



# REVIEW OF THE LEARNING ALLIANCE FOR ADAPTATION IN SMALLHOLDER AGRICULTURE

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# Contents

- Abbreviations..... 2
- Review of the Learning Alliance for Adaptation in Smallholder Agriculture..... 3
  - Executive summary ..... 3
  - 1. Introduction ..... 4
    - 1.1 Background ..... 4
    - 1.2 Focus and methodology of the review ..... 5
  - 2. Activities per outcome domain ..... 6
    - 2.1 Outcome domain 1. Scientific global public goods knowledge products on topics and in formats approved by IFAD are widely accessible..... 6
    - 2.2 Outcome domain 2. Knowledge products and results are actively cited in key policy forum at global and national levels ..... 9
    - 2.3 Outcome domain 3. National research institutions, researchers, and policy-makers have raised capacities and profiles on climate change research for development ..... 11
  - 3. Overall assessment of results to date ..... 13
    - 3.1 The partnership..... 13
    - 3.2 Scaling out and scaling up ..... 14
    - 3.3 Identified gaps ..... 14
  - 4. Achieving targeted impact..... 15
    - 4.1 Recommendations ..... 15
    - 4.2 Tracking the interaction between research, policy and implementation .. ..... 16
- Annexes:..... 18
  - 1. Publications from the Learning Alliance for Adaptation on Smallholder Agriculture..... 18
    - 1.1 Select articles in scientific journals ..... 18
  - 2. Individuals consulted ..... 19
  - 3. Documents consulted ..... 20
  - 4. Involvement of ASAP countries in Learning Alliance activities ..... 22

## Abbreviations

AD2M-II	Projet d'Appui au Développement du Melaky et du Menabe
AMIA	Adaptation and Mitigation Initiative in Agriculture
AR4D	Agricultural Research for Development
ASAP	Adaptation in Smallholder Agriculture Programme
ASEAN CRN	Association of Southeast Asian Nations Climate Resilience Network
AVCDP	Agricultural Value Chains Development Programme
CALIP	Climate Adaptation and Livelihood Protection
CARE	Cooperative for Assistance and Relief Everywhere (International Non-Governmental Organization)
CBA	Cost benefit analysis
CCAFS	CGIAR Research Program on Climate Change, Agriculture and Food Security
CGIAR	A Global Agricultural Innovation Network (Formerly the Consultative Group for International Agricultural Research)
CIAT	International Center for Tropical Agriculture
COP	Conference of the Parties
CSA	Climate-smart agriculture
DA	Department of Agriculture
CTA	Technical Centre for Agricultural and Rural Cooperation ACP-EU PA
DFID	Department for International Development
FAO	Food and Agriculture Organization of the United Nations
GEAR	Green Economy Advisory and Research
GIZ	German Technical Agency
IER	Institut d'Économie Rurale
IFAD	International Fund for Agricultural Development
IITA	International Institute for Tropical Agriculture
IPCC	Intergovernmental Panel on Climate Change
MSc	Master of Science
NDC	Nationally Determined Contribution
PACCA	Policy Action for Climate Change Adaptation
PADMAR	Projet d'Appui au Développement du Maraîchage
PAPAM	Projet visant à Améliorer la Productivité Agricole
PARSAT	Projet d'Amélioration de la Résilience de Systèmes Agricoles
PASP	Post-harvest and Agribusiness Support Project
PhD	Doctor of Philosophy
POSER	Programme De Promotion des Opportunités Socioéconomiques
PRAREV	Programme d'Appui à la Réduction de la Vulnérabilité dans les zones de pêche côtières
PRELNOR	Programme for the Restoration of Livelihoods in the Northern Region
ProDAF	Programme de Développement de L'Agriculture Familiale
PRODEFI	Projet de Développement de Filières Inclusives
PROSUL	Pro-poor Value Chain Development in the Maputo and Limpopo Corridors
SORI	Social Returns on Investment
SUCs	State Universities and Colleges
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
WAMPP	Wool and Mohair Promotion Project
WBCSD	World Business Council for Sustainable Development

# Review of the Learning Alliance for Adaptation in Smallholder Agriculture

## Executive summary

The Learning Alliance for Adaptation in Smallholder Agriculture is a knowledge platform which leverages the strengths, opportunities and diverse audiences of the International Fund for Agriculture (IFAD) and the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). The objective of the Learning Alliance is to produce and disseminate evidence for informed policy and implementation of climate-smart agriculture (CSA) interventions by capturing, analyzing and communicating lessons emerging from the IFAD supported global Adaptation in Smallholder Agriculture Programme (ASAP). The Learning Alliance strives to enable agricultural development policy-makers and practitioners make science-based decisions in the context of climate change. The underlying assumption of the Learning Alliance is that the “provision of demand-driven research outputs to policy-makers and practitioners is a key mechanism for improving the effectiveness of adaptation actions among ultimate beneficiaries, in this case smallholder farmers”. It aims to achieve three interconnected objectives:

- Deliver innovative global public goods scientific knowledge products on climate change that are relevant to development programming;
- Contribute scientific results as international public goods to policy dialogue at both global and national levels;
- Enable national research institutions to strengthen their own capacity on climate change research for development.

Thus, beyond knowledge generation, the proposed project includes significant investment in demand analysis, knowledge management, policy engagement and capacity enhancement.

Within the timeframe of the three years of phase one of the Learning Alliance, the focus of the partnership has been predominantly on the production of knowledge products that address the needs of the ASAP, relevant tools, consolidation of available knowledge from the ASAP and dissemination of knowledge products at global policy events (for instance COP 22 and 23). In addition, capacity enhancement of IFAD project staff has been addressed through two South-South learning events and that of national researchers through their involvement in the research projects. Three country assessments (Rwanda, Mali and Nepal) were also undertaken as was a wider assessment of the gender transformative approach of the ASAP.

The process of research on economic valuation, conducted in the first 18 months of the Learning Alliance in Nicaragua, Uganda and Vietnam presents an excellent case of agricultural research for development (AR4D) building as it did on existing networks of producers and local actors as well as project staff in this country, to inform the research process and ensure uptake of the results. The cost benefit analysis tool developed in the course of this research has found widespread uptake and has been out-scaled to some eight further countries. Beyond the Learning Alliance partners, it has also been used by the German Technical Agency (GIZ) in Western Kenya.

Whilst flagship publications and key messages from the platform have targeted global level policy-makers, it is not so evident at present how national policy has been informed by these knowledge products and interpreted into practice since documentation of this at country and regional level has not been systematic and/or the information is not centrally available.

Building on the knowledge products from the first phase, the Learning Alliance requires a clear strategic approach to translate this knowledge into informed policy and enhanced program at national and regional level thus ensuring uptake and greater impact. This will include the packaging of key messages from research and the identification of appropriate fora and events for their dissemination. Similarly, it will be important to track how knowledge and skills acquired through capacity strengthening efforts have led to changes in the project implementation. Improved tracking of policy and capacity strengthening at national level will allow the Learning Alliance to really make the case that “better-informed policymakers and practitioners enact better programmes with better outcomes”.

# 1. Introduction

## 1.1 Background

The International Fund for Agricultural Development (IFAD) recognizes that smallholder farmers and poor rural people bear the brunt of climate change and the degradation of natural resources. IFAD uses one-third of its regular investments for activities directly relevant to climate change adaptation in order to address this situation. The Adaptation in Smallholder Agricultural Programme (ASAP) launched in 2012 in over 30 countries aims to improve the climate resilience of at least 8 million smallholder farmers. It is the world's largest climate change adaptation program for smallholder farmers. It channels climate finance to smallholder farmers to enable them to access the information tools and technologies needed to build their resilience to climate change.

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is dedicated to generating scientifically sound evidence to support adoption of climate-smart agricultural policies, practices, and services that alleviate poverty, increase gender equity, and support sustainable landscapes. The program, hosted by the International Center for Tropical Agriculture (CIAT), involves all 15 international research centers of the CGIAR system across the globe, bringing together top researchers in agricultural science, climate science, environmental and social sciences to identify and address the most important interactions, synergies and trade-offs between climate change and agriculture.

