Food and Agriculture Organization of the United Nations

Final review of "Making agriculture part of the solution to climate change–Building capacities for Agriculture Mitigation - Programme GCP/GLO/270/MUL"

Final report
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Composition of the Review Team

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Acronyms

ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AFOLU	Agriculture, Forestry and Other Land Use
AGAL	Livestock Information, Sector Analysis and Policy Branch (FAO)
AGRA	Association for the Green Revolution in Africa
CA	Conservation agriculture
CC	Climate Change
CCAFS	Climate Change, Agriculture, and Food Security Research Programme of CGIAR
CGIAR	Consultative Group on International Agricultural Research
CoP	Community of Practice
CoPs	Communities of Practice
COP	Conferenceof Parties
CSA	Climate Smart Agriculture
CSAP	Climate Smart Agriculture Programme
EADD	East Africa Dairy Development project
EFDB	Emission Factor database
EMU	Environmental Management Unit (Tanzania)
EPA	Environmental Protection Agency (US)
ESA	Agricultural Development Economics (FAO)
FAO	The Food and Agriculture Organisation of the United Nations
FFS	Farmer Field Schools
GACSA	Global Alliance for Climate Smart Agriculture
GHG	Greenhouse gases
GLEAM	Global Livestock Environmental Assessment Model
HICAP	CARE Hillside Conservation Agriculture Project
HQ	Headquarters
ICRAF	International Centre for Research in Agroforestry (aka World Agroforestry Centre)
ICRISAT	International Crops Research Institute for Semi-arid Tropics
ILRI	International Livestock Research Institute
INDC	Intended Nationally Determined Contributions
IPCC	Intergovernmental Panel on Climate Change
KAP	Knowledge – Attitude – Practice
KM	Knowledge Management
LCA	Life Cycle Assessment
LIBS	Laser-induced breakdown spectrometry
LoA	Letter of Agreement
MAFSC	Ministry of Agriculture, Food Security and Cooperatives Tanzania
MDG	Millennium Development Goals
MFA	Ministry for Foreign Affairs

MRV	Measuring, reporting and verification
MICCA	Mitigation of Climate Change in Agriculture
MTE	Mid-term evaluation
NAMA	Nationally Appropriate Mitigation Action
NGO	Non-Governmental Organisation
NRC	Climate, Energy and Tenure division (FAO)
PIP	Project Implementation Plan
RUFORUM	Regional Universities Forum for Capacity Building in Agriculture
SC	Steering Committee
SLM	Sustainable Land Management
SOC	Soil organic carbon
SUA	Sokoine University of Agriculture
TA	Technical Assistance
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WI	Wetlands International

Executive Summary

1. Introduction

This report presents the final review of the "Making agriculture part of the solution to climate change – Building capacities for Agriculture Mitigation" project (also referred to as the MICCA Finland project). It covers the entire Project's duration to date, from January 2010 to October 2015, with the primary focus being the period after the Mid-Term Evaluation, which was completed in February 2013. This review only relates to the MICCA project financed by the Ministry for Foreign Affairs (MFA) of Finland. It does not cover the other project under the MICCA banner, the Monitoring and Assessment of GHG Emissions and Mitigation Potentials in Agriculture (MAGHG), funded by Norway and Germany.[1]

The review is meant to provide input to fine tuning the project activities during the no-cost extension (January-June 2016), to offer an assessment of implementation and achievements of project implementation, and provide accountability to stakeholders. The review study was undertaken in four phases. The first phase was an initial review of published materials, minutes of meetings, and other documents as provided by the MICCA Finland team in order to become familiar with the project's scope and process. The second, undertaken at FAO Rome Headquarters over the period 19-23 October 2015 involved meeting in person or virtually with MICCA staff and others involved with MICCA within and external to FAO. This phase continued after Rome as the review team continued to collect information about the project. The third phase was a field programme visiting the MICCA pilot project site in Tanzania and interviewing a number of Tanzanian stakeholders. The final phase was the elaboration of this report.

2. Findings and conclusions

Project concept and design

Anticipating that COP15 in Copenhagen would include a strong focus on agriculture in general and mitigation in particular, MICCA was initially designed as an ambitious USD 60 million programme to be funded by multiple donors. Since COP15 did not deliver the expected broad agreements and related donor commitments anticipated, there was a mismatch from the start between the ambitions of the MICCA project (as reflected in the logical framework) and the available funding. In the end, three donors provided funding for MICCA, with MFA Finland funding the project evaluated in this report, and Norway and Germany jointly funding the sister project MAGHG. Total funding from MFA Finland amounts to Euro 6,231,000 (USD 8,675 million).

A new Logical Framework or a Theory of Change, based on the new funding situation, was never developed for the MICCA Finland project. The project therefore started implementing activities without a real project reference framework in place. Due to more changes in the funding, Project Implementation Plans were developed in 2012 and 2014 that outlined the activities to be undertaken in those periods. These acted as de facto reference frameworks for the project, although they don't include any clear outcomes or targets.

[1] Formally, MAGHG consists of two projects: a German funded and Norwegian funded one. But they have joint objectives, so for convenience they are referred to in this report simply as the MAGHG project.

While the lack of a clear reference framework with agreed targets makes tracking of outcomes and impacts more challenging, it has allowed the project to adopt a flexible and opportunity-driven approach. Examples of this include the framing of mitigation in agriculture within the broader CSA concept and the inclusion of a work stream on peatlands, which wasn't foreseen in the original project design.

Implementation process

A dedicated project team hosted at the NRC division and led by a project coordinator is responsible for the implementation of the project. Oversight is provided by a Steering Committee.

The project has shown great capacity for adaptive management, as evidenced in particular by the way it has effectively mitigated the negative consequences of unexpected but considerable reductions in funding levels in 2012 and 2013. The project managed to ensure that the budgets for core project staff and the recently started pilot projects in Kenya and Tanzania were not affected. Other activities were either decelerated, postponed or cancelled.

From the start, the project has adopted an implementation approach that is based on working in partnership with other stakeholders. These include both other divisions and programmes within FAO and external partners. This has allowed the project to work with a relatively small team of core staff, which has contributed to strong team cohesion. Feedback from the partners and an analysis of the many MICCA knowledge products indicate that the support provided by the project team has generally been of the highest standards. While there have been some hiccups in the partnerships, the overall picture is one of effective collaborative efforts.

The collaboration and coordination with the sister project MAGHG has seen its ups and downs. While initially good, different ideas on how to manage and coordinate the projects has negatively affected the collaboration. The situation is currently on the mend however and a stronger integration of the two projects is expected and recommended.

Overall project management has been effective as illustrated by the large number of activities it has managed to implement through a number of so-called workstreams, and the smooth financial management. The Steering Committee has met regularly and has generally been very satisfied with the project's performance.

Results

MICCA Finland can be credited with having directly contributed to a broad understanding and acceptance, also in developing countries, that mitigation can, and often does, go hand-in-hand with food security and adaptation. This message has been shared widely with a global audience and has been strategically framed within the broader context of CSA. In the countries where MICCA Finland works directly with stakeholders on policy issues (Kenya, Tanzania, Vietnam) there are clear signs that this had led to a more positive attitude towards CSA and increased prospects for broader adoption of CSA practices, including those related to mitigation.

Apart from this overall achievement, each of the main work streams has also produced a number of important results, as summarised in the table below.

Work stream	Key results
LCA livestock	• Draft LCA guidelines developed through the LEAP partnership • Draft LCA methodology, submitted for Gold Standard certification
Peatlands	• Global awareness raising and knowledge sharing on the role of peatlands in global warming and the importance of climate smart management practices

	• Two MICCA publications and a collection of case studies on peatlands
Gender and CC	• Development and intensive dissemination of a detailed training guide on gender and CC • Collaboration with WB and IFAD on elaboration of Gender in CSA module for the Gender in Agriculture sourcebook
Pilot projects	• Unique collaboration between research organisations and development practitioners for action-research and piloting CSA practice. • Awareness created on CSA potential and barriers at field level • Tanzania pilot used as starting point for policy work on national CSA guidelines
Policy work	• Development of dairy NAMA in Kenya (on-going) and a NAMA in Vietnam, which builds on the NAMA learning tool developed by the project • Development of CSA guidelines in Tanzania (first draft available) • Contribution to UNFCCC negotiations through side-events, briefs, submissions, sponsoring participants, etc.
Communities of Practice	• Host physical and online learning events focused on specific themes, and develop and moderate ten Communities of Practice (CoPs) of varying levels of maturity • Organize technical workshops and online learning events synergistic to and supporting the CoPs to build capacity and share knowledge. (Chronology and statistics of CoP and related events are included in Annex.)

The development of Communities of Practice (CoPs) was originally envisioned as a key means of building capacity, sharing knowledge, and creating an online community of practitioners interested in MICCA-related topics. While physical workshops have been important--a series of ten over the course of six years attended by over 330 participants--the CoPs and related online events and resources extend the reach and contribute to the lasting legacy of MICCA after the project is completed. The CoPs efforts have been effectively led and coordinated by the MICCA communications expert, with the entire MICCA staff involved in widely communicating and sharing knowledge and insights of their findings and emerging effective practices, both inside and beyond FAO. Feedback from CoPs participants show they were positive about participating in the online activities of their Community of Practice, citing knowledge and information-sharing as an important attribute, as well as the engaged nature of the community. Participants in learning events, who in many instances are members of a CoP, offer similar feedback on the quality and importance of MICCA's resources. An important aspect of the discussions and materials is that they are regarded as neutral and trusted, one of FAO’s most important qualities.

In order to capture emerging findings, convey them to peers and key target audiences, and contribute to the understanding, dissemination and deployment of effective practices, the project team has individually and collectively published their work in a variety of publications. At the core of these are the MICCA papers, a series of currently 10 (with at least one more planned) papers developed through collaborative efforts with partners and addressing a wide range of CSA issues. These papers, as well as all other MICCA publications, have been vetted through a thorough internal review process, ensuring an overall high quality.

To avoid the loss of knowledge and to further maximize the products and relationships forged over the past six years, it is imperative that another project or programme, such as MAGHG, continue the role that MICCA Finland has been playing to great effect. At a minimum, the continuation of the main Knowledge Management (KM) activities like the Communities of Practice and related learning events need to be guaranteed to maintain the momentum created by MICCA Finland.

Crosscutting issues

The approach of MICCA to work through partnerships has generally been beneficial. Through the collaborative work, the project has been able to tap into a wealth of expertise and the partners' network of contacts. It has also increased the chances of scaling up CSA practices. The main challenges in the partnerships has been the tendency of some partners to build on the work done without, in the view of some project staff, sufficiently acknowledging MICCA, and changes in staff within the MICCA project that has meant that partners have to adjust to new styles of communication and collaboration. Overall feedback from partners however is positive and some scaling up of work done with MICCA is already happening such as the inclusion of CSA in the new phase of the East Africa Dairy Development Programme (partner in MICCA's pilot project in Kenya).

