

Table 5: Field visit purpose and timeline

Region/ Country	Date	Travel purpose	Team involvement	Focus
East Africa/ Kenya	April/ May	To interview CCAFS staff and boundary partners, plus visit project sites	Fawad Khan, Simon Anderson	KEQ2 and KEQ4 FP2 and FP4
West Africa/ Senegal	May	To interview CCAFS staff and boundary partners, plus visit project sites	Carmenza Robledo	KEQ3 and FP3
South Asia/ India, Nepal	May	To interview CCAFS staff and boundary partners, plus visit project sites	Christian Roth, Fawad Khan	KEQ2, KEQ1 and FP2 and FP3
South East Asia/ Vietnam, Cambodia	June	To interview CCAFS staff and boundary partners, plus visit project sites	Christian Roth	KEQ1 and FP3
Latin America/ Colombia,	June	To interview CCAFS staff and boundary partners, plus visit project sites	Simon Anderson, Carmenza Robledo	KEQ4 and KEQ3 FP4 and FP1

5.2.8 Synthesis of evaluative information:

CCAFS has already conducted a series of CCEEs and reviews (for a full list see ANNEX F), which will be considered in this evaluation. The IEA Evaluation Analyst will conduct a review and synthesis of relevant information that can feed into the assessments, particularly regarding the KEQs. With regard to governance and management, the 2015 Advisory PHASE I Review of CCAFS by the CGIAR's Independent Audit Unit (IAU) as well as the Governance and management Review (2013) are key information sources.

5.2.9 Science quality assessment

Quality of science will be assessed at the CRP and FP levels.

The framework includes three main components: processes for assuring quality; inputs such as program design and research staff, and output quality. The assessment aims to identify variability within the CRP, highlighting areas of excellence and identifying areas where improvements could be made.

The final assessment will combine qualitative assessment and quantitative assessment (bibliometric and staff analysis) presenting general findings and findings by the three components. It is prepared on the basis of team members' assessments (including evaluative scores and observations for publications and case study research activities and other analytical narrative on quality of science within Flagship and at program level). Perceptions of quality through interviews and survey will be used as complementary evidence.

The components of evaluation include:

- ***Review of processes and practices at CCAFS/Centres to promote and ensure science quality***

The science quality assurance processes include:

- Internal peer review practices (such as CCEEs)
- Internal research meetings
- Incentives for researchers
- Researcher performance assessment
- Data management (internal curation and external usability/availability/access of data)
- Technological infrastructure and support

Information will be gathered primarily through interviews (including program leaders) and researcher survey.

- ***Review of quality of inputs***

The case studies, the desk review, researcher assessment and survey will be used. The analysis will focus on the following aspects:

- Track record and competence of team leaders (using, for example, h-index);
- Composition and competence of teams;
- Quality of research proposals; appropriateness and innovativeness of research designs; including aspects such as:
 - clarity of researchable issues and testable hypotheses
 - state of the art methodology

- **Assessment of outputs**

The main component of this component is a systematic in depth evaluation of the scientific production based on bibliometry, which will be conducted at CRP level. This assessment includes:

- Quantitative bibliometric analysis on volume of all CCAFS publications 2009-2014 (volume, citations, affiliations) to be done by the IEA;
- Qualitative peer review of a random sample of journal articles based on scoring and assessment to be done by a small expert panel. Four experts with expertise on climate change research and services, and climate perspectives of agriculture, natural resource management and economics/policy are engaged to review about 20% of research publications covering the period of 2010-2014.
- Qualitative assessment of other outputs

- **Review of past evaluative assessments on quality of science**

The findings of past evaluative studies on quality of science may give indications of quality of science of CRP/participating Centres. These past studies include:

- ISPC and Consortium comments on CCAFS proposal and extension proposal
- Other external evaluations (Center- and donor-commissioned, CCEEs)

5.3 Main limitations of the evaluation

The CCAFS programme is very extensive in scale and complex in structure and partnership. The Evaluation can only sample parts of it for assessment. The choices made in the sampling process will be guided by the objective of identifying ways to amplify success and as such the suggestions of the ISP and CCAFS Management will be taken into account. At the same time the FPs will be assessed using a more purposive approach seeking to identify a small but representative sample of projects and activity clusters for assessment.

While the Evaluation will carefully triangulate information around key issues from all sources, it needs to be recognised that the Programme's documentation does represent the bulk of the evidence available to the Evaluation team for review.

Visits to some projects will be undertaken, but given the time available for the Evaluation there will not be an exhaustive set of first-hand encounters made with CCAFS work in the field.

The Evaluation is happening at a time of uncertainty for the Programme in terms of likely progression to the second phase. This will influence the way that Programme staff and other stakeholders will view the best ways to amplify the success of the Programme into the future.

5.4 Deviation from the Term of Reference

The Evaluation considered the preliminary set of overarching questions proposed in the TOR. After consultation with CCAFS management and stakeholders, the team derived a set of questions that rather than being overarching focus the evaluation to specific areas considered most pertinent by the stakeholders consulted. The issues proposed in the overarching questions are incorporated into the criteria-specific questions and to some extent also addressed in the KEQs.

6. ORGANIZATION AND TIMING OF THE EVALUATION

6.1 Team Composition/Roles and Responsibilities

The Evaluation will be conducted by a Team of independent specialists – see table below. The Team Leader has final responsibility for the evaluation report and all findings and recommendations, subject to adherence to CGIAR Evaluation Standards. The Evaluation Team is responsible for submitting the deliverables as outlined below.

The table below indicates the Evaluation Team composition and responsibilities. Short bios for each Team member are included in ANNEX B.

Table 6: Evaluation Team composition and responsibilities

Team member	Role	Regional programme	Flagships/ Cross cutting theme	Evaluation Questions
Carmenza Robledo	Team member	West Africa	FP Low emissions agriculture	How well do the Flagships projects link together and combine at output and outcome levels in the Regions; and, to what extent are successes toward outcomes transferable from region to region?
Christian Roth	Team member	SE Asia	FP Climate-smart agricultural practices	How well is strategic collaboration and integration both within and outside the CGIAR being achieved – “looking left and right in the traffic”?
Fawad Khan	Team member	S Asia	FP Climate risk management	To what extent CCAFS is generating unique international public goods for agriculture, food security and climate change?
Simon Anderson	Team leader	E Africa, LAm	FP Policies and institutions CCT Gender and equity	How robust are the M&E and learning processes of the Programme?

6.2 Evaluation governance/roles and responsibilities

The IEA is responsible for planning, initiating, and managing the evaluation. The IEA will also be responsible for the quality assurance of the evaluation process and outputs, and for the dissemination of the results. The IEA will take an active role in the preparatory phase of the evaluation by collecting background data and information and by carrying out preliminary analysis on CCAFS. An Evaluation Manager, supported by an Evaluation Analyst, will provide support to the team throughout the evaluation.