Building on an existing knowledge partnership, IFAD and CCAFS/CIAT established a Learning Alliance for Adaptation in Smallholder Agriculture in 2015 to benefit from the complementarity of their two organizations and enhance their impact. Due to the sheer size of the number of farmers to be reached by the ASAP, this partnership offers a unique opportunity not only for research but for ensuring that science-based evidence can impact on the livelihoods of millions of smallholder farmers across the globe.

The Learning Alliance is a knowledge platform which builds on the different strengths, opportunities and diverse audiences of the two organizations to produce and disseminate evidence for informed policy and implementation of CSA interventions by capturing, analyzing and communicating lessons emerging from the ASAP portfolio. The original Grant Design Document foresaw that these activities would be undertaken within fourteen countries<sup>1</sup> in which implementation of the ASAP project was most advanced. However, the research activities, and implementation of tools have already been scaled-out to other countries. The Learning Alliance is funded equally by IFAD and CCAFS/CIAT for a first phase of three years (2015–2017).

The target group to benefit from the activities of the Learning Alliance is public sector institutions, agricultural policy-makers and practitioners in local, regional and national governments engaged in ASAP supported projects. It is envisaged that these actors will bring about positive change for the ultimate beneficiaries, some 1.5 million smallholder farmers directly involved in ASAP-supported projects. Thus, the Learning Alliance contributes to the overall goal of maximizing IFAD's impact on rural poverty in a changing climate by achieving the objective of enabling agricultural development policy-makers and practitioners make science-based decisions in the context of climate change. It is assumed that this will lead to greater positive impacts for smallholder farmers. At the same time, the project contributes to achievement of the internal CCAFS intermediate development outcomes (IDOs) related to increased food security, enhanced gender and social differentiation, strengthened adaptive capacity, informed policies and institutions and adequate response to ensure climate change mitigation.

The interventions of the Learning Alliance are underpinned by several assumptions, that inform a Theory of Change. The main assumption is that "better-informed policymakers and practitioners will enact better programmes with better outcomes". Thus, the project assumes that the "provision of demand-driven research outputs to policymakers and practitioners is a key mechanism for improving the effectiveness of adaptation actions among ultimate beneficiaries, in this case smallholder farmers".

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<sup>1</sup> The original identified countries for this initiative were Bangladesh, Bolivia, Djibouti, Ghana, Lesotho, Mali, Mozambique, Nepal, Nicaragua, Niger Nigeria, Rwanda, Vietnam and Yemen.

The Learning Alliance emphasizes the need for cross-sectoral policies in which the mainstreaming of adaptation into development sectors is an explicit and strategic priority; the importance of understanding of the nexus between climate adaptation and sustainable agricultural development; and the continued commitment at global level to the climate change adaptation. Thus, beyond knowledge generation, the proposed project includes significant investment in demand analysis, knowledge management, policy engagement and capacity enhancement.

Understanding research, policy formation and implementation as iterative rather than linear processes, the Learning Alliance strives to achieve three interconnected objectives:

- Deliver innovative global public goods scientific knowledge products on climate change that are relevant to development programming;
- Contribute scientific results as international public goods to policy dialogue at both global and national levels;
- Enable national research institutions to strengthen their own capacity on climate change research for development.

Linked to each of these objectives are corresponding 'outcome domains'.

Outcome 1 - Research & knowledge products: Scientific knowledge products, on topics and in formats approved by IFAD, are widely accessible – envisages the following outputs:

- (a) Climate change research topic selected via participatory consultation with IFAD (ECD, PTA and Regional Divisions);
- (b) Open competitive call for research proposals;
- (c) Selection of research consortium based on pre-agreed selection criteria, including inclusion of national research partners;
- (d) 18-month research program on selected topic, focused on IFAD case studies;
- (e) Preparation, peer review and publication of knowledge products in formats agreed by IFAD but implemented by grant recipients, co-branded as IFAD CGIAR (CIAT & CCAFS) and research partners.

Outcome 2 - Policy engagement: Knowledge products and results are actively cited in key policy forums at global and national levels – will be achieved through the outputs:

- (a) Dissemination of knowledge products via IFAD, CCAFS and research partner communication channels including social media;
- (b) Targeting of specific results into key policy processes (e.g. poverty reduction strategies, national adaptation plans and agricultural policies) via the annual policy engagement strategies of IFAD, CCAFS and national research partners;
- (c) Publication of key results in scientific journals to provide a robust basis for citation in IPCC and UNFCCC.

Outcome 3 - Capacity enhancement: National research institutions, researchers and policy-makers have raised capacities and profiles on climate change research for development cover the following outputs:

- (a) Support to national research partners to develop and deliver policy engagement strategies;
- (b) Facilitation of appropriate South-South cooperation between ASAP countries, to exchange relevant knowledge on climate change responses;
- (c) Inclusion of PhD students on research projects to strengthen long-term research capacity and research-practice linkages.

## **1.2 Focus and methodology of the review**

The present review visits these three outcome domains to ascertain in how far the Learning Alliance has been able to achieve results in each within the timeframe of its existence and assess the processes adopted for each. However, the Learning Alliance cannot be viewed as an isolated project. It is embedded in other ASAP activities and CCAFS research programs, as well as influenced by the other partnerships and networks of the two organizations, which is one of the potential strengths of this Alliance.

Therefore, the review has looked at the process of conducting research, ascertaining in how far the partnership could build on existing networks for greater outreach and dissemination of learning and knowledge; whether the process of knowledge creation led to enhanced capacity of IFAD and

project practitioners as well as of national researchers; in how far the process of research involved and led ultimately to changes in the attitudes and mindset of smallholder farmers. Finally, it looked at how the knowledge produced was disseminated to policy-makers at national, regional and global levels and if there was any evidence that it had been incorporated in to policies such as national adaptation plans.

The review aims to identify areas for improvement to achieve the planned outcomes of the Learning Alliance more effectively. It provides recommendations to inform a further phase, based on the experience of those closely involved in the knowledge production and implementation of the Alliance.

The review has not attempted to assess the content, relevance or quality of research conducted nor of policies or projects formulated based on this knowledge. The review has also not assessed the budget allocation and use, in the sense of value for money, which is viewed as beyond the scope of this review.

Within the timeframe for this review, it was not possible to organize a capitalization workshop with a cross representation of all involved actors. The present review was therefore conducted primarily as a desk study covering analysis of background documents (Grant Design Document, Annual Reports, Policy Documents and Monitoring and Evaluation Reports). On the basis of this, semi-structured interviews were conducted via Skype with IFAD and CIAT/CCAFS focal points responsible for the design and implementation of the program to revisit the Theory of Change, original intentions of the Learning Alliance and objectives as well as assessment of successes and challenges. Further interviews were undertaken with the lead persons for the individual research projects and assessment studies. These interviews focused on documentation of the activities undertaken, original assumptions behind the partnership, capacity strengthening activities as well as breakthroughs achieved and challenges faced with regards interaction between CCAFS/CIAT and IFAD. Recommendations for the future working of the Learning Alliance were also requested from all those interviewed. An interview with an IFAD project staff member in Rwanda was also carried out. Requests for information from two country assessments (Mali and Nepal) as well as other knowledge networks through which the Learning Alliance intended to achieve a wider audience for its knowledge products and tools were not possible.

## **2. Activities per outcome domain**

Within the timeframe of the first phase of the Learning Alliance, three years, it is not realistic to expect major impact in terms of improved livelihoods and climate change resilience of smallholder farmers. The focus of the partnership in this period has been the production of relevant knowledge products and tools, consolidation of available knowledge from the ASAP, dissemination of these at global policy events (COP 22 and 23) as well as capacity enhancement of IFAD project staff through two South-South learning events and of national researchers through their involvement in the selected research projects. To a certain extent, national policy has been informed by these activities and interpreted into practice while the uptake of tools and knowledge has been scaled-out to other countries and organizations not originally contained in the Grant Design Document.