The project is working on capacity development at various levels. Through the pilot projects farmers have been trained in CSA practices, while at national level the project is building capacity of government stakeholders and FAO country offices through the policy work on NAMAs (Kenya, Vietnam) and CSA guidelines. Within FAO HQ, the project has broadened the awareness on mitigation aspects of agriculture through the CC study circle, while the collaboration with divisions like AGAL and ESA on concrete MICCA-related work has helped build their knowledge and capacity in specific aspects such as LCAs and adoption barriers in CSA. The main factor hampering the effectiveness of the capacity building efforts is the time constraints. At national government level in particular, a long-term capacity building effort will be required to support the effective implementation of the NAMAs and CSA guidelines.

The review team has found few signs of effective gender mainstreaming during the initial stages of the project. This is most evident in the socio-economic surveys undertaken at the start of the pilot projects in Kenya and Tanzania, which lack a structural gender analysis and gender-disaggregated data. The situation has improved over the years, with gender issues brought up more consistently in MICCA's engagement with partners and pilot projects paying more attention to gender issues, including a gender balanced participation in the activities and providing gender-disaggregated data in the progress reports and adoption studies. Still, a thorough gender analysis with resulting recommendations on effective strategies to promote gender equity is missing from these reports. The same can be said of the draft CSA guidelines for Tanzania.

Specific review criteria

The relevance of the project at all levels is evident. Climate change is a crosscutting issue contributing to a varying degree to all of FAO's strategic objectives and in particular to SO2. At the country level, MICCA's work is well aligned with the FAO Country Programming Frameworks. The relevance for the international CC expert community is illustrated by the success of the CoPs and the high interest shown in MICCA's publications.

The impact of MICCA should ultimately lie in the broad adoption of CSA practices with inclusion of mitigation aspects by (small-scale) farmers in developing countries. The prospects of MICCA contributing to this impact are excellent. The project has created

awareness amongst a broad range of stakeholders on the fact that mitigation in agriculture can, and usually does, go hand in hand with increasing food security and climate resilience and as such is an integral element of CSA. Through strategic partnerships, such as with the WB, and through the policy work in Kenya, Tanzania and Vietnam, the project is directly contributing to the mainstreaming of CSA in policies and programmes. The main challenge for substantial future impact probably lies at the field level. Overcoming the barriers that currently prevent large scale adoption of CSA practices by small-scale farmers will require a sustained extension and capacity building effort, which in turn will require long term commitments both from the governments in developing countries and from donors.

There are clear signs that CSA practices as researched / piloted under MICCA will be scaled up, thanks to the principle adopted by the project from the start to work as much as possible in partnership with other organisations. At the pilot project sites, scaling out without further external support is unlikely given that the pilot projects have had too little time to build a critical mass of adopters and have not addressed all barriers to adoption. In Kenya, further external support is provided by EADD, but in Tanzania no further support is currently foreseen. For the policy work in Kenya, Tanzania and Vietnam, prospects for sustainability are reasonably good thanks to the involvement of external partners and the FAO country offices and the possibilities for further funding of these activities through other funding sources.

What is missing however from the sustainability picture is a formal programme or project that can continue to coordinate, catalyse and promote the development of CSA and mitigation related research, policies and scaling up efforts across countries and continents, a role that MICCA Finland has been playing to great effect.

3. Recommendations

The recommendations aim to maximise the prospects of sustaining and up-scaling the project's results and products by the beneficiaries and partner institutions and programmes after the formal termination of the MICCA Finland project, foreseen for June 2016.

The scope of each recommendation and intended key responder(s) are summarised in a table at the end of this section.

Management and institutional issues

Recommendation 1. Results-based final report

Since its beginning in 2010, the MICCA project has mainly reported on progress with activities. As argued in this report, it is ultimately the results and impacts of those activities that count. For the final report, the project should consider a more results-based reporting, in particular describing how the activities have influenced stakeholders (possibly using the Knowledge, Attitude and Practices or KAP approach also used in this report) and the institutional environment (organisational changes within FAO, policy changes in countries and at global level, donors, networking initiatives, etc.). It would also be useful to revisit the original logical framework in the final report, and assess which aspects of the logical framework have been addressed and which aspects have not been addressed and might require further attention in future.

Recommendation 2. Lessons learnt with stakeholder input

In the remaining months of the project it would be worthwhile for the MICCA team to spend some portion of their time reflecting on and revisiting what the key learning goals are for

each of the five main content domains, and how they can best be summarized and conveyed to intended learners as measurable outcomes. This exercise should include views from stakeholders, either through a type of "write workshop" or, if this is not feasible given the limited funds and time available, through an online exercise.

Recommendation 3. Strengthen integration between MICCA Finland and MAGHG

With the arrival of the new project coordinator for the sister project MAGHG, there is a new opportunity to increase the coordination and collaboration between the two MICCA projects. This opportunity should be seized upon by re-introducing the regular meetings of the full core teams of both projects. Ideally the projects would move towards full integration by transitioning staff and related workflows from MICCA Finland to the sister project. The new project coordinator of MAGHG has the necessary background and skills to facilitate this transition and lead the combined projects and staff once the current project coordinator of MICCA Finland leaves at the end of 2015.

Recommendation 4. Actively engage within FAO

Outside the AGAL, ESA and NRC divisions, mitigation to CC in agriculture is still a subject that receives far less attention than adaptation to CC. The project should through the CC Study Circle and other outreach efforts continue to actively engage other divisions (fisheries, crops, forestry) and where possible support them in integrating mitigation aspects in their strategies and programmes. The project could for example promote the application of the Life Cycle Assessment approach in crop agriculture and fisheries. The project should also develop a realistic strategy that ensures that the issue of mitigation in peatlands is anchored institutionally within the organisation. All of this is likely to require active engagement with the highest level of decision-making within FAO and ideally will extend to country offices around the world through the CC technical network and other channels, such as GACSA.

Priority work areas

Recommendation 5. Completing the policy development efforts

MICCA Finland has half a year of implementation left to produce sustainable results. Given that in particular the concrete policy support work in Kenya, Tanzania and Vietnam is still far from completed, it is recommended that the project does not take on any new research or capacity development initiatives but rather focuses on supporting this on-going policy work, and particularly building the capacity of key stakeholders to implement the NAMAs and the CSA guidelines.

One critical role of MICCA Finland in all three countries is to ensure that a broad range of stakeholders are engaged in the policy development. Apart from national governments, research institutions and NGOs, there is also a need to involve others such as farmer organisations and private sector companies active in agriculture. These appear not to be well represented currently, yet their involvement in and support for these policies are critical for their long-term success of these efforts. Another category of stakeholders to be engaged more actively are the ministries within the countries responsible for the long term economic and financial planning. Convincing the economists and financial planners of a country of the economic benefits of CSA and appropriate mitigation actions will go a long way in increasing long-term financial commitments from the governments for the implementation of such measures. The project, as co-financer of the policy development work, can promote the inclusion of such stakeholders in the process.

Another critical role to be played by the project in the policy work is the effective mainstreaming of gender issues in the finalisation of the NAMAs and CSA guidelines. The

current draft version of the CSA guidelines makes clear that more attention to gender issues is warranted, and the project has the unique expertise to provide guidance on this. This will require more than providing suggestions on gender mainstreaming as part of the review process of the policy documents. It will in fact require a specific exercise through a workshop or similar. This should be done as soon as possible since effective gender mainstreaming will not be possible if it is only brought in towards the end of the policy development process.

Recommendation 6. Further dissemination of MICCA knowledge products

The Project has invested substantial financial and human resources on knowledge generation and sharing and communication on climate change and agriculture aspects including mitigation, CSA and gender and it is imperative that this foundational knowledge and know-how be retained and more widely shared. The added value that MICCA has provided through their literacy, knowledge, community and capacity-building efforts should not be lost, and this will require appropriate levels of funding to afford the continuation and expansion of these important efforts. It is vital that the technical expertise of the staff and their network of consultants and partners, which are an important asset to FAO, its members, and the CC community, should be continued.

Existing and forthcoming MICCA products, including infographics, publications, articles, and the booklet being developed to help others inside and beyond FAO host learning events such as webinars, should be marketed and promoted widely, starting with FAO offices and members around the world, translating materials where necessary. Many of these products have potential for widespread use in education and training environments where teachers and other instructors are looking for high quality, scientifically robust content.

Recommendation 7. Maintain the continuity of the Communities of Practice

Related to the previous recommendation but warranting its own emphasis, one of the biggest risks now facing the MICCA Project is the potential loss of technical knowledge, years of experience, and partnerships forged through personal relationships of the staff. This is especially true in the case of the Communities of Practice, which have been led by the MICCA communication expert who brought substantial experience developing online communities to FAO and has built on that experience since becoming part of the team. While the task of moderating and maintaining the CoPs could be accomplished by any individual with the requisite skills, the current Officer has a special gift for facilitating this process. Whether the current Officer is able to continue or a replacement is brought on board, careful planning will be required to insure that this is done well.

The CSA CoP in particular has achieved what the Mid Term Evaluation report called for in terms of "creating a unique forum involving scientists, practitioners, extensionists, and farmers' associations." Others, particularly those on Gender, NAMA, Peatlands, and Livestock are viable but less robust, and still others, including the CoP for Youth, Spanish and French language participants, will require strong partners and support to help them become more active.

Recommendation 8. Use effective pedagogical and assessment practices

Setting clear learning goals for the intended audiences and then measuring the knowledge and skills gained requires a more formal pedagogical approach than MICCA has generally used. While asking participants of learning events to self-report how much they feel they benefited provides an initial impression of the success of the effort, it does not reflect what the specific benefits are and what has been learned, which is far more difficult to measure. But because the work of FAO in general and MICCA in particular are inherently involved in awareness and literacy-building, it is important that conducting user-needs assessments and identifying

key principles, concepts and skills are that need to be emphasized and how they can be measured as outcomes. This had been done to some extent but not methodically throughout the sub-projects.

The Gender and Climate Change Training Guide, which, according to several informants, benefited from additional review and revision after the first edition, provides an example of how key learning concepts can be highlighted and taught, and, importantly, how practitioners can measure learner outcomes to ensure the training is effective.

Preparing for post MICCA Finland

Recommendation 9. Transitioning and contingency planning

The review team concludes that there is a need for a programme or project that can continue to coordinate, catalyse and promote the development of CSA and mitigation related research, policies and scaling up efforts across countries and continents, a role that MICCA Finland has been playing to great effect. As a minimum, the continuation of the main KM activities like the Communities of Practice and related events need to be guaranteed to maintain the momentum created by MICCA Finland. As previously noted, an ideal transition to support the sustainability of essential MICCA efforts will be for key staff to be transitioned to the MAGHG project and report to its project coordinator, and that longer term funding for a project merging the two efforts be pursued.