CCAFS management plays a key role in helping provide for the Evaluation Team’s informational needs. It provides documentation and data, information on all CCAFS activities, access to staff for

engagement with the evaluators, and information on partners and stakeholders. It facilitates arrangement of site visits and appointments within the lead Centre and other stakeholders. CCAFS management is also responsible for giving factual feedback on the Draft Report and for preparing the Management Response to the Final Report. It assists in dissemination of the report and its findings and lessons and it acts on the accepted recommendations. While the evaluation is coordinated with CCAFS management, CIAT as the lead Centre is a key stakeholder in the evaluation.

A **Reference Group** has been set-up for the IEA evaluation manager and team leader to consult with to ensure good communication with, learning by, and appropriate accountability to primary evaluation clients and key stakeholders, while preserving the independence of evaluators. The Reference Group provides views and inputs at key decision stages in the evaluation design and implementation process, including for the TOR, the Inception Report and the Draft Report. The Reference Group may also play an important role in leading evaluators to key people and documents. The members of the Reference Group are given in Table 7.

Table 7: CCAFS Evaluation Reference Group members

NAME	POSITION	ORGANIZATION	Represents:
Bruce Campbell	CRP Director	CIAT	CCAFS management
Charles Rice	Professor ex-officio CCAFS member	Kansas State University	CIAT BOT
Clare Stirling	Senior Scientist with the Global Conservation Agriculture Program	CIMMYT	Other CGIAR Centre
Walter Baethgen	Head of the Programme Regional and Sectorial research	IRI Columbia University	Partner
Ariella Helfgott	Senior Researcher, Environmental Change Institute	University of Oxford	Partner
Manyewu Mutamba	Analyst: Economics and Policy	Southern African Confederation of Agricultural Unions	Stakeholder
Michael Hailu	Director	Technical Centre for Agricultural and Rural Cooperation (CTA)	Stakeholder
Tobias Baedeker	Climate Change Specialis	World Bank	Donor
Carmen Thoennissen	Programme Officer for Int. Agr. Research	SDC	Donor
Reiner Wassmann	Coordinator of Climate Change Research	IRRI	Other CGIAR Centre

6.3 Quality assurance

In order to ensure evaluation rigor, the following quality assurance will be implemented during the evaluation exercise.

The IEA, as manager of the Evaluation, will play a crucial role in assuring its quality. The IEA will work closely with the Evaluation Team throughout the evaluation, and will ensure that the tools and methodologies, as well as the process followed, are in line with the CGIAR Evaluation Policy and Standards as well as with those used in other ongoing CRP evaluations.

External peer review: The IEA quality assurance of evaluations includes evaluation quality advice for each CRP evaluation by external peer reviewers at two stages in the evaluation process: the draft inception report and the draft evaluation report. It is timed so that it can help improve the process and outputs (whether the inception or the evaluation report) and make them in line with CGIAR-IEA standards. Guidance for the peer review is standard across CRP evaluations.

6.4 Timeline

The schedule for deliverables and work is indicated in Table 8 below.

Table 8: Evaluation Timetable and Tentative Deliverables

Phase	Period	Main outputs	Responsibility
Preparatory Phase	June 2013 – Oct 2014	Final ToR Evaluation team recruited	IEA
Inception Phase	Oct 2014 – March 2015	Inception Report	Evaluation team
Inquiry phase	April 2015 – June 2015	Various analysis products as defined in inception report	Evaluation team
Presentation of preliminary findings	July 2015	Interaction with and feedback from main stakeholders	Evaluation team IEA
Reporting phase			
Preparing of Report	July 2015 – end Sept 2015	Draft Evaluation Report,	Evaluation team
Final Evaluation Report	Sep 2015	Final Evaluation Report	
Management Response	Oct 2015	Management Response	CRP Management
Dissemination phase	Oct – Dec 2015	Communications products	IEA Team Leader CRP Management

6.5 Deliverables and dissemination plans

The Evaluation Report will be the main deliverable of the evaluation. The outline of the final report will be agreed between the team and IEA at the start of the inquiry phase.

A draft report will be compiled as the inquiry phase progresses, with contributions from each team member. The final report of the review will be compiled when the inquiry phase is completed. The team leader will co-ordinate the report writing with guidance from IEA and according to standard requirements for CRP evaluation reports. All team members will contribute as requested to the analysis and text.

Annex H presents an outline of the final report contents. The recommended length of the final report is maximum 80 pages, excluding Executive Summary and Annexes. It will describe the findings and conclusions that are informed by the evidence collected within the framework defined for the evaluation criteria and issues and for addressing the specific evaluation questions. It will present a set

of recommendations that are prioritized, focused and actionable, indicating the stakeholders that are responsible for their implementation. The main findings, conclusions and recommendations will be summarized in an executive summary.

Presentations will be prepared by the team leader and the IEA for disseminating the Report to a targeted audience. A dissemination strategy will be developed during the inception phase.

Several events will be organized to disseminate the evaluation results, including but not limited to:

- Webinars with CCAFS management and staff/Reference Group at the end of the Evaluation Team Meeting to present preliminary findings (August 2015);
- Presentations of the Draft Report to CCAFS Reference Group, CCAFS governance bodies; CIAT Management and BOT; Consortium (September 2015);
- Presentation of the Final Report to the Evaluation and Impact Assessment Committee (EIAC) and the Fund Council (November 2015).

Adequate consultations with CCAFS stakeholders will be ensured throughout the process, with debriefings on key findings held at various stages of the evaluation. Preliminary findings will be presented to the Reference Group and CCAFS management. The draft report will be presented to several different stakeholder groups.

CCAFS Management will prepare a response to the evaluation. The Management Response will contain both an overall response to the evaluation, as well as response by recommendation—addressing each recommendation in the order presented in the Evaluation Report.

The Final Evaluation Report and the CCAFS Management Response will be considered by the governing body of the CGIAR for endorsement of the evaluation, responses, action plans and proposed follow-up. Given the forthcoming changes in CGIAR governance, the steps for finalizing the evaluation process will be confirmed at a later stage.