### **2.1 Outcome domain 1. Scientific global public goods knowledge products on topics and in formats approved by IFAD are widely accessible**

This outcome domain foresaw that the projects of the Adaptation for Smallholder Agriculture Programme (ASAP) of the International Fund for Agricultural Development (IFAD) increasingly adopt CIAT/CCAFS science in project design and implementation. Studies funded through the Learning Alliance should lead to concrete recommendations for adaptation and prioritization of sites, practices and policies.

The Grant Design Document foresaw a process, whereby priority research topics were selected through a participatory, in-house process involving Regional Climate and Environment Specialists and Country Programme Managers in ASAP project countries. The topics were to be selected on the criteria of providing maximum opportunity for learning across the ASAP portfolio. Two overlapping, 18-month cycles of applied research were envisaged with two research projects addressing a

selected topic conducted in each cycle. The first cycle began in year one (2015) of the three-year project, the second was to commence at the start of year two.

For the first cycle, the research topic 'economic valuation of climate risks and adaptation responses' had already been selected prior to the grant agreement, based on a consultative process among IFAD staff and CCAFS scientists<sup>2</sup>. This topic was then put out in an open call for proposals via the CCAFS website. Two proposals from a total of 31 were selected under this topic: 'Pragmatic economic valuation of adaptation risk and responses across scale' conducted in Nicaragua, Vietnam and Uganda and led by CIAT'; and a second topic 'Shared knowledge and lessons for smallholder climate adaptation: learning from integrated agricultural systems in Brazil and Mozambique' to be led by Tufts University in the USA.

However, research in Mozambique was terminated after only eight months. The main reason for discontinuing the research was the fact that the IFAD project team did not see the immediate relevance to their work and did not have the capacity to accompany a research team in the field. The research was; therefore, not demand-driven as the original Grant Design Document had foreseen. In addition, it proved difficult for a research institute, external to the existing IFAD-CCAFS/CIAT partnership to readily understand the needs of ASAP for user friendly results and to navigate the institutional set ups of these organizations.

Quickly responding to this situation and demonstrating that communication from the field to the Learning Alliance coordinators functioned effectively, a decision was taken to no longer issue open calls for research. The team realized that "(a) the research process and outputs need to be defined together with users: more academic and independent research has less potential for direct uptake and impact" and "(b) IFAD staff, government staff and other end-users are time-constrained and may not prioritize participation in the research cycle, limiting opportunities for positive use of research. Therefore, a careful balance needs to be struck between involvement of the research users and independence of the research process" (Progress Report 2016).

As a result, further activities concentrated on consolidating existing knowledge, harvesting other, relevant research results from the CCAFS group and assessments to address ASAP programming needs. Two country project assessment reports were conducted in 2016 and 2017 in Rwanda and Mali respectively, by local consultancy/research institutions and a gender assessment in 12 countries was undertaken by CARE USA. A further country assessment in Nepal is still ongoing, whilst a second global research project on private sector led action in climate change conducted by CIAT responded to an expressed need of both the ASAP and supporting development partners. This latter research has just been concluded.

In comparison to the independent, academic research in Mozambique, the research into the economic advantage of adaptation of climate smart practices by CIAT teams in Nicaragua, Uganda and Vietnam benefitted from longstanding, in-country networks and relationships with IFAD and with local research institutions, government departments and farmer networks. These relationships were leveraged for wider outreach, input and acceptance. In Uganda, for instance, the research team aligned the research with two other ongoing research projects—Policy action for climate change adaptation (PACCA) and Food security and farming system resilience project—allowing them to work through established district learning platforms and farmers' associations in order to feed into government processes.

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<sup>2</sup> The Grant Design Document includes a list of thirty potential research topics identified.



**Table 1. Overview of research projects undertaken from 2015 to 2017**

Project	Institution
Shared knowledge and lessons for smallholder climate adaptation: learning from integrated agricultural systems in Brazil and Mozambique	Tufts University, USA Discontinued after 8 months.
Pragmatic economic valuation of adaptation risk and responses across scales	International Center for Tropical Agriculture (CIAT) 2015–2016
Assessment of intermediate results from the ASAP investment in climate information in Rwanda	Green Economy Advisory & Research (GEAR), Rwanda 2016
Assessment of intermediate results from the Adaptation for Smallholder Agriculture Programme (ASAP) investment in climate information in Mali	Institut d’Economie Rurale (IER), Mali 2016/2017
Gender Assessment of ASAP program portfolio	CARE International, USA 2016
Survey on Food Knowledge, Attitude and Practices in Nepal (ongoing)	Central Department of Rural Development, Tribhuvan University 2017/2018
Business Advantage – Mobilizing private sector led climate actions in agriculture	International Center for Tropical Agriculture (CIAT) 2016/2017

On the basis of these research projects and assessment studies, as well as other ongoing research within CCAFS/CIAT, the Learning Alliance has produced 11 publications to date (one of which is forthcoming)<sup>3</sup> within a relative short period of time. Three of these are IFAD flagship publications to highlight issues with global policy-makers, namely: Economic Advantage Report (2016), Nutrition Advantage Report (2017) and the forthcoming Business Advantage Report (2018). The Economic Advantage Report and the Business Advantage Report are the product of two research cycles of the Learning Alliance, whilst the Nutrition Advantage Report drew on research from CCAFS and other CGIAR centers.

In addition, the Learning Alliance has developed and dedicated an online portal to consolidate the knowledge across the ASAP countries ([www.asapinvestments.org](http://www.asapinvestments.org)) including a tutorial video and a user manual. This portal is designed to address the need of both donors, researchers and program staff to have easy access to the vast number of reports and assessments coming out of the ASAP.

The research on ‘Pragmatic economic valuation of adaptation risk and responses across scales’ also led in 2015 to the development of a methodology to assess the spatial and economic vulnerability of rural agricultural communities to progressive climate change. This was refined in 2016 and has been widely used in other countries such as Liberia and the Comoros. The methodology allows policy-makers to effectively undertake complex decisions to manage climate risks and increase the resilience of small-scale farmers.

The research also resulted in the development of a tool for cost benefit analysis (CBA) of climate-smart agricultural practices. The tool is available as an online and an offline version together with a user manual. This is the first online tool for appraising climate-smart agricultural practices and technologies with a user-friendly interface ([www.cbatool.ciat.cgiar.org](http://www.cbatool.ciat.cgiar.org)). The online tool consists of two components, one involving experts to assess the cost benefit of an intervention, and a more elaborated methodology to assess the adoption and implications of interventions by individual households. The CBA tool has been used in Nicaragua, Uganda, Vietnam, Philippines, Ghana, Western Kenya and Guatemala. In 2018, its use will be expanded to Ethiopia and Tanzania. Beyond IFAD, it has already been adopted in Kenya by the German Technical Agency (GIZ).

<sup>3</sup> See annex 1 for a full list.

A review of intermediate results under ASAP was concluded in 2016 in Rwanda and in 2017 in Mali. These two intermediate review studies directly evaluated the performance of ASAP in the field with a focus on farmers' own perspectives and experiences. The results of the Rwanda assessment were shared with IFAD staff and government bodies and recommendations were followed up on by the project team. However, the findings of the study were not shared with wider policy platforms such as the sector working group and the joint donor platform, which could have led to a wider country-based learning and potentially policy formulation.

IFAD has a strong policy on gender equality and women's empowerment, dating from 2012 (<https://www.ifad.org/documents/10180/6c7b7222-8000-48a3-982d-98eb973595b3>) and gender issues are integrated in the design of ASAP. In 2016, an assessment was carried out in eight countries<sup>4</sup> by CARE USA within the context of the Learning Alliance with the aim of maximizing relevance for ASAP learning, reporting, planning and implementation. It assessed gender integration into these eight ASAP country programs on a continuum from gender aware, gender responsive to gender transformative. The study revealed very different levels of gender integration in program design and implementation and identified several gaps that still need to be addressed. The study emphasized that a more intentional approach is needed to create the infrastructure to deliver a clear positive gender impact<sup>5</sup>.

The findings of this study have been published as an IFAD How to Do Note on 'Design of gender transformative smallholder agriculture adaptation programmes' in January 2018 and a CCAFS info note in March 2018. The task will now be to strengthen country teams on the ground to adopt the steps outlined in the How to Do Note.