Recommendation 10. Strategic refresh

Whether timely funding will be secured or not for a second phase, it will be useful for the project to identify the areas that a new project on mitigation in agriculture should focus on. This can be done in the form of a concept note or project proposal. The preparation of a first concept idea was initiated, but not finalized, pending discussions with the donor of the MAGHG project (Norway). Areas that will require continued support include the Communities of Practice, the capacity building efforts of both policy makers and development practitioners and influencing the global discourse on mitigation in agriculture. Further research should only be prioritised again after significant scaling up efforts for CSA implementation has taken place. Thanks to the all the research already undertaken by MICCA Finland, the main challenge right now is not the lack of information, but the lack of widespread dissemination of this information to appropriate parties and the implementation of CSA practices at farmer level.

Recommendation 11. Support post-MICCA implementation of policy work

Parallel to the efforts of securing funding for a second phase, the project should also actively support the partners in Kenya, Tanzania and Vietnam in securing specific funding for the work on the NAMAs and CSA guidelines. For Tanzania, concrete opportunities through a TCP and possibly through the DFID-funded CSAP programme have already been identified and can be followed up. A clear direct involvement of FAO is likely to help raise the profile of any funding efforts, which should ultimately help guarantee that the NAMAs and CSA guidelines will be implemented at a large enough scale to have a meaningful impact. If support for field level implementation can be secured for Tanzania, the site of the CSA pilot project should be high on the list of areas to be supported. Thanks to the pilot project, awareness on the benefits of CSA has been created, and a new CSA intervention in the area can build on this.

Recommendation 12. Elaboration of exit strategy document

All the above recommendations, in as far as they will be adopted, should form the basis for the project's exit strategy. Ideally, a short document should be elaborated that indicates what

needs to be done during the remaining months, with expected results, timeline, budgets and responsibilities.

Summary of recommendations with scope and proposed key responder:

Recommendation	Scope	Proposed key responder(s)
1. Results based final report	Remaining 6 months	MICCA project team
2. Lessons learnt with stakeholder input	Remaining 6 months	MICCA project team + NRC division
3.Strengthen integration between MICCA Finland and MAGHG	Programmatic linkages during and beyond project	NRC division
4. Actively engage within FAO	Remaining 6 months	MICCA project team + FAO HQ and regional/country offices
5. Completing the policy development efforts	Remaining 6 months	MICCA project team
6. Further dissemination of MICCA knowledge products	Remaining 6 months and beyond	MICCA project team and FAO in general (HQ and regional / country offices)
7. Maintain the continuity of the Communities of Practice	Remaining 6 months and beyond	NRC division + MICCA project team
8. Use effective pedagogical and assessment practices	Remaining 6 months and beyond	NRC division + MICCA project team
9. Transitioning and contingency planning	Programmatic linkages during and beyond project	NRC division + MICCA project team
10. Strategic refresh	Remaining 6 months	MICCA project team + NRC division
11. Support post-MICCA implementation of policy work	Remaining 6 months and beyond	MICCA project team + FAO Country Offices in Kenya, Tanzania, Vietnam
12. Elaboration of exit strategy document	Remaining 6 months	MICCA project team + NRC division

1 Introduction

1.1 Background and purposes of the review

The original project document for the "Making agriculture part of the solution to climate change–Building capacities for Agriculture Mitigation", which is known as the MICCA project, called for two reviews during implementation; a mid-term evaluation (MTE), which was completed in February 2013, and a comprehensive final review near the end of the final year. This final review[2]was undertaken in the period 1 October 2015 to 31 December 2015 and covers the entire Project's duration from January 2010 to October 2015, with the primary focus being the period after the Mid-Term Evaluation (MTE). This review only relates to the MICCA project financed by the Ministry for Foreign Affairs (MFA) of Finland. It does not cover the other project under the MICCA banner, the Monitoring and Assessment of GHG Emissions and Mitigation Potentials in Agriculture (MAGHG)[3], funded by Norway and Germany. That project was evaluated separately in April 2014 and is now in its second phase.

MFA Finland has provided a total financing amount of Euro 6,231,000 (USD 8,675 million).

This review is meant to provide input to fine tuning the project activities during the no-cost extension (January-June 2016), -to offer an assessment of implementation and achievements of project implementation, and provide accountability to stakeholders, including Member Countries, including the donor, International Partners, (e.g. ICRAF, CARE, EADD, CCAFS,) FAO Coordinating Division NRC, and other FAO contributing and collaborating divisions and decentralized offices. Focusing on the strengths and weaknesses of the project, as well as opportunities to build on the foundation of the project and threats to doing so, this review aims to contribute to organizational learning and assist the relevant stakeholders in their decision-making. Because of the substantial MICCA investment of financial and human resources on knowledge generation, sharing and related communications, the review has looked in detail at these elements of the Project. In line with the ToR, the CoPs and related knowledge products and events have been reviewed in depth.

1.2 Methodology

The review study was undertaken in four phases. The first phase was an initial review published materials, minutes of meetings, and other documents as provided by the MICCA Finland team in order to become familiar with the project's scope and process. The second undertaken at FAO Rome Headquarters over the period 19-23 October, 2015 involved meeting in person or virtually with MICCA staff and others involved with MICCA within and external to FAO. This phase continued after Rome as the review team continued to collect information about the project. The third phase was a field programme visiting the MICCA pilot project site in Tanzania and interviewing a number of Tanzanian stakeholders. The final phase was the elaboration of this report.

The original Log Frame of the MICCA Project identified five components, each with its own indicators and targets, data sources, and assumptions. They were as follows:

[2] This was a review managed by the project itself as opposed to an evaluation managed by the FAO Evaluation office. The review was undertaken by a team of two independent consultants

[3]Formally, the MAGHG project consists of two separate projects, one Norwegian-funded and one German-funded. However, they share the same objectives and are for convenience sake therefore simply referred to as the MAGHG project in this report.

Component 1: Better knowledge support
Component 2: Development and advice on options
Component 3: Increased awareness, participation and partnerships

- Global expert workshops
- UNFCCC and other policy fora
- Peatlands partnership
- FAO's internal capacity development

Component 4: Strengthened technical consultative process
Component 5: Developed communities of practice

As discussed further in Chapter 3, as the Project was delayed and scaled-back from the original vision, no updated Log Frame or Theory of Change was developed that would help those internal to the Project measure outcomes and impacts. The lack of a Log Frame also adds to the challenge of evaluating the Project, which is rich in activities relating to the above components but, largely due to the wide scope of the Project, somewhat scattered in terms of measures to determine the relevance, efficiency, effectiveness, impact, and sustainability of the various Project elements.

The primary assessment strategies of the reviewers has been to review relevant documents and reports; conduct in-person and remote semi-structured interviews with key informants, stakeholders and participants supported by checklists and interview protocols; conduct informal surveys and questionnaires. The review team contacted many of the partner institutions to assess their relationship with and impressions of MICCA, and also contacted people within FAO but external to the MICCA Finland project to learn more about their collaborations and cooperative efforts.

The recommendations from the Mid Term Review of MICCA have been taken into consideration. An overview of these recommendations and the related management response and current status can be found in annex 5.

2 Context of the project

Since its inception over 10,000 years ago after the end of the latest Ice Age, agriculture has had to contend with naturally occurring climate variability. In recent decades, due primarily to the use of fossil fuels, alterations of land cover, and changes in agricultural practices, human-caused changes in climate have added to the challenges of adapting to natural variability and put at risk current agriculture and food security strategies.

Models of future climate scenarios range from the low emission RCP 2.6 scenario, referring to Representative Concentration Pathway of 2.6 watts per meter squared--roughly equivalent to today's anthropogenic forcing of the climate system and that would require massive reductions of greenhouse gas emissions and overall decarbonisation of the global energy infrastructure--to RCP 8.5, the Representative Concentration Pathway of 8.5 watts per meter squared a high emissions scenario based on "business as usual" reliance on fossil fuels and current practices. The former will require substantial transformation of current technologies and especially mitigation practices, including those relating to agriculture, while the later will substantially transform ecosystems and society by ushering in a hotter climate regime, more intense extreme weather events, and more extreme sea level rise that will be extremely difficult to adapt to, especially for the hundreds of millions of family farmers who make up 90% of farms and produce 80% of the world's food.

The two primary strategies for minimizing climate risks and maximizing ecosystem and societal resilience to climate change have been mitigation and adaptation, with mitigation primarily focusing on the reduction of greenhouse gases and adaptation emphasizing strategies to anticipate and reduce climate impacts through appropriate practices and strategies. While often treated as separate silos, increasingly it is apparent that there is large overlap and co-benefits between the two that need to be better identified and promoted.

Over twenty years ago the nations of the world joined the United Nations Framework Convention on Climate Change (UNFCCC), which has since been ratified by 196 Parties, in order to “prevent dangerous anthropogenic interference with the climate system” and, among other goals, "to ensure that food production is not threatened." But the original convention includes the word "agriculture" only twice.

In 2009, anticipating that COP15 in Copenhagen would include a strong focus on agriculture in general and mitigation in particular, the former project coordinator, with the support of the NRC Director at the time, mapped out a plan for jump-starting a wide range of mitigation pilot projects, tools, and Communities of Practice under the umbrella of MICCA. The disappointing outcomes of COP15 had direct impact on the MICCA project, which eventually did move forward on a significantly reduced scale.

FAO's Climate Change-related activities are carried out throughout the organization, across departments and divisions, and from headquarters in Rome to the regional and country level. In the intervening years since the UNFCCC was originally signed, FAO has worked to serve as a trusted facilitator and neutral source of technical data for member countries and climate-related institutions and forums. Climate change, which is coordinated by the NRC division, has only recently become a top priority of FAO, despite there being over 300 projects related to climate change adaptation and mitigation between 2009-2014, with the majority focused on adaptation.

As the recently released Climate Change Evaluation Report for FAO highlights, while the organization has brought greater attention to the role of agriculture sectors in climate change adaptation and mitigation, negotiators involved with the UNFCCC process has not benefited as much from brief interactions with FAO as they would through in-depth information events. According to that evaluation, there has also been misunderstanding about FAO's motivations in promoting mitigation under the Climate-Smart Agriculture (CSA) approach, which has the potential of damaging organization's image as a neutral technical body. This however is contested by FAO as actually adaptation and productivity increase are the key objective under CSA, with mitigation only “where possible”

Within this context, the MICCA, working with academia, civil society, ministries, and other UN agencies, has played a vital role in bringing greater attention to mitigation and its role in overall agricultural strategies to address climate change, helping build capacity within and beyond FAO by identifying important mitigation issues and providing guidance on these topics.

3 Analysis of project concept and design

The initial MICCA project proposal was developed in mid-2009 on the assumption that the UNFCCC Conference of Parties 15 (COP15) in Denmark, held in December, 2009,would lead to concrete results, with a high level donor interest in climate change mitigation in agriculture. The proposal was therefore written as a broad and flexible programme that could absorb multi-donor funding, with a proposed total budget of over Euro 60 million, Euro 50 million of which would be earmarked for pilot projects.