ANNEX A. Evaluation matrix

Key Evaluation Questions	Sources of evidence, analysis
For all KEQ	<p>A sample of evaluation cases (projects and activity clusters) will be selected in a purposive way.</p> <p>Evidence will be gathered from documentary review, interviews and site visits.</p> <p>Evidence will be assessed for triangulation and robustness.</p> <p>Analysis will be conducted by the Evaluation Team using case study approaches focusing in on the components of the KEQ.</p>
<p>KEQ 1: How well is strategic collaboration and integration both within and outside the CGIAR being achieved – termed “looking left and right in the traffic”?</p>	<p>Two-tiered approach; to be primarily be explored through a selection of case study projects from FP1 and with a geographic focus on South Asia and SEA. Evaluate how well linkages and integration are occurring within CCAFS, by assessing the following sets of questions:</p> <ol style="list-style-type: none"> 1. Coherence of activities within projects. How well are activities within projects linked? What are the processes in including/excluding specific activities within a project? To what extent are projects the result of CGIAR centre legacy or new strategic direction setting by CCAFS? 2. Coherence of projects within clusters. How well are projects integrated at the cluster level? What is the balance of top-down and bottom-up in selection, design and alignment to targets (2019, 2025) and IDOs of projects within a cluster? How are project and cluster level pathways to impact being operationalised? 3. Project team processes. How well are project teams working together? Is the project disciplinary and partner composition fit for purpose? What are some of the epistemologies and heuristics underpinning integration at the project and cluster level? <p>External linkages will be explored by mapping other non-CCAFS research and development activities related to ‘food security’ and ‘climate change’ in the Indo Gangetic Plains (India, Nepal, NW Bangladesh) and the Lower Mekong (Laos, Cambodia, Vietnam), and analysing linkages of these external initiatives against a selected set of CCAFS projects from Flagship 1 in SA and SEA.</p> <p>Matching of CCAFS activities against related external activities will enable an assessment of the degree of: Uniqueness – only CCAFS is doing this kind of work; how can CCAFS capitalise on this position? Existing synergies – where are there good linkages between CCAFS projects and other initiatives? Can they be enhanced? Opportunities – where are there unrealised linkages? What are constraints, barriers? Duplication - what could be stopped because others are doing it better?</p>

Key Evaluation Questions	Sources of evidence, analysis
<p>KEQ 2: To what extent is CCAFS generating unique international public goods for agriculture, food security and climate change?</p>	<p>Portfolio overview of the CRP classifying IPG into categories such as knowledge products, services (including technology) and institutional mechanisms at program level. Interview questions with key actors and boundary partners will be used to identify the ‘unique’ features of the IPGs. Reports, reviews and case studies in the M&E system will be the main source of information on outputs, and publications will be used as evidence for quality, quantity and relevance of the knowledge as IPG. Site visits and interviews with regional and country teams and partners will be used to triangulate the findings in East Africa and South Asia. Through our case studies and FP assessment, we will also examine the effectiveness and impediments in managing the balance between unique IPG provisioning and increasing their uptake to achieving developmental outcomes.</p>
<p>KEQ 3: How well do the Flagships projects link together and combine at output and outcome levels in the Regions; and, to what extent are successes toward outcomes transferable from region to region?</p>	<p>Identify elements of CCAFS that are transferable e.g. methods, approaches or success factors in the CRP. Interviews with members of the CCAFS team combined with a portfolio analysis and desk review will allow mapping of these elements. The evaluation team will then select interesting transferability cases using the following criteria:</p> <ul style="list-style-type: none"> • The transfer has been documented • The actors involved in the transfer are accessible for the evaluation team • There is potential future transfer within CCAFS • There is potential transfer beyond CCAFS <p>The selected cases will be analyzed in more detail and giving special consideration to the assessment of transferability mechanisms. The evaluation team will use in-depth interviews, analysis of existing documentation and, to the extent possible, visits to stakeholders that have been involved in the process. In this analysis we will give special attention to gender distribution on both sides of the transfer, efficiency and efficacy of the mechanisms used and state of demand for transfer, either by stakeholders within or beyond CCAFS.</p>
<p>KEQ 4: How robust are the M&E and learning processes of the Programme?</p>	<p>Benchmarking exercise of CCAFS M&E for learning and adaptive management – special attention to methods for value for money and benefit/cost ratio estimates.</p> <p>Review of CGIAR and CCAFS M&E documentation. Review of SPIA documentation.</p> <p>Interviews with SPIA members. Interviews with CCAFS staff on TOCs and impact pathways, and on the P&R platform</p>

Relevance	
<p>Coherence</p> <ul style="list-style-type: none"> • Is the CCAFS strategically coherent and consistent with the main goals and System Level Outcomes presented in the CGIAR’s SRF? • Are the CCAFS Flagship Projects strategically rational and coherent as a set? • Is funding from Windows 1 and 2 used strategically in key areas of the program, and to align bilateral projects within program strategy? 	<ul style="list-style-type: none"> • Project document review: CCAFS original proposal, Extension Proposal and documents related to its approval. • SRF • Interviews, POWB
<p>Comparative advantage</p> <ul style="list-style-type: none"> • How strategically is CCAFS positioning itself, considering both the CGIAR’s mandate of delivering international public goods and obligation towards outcomes—relative to other international initiatives/research efforts, including the private sector; partner country research institutions; and development agencies? • Is the balance between research, communication and advocacy appropriate? • Is the CCAFS role clearly defined relative to that of the boundary partners? 	<ul style="list-style-type: none"> • Interviews • Evaluation team members knowledge • Case studies • Field observations
<p>Programme design</p> <ul style="list-style-type: none"> • Does the program target an appropriate set of Intermediate Development Outcomes (IDOs) and are the activities of highest priority for targeting the IDOs? • Do the impact pathways logically link the principal clusters of activities to the IDOs and are the IDOs linked to the SLOs through plausible theories that take into account trade-offs between multiple objectives? • Have the CCAFS research activities been adequately prioritized in terms of potential impact and influence over diverse research agendas for steering them towards more climate change aware and relevant direction? • Have gender issues and capacity-building activities been adequately incorporated in program design and targeting? 	<ul style="list-style-type: none"> • Review of program Impact Pathways at different levels • Document review: Extension Proposal 2015-16, project plans • Interviews of CCAFS management on priority setting processes • Case studies • Researcher survey questions on prioritization, capacity development and gender

Quality of Science	
<ul style="list-style-type: none"> • Do the research design, problem setting and choice of approaches reflect high quality in scientific thinking, state-of-the-art knowledge and novelty in all areas of research? • Are the internal processes and conditions, including research staff and leadership quality, adequate for assuring science quality? • Do the research partners have comparative advantage and requisite competences in the climate change research that CCAFS engages in? • Is it evident that the program builds on and learns from previous research results? • Are the research outputs, such as publications, of high quality? 	<ul style="list-style-type: none"> • Documentation review: evaluative studies, documents related to CCAFS approval • Case studies and project review for research design quality • Interviews, survey on quality management and incentives • H-index analysis, interviews • Case studies and project review • Quantitative bibliometric analysis • Qualitative assessment of publications sample • Assessment of non-publications outputs quality
Effectiveness	
<ul style="list-style-type: none"> • Has CCAFS stayed on track in terms of progress and milestones toward outputs, and along the impact pathway toward outcomes? • Is the monitoring system used effectively for adjusting the program on basis of lessons learned? • Have constraints to outcomes and impacts been considered in the program design, for example through assessment of the assumptions and risks in reliance on policies, actions of national institutions, capacity and partnerships? • Has gender been adequately considered in CCAFS impact pathway analysis and implementation, understanding the differential roles of women and men along the impact pathway, generating equitable benefits for both women and men, and enhancing the overall likelihood of enhancing the livelihoods of women? • Does CCAFS engage with appropriate partners within the CGIAR and with Future Earth and does the partnership build on strengths of each partner for synergy and efficiency in generating results and impact? • Is the CCAFS addressing temporal and spatial scale issues effectively for impacting on sustainable changes in agricultural practices and policies? 	<p>For all questions:</p> <ul style="list-style-type: none"> • Case studies for all questions • Document review: Annual reports, project reports, M&E documentation • Interviews with CCAFS management including M&E staff • Review of ex ante and ex post impact documentations and related documents, if any. • Assessment of TOCs at Program, FP and regional levels. <p>In addition:</p> <ul style="list-style-type: none"> • Review of gender strategy, project reports • Interviews with partners