The quality of the knowledge products is recognized by IFAD's major donor, the Department for International Development (DFID). The annual review of the ASAP in 2017 recommends that "IFAD continue to produce good quality knowledge publications [...] explore how these can be shared with more stakeholders [...] produce more regular updates on ASAP through social media, webinars and through regular quarterly newsletters".

## **2.2 Outcome domain 2. Knowledge products and results are actively cited in key policy forum at global and national levels**

At the global level, the Learning Alliance has widely disseminated the ensuing knowledge products and tools at High Level meetings and key policy fora to inform climate change policy and promote a 'disruptive dialogue'. The main forum to present the findings of the Learning Alliance has been the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) annual negotiations in order to contribute, along with other actors and activities, to create stronger commitment to agriculture within the UNFCCC framework.

In 2016 at COP 22 in Marrakech the Learning Alliance organized two events to inform UNFCCC negotiators and launched the Economic Advantage Report. These events were:

1. 'Building women's resilience to climate change: Lessons for smallholder farmers' with speakers from IFAD, CCAFS and CARE to share their experiences and lessons learned on promoting gender equality;
2. 'Economic Advantage of Agriculture in Nationally Determined Contributions (NDCs)' with speakers from CCAFS, IFAD, CIAT, Uganda and ASEAN sharing perspectives on the economic benefits of investing in climate actions in the agriculture sector.

In 2017, the COP 23 in Bonn, Germany saw the organization of a series of eight high level events under the theme 'Agricultural advantage' which made the case for climate action in agriculture, building on various outputs generated in previous years. Underscoring the need for cross-sectoral interventions, key events included 'Scaling up private sector climate actions in agriculture', which focused on the role of public private partnerships; 'Gender responsive adaptation in smallholder agriculture: Challenges and opportunities', which shared lessons from ASAP gender review with policy-makers and practitioners; and an event on 'The science-policy interface for climate-smart agriculture in action: What are the lessons learned?' tapped into lessons from ASAP's policy

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<sup>4</sup> Cambodia, Bangladesh, Ghana, Mali, Mozambique, Rwanda Uganda and Vietnam

<sup>5</sup> DFID ASAP Annual Review 2017 p.16.

engagement efforts. Building on these multiple events and associated knowledge sharing, a framework for agricultural transformation was proposed at the COP 23.

In June 2017, the biannual ASAP donor meeting was used to present the learning around the interface between climate, nutrition and gender mainstreaming which recommended strengthened capacity building to mainstream these topics through the IFAD Operations Academy and South-South exchanges; the production of operation oriented knowledge products, such as the How to Do Notes and other briefs and support for partnerships to achieve scale, as well as policy engagement to conducive enabling environment for climate-smart agriculture and cross-sectoral policies.

An 'Agro-Business Barometer' event is planned mid-2018 with the World Business Council for Sustainable Development (WBCSD) to launch the Private Sector Advantage publication and create private sector buy-in for climate-smart solutions—demonstrating the ability of the Learning Alliance to bring key strategic partners to the table. WBCSD has the potential through its membership to have a large outreach to address the mobilization of the private sector to address the challenges of climate change.

With regards to the output related to “publication of key results in scientific journals to provide a robust basis for citation in the Intergovernmental Panel on Climate Change (IPCC) and United Nations Framework Convention on Climate Change (UNFCCC)”, no systematic catalogue of these articles was found in the documents consulted for this review. It is also difficult to attribute scientific articles solely to the Learning Alliance collaboration, as they often build on other work and involve authors who may be working with other research centers. The annex includes the titles of some scientific articles shared by CIAT. The communications department of the Environment and Climate Division within IFAD does not track citation of its publications in scientific journals, only media coverage.

The Learning Alliance aims at the ASAP adopting CIAT/CCAFS research in project design and implementation, as well as providing concrete recommendations for adaptation and prioritization of sites and practices. However, less information is readily available as to how the knowledge products and tools have informed policy and project design at national and regional levels. Such information is presently not captured by the Learning Alliance in a systematic way. Some information was available for those countries directly involved in the research on economic validation and the use of tools developed in the course of this research project.

In **Vietnam**, a consultation on 16 April 2016 shared the results of work led by CIAT with participation of institutions and ministries, IFAD, UNDP and other CGIAR centers. In **Uganda**, results sharing was carried out during the research phase at national and district level learning platforms building on networks of the Policy Action for Climate Change Projects (PACCA). Two regional workshops were also organized on 27 October (**Tanzania**) and 30 October (**Uganda**) 2017 by the International Institute of Tropical Agriculture (IITA), CIAT and partners to share lessons and inform future climate adaptation, CSA planning, implementation and scaling. The ASAP project enabled through the Programme for the Restoration of Livelihoods in the Northern Region (PRELNOR) loan, approved by parliament, was informed by the CIAT work on risk assessment and economic validation.

In **Nicaragua**, data on climate change impacts on coffee led to recommendations for adaptation which informed the national adaptation plans. A new project on capacity development in CSA in **Central America** to strengthen policies and decision making for climate change adaptation and mitigation actions built on the research undertaken under the Learning Alliance.

In several other countries the development of new programs negotiated with governments resulted from the work done on economic validation. For instance, in the **Comoros**, CIAT undertook climate and environmental assessments that directly informed the design of the IFAD Agricultural Value Chains Development Programme (AVCDP). The vulnerability assessment helped identify hotspots related to current and future impacts of climate change on the value chains of banana, cassava and tomato. In **Liberia**, the research informed the project design process. The methodologies developed by the Learning Alliance were applied and refined in a major cooperation between the Department of Agriculture (DA) of the **Philippines**, CIAT and partners. A modification of the vulnerability assessment methodology was applied in the Kingdom of **Bhutan** through a UNEP-funded project in 2016. An intensive two-week capacity building course was run in collaboration with the Ministry of Agriculture and Forests. As a result, participants are now able to run the crop modelling exercise independently. Furthermore, the methodology was adapted to mountainous

areas. An upcoming cocoa-focused project in **Indonesia**, funded by a private sector actor, has used a variety of tools to inform the project design, including the vulnerability assessment, CSA prioritization and CBA online tool developed in the context of the Learning Alliance.

Despite only being online for six months, the CBA tool has been widely out-scaled. In addition to the above-mentioned projects, it has also been used to inform development in:

- CCAFS-funded Climate-Smart Village in northern Vietnam, where an analysis of five practices has been conducted;
- Philippines Adaptation and Mitigation Initiative in Agriculture (AMIA) project on Decision Support Platform: Developing a Decision-Support Platform for Climate-Resilient Agri-fisheries (CRA) Investment Prioritization;
- Cacao and coffee project in Peru, Ivory Coast and Ghana;
- CSA prioritization projects in Ghana, Kenya and soon in Tanzania.

The Grant Design Document also mentions a number of climate change knowledge networks through which the Learning Alliance would disseminate knowledge products and research findings. These networks aim at influencing global, regional and national policies on responses to climate change. Reports from the Learning Alliance; however, only make reference to events at COP 23 organized with the ASEAN Climate Resilience Network. Requests sent to this and other networks to ascertain how they relate to the Learning Alliance, were not responded to.

### **2.3 Outcome domain 3. National research institutions, researchers, and policy-makers have raised capacities and profiles on climate change research for development**

This outcome domain seeks to support national research partners to develop and deliver policy engagement strategies as well as facilitate South-South cooperation between ASAP country project staff to exchange relevant knowledge, challenges and solutions related to climate change responses.

At the country level, ASAP-supported projects are designed and managed through key government ministries and departments. Thus, the projects are strongly integrated with government strategies and policies, not only in agriculture, but also in other related areas such as gender, environment, nutrition and private sector development. Strengthening the capacity of IFAD project staff to analyze the complexity of climate smart-agricultural responses, innovate in the design of programs, familiarize them with a variety of technologies and social arrangements and participatory methodologies for the engagement of smallholder farmer and rural communities is therefore central to enhancing the capacity of governments to adapt in the context of climate change and formulate policy decisions accordingly.