COP15, however, did not deliver the expected broad agreements and related donor commitments anticipated, resulting in a mismatch from the start between the ambitions of the MICCA project and the available funding. Three donors, Finland, Norway and Germany did express interest in funding MICCA, but because of different requirements in terms of budgeting and reporting, it was not possible to fund MICCA through basket funding. In the end, Norway and Germany jointly funded the component of the initial MICCA project related to GHG inventories (at the tune of USD 6.7 million), while Finland committed to provide Euro 6,231,000 for implementation of other elements of the project. As such, MICCA became a programme with separate yet strongly complementary projects.

A new Logical Framework or a Theory of Change was never developed for the MICCA Finland project. The project therefore started implementing activities without a real project reference framework in place. Prompted by changes in the funding amounts that Finland could provide, the project did develop two detailed Project Implementation Plans (PIPs) in 2012 and 2014 respectively. But although these PIPs describe an outcome and outputs, they are in essence activity plans and do not include any targets for higher-level results (outcomes) to be achieved. Given the mismatch between the original MICCA proposal and the available funding, and the fact that the PIPs became the de facto project reference docs, the original logical framework cannot really be used as reference document for the review of the project. In other words, there are no clearly defined expected results with related targets against which the review team could assess the performance of the project.

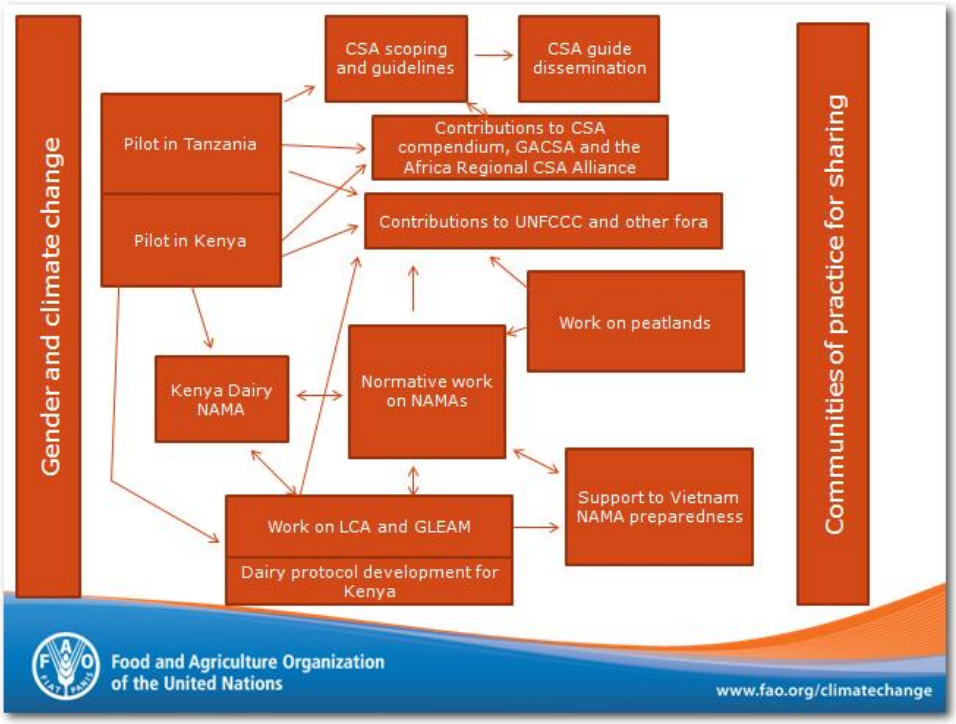
The Finland funded MICCA project adopted the proposed subdivision of MICCA in five components as foreseen in the original programme proposal:

1) Better knowledge support
2) Development and advice on options
3) Increased awareness and participation
4) Enhanced and strengthened consultative process
5) Developed Communities of Practice

This subdivision was also continued in the two PIPs. How these components are related and complement each other is not very clear from the original programme proposal nor from the PIPs. There appears to be overlap between the components, such that activities like a national NAMA workshop could be made to fit under components 2,3 or 4. The lack of a Theory of Change and good logical framework makes itself felt strongly here, forcing efforts to be more improvisational and ad hoc and less methodical than they would be had a clear logical framework been in place.

The project team itself has in fact internally adopted a different approach to distinguish between different activities, based on what they have termed work streams. The project coordinator provided a very helpful and enlightening draft diagram showing the relation between the different work streams:

Figure 1 - MICCA work streams and how they link up



The diagram shows a clear logic between the different work streams, with "Gender and Climate Change" and "Communities of practice" considered crosscutting work streams.

One advantage of not clearly defining expected results is that the project could more easily adopt an "opportunity-driven" approach. This is in line with the key principles for MICCA adopted in its initial design, which were that it would be a learning project that would always look for opportunities, never do anything alone but always in partnership with others, and using a soft rather than hard approach in working with others. Its fundamental goal of integrating mitigation into agriculture was soon challenged in terms of its appropriateness for struggling developing countries, and as a result MICCA broadened its approach into other areas of climate and agriculture, framing mitigation as a co-benefit within the emerging climate-smart agriculture paradigm.

A good example of the opportunity-driven approach is the work on peatlands: originally it was not foreseen to look at peatlands explicitly. However, through contacts with organisations like Wetlands International (WI) it became clear that the draining of peatlands for agriculture is a major source of carbon emissions and merited specific attention. This led to a partnership with WI and others and became a separate work stream.

The original project document includes a risk matrix and (in the logical framework) a number of assumptions[4]. The first PIP provides an overview of whether these risks have materialised and what mitigation measures were taken. A new risk matrix has however not been developed in the two PIPs.

The original project document has also identified a number of assumptions in its logical framework. These are however not all real assumptions. For example, "FAO continues to lead" cannot be considered an assumption in a project led by FAO. The assumptions have not been referenced nor updated in the PIPs, nor in any of the progress reports.

In summary, the lack of an updated, clearly defined logical framework or theory of change did not appear to hamper the project's diverse range of activities and outputs, but it has made it more challenging to clearly define its outcomes and impacts, and to measure its results.

[4] Assumptions are risks to the project over which the project has no control whatsoever, and so mitigation measures are not possible.

4 Implementation process

4.1 Project management

MICCA Finland is managed by the FAO following the standard FAO project implementation procedures. The project is hosted by the NRC division at FAO headquarters in Rome. A dedicated project team led by a project coordinator is responsible for the implementation of the project. Oversight is provided by a Steering Committee.

Although the Ministry for Foreign Affairs of Finland (MFA Finland) encourages a results-based management approach, the project's management is very much activity-based. As explained in the previous chapter, this is related to the fact that no comprehensive results-based reference framework (logical framework) for the project was developed after the initial changes to the project's set up as described in the previous chapter. Semi-annual progress reports describe the activities undertaken and include an overview of the planned activities for the next reporting period.

A major challenge to the project management came in 2011 when MFA Finland informed the FAO that funding levels for 2012 onwards would be reduced significantly (50% of original funding level in 2012, 75% in 2013 and 2014). FAO was also informed that the first disbursements for 2012 would only come in April. This situation triggered a thorough revision by the project of all activities, and led to the first Project Implementation Plan (PIP) 2012-2014. This document includes a detailed transition plan to adjust the project to the budget changes.

The project managed to ensure that the budgets for core project staff and the recently started pilot projects in Kenya and Tanzania were not affected. Other activities were either decelerated, postponed or cancelled (like the proposed pilot projects in Ecuador and Vietnam). The way the project has dealt with this setback is a clear example of excellent adaptive management that minimised the negative impact of the reduced funding. Further adaptations were introduced with the second PIP for the period 2014-2015, which included a request for additional funding of around USD 1.9 million and for an extension of the project period until June 2016. Both were approved by MFA Finland.

There have also been challenges in the institutional environment in which the project has been operating: a new Director General taking the office, the abolishment of the Environment and Natural Resources Department, the NRC division moving under the office of the Deputy Director General, three different divisional Directors during the six project years with gaps in between, continued decentralization process (giving more decision making authority to the regional and country offices) etc. These all have affected the way the Project has been able to operate and its effectiveness in promoting attention for mitigation actions in agriculture within FAO.

Several stakeholders interviewed remarked on the difference in management styles between the first and the second project coordinator. While the style of the former can be characterised as visionary and "hands-off", with a strong emphasis on delegating responsibilities to project staff and to partners, the latter has clearly a more "hands-on", detail-oriented approach to project management. Generally, very positive feedback was received on both styles, with some arguing that visionary and "hands-off" is good in the beginning in particular for

building partnership alliances, while more "hands-on" is appropriate once the project has been established to ensure that all activities are completed.

From the start, MICCA has adopted an implementation approach that is based on working in partnership with other stakeholders. These include both other divisions and programmes within FAO, in particular the Animal Production and Health division (AGAL), the Economic and Social division (ESA), (which implements the EPIC- Economics and Policy Innovations for Climate-Smart Agriculture project,) the Technical Cooperation Policy Support unit, and external organisations, such as World Agroforestry Centre, Wetlands International, several universities, CCAFS, CARE International. This has allowed the project to work with a relatively small team of core staff, which has contributed to strong team cohesion. Staff's performance is regularly assessed using the standard FAO performance assessment procedures.

The number of activities implemented by MICCA to date is truly impressive, and is a sign of efficient project management. A review of the progress reports indicates that MICCA is consistently on the optimistic side when it comes to the number of activities to be implemented in the next 6 months, but clear explanations are generally provided when activities have been delayed. One should bear in mind that, since MICCA collaborates with a large number of partners, it doesn't have full control over many of the activities undertaken under the MICCA banner.

4.2 Quality of Technical Assistance

The MICCA Finland project team, all women, consists of a group of highly committed professionals, with relevant backgrounds related to agriculture, peatlands, communication and finance. The team comprises a project coordinator and a core staff complement of four, plus interns, who are aided by a number of consultants who are engaged on a part-time, as-needed basis.

Both the first and the current project coordinator are very experienced and committed professionals. Although they have different management styles, both have provided effective guidance and oversight to the project team members. The current project coordinator has a very hands-on approach and regularly engages herself in Technical Assistance (TA) and communication activities.

Comments received from a wide variety of stakeholders indicate that the quality of the feedback and support provided by the MICCA team is of the highest standards. Quality assurance of all the MICCA communication material and publications is a major task of the team. MICCA partners who have been involved in the elaboration of the MICCA papers and articles are generally impressed with the timeliness and the quality of the support and feedback received from the MICCA team.