Impacts and Likely Sustainability	
<ul style="list-style-type: none"> • Have there been sufficient efforts to document emerging influence and outcomes across the research portfolio since start of the program as a CP? • What can be concluded from the findings of ex post studies, for instance about influence, scaling, sustainability of change and equity of benefits? • Have adequate constraint analyses and lessons from ex post studies informed program design for enhancing the likelihood of impact? • What are the prospects for sustaining financing, for example, for long-term research programs and key partnerships? 	<p>For all questions</p> <ul style="list-style-type: none"> • Assessment of documentation of influence, outcomes and impact • Interviews with senior researchers and management and with partners
Management and governance	<p>The evaluation will draw on existing reviews and its own assessment will complement these</p> <ul style="list-style-type: none"> • External evaluation of CCAFS governance and management in 2013 • IEA commissioned evaluation of CRP Governance and Management (2014) • IAU Advisory PHASE I Review of CRP 7 – Climate Change, Agriculture & Food Security (CCAFS) (April 2015) • Evaluation on “Managing the CCAFS Theme by Region matrix for international public goods and development outcomes” (May 2014)
Management efficiency and effectiveness	<p>For all questions:</p> <ul style="list-style-type: none"> • Document review related to M&E and RBM piloting • Interviews with researchers across participating centres. <p>In addition:</p> <ul style="list-style-type: none"> • Researcher survey
<ul style="list-style-type: none"> • Does CCAFS research management provide effective leadership, culture and ethos for advancing the program’s objectives? • Is the level of collaboration and coordination with other CRPs appropriate and efficient for reaching maximum synergies and enhancing partner capacity? • How effectively does CCAFS implement the principles of results-based management in its delivery framework? • Is CCAFS management using an M&E system efficiently for recording and enhancing CRP processes, progress, and achievements? 	

ANNEX B. Evaluation Team profiles

Simon Anderson is the Head of the Climate Change Group at the International Institute for Environment and Development. He has worked in international development for some 30 years, mainly on natural resources management and environmental change. His current research focus on climate change adaptation effectiveness and his expertise covers agro-economic systems and agricultural science as well as policy analysis, programme management and monitoring and evaluation. In 2009 he led Joint External Evaluation on the Operation of the Least Developing Countries Fund (LDCF) for adaptation to climate change. Simon previously worked for DFID as Research Manager and Evaluation Advisor and was also a Principal Research Fellow at Imperial College. Simon has a PhD Agricultural Science from the University of London.

Fawad Khan is CEO and founder of Institute for Social and Environmental transition in Pakistan, a non-profit research institute. He focuses on the evaluation of adaptation effectiveness, economics of adaptation strategies, community based local adaptation planning, and exploring factors contributing to resilience. His areas of expertise are the economics of climate change in South and South East Asia, community based adaptation, and monitoring and evaluation. Fawad previously worked as an Institutional Development Specialist for the World Bank in South Asia, a Senior Coordinator on Monitoring and Evaluation for the International Union for Conservation of Nature and has over 20 years' experience as a development consultant. He holds an MSc from the Faculty of Economics at the London School of Economics and Political Science in UK, a BSc from the School of Engineering and Applied Sciences at Columbia University and a BA in Liberal Arts from Middlebury College in USA.

Carmenza Robledo has almost 20 years experience on climate change and sustainable management of natural resources in developing countries. In her work she combines scientific research, policy advice and project implementation. She has project experience in Latin America, Africa and Asia, as well as experience advising international organizations including ITTO, FAO, World Bank, UNDP, UNEP, CIFOR, GEF, UNFCCC Secretariat or IUCN. She participated in the Fifth Assessment Report of the IPCC as a Lead Author in the Working Group III - mitigation - and as a reviewer in the Working Group II – Vulnerability and adaptation. During the period 2013-14 she was member of the FTA evaluation team, where she was responsible for climate change as well as for gender issues. Carmenza has a PhD in geography from the University of Stuttgart.

Christian Roth over 30 years of research experience in tropical land and water management. He is currently working with CSIRO's Land and Water Flagship based in Brisbane, Australia. Over the last twelve years, his main focus has been designing, commissioning and conducting inter- and transdisciplinary research for development programs and projects in Australia, South and South-East Asia in water resource management, climate change adaptation, smallholder farming systems and conservation agriculture. He has also led or participated in a range of research project and program evaluations in Australia and Asia. His main research interests reside in integration of social sciences and biophysical research to influence the research for development agenda in South and South-East Asia, specifically in the domains of climate adaptation and agricultural development. He has published his research extensively in about 180 publications and research reports. Christian has a PhD in soil hydrology from the University of Göttingen.

ANNEX C. People consulted during inception period

Name	Last name	Position	Organization	Relationship with CCAFS
Pramod	Aggarwal	Regional Program Leader	CCAFS	CCAFS PMC, Regional Program Leader
Mercedes	Bustamante	Profesor	University of Brasilia	ISP member
Bruce	Campbell	Professor	University of Copenhagen/CCAFS	Director
Anette	Friis	Head of Program Coordination-CCAFS	CCAFS	CCAFS management
James	Hanson	Flagship Leader	CCAFS	Flagship Leader
Andrew	Jarvis	Director of the Decision and Policy Analysis Area	CIAT	Flagship Leader
James	Kinyangi	Regional Program Leader	CCAFS	Regional Program Leader
Ana Maria	Loboguerrero	Regional Program Leader	CCAFS	CCAFS mgmt, regional team leader
Deissy	Martinez Baron	Scientific Coordinator	CCAFS	Senior officer
Holger	Meincke	Professor	University of Tasmania	Former ISP
Chuck	Rice	Profesor	University of kansas	ISP member
Tomas	Roswal	n/a	In pension	Former ISP Chair
Leo	Sebastian	Regional Program Leader	CCAFS	SEA Regional Leader
Pete	Smith	Profesor	University of Aberdeen	co-author of papers
Phil	Thornton	Flagship Leader	CCAFS	Flagship Leader
Sonja	Vermeulen	Head of Research	CCAFS	Coordinating Unit CCAFS
Alain	Vidal, PhD	Strategy Director a.i. & Senior Partnerships Advisor	CGIAR Consortium	Strategy Director
Lini	Wollenberg	Flagship Leader	Univ. of Vermont/CCAFS	CCAFS PMC, CCAFS FS 3 Leader
Robert	Zougmore	Regional Program Leader	ICRISAT/CCAFS	CCAFS PMC, Regional team leader