Between 2016–2017, the Learning Alliance organized two South-South exchanges for IFAD project staff in Rwanda and Mali. For the East Africa region, an exchange workshop in November 2016 brought together IFAD staff from:

- Mozambique – Pro-poor value Chain Development in the Maputo and Limpopo Corridors (PROSUL);
- Lesotho - Wool and Mohair Promotion Project (WAMPP);
- Uganda - Programme for the Restoration of Livelihoods in the Northern Region (PRELENOR);
- Bangladesh - Climate Adaptation and Livelihood Protection (CALIP);
- Rwanda - Post-harvest and Agribusiness Support Project (PASP).

This workshop included Learning Alliance focal persons from IFAD and CCAFS as well as a communications specialist from IFAD and the author of the Rwanda assessment study.

A South-South exchange event for Francophone countries took place in Mali in October 2017 and involved IFAD project staff from:

- Bénin - Projet d'Appui au Développement du Maraîchage (PADMAR);
- Niger - Programme de Développement de L'Agriculture Familiale (ProDAF);
- Cap Vert -Programme De Promotion Des Opportunités Socioéconomiques Rurales (POSER);

- Djibuti - Programme d'Appui à la Réduction de la Vulnérabilité dans les zones de pêche côtières (PRAREV);
- Madagascar - Projet d'Appui au Développement du Melaky et du Menabe (AD2M-II);
- Mali - Projet visant à Améliorer la Productivité Agricole (PAPAM/ASAP);
- Tchad - Projet d'Amélioration de la Résilience de Systèmes Agricoles (PARSAT);
- Mauritania - Projet de Développement de Filières Inclusives Mauritanie (PRODEFI).

This workshop included staff from CCAFS, the Institut d'Economie Rurale (IER), IFAD head office and from CARE USA.

The agenda of both events was informed by the needs of projects ascertained prior to the workshops. The discussions provided space to share on the core themes project teams regularly faced such as: the complexity of monitoring and evaluation (M&E); the question of mainstreaming not only gender but also environment, climate, and nutrition and the tools to achieve this; the matter of safeguards and how IFAD expects projects to implement them; and the issue of sustainability. Both events reviewed the assessment studies that had been conducted in Rwanda and Mali respectively. In Rwanda, the agenda also covered the COP 22 and presentation of the Economic Advantage Report; the ongoing gender study and introduction to the web-based knowledge platform, as well as a training in knowledge management and communication. In Mali, the program had a particular focus on achieving gender transformative change. Both events included a field visit. All interviewees, who were involved in the South-South exchanges emphasized the practical nature of these events aligned to the needs of the teams on the ground. South-South exchange workshops are seen as important to widen the understanding of the project teams on innovations to address complex challenges as well as a means of 'widening their professional network'. DFID as a key donor to the ASAP has recommended that there should be further South-South workshops for sharing lessons with national partners.

In addition to the South-South exchange visits, some individual country capacity building events took place. However, not all are well documented. In Vietnam, a specific learning event for IFAD staff was organized in February 2016 to disseminate interim findings and build capacity for applying research findings in program efforts. The research team also worked closely with IFAD ASAP teams in Adaptation in the Mekong Delta (AMD) in Tra Vinh and Ben Tre. The regional learning events in Tanzania and Uganda, mentioned above, also involved the PRELENOR staff. In Rwanda, the assessment study involved IFAD staff closely at various stages of design, implementation and sharing of the findings. The involvement of IFAD staff in the Mali assessment and in Nepal could not be assessed. IFAD head office staff; however, indicated that in Mali the interaction had not been optimal.

In addition to country level learning events, a global level event, co-hosted by IFAD and CCAFS on 'How to design value chains programmes that address climate risks' was organized in Rome in February 2016.

A further objective under this outcome domain is the capacity strengthening of national researchers and supporting PhD and MSc. In line with the policies of the CGIAR, the research conducted by CIAT on economic valuation and on private sector involved national research institutes. In Nicaragua, research was conducted together with the National Institute of Agricultural Planning and Projection. In Vietnam, the research was in conjunction with the Institute for Agricultural Environment (IAE) and in Uganda, the research team worked closely with Gulu University. In the latter case, MSc students were involved in the field research and staff were trained in use of the vulnerability tool and the CBA tool. One indication of the success of such capacity strengthening is the fact that in Vietnam the IAE has been commissioned by the Food and Agriculture Organization of the United Nations (FAO) to conduct similar studies in fisheries and livestock.

In the Philippines, the methodology of analyzing exposure, sensitivity and adaptive capacity refined the data gathering to inform the AMIA project and included the capacity building of ten regional State University and Colleges (SUCs). The SUCs, as well as the DA Regional Field Officers, were also trained in how to use the online CBA tool and how to incorporate stronger assessment of environmental and social costs and benefits under the umbrella of the Climate Resilient Agriculture Decision Support Platform.

The just completed research into mobilizing the private sector led climate action which has compared different approaches in Nicaragua, Bhutan, Bangladesh and Niger adopted a methodology to assess Social Returns on Investment. It will be interesting to track if the involved national researchers adopt this methodology for other assessments.

Whilst information in select countries is available for the capacity strengthening of research institutes and IFAD staff in country, tracking of increased human capacity and how this translate into concrete benefits for the project and climate change responses has not been systematically undertaken and documented.

### **3. Overall assessment of results to date**

It is widely recognized that the partnership between CCAFS/CIAT and the IFAD ASAP holds great potential to have an impact on the lives of millions of smallholder farmers and for the uptake of climate-smart practices and improved resilience to climate change. For CCAFS/CIAT, the Learning Alliance gives their research teams access to significantly large numbers of farmers in diverse landscapes, thus enriching the research process. Whereas IFAD has access to science-based knowledge directly addressing the needs of the ASAP project to inform project design, timely adaptation, investment plans and the creation of a conducive policy framework.

As detailed in the section above, the Learning Alliance has, within only three years, produced a number of publications of which three are flagship publications, conducted three country assessments and an overall assessment of the gender component of the ASAP. In addition, existing knowledge from the ASAP has been consolidated and made accessible via an online portal. Two tools, one for the assessment of vulnerability and risk and another for cost benefit analysis of various CSA interventions, have been developed and used widely.

#### **3.1 The partnership**

Both partners also recognize that the arrangement of co-funding has enabled them to be flexible and innovative in their interventions. The fact that they were able to quickly recognize that research in Mozambique did not respond to the needs of the project team and hence changed the way in which research topics were identified, illustrates this point.

A particular challenge; however, mentioned by both partners, was bridging two different organizational cultures that sometimes led to tensions. The learning from this has enabled CCAFS and CIAT develop research processes that can respond to the needs of a development organization for timely results and the requirements of research organizations to provide robust science-based evidence.

The Learning Alliance has attempted to achieve a balance between the involvement of research users (IFAD project staff and government institutions) and the independence in the research process. To ensure the potential for uptake and impact of research results, the research process and outputs have been defined together with projects and also involved staff during the implementation phase and sought their feedback.

South-South exchange events for project staff and collaboration with national research institutes have provided initial capacity strengthening of projects and research. However, a systematic follow-up on these events to see if and how the knowledge and skills gained have been translated into practice has not yet taken place.

The gender assessment of the project has demonstrated several gaps in efforts to be effectively gender transformative. This provides a basis for potential improvement of the projects. Much will depend on how the Learning Alliance now moves forward to not only disseminate the findings or make some structural adjustments to projects, but also to ensure appropriate change in attitudes and behavior.

On the global stage, the Learning Alliance has made a significant contribution through flagship publications and the organization of side-events at high level meetings, namely the COP. At national level; however, targeted dissemination of results to a wider audience by the Learning Alliance through policy fora (especially those that could address cross-sectoral policy issues) or other knowledge networks and national level donor meetings, does not seem to have had priority in this first phase of the project or such interventions are scantily documented. One exception appears to be the collaboration with the ASEAN CRN to reach a wider audience.

At country level, the CIAT research teams on economic valuation and private sector mobilization admittedly worked through knowledge platforms, producer associations and government platforms to both inform the research process and to ensure uptake of research results. Indeed, the process of research in Nicaragua, Uganda and Vietnam with project team members, national researchers and national platforms which informed new policies and programs, provides an ideal case of how agricultural research for development can be meaningfully carried out and could be used to inform other AR4D efforts within the CGIAR system and beyond.