Although the core team members each have their specific areas of responsibility, they are all well informed about the other components of the project and can, where necessary, contribute to activities that are not part of their core area of expertise. The peatland expert, for example, is now actively contributing to the work on National Appropriate Mitigation Actions (NAMAs). The team also doesn't hesitate to call in external expertise from other FAO divisions or from outside of the organization when they feel they don't have the right qualifications to provide the support themselves. This was for example the case when

reviewing the remote sensing / GIS work undertaken for the MICCA paper 10, *Science to support climate-smart agricultural development*.

All team members contribute regularly to the Communities of Practice and related webinars, which are organised by the team's communication expert. A review of presentations prepared by team members for webinars as well as workshops confirm the high quality of the TA. The presentations provide excellent summaries of work done in the areas of CSA, peatlands, livestock, pilot projects and NAMAs.

Some of the team members do at times appear to have difficulty finding a balance between allowing partners enough space to ensure they have a strong sense of ownership while also wanting to ensure the excellence of the work undertaken under the MICCA banner. The tendency to maintain a strong level of control over the activities is understandable but has in a few instances led to some friction with partners, in particular in relation to the work on livestock in Kenya. Overall, however, the MICCA team found appropriate ways to balance the goals of promoting MICCA's efforts and building the capacity of partner communities through knowledge sharing and skills-building.

4.3 Financial management

The project follows standard FAO procedures for management of trust funds. As long as the project remains within the approved budgets for the different budget lines there is no need for the elaboration of full financial reports (only financial statements). Where the project requires budget revisions these are requested through budget revision routing slips. Such revisions have been requested and approved in most years. The main reasons behind the budget revisions are changes in salary costs and costs of consultants. All revisions have been well justified and were approved.

A quick analysis of the budget numbers in the last PIP show that salaries and consultant fees take up around 48% of the total budget. This is line with many other development projects, although it should be noted that this number does not yet include the salaries and consultancy fees that are part of the contracts with partners. A further 13% of the budget is charged by FAO as project support costs, leaving around 40% of the budget for activity-related expenditures.

A significant part of the budget (around 27%) has gone towards partnerships with organisations like CARE and ICRAF for research, modelling and piloting activities. These partnerships are covered by Letters of Agreement (LoAs). Once an LoA has been signed, the related budget is considered an expenditure under the FAO accounting system. Since it involves fairly large amounts, this has at times led to some cash flow constraints for the projects. These have however been resolved without causing any major setbacks in the implementation of activities.

4.4 Institutional arrangement

MICCA Programme

MICCA Finland is one of two projects that jointly form the MICCA programme. The other project is the Norwegian/German funded Monitoring and Assessment of GHG Emissions and Mitigation Potentials in Agriculture Project (MAGHG). The first MICCA Finland project coordinator also served as the MICCA programme coordinator and was initially responsible for overall coordination between the two projects. The main coordination mechanism

consisted of regular (usually weekly) meetings between the two project teams. Feedback received from those involved indicate that these meetings were highly appreciated. The coordination was however increasingly disrupted by differences in personal management style and vision between the MAGHG project coordinator and the MICCA Finland coordinator, which were exacerbated by internal NRC management problems, which left a leadership gap at a critical period in the project With the departure of the first MICCA Finland coordinator (in mid 2013) and the subsequent arrival of her successor a few months later, a new arrangement was put in place by the director of the NRC division.

The MICCA Finland coordinator was no longer responsible for overall MICCA coordination. Instead, the project coordinators of the two projects would meet on a weekly basis under the auspices of the CC coordinator in the Climate, Energy and Tenure (NRC) division who was appointed the Team Leader of MICCA. Team meetings were no longer held and the sentiment in both teams is that the collaboration and coordination between the two projects has been negatively affected by this. With the recent departure of the MAGHG project coordinator however, the situation appears to be improving, as illustrated by examples of practical collaboration such as the feedback provided by MAGHG staff on the NAMA tool and the joint response to a request for NAMA support from Bolivia. The new MAGHG project coordinator arrived during the mission of the review team in Rome. The general expectation is that with his arrival the collaboration between the two projects will further improve.

Apart from the impact that different management styles and visions has had on the cross-project collaborations, the synergy between the two projects has also been hampered by timing issues. The MAGHG project started later than MICCA Finland, yet the work of MAGHG on tier 1 national level GHG measurements would have been a good starting point for MICCA Finland's work with countries on tier 2 GHG emission estimates (as done in Kenya).

Oversight of the two projects is provided through a MICCA Programme Steering Committee (SC). The Steering Committee is supposed to meet twice per year, a schedule that has been largely adhered to. Members of the SC include representatives of various FAO divisions / departments (relating to crops, livestock, soils, fisheries, policy support) and representatives of the donors Finland, Norway and Germany. Meetings were chaired initially by the Assistant Director General – Natural Resources, then by the Director of the NRC division and lately by the CC coordinator in the NRC division, who also acts as MICCA Team Leader since the departure of the first MICCA Finland project coordinator.

An analysis of the minutes of the SC indicates a high level of satisfaction of the members with the project. There is little evidence of strategic re-orientations required or of major problems in project implementation or staff management. The lack of results-based management and reporting has been commented upon once in 2013 by one of the donor representatives, but it seems this was not followed up. The meeting minutes lack a clear structure in terms of recommendations adopted and follow-up actions agreed, which also means that issues brought up in one meeting do not appear to have been addressed again in the next one, at least not in a structural way.

Institutional arrangements with FAO divisions and Country Offices

A key principle of MICCA Finland has been to work as much as possible with and through partners. Within FAO, this was done primarily through close collaboration with:

- Animal Production and Livestock Division (AGAL) – for research and modelling work on livestock Life Cycle Assessments (LCAs) of CO_2 emissions.
- Economic and Social Department, Development Economics Division ESA – for research work on CSA.
- Technical Cooperation Department – for the application of the Ex-Act tool (a tool that provides estimates of the impact of agriculture and forestry development projects, programmes and policies on the carbon-balance) in the two pilot projects in Kenya and Tanzania.

The collaboration with AGAL and ESA was formalised as baby projects, an internal FAO system that allows specific budgets to be allocated for sub-projects within a larger project. Feedback from AGAL and ESA indicates that the collaboration has been extremely fruitful and has allowed them to do important work on which they are still building currently.

AGAL is continuing the work on LCAs, in particular through the LEAP (Livestock Environmental Assessment and Performance) partnership, which brings together key global players in the livestock sector, including from the private sector. The work has resulted in the elaboration of draft guidelines for LCAs (MICCA Finland is still contributing to this work). The modelling work in Kenya based on the GLEAM (Global Livestock Environmental Assessment) model has been used to develop a protocol that has been submitted to the Gold Standard for certification. More on the livestock-related work in section 5.3.1.

The baby project with ESA has led to 2 publications (MICCA papers 3 and 4) on climate smart agriculture. These publications have helped build technical capacity on CSA within ESA and have informed the design of the ESA EPIC project.

The level of collaboration with the FAO Country Offices in the 3 main countries where MICCA Finland is undertaking activities (Kenya, Tanzania, Vietnam) very much depends on the congruence between MICCA's work and the Country Programming Frameworks, as discussed further in section 6.1.1.

4.5 Risks and assumptions / risk management

The original project document included a risk matrix with a list of proposed mitigation measures if the risks would materialise. This risk matrix was revisited in the first PIP, indicating which risks had materialised and what corrective measures had been taken. Two important risks that materialised are summarised below with the respective corrective measures taken:

Risk	Impact	Probability	Mitigation	Realisation of the risk during the 1st phase	Corrective action taken
1. Donors prefer donor specific project	Key elements are not integrated and synergised	Low	Modular (element) components are made available to the donors	The two new donors Norway and Germany preferred separate – risk partly realised	A programmatic approach was developed with shared goals, the different projects acting as components of the programme
7. No deal in climate change	Uncoordinated agricultural mitigation	Medium	Some alternative mitigation	Realised, no concrete developments in	Large scale country pilots were cancelled as no donor would invest before the

negotiations in Copenhagen	activities		mechanisms will be developed and FAO continues to work on that end	agriculture	deal is made, small scale farming system pilots were initiated instead to provide evidence, examples and basis for capacity development

The corrective measures taken have been effective in mitigating these risks, although clearly the scope and impact of the Project have been affected by the disappointing outcome of COP15 in Copenhagen.

The risk of reduced funding from Finland, as it materialised in 2012, was not foreseen in the risk matrix. As already mentioned earlier though, the Project showed strong adaptive management capacity to deal with this risk.

The two PIPs do not include new risk matrices and hence no structured risk management and reporting has taken place since 2012.

4.6 Monitoring approach and progress reporting

MICCA Finland's overall monitoring and reporting is very much activity-based, which is not surprising giving the lack of result targets against which to report.

The initial project document gives very little attention to monitoring and reporting. It states that "The individuals named as focal points for each Outcome and/or country project will monitor the progress and effectiveness of the Programme on an on-going basis, and will prepare annual project reports by 15 December at the end of each calendar year." This system with focal points appears to not have been implemented.

Progress reports have been produced consistently on a half-yearly basis. They are based on the standard FAO template for such reports. The reports provide a good overview of the activities undertaken and outputs achieved. Although some of these reports refer to "outcomes" they are in fact referring to components like "Better knowledge support". In the original project document these components are sometimes also referred to as "Outputs". This mixing of terminology is confusing. A clear reference results framework for the project would have helped to avoid this.

The MICCA progress reports were informed by internal semi-annual progress reports for the two pilot projects in Kenya and Tanzania. Their elaboration was led by ICRAF (involved as partner in both projects) with contributions provided by the other main partners CARE and EADD (East Africa Dairy Development programme, led by Heifer International).

The project has undertaken specific monitoring activities related to CoPs, webinars and workshops, primarily in the form of feedback in post-event, online surveys from self-selected participants. Feedback from a sampling of recent and past events indicate strong to very strong agreement on the value and quality of these knowledge-sharing events and related outreach and support systems.

5 Analysis of results

5.1 Introduction

As previously noted, the lack of an updated Logical Framework has made it difficult for team members and external evaluators to track the outcomes and impacts of the various MICCA Finland activities and outputs.

Also, the sub-components of the project defined in the original project document (Better Knowledge Support, Development and Advice on Options, Increased Awareness and Participation, Enhanced Strengthened Technical Consultative Process, Developed Communities of Practice) do not lend themselves to separate assessments of results achieved since they are overlapping in nature and contents.

This chapter is therefore not structured in line with the original logical framework and the identified sub-components but rather it starts with a short overall assessment and then examines the results of the various work streams[5] that have been defined by the project (which are more discrete in nature than the original sub-components):

- Life Cycle Assessments (in livestock)
- Peatlands / organic soils,
- Pilot projects,
- Gender and Climate Change,
- Supporting NAMAs and other policies
- Communities of Practice

The latter work stream is discussed within a broader analysis of all the knowledge management work undertaken by the project. This is in line with the ToR that requires specific attention to these aspects since they are at the core of MICCA Finland's work.