ANNEX D. Documents reviewed during inception period

CCAFS programme documents

- CCAFS planning and reporting system
- Proposal for CGIAR Research Program 7: Climate Change, Agriculture and Food Security (CCAFS) (2011)
- CCAFS Annual Reports 2012, 2013
- CCAFS POWB 2014, 2015
- CCAFS Extension Proposal 2015-2016

CCAFS governance

- ISP meeting minutes

Reviews

- EU Review of CCAFS (2012)
- CCAFS Governance and Management review 2013.
- CGIAR-IEA (2014): Review of CGIAR Research Programs Governance and Management.
- Review of CCAFS Theme by region matrix management (2013)
- Reviews commissioned by PMC, Theme Leaders, Regional Program Leaders and the Coordinating Unit

Other

- CCAFS website
- CCAFS twitter feed

ANNEX E. CCAFS POWB 2015 summary ³⁸

No	Clusters of activities	W1/2	W3	Bilateral	TOTAL	TARGET COUNTRIES/REGIONS
1	CLIMATE-SMART AGRICULTURAL PRACTICES					
1.1.	Context specific (targeted) suitable CSA options and portfolios that build on traditional knowledge, meet the needs of farmers and enhance productivity, adaptive capacity, food security and social equity	8,005,908	1,793,096	1,880,258	11,679,262	ALL
1.2.	Biophysical, socio-economic and tradeoffs analyses (incl. enabling environments and gender), innovative methods, engagement approaches and customized decision support tools for CSA prioritisation, wide scale adoption, local adaptation and investment planning	4,937,937	1,105,957	1,159,718	7,203,612	<ul style="list-style-type: none"> • LAM (Peru, Colombia, El Salvador, Grenada, Costa Rica, Guatemala, Argentina, Mexico) • EA (Ethiopia, Kenya) • WA (Senegal), Southern Africa • SA (India) • SEA (Vietnam)
1.3.	Approaches, strategies and scaling up/out mechanisms (e.g. CSV), for enhanced adaptive capacity and resilience from the field to the sub-national level	1,770,131	396,459	415,731	2,582,321	ALL
1.4.	Innovative knowledge management systems and approaches (ICT, information network, multi-stakeholder platforms, learning alliances, fora etc.) and strategic engagement approaches and partnerships that promote access, co-	4,060,550	909,448	953,656	5,923,654	<ul style="list-style-type: none"> • EA (Ethiopia, Kenya and Uganda) • WA • SA (India) • LAM (Colombia, Peru, Nicaragua, Honduras/El Salvador)

³⁸ The POWB was prepared prior to the major budget cut that affected the whole of the CGIAR, so the numbers given here are not the final ones for 2015. In addition, it is expected that bilateral projects will be added during the course of the year.

	creation, capacity building, learning, 2 way sharing and dissemination of CSA information and tools to farmers, extension services, agro-dealer networks, local governments, private sector, academia etc.) (in the 5 CCAFS regions)					
1.5.	Evidence on equitable CSA certification schemes, new agri-business models, financial incentive mechanisms and policy instruments to promote and mainstream CSA adoption at different levels of the value chain	424,294	95,030	99,649	618,973	Nicaragua, Peru, Ghana GLOBAL
2	CLIMATE INFORMATION SERVICES AND CLIMATE INFORMED SAFETY NETS					
2.1.	New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries	2,191,700	515,203	27,171	2,734,074	Guatemala, Colombia, Honduras, Rwanda, Tanzania, Malawi, Vietnam, Laos, Cambodia, Mali and Ghana.
2.2.	New knowledge, capacity, and tools that support the provision of equitable climate services for farmers	2,279,367	535,811	444,258	3,259,436	Vietnam, Cambodia, Laos, Colombia, Guatemala, Rwanda, Tanzania, Malawi, Senegal, Ghana and Mali
2.3.	Weather-related insurance products and programs designed, tested, and brought to scale with implementing partners	1,490,356	350,338	290,476	2,131,170	India, Bangladesh, Nigeria, Ghana, Senegal and Honduras; and regionally in East Africa

2.4.	Decision support systems improved or developed for incorporation into national food security safety net programs	1,753,360	412,162	341,737	2,507,259	Ethiopia, Kenya, Tanzania, Guatemala and Colombia; and regionally in Africa
2.5.	Engagement, knowledge synthesis and evidence to guide regional and global investment in climate services for agriculture and food security management	1,052,016	247,297	205,042	1,504,355	GLOBAL
3	LOW EMISSIONS AGRICULTURAL DEVELOPMENT					
3.1.	Methods and data for quantifying low-emissions agriculture options appropriate to smallholder farmers	2,502,925	308,175	527,076	3,338,176	Colombia, Costa Rica, India, Kenya, Mexico, Nicaragua, Peru, Tanzania, Uganda, and Vietnam
3.2.	Decision support for identifying and prioritizing low emissions CSA options, including synergies and tradeoffs with development objectives such as food security and social equity	4,469,509	490,797	884,736	5,845,042	Bangladesh, Colombia, Costa Rica, India, Kenya, Mexico, Mongolia, Nicaragua, Peru, Tanzania, Uganda, and Vietnam
3.3.	Incentives and innovations for scale-up of low emissions practices and avoided deforestation by agricultural commodities	1,966,584	342,416	470,604	2,779,604	Bangladesh, Brazil, Cambodia, Colombia, Costa Rica, Indonesia, Kenya, Laos, Tanzania, Uganda, and Vietnam

4	POLICIES AND INSTITUTIONS					
4.1.	Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues dialogues	5,057,417	201,399	1,558,891	6,817,707	n/a
4.2.	Priority setting contextualized with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socioeconomic scenarios	4,618,187	183,908	1,423,503	6,225,598	n/a
4.3.	Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy, and strengthened capacities to integrate local priorities into global fora	1,669,073	66,467	514,472	2,250,012	n/a
4.4.	Improved regional/global investment choices through appropriately contextualized priority setting, drawing on global foresight and socio-economic regional scenarios	1,204,745	47,976	371,349	1,624,070	n/a

ANNEX F. List of reviews and evaluations

Reviews conducted by donors, the consortium, auditors and the Internal Evaluation Arrangement

- IAU Advisory PHASE I Review of CRP 7 – Climate Change, Agriculture & Food Security (CCAFS) (2015)
- EU review of CCAFS (2012)

CRP-Commissioned External Reviews (CCERs).