### **3.2 Scaling out and scaling up**

The outcomes of the above activities aim at scaling-out and scaling-up results. Scaling-out may be seen, on one hand, as the replication of a successful technology, social innovation or tool and, on the other, the linking together of similar initiatives to promote lesson sharing and wider innovation. Scaling-up is concerned with both formulation of recommendations for policy, but also with linking experiences and lesson learning to debates that shape wider policy and institutional frameworks and the nature and direction of development pathways. This includes strengthened national-local linkages, both vertically and horizontally, and leads to predictable, medium-term fiscal commitments and well designed and executed M&E systems for evidence-based programming that are also crucial in scaling-up processes.

The CBA tools, for instance, have been used in Vietnam, Nicaragua, Uganda, Guatemala and Ghana, and have been scaled out to other countries, namely Kenya. In addition, GIZ in Kenya has adopted the tools to inform their programs on the ground. The tools have informed the design of a number of projects as detailed in section 2.2 above. It was also stated, but no written documentation was found, that the CBA Tools will be up-scaled and adopted by IFAD organization-wide for all climate-smart projects.

The Learning Alliance clearly recognizes its potential for scaling-up research and knowledge to inform policy. During the COP 23, the Alliance identified three ingredients to do so. Firstly, generating and communicating the evidence to inform policy. Secondly, strengthening the local institutions and fostering dialogue with policy-makers. Thirdly, supporting local governments to operationalize local and national policies. The Learning Alliance clearly recognizes that the role of research in the latter case has not yet been fulfilled. The Alliance can contribute significantly by assessing the effectiveness of policies and how they bring tangible results for farmers.

### **3.3 Identified gaps**

To date, much of the work to influence policy has concentrated on the global level, but there is little systematic documentation as to what took place at national or regional level, and the strategy that informed it.

The Grant Design Document and subsequent presentations to IFAD staff and donor platforms stress the need to understand and address the complexity of tackling climate change. They call for science-based evidence to inform cross-sectoral policies at global, regional and national levels, integrating poverty reduction, agriculture, environment, gender, nutrition, food systems and institutional arrangements (amongst others) and maximizing the co-benefits of addressing these areas. Evidence of where this has happened or what cross-sectoral policies could entail is to date not available.

The Learning Alliance recognizes that to successfully provide input into national level policies, researchers first of all need to understand existing policies, their shortcomings and the national priorities on which they have been based. Secondly, policy-makers need solutions that can be operationalized within existing policies, so researchers are tasked to provide policy-makers with these. Finally, research must provide and communicate the evidence that these interventions bring about positive change, so that policy-makers and development organizations can argue for them. At present, documentation is needed at national level on efforts to institutionalize knowledge from the Learning Alliance and inform policy formulation. This would be facilitated if a more strategic

and systematic approach to informing policy needs was to be designed with country teams on the ground.

Many of those interviewed stressed the need for the results of research to be provided in a more user-friendly format so as to feed into the policy formulation process at the national level. For instance, it was suggested that the flagship publications should include five clear steps that policy-makers needed to follow to ensure an enabling policy environment and funding allocation for CSA. Shorter publications in the form of policy briefs and How to Do Notes were also seen as useful. However, without a defined strategy as to how to use such publications, with which audiences, for what results, their impact may be minimal.

Although both CCAFS and IFAD are linked to a number of knowledge platforms, dissemination of results from the Learning Alliance and cross learning through relevant global and local knowledge networks has not been given much attention to date. A clear strategy on how to engage with global and regional knowledge networks needs to be articulated.

The gender assessment report has identified a number of gaps in the ASAP projects to be addressed if the projects are to be effectively gender transformative. However, the How to Do Note was only published at the beginning of 2018 and clarity on capacity strengthening of teams in gender transformation was not clear.

Whilst the South-South exchanges were widely appreciated as events that built on needs of the project teams and are practical in their approach, it is not evident what sort of follow-up is envisaged. Assessment of how project teams have been able to put the learning into practice and to identify further capacity strengthening needs are not clearly formulated.

Similarly, capacity strengthening interventions with national research institutes and involvement of PhD and MSc students are not well documented. Information on how these institutes have adopted new ways of working and methodologies, knock on effects for training and support for policy information are scanty.

Interestingly, all those interviewed appreciated the opportunity the discussion gave them to reflect on what had happened over the three years of Learning Alliance project and to consider improvements. This points to the need to build in reflection moments for head office coordinating teams, but also for country teams, to reflect on and possibly adapt activities in a timely fashion.

## **4. Achieving targeted impact**

### **4.1 Recommendations**

Based on the identified gaps, some basic recommendations arise:

- The need at country level for a targeted approach to policy formulation by identifying key policy fora, working groups, key planned events—especially for cross-sectoral policies—as well as other national and knowledge platforms and networks, for instance joint donor meetings, innovation platforms, workshops and conferences;
- Linked to this, the need for research results to be packaged in a user-friendly way (key messages, policy briefs etc.) so that they can be easily taken up by different actors;
- More guidance and research are needed to understand what an enabling policy environment for CSA would entail;
- Improved tracking of how research activities and adoption of tools have been used to inform policy and/or improve implementation of the program;
- Tracking how capacity strengthening activities have led to an improvement of project implementation or research methodologies;
- A capacity strengthening plan at country level that provides space for reflection on the implementation and adaptation of learning;
- Capturing the research process in Vietnam, Uganda and Nicaragua as a case of successful AR4D and a learning input for research organizations at international and national levels.



## 4.2 Tracking the interaction between research, policy and implementation

The Grant Design Document for the Learning Alliance stresses that the interaction between research, policy formulation and implementation are not linear, but iterative processes. The first phase of the Learning Alliance has produced significant research results, organized global policy events and carried out capacity strengthening of IFAD project staff as well as of national research institutes and individual researchers. However, a more structured framework to capture and analyze how research, policy and implementation interact which clearly states the assumptions of the project as to how change will come about and the actions expected of individual actors would help track activities and provide a basis for iterative reflection processes. This should inform improved implementation capacity and policy environment at project level. It is, admittedly, difficult to design a Theory of Change for the Learning Alliance in isolation as so many other factors and partnership influence the intended outcomes.

At present the 'theory of change' that underpins the Learning Alliance is the basic assumption that "better-informed policy-makers and practitioners will enact better programs with better outcomes". The diagram below tries to capture the building blocks or steps of this 'theory of change' on the basis of the available documents. These blocks need to be reviewed at country level, identifying relevant actors, research needs, policy fora etc. in line with the recommendations above. Such a review should also clearly formulate minimal expected outcomes, desired outcomes and ideal outcomes. (In the language of outcome mapping 'expect to see', 'like to see' and 'love to see').

**Diagram 1. Building blocks of a monitoring and learning framework of the change**

### Learning Alliance for Adaptation in Smallholder Agriculture



**Assumption: Better-informed policymakers and practitioners enact better programmes with better outcomes**

Identifying the changes, one would like to see that research, implementation and policy should inform a more strategic approach to strengthening capacity within the project. For instance, strengthening the project to be gender transformative based on the assessment already carried out might include dissemination of the How to Do Note, targeted staff training and the identification of gender lead persons. Going beyond this to express exactly what one would expect to change in attitudes and behavior, as well as program, would provide a basis for reflection as to whether the change has actually come about, and to identify the reasons why, if this is not the case.

It is suggested that such a framework could be developed for a select number of ASAP countries to guide a more structured analysis of how changes within the project and the enabling policy environment have been achieved. This could then be later up-scaled to be adopted by all ASAP countries.