A number of crosscutting issues are discussed separately. These include the partnership / alliances, environmental and human-rights issues and gender[6].

This chapter focuses on actual results achieved through the main work streams rather than on a description of activities undertaken. While the number of activities that the project has implemented is very impressive, it is ultimately the results of those activities that count. Findings are assessed following the principles of the KAP approach – changes in Knowledge, Attitudes and, ultimately, Practices of the targeted audiences and beneficiaries - and are as much as possible evidence-based. Since it is impossible to analyse all activities, this assessment of results focuses on the main work stream elements. This is not to say that other activities such as support to the CSA sourcebook, testing of the Ex-Act tool or support to an expert meeting and information brief on land tenure are not relevant; they all contribute to the overall results of the project.

[5] This sub-division in work streams is also at the basis of the presentation of MICCA Finland's work on the FAO website.

[6] Gender as crosscutting issue is discussed separately from the "Gender and Climate Change" work stream. It focuses not on gender mainstreaming in e.g. Climate Smart Agriculture, but on how gender has been mainstreamed in the project itself.

5.2 Overall results

The MICCA Finland project is one of the first projects that addressed the issue of mitigation in agriculture in a broad, structural manner. Given the dearth of information on this subject, the project has focused initially on supporting a broad range of research activities. This started with a survey of global agricultural projects with a mitigation component and the development of an agriculture, forestry and land use database, later followed by research on peatlands, livestock, adoption issues in CSA. This largely desk-study based research was complemented with two pilot projects on livestock and CSA, in Kenya and Tanzania respectively, which combined action-research on the adoption potential and synergies and trade-off of CSA practices for small farmers with scientific research on the mitigation potential of CSA practices.

The results of these research efforts have been shared with a broad audience through publications, webinars, Communities of Practice, workshops and side-events at important forums, conferences and seminars. All stakeholders consulted during the review have confirmed that the information produced by MICCA has been very instrumental in creating awareness on the mitigation potential in agriculture and in helping provide an overall context for the risks and possible responses to climate change from agricultural sectors.

If there is one key message that has resulted from all the research, it is the fact that mitigation in agriculture does not imply that (small-scale) farmers will be restricted in their agricultural practices in a manner that will reduce their food security, an issue that is understandably politically very sensitive, especially in developing countries which feel that mitigation is primarily the responsibility of the developed countries who are the main contributors to climate change.

To avoid this negative connotation of the word mitigation, the project has emphasized the co-benefits of mitigation and strategically framed the mitigation aspects within the broader context of CSA, which is now defined by FAO as consisting of three main elements:
1) sustainably increasing food security through improved agricultural productivity and incomes,
2) building resilience and adapting to climate change and
3) developing opportunities for reducing and removing greenhouse gas emissions, *where possible.*

MICCA Finland can be credited with having directly contributed to a broad understanding and acceptance, also in developing countries, that mitigation can, and often does, go hand-in-hand with food security and adaptation. In the countries where MICCA Finland works directly with stakeholders (Kenya, Tanzania, Vietnam) there are clear signs that this had led to a more positive attitude towards CSA and increased prospects for broader adoption of CSA practices, including those related to mitigation.

5.3 (Action-) research and policy work streams

5.3.1 Life Cycle Assessments for livestock

The work on Life Cycle Assessments in the livestock sector was led by the AGAL division of FAO. The work on this component built on earlier studies undertaken by AGAL which included the publication of "Livestock's long shadow", an analysis of environmental issues and options in the livestock sector with much attention for the role of livestock in global warming and options for mitigation.

The work under the MICCA Finland project started with a global assessment of emissions and mitigation options in livestock, culminating in the publication "Tackling climate change through livestock". This publication used the GLEAM model (Global Livestock Environmental Assessment Model) to provide the first global overview on options to tackle emissions in livestock based on a comprehensive Life Cycle Assessment.

This initial global assessment work was followed up with two further activities, funded in part by MICCA Finland. The first one supported the development of draft LCA guidelines for GHG emissions from livestock food chains through the Livestock Environmental Assessment & Performance partnership, which included a broad range of stakeholders, including from the livestock industry sector. These guidelines, currently undergoing a global review process, should lead to broad acceptance and introduction of mitigation measures within the livestock sector.

A second main follow up activity is the development of a methodology for estimate of tier 2 GHG emission reductions from smallholder dairy systems. The methodology is based on applying the GLEAM model in a pilot area in Western Kenya, through a partnership between FAO, EADD, ILRI (International Livestock Research Institute) and the consultancy company UNIQUE. The methodology has been submitted to the Gold Standard, a certification body established by WWF in 2003 and endorsed by a large number of NGOs. Certification will significantly increase the chances for climate financing to support the proposed mitigation efforts. The work on this methodology also informs the currently on-going work on development of a dairy NAMA (National Appropriate Mitigation Action) in Kenya (see section 5.3.5).

The importance of addressing emissions in the livestock sector are illustrated by the following facts:

With emissions estimated at 7.1 gigatonnes CO2-eq per annum, representing 14.5 percent of human-induced GHG emissions, the livestock sector plays an important role in climate change. Beef and cattle milk production account for the majority of emissions, respectively contributing 41 and 20 percent of the sector's emissions. While pig meat and poultry meat and eggs contribute respectively 9 percent and 8 percent to the sector's emissions. The strong projected growth of this production will result in higher emission shares and volumes over time.

(*Source: Tackling Climate Change through Livestock", FAO, 2013*

The principles behind Life Cycle Assessments could in theory also be applied throughout agriculture, including crop agriculture and fisheries. Feedback from AGAL indicate that they have tried to raise interest for this in other FAO divisions but have not received any positive response.

5.3.2 Peatlands and organic soils

Peatlands are not mentioned as an area of attention in the original project document and it is not immediately obvious why peatlands and organic soils were included as a work stream in MICCA Finland. However, based on key CC publications highlighting the importance of peatlands and further confirmed through informal contacts with specialised organisations like Wetlands International and the University of Greifswald, it was realised that drainage of peatland for agricultural purposes is an important contributor to GHG emissions (see box). In line with its opportunity-driven approach, the project decided to support the development of a knowledge base on options for peatlands management through a variety of activities including: an initial desk study (resulting in MICCA paper no. 5 - *Peatlands - guidance for climate change mitigation through conservation, rehabilitation and sustainable use*); two expert workshops; a collection of case studies from the research community; a collaborative effort leading to the publication of MICCA paper no. 9 on climate responsible peatlands management; the establishment of an online CoP; launch of the global "Organic soils and peatlands climate change mitigation initiative" and several events such as two learning events and a side-event at UNFCCC in Bonn in 2013. The work of MICCA was also highlighted at a peatlands symposium at the Nordic Council pavilion at COP21 in Paris.

While the review team was initially somewhat sceptical with regard to the relevance and effectiveness of this work stream, the feedback from stakeholders indicates that the support by MICCA Finland has been highly valued and has been very instrumental in raising awareness globally on the role of peatlands in global warming and the importance of introducing management practices and livelihoods alternatives that do not require the draining of peatlands but instead are adapted to the wet conditions of peatlands. The publication on climate responsible peatland management is considered a key global reference document on sustainable peatlands management. It is applicable both in Annex I and in non-Annex I countries (each contributing 40% and 60% respectively to emissions from peatlands and organic soils).

Peatlands cover 3% of terrestrial surfaces and accumulate ~30 % of world's soil carbon, which is equal to ~ 85 % of all global vegetation and ~ 75 % of all atmospheric carbon. Peatlands contain on average 3.5 times more carbon per hectare than the above-ground ecosystems on mineral soil; in the boreal zone they contain 7 times more and in the humid tropics over 10 times more carbon. Drained peatlands (0.2 % of the global land surface), cause disproportionally large GHG emissions as direct CO2. According to FAOSTAT estimates, they contribute up to 1 Gigaton of GHG emissions per year through oxidation, which makes them the third largest emitter after crop and livestock agriculture and net forest conversion.

Source: Wetlands International / FAOSTAT / MICCA

The active involvement of the FAO, through MICCA, has also helped to increase the profile of peatland issues amongst stakeholders such as national governments and also at events like COP side-events. Through MICCA's work, the issues of peatlands were also included in a submission by the FAO to the ADP (Ad Hoc Working Group on the Durban Platform for Enhanced Action) on "opportunities for actions with high mitigation potential, including those with adaptation and sustainable development co-benefits." This reflects the fact that the work of MICCA has also increased the awareness on peatland emission and mitigation issues within FAO[7]. This has so far received little attention due to the fact that peatlands are not explicitly covered by any of the main sectoral FAO divisions.

[7]The work on peatlands was presented by MICCA's peatland expert in the CC study circle.

The project is no longer focusing on the peatlands work stream. It means that the awareness raising activities outlined above are not used to actively influence policy work. This is largely due to the fact that peatlands and organic soils issues are not prominent in the 3 countries that the project is actively engaging with at a policy level (Vietnam, Kenya and Tanzania).

It also remains to be seen whether the awareness raising on peatlands within FAO has been sufficiently strong to ensure that these issues will be followed up by others within FAO in a more structured manner.

5.3.3 Gender and climate change

MICCA Finland collaborated with CCAFS on the development of a detailed training guide on "Gender and climate change" called "Gender and climate change research in agriculture and food security for rural development- Training Guide". This was followed up more recently by a collaborative effort with the WB and IFAD on developing module 18 of the "Gender in agriculture" source book, which looks specifically at gender issues in climate smart agriculture and provides a comprehensive menu of practical tools for integrating gender in the planning, design, implementation, and evaluation of projects and investments in climate-smart agriculture. MICCA Finland's project coordinator was part of the coordination team for this publication, which was recently launched. As a follow up activity, the project has hired a consultant to write a gender and CSA brief with inputs from CCAFS gender experts. The brief will be published by the Knowledge Action Group of the Global Alliance for Climate Smart Agriculture (GACSA). This will help broaden the audience for the key messages on gender in CSA since the level of detail in the module in the Gender in Agriculture source book (the module is 84 pages long) may be a barrier for some audiences.

By collaborating with organisations such as the WB, IFAD and the Global Alliance for CSA, the project has made sure that the work on gender in CSA is widely distributed. The sourcebook, of which the module 18 is part, can not only be downloaded from the MICCA website but also from the WB and IFAD websites, and is also available in hardcopy on Amazon. Number of downloaded copies are expected to be significantly higher than if the project had produced its own gender in CSA publication that would only be accessible through the MICCA website.

The module on Gender in CSA makes frequent reference to other MICCA work, such as experiences with gender issues in the pilot projects in Kenya and Tanzania. This is a good example of how the different work streams of MICCA have reinforced one another.

The scope of the review mission did not allow for a detailed assessment in how far these publications are being used by stakeholders like national governments and national and international NGOs. In discussions with stakeholders in Tanzania it appeared that no one was aware of the gender products of the project. It is likely however that through the collaboration with GACSA, the outreach to governments should be strengthened (Tanzania is a member of GACSA). However, the same collaboration may hamper outreach to a number of important NGOs, which are critical of GACSA[8].