These are commissioned through the CCAFS Independent Science Panel (ISP) or CIAT BOT

- Management and governance review (2013)
- Review of CCAFS Theme by region matrix management (2013)
- Theme 3 review (2014)

Core Team Commissioned Reviews

They are commissioned by PMC, Theme Leaders, Regional Program Leaders and the Coordinating Unit

1) Theme and topic reviews

- Assessment of Shamba Shape Up activities (2014)
- Review of CCAFS Scenarios activities (2014)
- Theme 2 review on climate information services activities (2014)
- Review of capacity enhancement activities (2014)
- East African partnerships (2014) - forthcoming
- Evaluation of CCAFS Data and Tools (2014)
- CGIAR citations in IPCC reports: a summary report (2015)
- Citation analysis on quality and value of CCAFS publications (planned)

2) Reviews on CCAFS/Centre claims on outcome successes

- Planning national adaptation responses to climate change in Ethiopia (CIMMYT) (2014)
- IITA outcome on coffee-banana systems in East Africa (2014)
- Scenarios-facilitated policy outcomes - forthcoming
- CCAFS role in Global Alliance for Climate-Smart Agriculture (2015)
- Communicating seasonal climate forecasts in Senegal (2015)
- The evolving role of agriculture in climate change negotiations: Progress and players (2015)
- Wilson-Grau R. 2014. Validation Report: outcome stories for CIAT-CCAFS projects in Colombia during 2014.

Centre-commissioned reviews, including impact studies as required by the contract between CIAT and participating Centres.

- An Assessment of the Impact of Laser-Assisted Precision Land Levelling Technology as a Component of Climate-Smart Agriculture in the State of Haryana, India (CIMMYT, 2014)
- Micro-dosing (ICRISAT, 2015)
- ILRI & IPCC (2014)
- ICRAF Climate Change Activities 2009-14 (2015)
- Improving livelihoods of smallholder coffee producers in Nicaragua (CIAT, 2015)
- Smallholders' Perception and Adaptation Strategies to Climate Change Ghana (IITA, 2015)

ANNEX G. Case project trajectories

Our thinking here is guided by the generalised project TOC shown in Figure 4. We conceptualise three stages:

1. A project phase (1), which in many cases can be further broken down into a data acquisition/capacity building with partners/tool development component and a synthesis/application/ participatory planning component, involving boundary partners
2. An outcome generation phase (2), which should overlap or be integral to part of stage 1, and is driven primarily by next users or boundary partners
3. The impact phase (3), where implementation adoption and scale out of project outputs should lead to impacts (change). For projects to be effective, this phase should at least overlap with phase 2. In many cases however, phase 3 can commence with phase 1, especially in the case of participatory action research interventions.

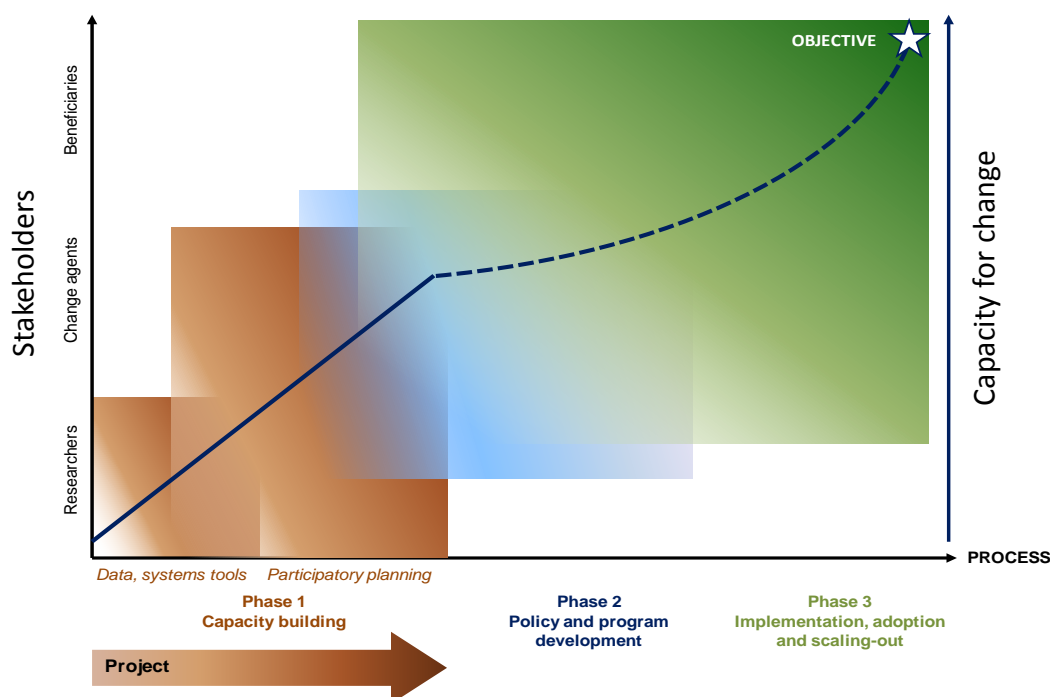


Figure 6: Generalised project/programme Research for Development Theory of Change [CSIRO R4D Meta-analysis project (2015) unpublished]