## Annexes:

### 1. Publications from the Learning Alliance for Adaptation on Smallholder Agriculture

- Be Tho DT. 2016. Impacts of climate change to agricultural production in Ben Tre and Tra Vinh provinces. *Vietnam Environmental Administration Magazine* 3. ISSN: 1859-042X.
- Gil J, Cohn A, Duncan J, Newton P, Vermeulen S. 2017. The resilience of integrated agricultural systems to climate change. *WIREs Climate Change* 8:1–15.
- [IFAD] International Fund for Agricultural Development. 2017. *The nutrition advantage: Harnessing nutrition co-benefits of climate resilient agriculture*. Rome: IFAD. p 1–49.
- Martínez-Valle A, et al. 2017. *Pragmatic economic valuation of adaptation risk and responses across scales in Nicaragua*. CCAFS Working Paper 210. Wageningen: CCAFS. p 1–4.
- Nghiem L, et al. 2018. *Business Advantage – Mobilizing private sector led climate actions in agriculture*. Rome: IFAD. p 1–62.
- Quang Ha P, et al. 2016. Study on climate smart agriculture at commune level in Ben Tre province. *Journal of Vietnam Agricultural Science and Technology* 10:41-45. ISSN: 1859-1558.
- Rugege D, Vermeulen S. 2017. *Investing in on-farm and post-harvest resilience to climate change in smallholder value chains*. CCAFS Working Paper 193. Copenhagen: CCAFS. p 1–39.
- Sriram V. 2018a. *Achieving gender equality and women's empowerment in smallholder adaptation. Lessons from IFAD's Adaptation in Smallholder Agriculture Programme*. CCAFS Info Note. Wageningen: CCAFS. p 1–4.
- Sriram V. 2018b. *How to do note: Design of gender transformative smallholder agriculture adaptation programmes*. Rome: IFAD. p 1–27.
- Vermeulen S, et al. 2016. *The Economic Advantage: Assessing the value of climate-change actions in agriculture*. Rome: IFAD. p 1–8.
- Vermeulen S, Dinesh D, Läderach P, Mwangera C. 2018. *How can we develop value chain programs that address climate risks?* CCAFS Info Note. Copenhagen: CCAFS.

#### 1.1 Select articles in scientific journals

- Baca M, Läderach P, Haggard J, Schroth G, Ovalle O. 2014. An integrated framework for assessing vulnerability to climate change and developing adaptation strategies for coffee growing families in Mesoamerica. *PLoS ONE* 9:1–11.
- Bouroncle C, Imbach P, Rodríguez-Sánchez B, Medellín C, Martínez-Valle A, Läderach P. 2016. Mapping climate change adaptive capacity and vulnerability of smallholder agricultural livelihoods in Central America: ranking and descriptive approaches to support adaptation strategies. *Climatic Change* 141:123–137.
- [CIAT] International Center for Tropical Agriculture. 2012. *Impact scenarios of climate future in coffee cultivation areas in Nicaragua*. Cali: DAPA.
- Läderach P, et al. 2011. Predicted impact of climate change on coffee supply chains. In: Leal Filho W, ed. *The economic, social and political elements of climate change*. Berlin: Springer. p 703–723.
- Läderach P, Ramirez-Villegas J, Navarro-Racines C, Zelaya C, Martínez-Valle A, Jarvis A. 2016. Climate change adaptation of coffee production in space and time. *Climatic Change* 141:47–62.
- Mwangera C, et al. 2016. Climate smart agriculture rapid appraisal (CSA-RA): A tool for prioritizing context-specific climate smart agriculture technologies. *Agricultural Systems* 151:192–203.
- Schroth G, Läderach P, Martínez-Valle A, Bunn C. 2016a. From site-level to regional adaptation planning for tropical commodities: cocoa in West Africa. *Mitigation and Adaptation Strategies for Global Change* 22:903–927.
- Schroth G, Läderach P, Martínez-Valle A, Bunn C, Jassogne L. 2016b. Vulnerability to climate change of cocoa in West Africa: patterns, opportunities and limits to adaptation. *Science of the Total Environment* 556:231–243.

## 2. Individuals consulted

<b>Individuals consulted</b>	<b>Institution and Position</b>
Ilaria Firmian	IFAD, Environment and Climate Knowledge and Capacity Development Officer
Gernot Langanda	IFAD, Lead Technical Specialist, Climate and Environment (formerly)
Brian Thomsons	IFAD, Senior Communications and Advocacy Specialist Environment and Climate Division
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Caroline Mwongera	International Center for Tropical Agriculture (CIAT) Kenya, Farming Systems & Climate Change Scientist
Stanley Karanja	International Center for Tropical Agriculture (CIAT) Uganda Agriculture Development Economist
Peter Läderach	International Center for Tropical Agriculture (CIAT), Vietnam, Global Theme Leader Climate Change
Avery Cohen	Assistant Professor of International Environment and Resource Policy, The Fletcher School at Tufts University Tufts University, USA
Denis Rugege	Green Economy Advisory & Research GEAR, Rwanda
Vidhya Sririam	Senior Technical Advisor for Research, Food and Nutrition Security, CARE International, USA
Madeleine Usabyimbabazi	Climate & Environment Specialist SPIU-IFAD Funded Projects, Ministry of Agriculture and Animal Resources, Rwanda
Olu Ajayi PhD	The Technical Centre for Agricultural and Rural Cooperation (CTA), Senior Programme Coordinator
Piet van Asten	Formerly Uganda Country Representative, International Institute for Tropical Agriculture, CSA focal person

### 3. Documents consulted

- Baca, M, Läderach P, Hagggar J, Schroth G, Ovalle O. 2014. An integrated framework for assessing vulnerability to climate change and developing adaptation strategies for coffee growing families in Mesoamerica. *PLoS ONE* 9:1–11.
- Bourgoin C, Louis P, Martínez-Valle A, Mwongera C, Läderach P. 2016. *A spatially explicit assessment of climate change vulnerability in the agricultural sector of the Union of the Comoros*. CCAFS Working Paper 186. Copenhagen: CCAFS. p 1–45.
- Bouroncle C, Imbach P, Rodríguez-Sánchez B, Medellín C, Martínez-Valle A, Läderach P. 2016. Mapping climate change adaptive capacity and vulnerability of smallholder agricultural livelihoods in Central America: ranking and descriptive approaches to support adaptation strategies. *Climatic Change* 141:1–15.
- [CCAFS] CGIAR Research Program on Climate Change, Agriculture and Food Security. 2015a. *CCAFS Learning Alliance for Adaptation in Smallholder Agriculture: Grant status report 2015*. Wageningen: CCAFS.
- [CCAFS] CGIAR Research Program on Climate Change, Agriculture and Food Security. 2015b. *CCAFS Program of Work and Budget 2015*. Copenhagen: CCAFS.
- [CCAFS] CGIAR Research Program on Climate Change, Agriculture and Food Security. 2017a. *Annual reporting for 2017*. Wageningen: CCAFS.
- [CCAFS] CGIAR Research Program on Climate Change, Agriculture and Food Security. 2017b. *ASAP-CCAFS collaboration, a potential to be unlocked for the benefit of smallholder farmers in Africa*. CCAFS Blog. Wageningen: CCAFS. (Available from <https://ccafs.cgiar.org/fr/blog/collaboration-asap-ccafs-un-potentiel-%C3%A0-exploiter-pour-le-bonheur-des-petits-producteurs#.WsCgG4hubIV>) (Accessed on 1 March 2018)
- [CCAFS] CGIAR Research Program on Climate Change, Agriculture and Food Security. 2017c. *A step forward for agriculture at the UN climate talks – Koronivia Joint Work on Agriculture*. CCAFS Blog. Wageningen: CCAFS. (Available from <https://ccafs.cgiar.org/blog/step-forward-agriculture-un-climate-talks-%E2%80%93-koronivia-joint-work-agriculture#.XN5W79MzYWo>) (Accessed on 1 March 2018)
- [CCAFS and IFAD] CGIAR Research Program on Climate Change, Agriculture and Food Security, International Fund for Agricultural Development. 2014. *Learning Alliance for Adaptation in Smallholder Agriculture*. Grant Design Document. Rome: IFAD.
- [CIAT] International Center for Tropical Agriculture. 2012. *Impact scenarios of climate future in coffee cultivation areas in Nicaragua*. Cali: DAPA.
- [CIAT] International Center for Tropical Agriculture. 2015. *Learning Alliance for Adaptation in Smallholder Agriculture*. Annual Work-Plan and Budget. Cali: CIAT.
- [CIAT] International Center for Tropical Agriculture. 2016. *CCAFS Annual performance monitoring report 2016*. Cali: CIAT.
- [DFID] Department for International Development. 2016-2017. *Annual review - Summary sheet*. London: DFID.
- Firmian I, Dinesh D. June 2017. *Progress at the interface between climate, nutrition and gender mainstreaming*. PowerPoint presentation at biannual ASAP donor meeting on 23 June 2017. Rome: IFAD.
- [IFAD] International Fund for Agricultural Development. 2016. *ASAP Knowledge management and South-South exchanges in ASAP*. IFAD PowerPoint presentation. Kigali: IFAD.
- Hall A. 2011. *Putting agricultural research into use: Lessons from contested visions of innovation*. UNU-MERIT Working Papers 2011-076. Maastricht: Maastricht Economic and Social Research institute on Innovation and Technology (UNU-MERIT). p 1–62.
- Läderach, P. 2015. *IFAD-CCAFS Learning Alliance for Adaptation in Smallholder Agriculture: Economic valuation of climate risks and adaptation responses in agricultural development projects*. Concept note. Cali: CIAT.
- Läderach, P. 2017. *Cost Benefit Analysis Tool: User-friendly tool to prioritize investments for climate smart agricultural practice*. Cali: CIAT.
- Läderach P, et al. 2011. Predicted impact of climate change on coffee supply chains. In: Leal Filho W, ed. *The economic, social and political elements of climate change*. Berlin: Springer. p 703–723.
- Läderach P, et al. 2016a. *Economic valuation of climate risks and adaptation responses in agricultural development projects: Outcome statement 2016*. Wageningen: CCAFS.