Gender mainstreaming within the MICCA project itself is discussed in section 5.5.3.

[8]GACSA is discussed in more detail in section 5.4.

5.3.4 *Pilot projects*

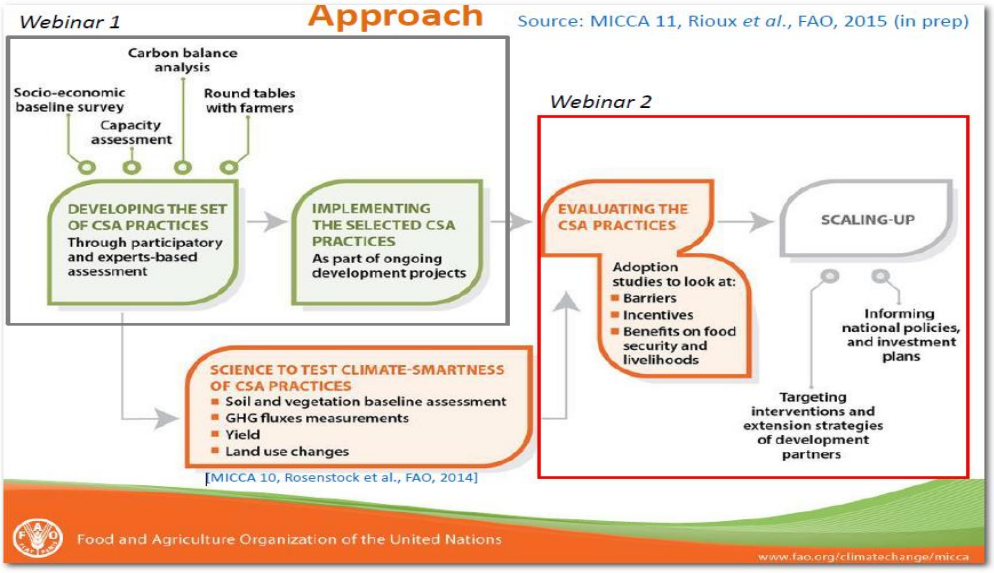
With the reduced funding available for the project, the initial idea of a large number of pilot projects had to be abandoned. Several opportunities for pilot projects were explored but in the end only two pilot projects were implemented: one on small-scale livestock in Kenya, and one on small-scale agriculture in Tanzania[9].

The objectives of the pilot projects were to:

1) Identify and develop context relevant sets of CSA practices with farmers, and support their implementation
2) Conduct scientific research to assess the CSA outcomes for different crops, land uses and management practices (led by ICRAF)
3) Analyse the adoption and benefits of CSA to inform up-scaling, extension, policy and investments
4) Link research, practice and policy for effective planning and programming of CSA

The overall approach followed is depicted in the figure below:

Figure 2 - Approach for pilot projects



The pilot projects were implemented by piggybacking onto existing development projects: the EADD project in Kenya and the HICAP project (Hillside Conservation Agriculture Project) of CARE International in Tanzania. The pilots combined testing CSA practices at farmer level with scientific research on emissions of different CSA techniques, and were implemented as a joint effort of MICCA, the two development projects and ICRAF, for the scientific aspects.

Given the limited time available for these pilot projects, an impressive amount of work was done. From the initial screening process, through socio-economic surveys and capacity needs

[9] The evaluation team leader visited the Tanzania pilot; information on the Kenya pilot was obtained indirectly through interviews with stakeholders and through the FAO CC evaluation report. The analysis in this section is somewhat skewed towards the Tanzania experience.

assessments, to actual implementation and ex-post adoption studies and publication of papers and articles based on the results of the projects.

These pilots are probably the first CSA projects that integrate development and research into one through collaboration between development and research organisations. While there are pros and cons to this approach (see box), MICCA Finland should be commended for testing such an innovative approach. Feedback from both the development and research indicate that they are likely to repeat such a model for collaboration in future projects.

Main positive aspects of the combined development / research approach:
- It exposed scientist to the development side of things and vice versa
    - ICRAF indicated it is now giving more attention to socio-economic issues, also in future research activities
    - CARE indicated that they are now more aware of issues such as soil fertility and the role of agro-forestry
- Getting an NGO involved in CSA projects with mitigation aspects has raised their awareness on the fact that mitigation in agriculture is usually not a threat to food security, but can in fact contribute to food security.
- More comprehensive evidence has been produced for policy influencing that combines issues such as adoption barriers with scientific evidence on the mitigation potential of different CSA practices.

Main challenges:
- Tension between the requirements of the development practitioners (implement activities as time-efficiently as possible) and researchers (ensuring scientifically rigor in the research, which requires time)
- Research options were limited by the objectives and already-decided-upon activities of the development project
- Synergies could have been better:
    - ICRAF largely did its own work and the feedback mechanisms between the research and development activities were not very strong, which has affected internal learning and coordination.
    - Work on e.g. Agroforestry in Tanzania was fully led by ICRAF, and did not or hardly make use of the community facilitation skills of the CARE staff.
- There is ultimately little evidence of the influence of the research work on the development activities, or on the resulting policy work

Some additional challenges have hampered obtaining solid results from these pilot projects. The choice of research partner (ICRAF for both) can be questioned, especially for the livestock pilot in Kenya, for which ILRI seems a more natural partner. This would likely also have increased the synergies between the pilot project and the work on livestock LCA in which ILRI was directly involved with FAO-AGAL. As it was, the livestock pilot project and the LCA work were implemented largely independently of one another.

The pilots were also very technically oriented, with socio-cultural and economic aspects not receiving sufficient attention (e.g. no proper cost-benefit analysis was done in Tanzania to assess whether high labour investments in terraces could be justified by increase in income from new high value crops; no proper gender analysis undertaken in either project).

Probably the most important challenge has been the limited time available to implement and evaluate these pilots. More time would have allowed both an increase in the quality of the research and a better assessment of the appropriateness of proposed CSA measures for the given agro-ecological and livelihoods context. As for the latter: both pilots were in fact piloting substantial changes to the existing farming systems, which require a behavioural (transformational) change on the side of the farmers. This takes time, all the more so because some new technologies like most CA practices are known to only provide real benefits when

holistically applied for a period of at least 3 to 5 years. The results of the adoption studies (confirmed during the field visit to Tanzania), show generally good adoption levels amongst a limited group of direct project beneficiaries but no signs of spontaneous adoption by others, and therefore should be considered in the light of these limitations. Caution is therefore called for when using the results of the pilots for policy work.

The challenges notwithstanding, the pilot projects have delivered some important results. Awareness has been created at the level of farmers, researchers, NGOs, national governments and others (like the University of Sokoine in Tanzania) on both the potential of CSA (to improve food security and climate resilience while also mitigating GHG emissions) and the challenges in promoting adoption of CSA practices.

Attitudinal changes can also be observed amongst the group of farmers who were most involved in the pilot projects. For example, several of the farmers in Tanzania trained in "double digging" and terraces are continuing these practices since they are now convinced that it is worth the initial hard labour (first year mostly) in terms of increased yields. The study tours to other sites where such practices were already more established appeared to have had the most impact in this respect.

The results of the research have been used for seven scientific papers that have been published or submitted to high-impact scientific journals, addressing topics ranging from the 'climate-smartness' of individual practices (e.g., conservation agriculture) to the dangers of using greenhouse gas calculators for ex-ante emissions estimates in developing countries. A clear result from the Kenya and Tanzania research work is the conclusion that tier 1 factors for GHG emissions in agriculture as used by IPCC are consistently giving too high emission values.

The exposure of ICRAF to development projects has made them more aware of the importance of socio-cultural-economic factors and they have indicated to include these aspects more explicitly in future projects, possibly through collaboration with partners like the national governments and the Africa Alliance for CSA.

Through the collaboration in the Kenya pilot, the second phase of EADD is now including CSA principles. The pilot has not only convinced the EADD implementing partners of the importance of CSA, but also the donor Gates Foundation. The results of the Tanzania pilot inform the national policy work on CSA guidelines. Important conclusions from the pilot such as the need for a long-term engagement through good extension services to achieve transformational change are reflected in the draft guidelines (see next section).

5.3.5 Supporting NAMAs and policy work

MICCA Finland has used the results from all research, modelling and piloting activities to provide input into policy discussions through workshops, the Communities of Practice and related webinars, side-events at conferences (e.g. UNFCCC / SBSTA) publication of two MICCA papers on NAMAs, development of a NAMA learning tool and contributing to publications. This has helped raise awareness amongst policy makers on CSA in general, and specifically on the message that mitigation in agriculture can, and often does, go hand in hand with increasing food security and building climate change resilience.

Targeted policy support work is undertaken in the 3 countries Vietnam, Kenya and Tanzania. This work is assessed in more detail here.

Support for National Appropriate Mitigation Actions (NAMAs)

MICCA Finland's first significant involvement in supporting NAMAs started with an expert workshop on agriculture NAMAs in July 2012, co-organised with CCAFS. Since then, the project has developed a detailed NAMA learning tool and has been supporting the development of a dairy NAMA in Kenya and development of a NAMA in agriculture with a focus on integrated crop-livestock systems and renewable energy options in Vietnam.

The NAMA learning tools is meant to guide national policy makers, advisers, researchers, private sector and other stakeholders in developing countries to identify, design and implement NAMAs in the agricultural, forestry and land use sectors (AFOLU). The tool is available on the MICCA website as a "slide share" or as downloadable PDF file. It builds on the work done under other MICCA work streams such as information shared through webinars, several of the MICCA papers and the report on tackling climate change through livestock. The central message of the tool is that with appropriate mitigation actions it is possible not only to reduce GHG emissions but also to strengthen food security, rural livelihoods and achievement of national sustainable development objectives.The tool is very comprehensive and provides good guidance on all aspects of NAMAs, including the important issue of the need for affordable Monitoring/Reporting/Verification (MRV) methods. Feedback from stakeholders indicates that the tool is highly appreciated, but that the tool alone is not enough to allow national governments to develop their NAMAs. As one stakeholder put it: it will require additional capacity building support from organisations rooted in the country, which know the country context and have the right network of contacts.

This is in fact exactly what MICCA Finland is doing in Kenya: it has teamed up with CCAFS and with UNIQUE to support the government of Kenya in the development of a dairy NAMA. UNIQUE is a consultancy company with a long trackrecord in Kenya and with a strong network of contacts at government level. They are now leading the process, with MICCA/AGAL providing technical input. The dairy NAMA will use the methodology developed under the livestock LCA work stream. It is a perfect example of how the research work supported by MICCA is now being used for actual policy influencing, an important step from awareness raising on CSA towards implementing CSA practices with mitigation potential.