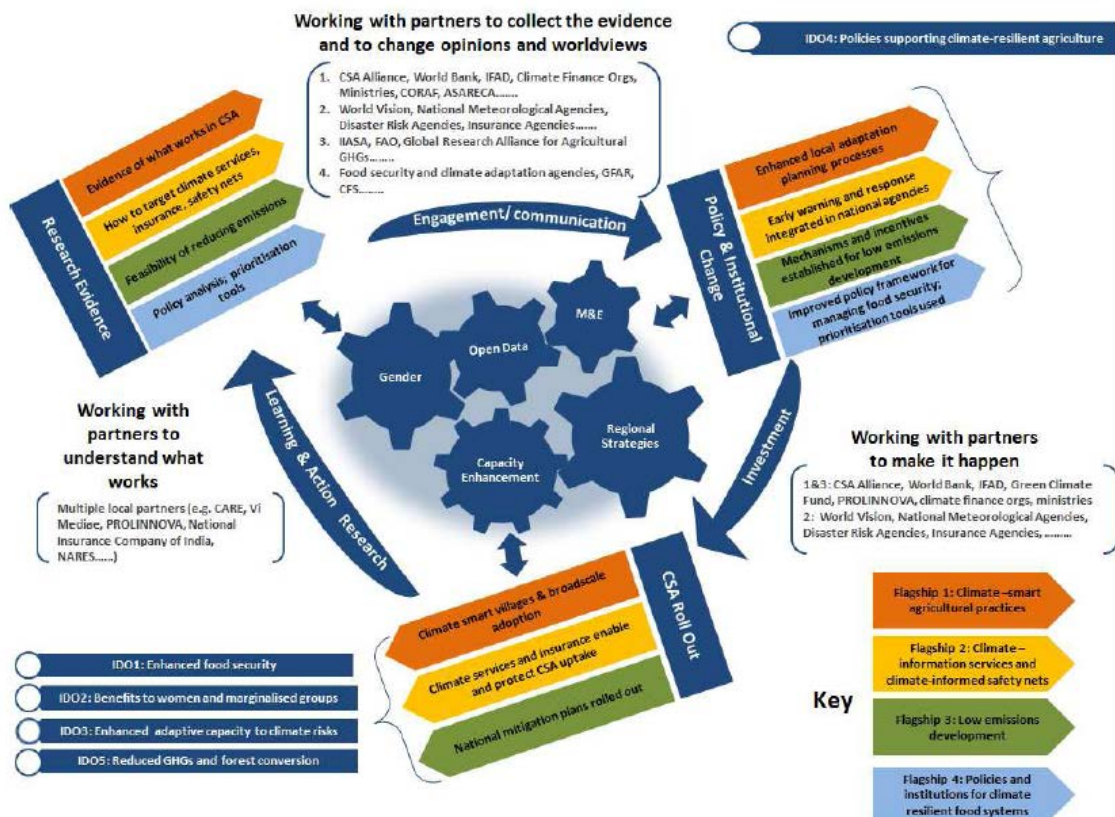
ANNEX H. Evaluation report outline

The recommended length of the final report is maximum 80 pages, excluding Executive Summary and Annexes. It will describe the findings and conclusions that are informed by the evidence collected within the framework defined for the evaluation criteria and issues and for addressing the specific evaluation questions. It will present a set of recommendations that are prioritized, focused and actionable, indicating the stakeholders that are responsible for their implementation. The main findings, conclusions and recommendations will be summarized in an executive summary.

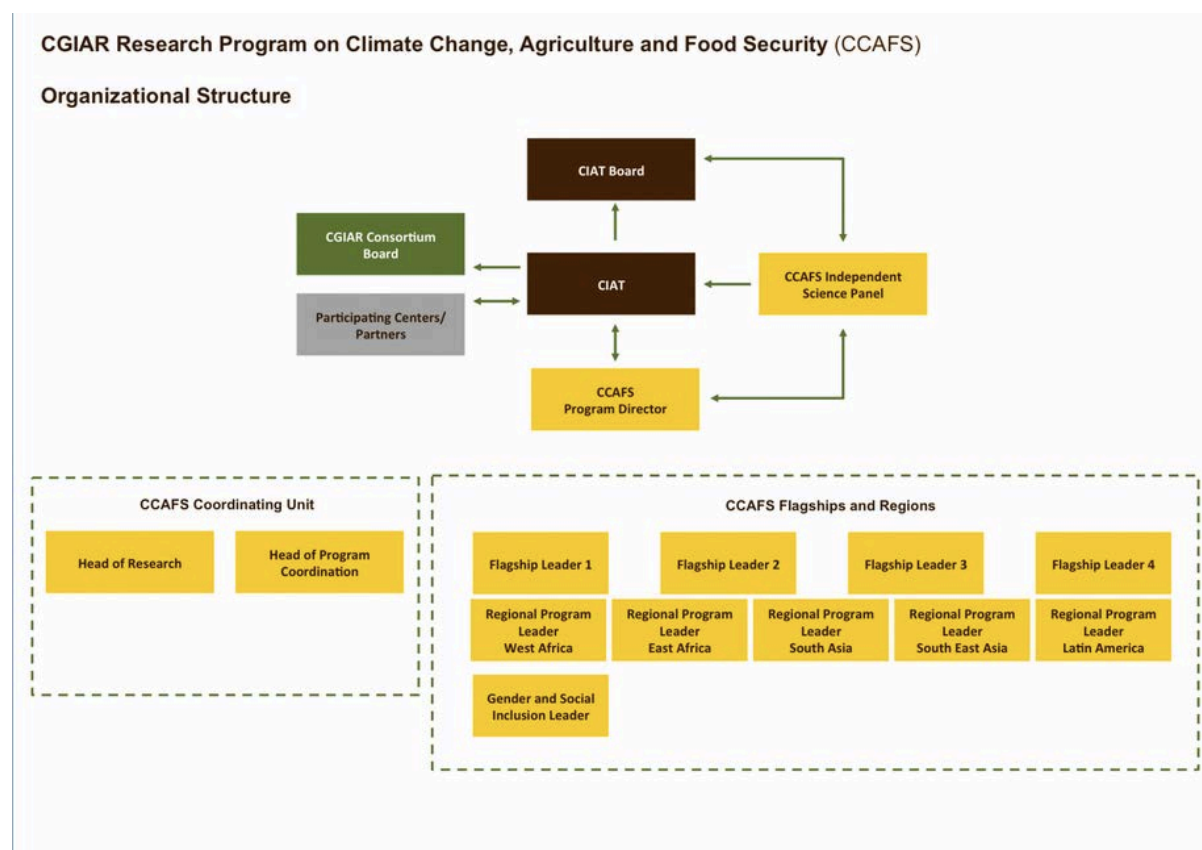
Table of contents:

- Executive summary
- List of acronyms
- Introduction
- Methods used and cases selected
- Evidence generated
 - Key Evaluation Questions
 - Flagships
 - Regions
 - Emerging issues
- Main findings
- Conclusions
- Recommendations
- Annexes

ANNEX I. CCAFS Theory of change



ANNEX J. CCAFS Organizational Structure



Name	Position	Organization	Role in CCAFS
CCAFS Coordinating Unit			
Anette Engelund Friis	Head of Program Coordination		
Bruce Campbell	Program Director		
Dhanush Dinesh	Manager	Faculty of Science, University of Copenhagen	Global Policy Engagement
Martin Lund	Program Manager		Global Communications and
Vanessa Meadu	Knowledge Manage		
Sonja Vermeulen	Head of Research		
ISP			
Arona Diedhiou	Research Director	RD, Joseph Fourier University of Grenoble	ISP member
Brian Keating	Director of CSIRO Sustainable Agriculture Flagship	CSIRO	ISP Chair
Carolina Vera	Director	Center for Atmosphere and Ocean Sciences (CIMA) and	ISP member

UMI/IFAECI

Charles W. Rice	University Distinguished Professor	Kansas State University	ISP member
Christof Walter	Director	Christof Walter Consulting Ltd,	ISP Vice Chair
Fatima Denton	Co-ordinator	African Climate Policy Centre	ISP member
Mercedes Bustamante	Associate Professor, Department of Ecology	Universidade de Brasília	ISP member
Ram Badan Singh	Former President National Academy of Agricultural Sciences,		ISP member
Ruvimbo Mabeza-Chimedza		Department of Agricultural Economics and Extension, Zimbabwe	ISP member
Bruce Campbell	CRP Director	CCAFS	Coordinating Unit, ISP, PMC
PROGRAM MANAGEMENT COMMITTEE			
Bruce Campbell	CRP Director	CCAFS	PMC member
Andrew Jarvis	Flagship Leader	CIAT	PMC member
Lini Wollenberg	Flagship Leader	University of Vermont	PMC member
Pramod Aggarwal	Regional Program Leader	IWMI	PMC member
Robert Zougmore	Regional Program Leader	ICRISAT	PMC member
Sonja Vermeulen	Head of Research	CCAFS	PMC member
FLAGSHIP LEADERS			Flagship
Andrew J. Challinor	Flagship Co-Leader	University of Leeds	FP 1
Andrew Jarvis	Flagship Co-Leader	CIAT	FP 1
James W. Hansen	Flagship Leader and Principal Scientist	Columbia University	FP 2
Lini Wollenberg	Flagship Leader	University of Vermont	FP 3
Philip Thornton	Flagship Leader and Principal Scientist	ILRI	FP 4
REGIONAL PROGRAMME LEADERS			
Ana Maria Loboguerrero Rodriguez	Regional Program Leader	CIAT	Latin America
James Kinyangi	Regional Program Leader	ILRI	East Africa
Leocadio Sebastian	Regional Program Leader	IRRI	Southeast Asia
Pramod Aggarwal	Regional Program Leader	IWMI	South Asia
Robert Zougmore		ICRISAT	West Africa
CCAFS Contact Points			
Aden Aw-Hassan	Director, Social, Economic and Policy Research Program	ICARDA	
Alex De Pinto	Research Fellow	IFPRI	
Anthony M. Whitbread	Research Program Director (Resilient Dryland Systems)	ICRISAT	
Clare Stirling	Senior Scientist	CIMMYT	
Henry Neufeldt	Head of Climate Change	ICRAF	