- Läderach P, Ramirez-Villegas J, Navarro-Racines C, Zelaya C, Martinez-Valle A, Jarvis A. 2016b. Climate change adaptation of coffee production in space and time. *Climatic Change* 141:47–62.
- Mwongera C, et al. 2014. *Climate Smart Agriculture Rapid Appraisal (CSA-RA) Report for Northern Uganda*. Nairobi: CGIAR.
- Mwongera C, et al. 2017. Climate smart agriculture rapid appraisal (CSA-RA): A tool for prioritizing context-specific climate smart agriculture technologies. *Agricultural Systems* 151:192–203.
- Nghiem L, et al. 2018. *Business Advantage – Mobilizing private sector led climate actions in agriculture*. Rome: IFAD. p 1–62.
- Ngoc Lan L, et al. 2016. *Pragmatic economic valuation of adaptation risk and responses across scales. Case study in Vietnam*. CCAFS Working Paper 185. Wageningen: CCAFS. p 1–108.
- Nyangaga J. 2016. *How CIAT's climate research informs and influences decision making in IFAD and the cocoa and coffee sector globally. An outcomes validation report*. Nairobi: Right Track Africa.
- Okiror J, Cramer L. 2017. *Lessons for successful scaling of climate-smart agriculture innovations*. CCAFS Blog. Wageningen: CCAFS. (Available from [https://ccafs.cgiar.org/blog/lessons-successful-scaling-climate-smart-agriculture-innovations#.WsCu\\_ohubIW](https://ccafs.cgiar.org/blog/lessons-successful-scaling-climate-smart-agriculture-innovations#.WsCu_ohubIW)) (Accessed on 1 March 2018)
- Peltier M. 2018a. *Is the ideal woman resilient to climate change?* IFAD Social Reporting Blog. Rome: IFAD. (Available from <https://ifad-un.blogspot.ug/2018/01/is-ideal-woman-resilient-to-climate.html>) (Accessed on 1 March 2018)
- Peltier M. 2018b. *What do Benin, Cape Verde, Chad, Djibouti, Madagascar, Mali, Mauritania and Niger have in common?* IFAD Blog. Rome: IFAD. (Available from <https://ifad-un.blogspot.com/2018/01/what-do-benin-cape-verde-chad-djibouti.html>) (Accessed on 2 January 2018)
- Robinson D, Sriram V. 2017. *IFAD's ASAP gender assessment and learning review final report*. Atlanta: CARE USA.
- Romero M. 2017. *CIAT launches regional knowledge hub to support climate change action*. CIAT Blog. Cali: CIAT. (Available from <http://blog.ciat.cgiar.org/ciat-launches-regional-knowledge-hub-to-support-climate-change-action/>) (Accessed on 1 March 2018)
- Rugege D. 2016. *Assessment of Intermediate Results of ASAP investment in Rwanda*. Kigali: GEAR Ltd.
- Schroth G, Läderach P, Martínez-Valle A, Bunn C. 2015. *Climate vulnerability and adaptation of the smallholder cocoa and coffee value chains in Liberia*. CCAFS Working paper 134. Copenhagen: CCAFS. p 1–126.
- Schroth G, Läderach P, Martinez-Valle A, Bunn C. 2016. From site-level to regional adaptation planning for tropical commodities: cocoa in West Africa. *Mitigation and Adaptation Strategies for Global Change* 22:903–927.
- Schroth G, Läderach P, Martinez-Valle A, Bunn C, Jassogne L. 2016. Vulnerability to climate change of cocoa in West Africa: patterns, opportunities and limits to adaptation. *Science of the Total Environment* 556:231–241.
- Szilagyi L, Verhage F. 2017. *Bringing science into policymaking around agriculture and climate change*. CCAFS Blog. Wageningen: CCAFS. (Available from <https://ccafs.cgiar.org/blog/bringing-science-policymaking-around-agriculture-and-climate-change#.WsCstohubIW>) (Accessed on 1 March 2018)
- Traore K. 2017. *Assessment of intermediate results from Adaptation for Smallholder Agriculture (ASAP) investment in climate information in Mali*. Bamako: Institut d'Economie Rurale.
- Ulrichs M, Cannon T, Newsham A, Naess L, Marshall M. 2015. *Climate change & food security vulnerability assessment toolkit for assessing community-level potential for adaptation to climate change*. CGIAR Working Paper 108. Rome: Bioversity International & Institute of Development Studies (IDS).
- [UNDP] United Nations Development Programme. 2011. *Scaling up local innovations for transformational change. Bureau for Development Policy*. New York: UNDP.
- Vermeulen S, et al. 2016. *The Economic Advantage Assessing the value of climate-change actions in agriculture*. CCAFS Info Note. Copenhagen: CCAFS. p 1–8.
- Vermeulen S. 2015. *How to do climate change risk assessments in value chain projects*. Rome: IFAD.

#### 4. Involvement of ASAP countries in Learning Alliance activities

Products Countries	Research project	Publications	CBA Tool	South-South Exchange	National Policy Dialogue	Involvement of national researchers	PhD/MSC students
<b>Africa</b>							
Mozambique	Terminated 2016				2015	National institutes	Postdoctoral student
Ghana			2017				
Niger	2017 Private sector investment initiated			2017, Mali			
Rwanda	2016 Intermediate results	Working Paper CCAFS		2016			2016 Student involvement
Mali	2017 IER assessment report			2017			
Uganda	Study on pragmatic economic valuation 2017		CBA Tool 2017	2015	2016 National policy-makers		2016 Student involvement
<b>Asia</b>							
Bangladesh	Private sector investment			2016			
Bhutan	2017 Private sector investment					Training government staff	
Cambodia							
Nepal	Survey on Food Knowledge, Attitude and Practices (ongoing)						
Vietnam	Study on pragmatic economic valuation 2017			2015	2016 April Consultation workshop ministries and		Student involvement

	2017 Private sector investment initiated				research institutes 2016 National policy-makers		
<b>Latin America</b>							
Nicaragua	Study on pragmatic economic valuation, 2017 2017 private sector investment		CBA Tool 2017	2015			
<b>Additional countries</b>							
Benin				2017, Mali			
Cape Verde				2017, Mali			
Chad				2017, Mali			
Djibouti							
Madagascar				2017, Mali			
Mauritania				2017, Mali			
Niger	2017 Private sector investment						
Philippines			CBA Tool 2017			Training government staff	
Indonesia							
Kenya			CBA Tool 2017/2018				
Tanzania			2018				
Ethiopia			2018				
Liberia							
Comoros	Vulnerability assessment						
Guatemala			2017				