Research		
	Agricultural Biodiversity for Climate Change Adaptation	
Jacob Van Etten	Research Leader	Bioversity
Mariana Rufino	Senior Scientist	CIFOR
Peter Läderach	Researcher	CIAT
Piet van Asten	Systems Agronomist	IITA
	Senior Scientist / Scenarios	
Polly Ericksen	Leader	ILRI
Reiner Wassmann	Climate Change Specialist	IRRI
	Production Systems and the Environment	
Roberto A. Quiroz	Environment Lead	CIP
Sander Zwart	Senior Researcher	Africa Rice
Suan Pheng Kam	Senior Scientist	WorldFish
	Theme Leader: Water Availability, Risk and Resilience	
Vladimir Smakhtin		IWMI

ANNEX K. Overview of interview questions

<p>KEQ 1: How well is strategic collaboration and integration both within and outside the CGIAR being achieved – termed “looking left and right in the traffic”</p> <ul style="list-style-type: none"> • How would you characterise the coherence of the activities within projects? - How well are activities within projects linked? - What are the processes in including/excluding specific activities within a project? - To what extent are projects the result of CGIAR centre legacy or new strategic direction setting by CCAFS? • How would you characterise the coherence of projects within a cluster of activities? - How well are projects integrated at the cluster level? - What is the balance of top-down and bottom-up in selection, design and alignment to targets (2019, 2025) and IDOs of projects within a cluster? - How are project and cluster level pathways to impact being operationalised? • How do team processes and activity/project development processes enhance integration? - How well are project teams working together? - Is the project disciplinary and partner composition fit for purpose? - What are some of the epistemologies and heuristics underpinning integration at the project and cluster level? • How well are CCAFS projects linked to similar activities being undertaken by others (NARS; IROs; other CRPs)? (EXTERNAL to CCAFS) - Is only CCAFS is doing this kind of work and if so, how can CCAFS capitalise on this position? - Where are there good linkages between CCAFS projects and other initiatives, and how can they be enhanced? - Where are there unrealised linkages? What are constraints, barriers? - Is there any work that could be stopped because others are doing it better?
<p>KEQ 2 The extent to which CCAFS is generating unique international public goods for agriculture, food security and climate change?</p> <ul style="list-style-type: none"> • What are the global/international public goods produced by your (program, flagship, region or project) especially those besides the written materials papers and briefs? - knowledge - institutions/policy/capacity - services/information - other innovative products • What unique activities /products /mechanisms do you produce that improve the uptake of these goods for the intended development impact. - What uptake barriers do they help remove - What are the other options for improving transmission of knowledge • Does (or can) anyone else produce similar outputs in the international (including CGIAR) public or private sector and how are the ones produced by CCAFS different from the others and why? - current and potential producers - unique features of CCAF products • How will these mechanisms sustain without CCAFS support in the long run. - replacement of transmission by private sector or other actors? - alternative financing/institutional mechanisms for sustaining public/subsidised delivery • How can we improve provisioning of global public goods identified above, their transmission and its sustainability?
<p>KEQ 3 How well do the Flagships projects come together in Regions; and, to what extent are successes toward outcomes transferable</p> <ul style="list-style-type: none"> • What is transferable? • To whom is that transferable? • What are the means/ mechanisms used? • How is the participation of each flagship in your region? (in approximated percentage and according to funding) • 1.5 What is the reason for this distribution (e.g. priorities of the national partners, availability of funds, available competences....)

KEQ.4 How robust are the M&E and learning processes of the Programme?
• How coherent are the TOCs across Flagships, countries and regions?
• To what extent are the assumptions and risks identified through the TOCs being tested as hypotheses as the way outcomes and impacts are achieved?
• How were the counterfactuals identified?
• What and how were baseline data generated for the Flagships?
• What level of differentiation is there in the baseline data?
• How were domains and indicators identified?
• What level of differentiation is there in the domains and indicators?
• How are the response data contextualised/ normalised to adjust for climate challenges?
• How is the M&E evidence used for internal learning and adaptive management of CCAFS?
• How are value for money and benefit/cost ratios are estimated for CCAFS innovations?
• What methods are used for the monetisation of benefits?
• How are the distributive aspects of costs and benefits assessed?
FP1. CLIMATE-SMART AGRICULTURE
Are you a partner of CCAFS in this FS?
What is your understanding of the CSA concept?
What are the characteristics that distinguish the CSA concept from other concepts?
Are you aware of this research priority in CCAFS?
Can you report any (documented) impact of FS1 on different stakeholders?
How are these impacts meeting the FS1 targets and IDOs?
What is the balance between demand-led and supply driven science?
How are insights and outputs leading to impact being shared within and outside of CCAFS?
What capacity building and other mechanisms are being undertaken to sustain FS1 outcomes?
FP2. Climate Information and Services
How does this Flagship relate to your work?
How useful do you find its outputs in supporting your work?
What alternative sources of similar knowledge/data/information are available to you?
Do the outputs fit well with structures/systems in national government and partner organizations?
What capacities has this flagship created among national governments and partner organizations to do so?
How could its delivery be improved to make it more accessible/usable?
Where do you see impact of the outputs already?
Will the impact be sustainable without CCAF support and if not, what is needed to make it so?
FP3. LOW CARBON AGRICULTURE
Are you aware of this research priority in CCAFS?
Are you partner of CCAFS in this FS?
Are you aware of other projects/programs on research or development that consider low carbon agriculture?
Why should CCAFS make research on low carbon agriculture?
In which specific research areas has CCAFS a comparative advantage in low carbon agriculture and why?
Can you report any (documented) impact of this research flagship on different stakeholders?
Can you report any (documented) cooperation?
FP4. Policies and institutions
What policies and institutions is the project aiming at influencing?
What influencing strategy(ies) is/ are being employed
Who are the boundary partners?
How are national and global policies articulated?
How is the policy analysis being conducted?
What and how are aspects policy coherence factored into the project?