In Vietnam, MICCA provides backstopping support to the Vietnamese government for the development of their proposed agriculture NAMA, through close collaboration with the FAO-Country Office. Feedback received indicates that the support is highly appreciated and has in particular built the capacity of the FAO team in Vietnam. They are also making good use of the NAMA learning tool and other relevant MICCA publications. The support of MICCA is considered crucial in helping Vietnam develop a realistic and well-designed NAMA and related MRV system (which will soon be piloted).

Development of CSA guidelines Tanzania

After the national workshop that was organised to present and discuss the MICCA CSA pilot project as well as other CSA projects in the country, MICCA staff and representatives of the Government of Tanzania discussed options to collaborate on policy work around CSA. At the time the government had developed the Agriculture Climate Resilience Plan for 2014-2019.

This plan called amongst other issues for the development of CSA guidelines. Hence it was decided to collaborate on these guidelines.

Through a highly collaborative effort with the Environmental Management Unit (EMU) in the Ministry of Agriculture and other partners such as the University of Sokoine, a first version of the draft guidelines was developed, based on a baseline assessment of agricultural practices in the various agro-ecological zones in the country. Due to limitations in time and in resources, a countrywide baseline was not possible, so the guidelines are not as comprehensive as they could be. It is however a first important step towards scaling up CSA practices in Tanzania. It is clear that this process has increased the awareness, attitude and capacity of the involved stakeholders with regard to CSA, with all acknowledging the important role of MICCA in providing backstopping during the whole process. By having the government lead the process, a strong sense of ownership has been created. This has been further strengthened by MICCA sponsoring the participation of EMU staff in the SBSTA in Bonn (June 2015) and in the COP21 in Paris.

Although good progress has been made, a lot more is still required if the guidelines are to be effectively implemented, and if the gains in knowledge and attitude vis-à-vis CSA (and in particular mitigation in agriculture) are to lead to actual widespread adoption of CSA practices by small-scale farmers in Tanzania. First of all, the changes in attitude so far achieved are mostly at the level of policy makers, and not at the level of the actual practitioners i.e. the farmers. To change this, a broad capacity-building exercise, in particular of government extension staff and others working with small-scale farmers (NGOs, community based organisations, farmer organisations, private sector companies involved in out-grower schemes) will be required. Secondly, as also acknowledged by the stakeholders, the current guidelines are a very first draft, with a continuous process of reviewing and updating required, based on further baseline assessments and on lessons learnt from applying the guidelines.

5.4 Communities of Practice and other Knowledge Management activities

Overview

MICCA Finland has worked successfully to inform and support multiple levels of society that are engaged in climate change issues relating to agriculture and food security: from small farmers to World Bank leaders, from researchers and NGOs to UNFCCC and Green Climate Fund staff, and, importantly, internally at FAO, where they have helped others with their content knowledge and online technical skills. They have shared knowledge, information and emerging effective practices through a wide range of online efforts, including webinars and training modules, videos, publications--including the MICCA series, peer reviewed journal articles, contributions to source books, and infographics and posters--and face-to-face events, including workshops and symposia. Over 50 presentations have been given to expert communities, the MICCA team has on several occasions provided technical support, particularly around the UNFCCC process, and when travelling the MICCA team has distributed digital versions of publications to further extend the reach of their efforts.

Core to these diverse knowledge-sharing activities has been the establishment of a number of online Communities of Practice (CoPs), which serve to help in promoting and extending other related efforts, including dissemination of materials and follow-up discussions from learning events. While establishing and moderating these CoPs requires far less time than organizing events and contributing to materials development, they are part of the original

MICCA plan and hold tremendous potential to extend MICCA-related work beyond the formal close of the project.

Following is a listing of the official names for the CoPs, abbreviations used in the rest of this report, and size of the group as of mid-October 2015. More details included in Annex 4 show the CoPs and indicators of their robustness, as well as a chronology of the development of the CoPs and related learning events:

- Climate-Smart Agriculture community (CSA) - 2,997
- Community for Climate Change Mitigation in Agriculture (MICCA) - 1,808
- NAMA in Agriculture Community (NAMA) - 219
- Comunidad para la mitigación del cambio climático en la agricultura (Spanish-speaking community) (Spanish) - 22
- Livestock and Climate Change Mitigation in Agriculture Discussion group (Livestock) - 414
- Gender and Climate-Smart Agriculture Discussion group (Gender) - 575
- Youth & Climate-Smart Agriculture (Youth) - 284
- Peatlands and Climate Change Mitigation group (Peatlands) - 240
- l'Agriculture intelligente face au climat – Communauté (French-speaking community) (French) - 44
- LinkedIn Climate Change Mitigation in Agriculture (LinkedIn) 2,937

One key element of the original plan-- developing and supporting communities of CoPs in order to build the climate literacy, skills, and capacity of key groups of practitioners--has had success in some areas but less in others. These virtual communities have augmented and added substantial value to traditional means of sharing information, such as publications and participation in professional conferences and events, which MICCA has also done. Further examination of the CoPs is found below.

Communications challenges

Challenges of the overall MICCA programme--reduced, divided (Finland, Germany and Norway), and sometimes delayed funding, and internal FAO institutional issues--have had some impact on the development of the CoPs and overall knowledge sharing. The evolution of both the climate change and agricultural communities since Copenhagen has also influenced the project's outreach efforts and required expanding its focus beyond climate mitigation in developing countries.

For example, political pushback on having developing countries prioritize climate change mitigation in agriculture has proven difficult to navigate, but the MICCA team has helped frame mitigation as a co-benefit to effective agricultural practices. Similarly, some controversy has arisen over "climate smart agriculture" by groups concerned about how it is defined and whether or not it should include large multinational agricultural corporation. (See: http://www.climatesmartagconcerns.info/). Within the CSA CoP the issues have received attention and debate, and moderating such critique of CSA has required a delicate hand in facilitating the online discussions and face-to-face meetings with stakeholders since FAO has to maintain a status as a trusted, neutral body. This has been accomplished by not

intervening in criticism of CSA and refocusing the discussion on the positive benefits that have been achieved by applying the CSA principles in practice. Several informants for the review within and external to FAO said they valued the discussion, which helped clarify CSA's attributes.

There are also practical challenges. Among the challenges and limitations of face-to-face technical workshops, which MICCA has held ten over the six years of the project, is the limited number of participants that can attend such meetings, the time required to organize them, and the costs of hosting such events. With an average of around thirty participants, MICCA's reach through these events has been necessarily limited, but through the CoPs, the materials and capacity developed through these exchanges has been extended.

To varying degrees of success, the project has launched and supported a range of CoPs to foster on-going communication and knowledge sharing. This has been accomplished by forging organizational and personal relationships as a trusted, neutral broker of relevant climate science for practitioners involved with specific agricultural sectors. As the project comes to a close, there is a clear risk that these relationships and trust, developed and nourished over time by the project team, will be lost unless a clear transition pathway for continuation is immediately pursued.

The largest communications challenge of all--how to reach the 570 million farms in the world, 90% of which are family farms--and help them prepare for the known and unknown risk of climate change, is obviously beyond the scope of MICCA Finland's limited focus and funding but is an important consideration for up-scaling the effective practices and CoP developed through the project.

Publications

In order to capture emerging findings, convey them to peers and key target audiences, and contribute to the understanding, dissemination and deployment of effective practices, the MICCA Finland team have individually and collectively published their work in a variety of publications-- informal papers, formal MICCA series, peer reviewed articles, and publications made in collaboration with other partners.

Background Reports- Including pilot related papers, such as socio-economic studies, capacity development needs assessment, adoption study reports and scoping studies, these documents have been prepared to help the pilot project planning and decision making on the practices to be included in the portfolio of activities.

Formal MICCA Series - The MICCA Series are vetted through an internal review process, including respective country offices and the counterpart ministries if country level work is included. For example, the recent MICCA 10, *Science to support climate-smart agricultural development*, was reviewed by one external reviewer, several individuals from NRC and the Land and Water Division, as well as representatives from FAO Tanzania and FAO Kenya, and the respective Ministries of Agriculture.

In at least one instance, the publication offers a mixed message when, in the chapter on "Decision analysis for targeting climate-smart practices" that focuses on a Monte Carlo simulation, the authors almost in passing note that the yield effect for adopting Conservation Agriculture on the baseline locations at Kolero and Kaptumo have a higher likelihood of

yield losses compared to gains. They conclude: “Given the predominantly negative yield effect projections indicated by our model, the slow uptake of CA can be explained.”

It is questionable whether the Monte Carlo computer simulation with limited pilot project data would be able to have confidence in their statement, and the simulation results arguably should not have been included in the publication. This is a minor criticism since the overall quality of this and other publications is high and well calibrated for their intended audiences.

Annex 4 highlights selected MICCA-related publications, the year of their release, and the number of downloads as of October 22, 2015. A few publications, including MICCA 2, *Agriculture, forestry and other land use database*, and infographics produced through MICCA efforts are not included because of lack of data on views.

The release of publications has often been timed to coincide with learning events such as webinars in order to maximize the dissemination of the products. The actual number of publications distributed is higher than the figures above since a limited number of hard copy versions and digital versions on flash-drives have also been distributed at FAO or by partners. For example, over 1000 hard copies of MICCA 9 were distributed to over 185 individuals and organizations that participated in online calls.

The number of downloads of a particular publication tells little about the impact it has on the intended audiences, who vary from national decision makers and resource managers (Peatlands), to sector-specific practitioners (Gender, Livestock, NAMA), to a broad mix of civil society and people in the field (MICCA and CSA). While no formal survey of those who downloaded or acquired hard copies of the publications has been conducted, comments from members of some of the CoPs suggest the publications have been beneficial and appreciated, complementing the other training, communications and outreach efforts.

A note on infographics and posters: MICCA Finland has created or helped create a number of infographics and posters relating to gender, soil, and livestock in particular that have been apparently well received by partners and beneficiaries. While measuring the impact of these posters is difficult since no formal evaluation was conducted on how specifically they were used, it does not appear that the promotion and wide distribution of these infographics and posters has been a high priority.

Peer Reviewed Articles

A number of peer reviewed journal articles relating to the MICCA projects have been published in first quartile and other appropriate environmental science journals, demonstrating significant contributions to science and further adding to the robustness of the project’s outcomes. A list of currently published articles is available in Annex 4.

Collaborative Publications

MICCA Finland has been involved with co-financing, developing and/or reviewing a number of collaborative publications, including “Tackling climate change through livestock”, and a number of gender related publications: "Gender and Climate Change Research in Agriculture and Food Security for Rural Development--Training Guide", developed with CCAFS, first published in English in 2012, then revised with new material and translated into Spanish and French in 2013; and the most recent module of the Gender and Agriculture Sourcebook, “Gender in Climate-Smart Agriculture”, a joint effort of World Bank, FAO, and International Fund for Agricultural Development(IFAD). MICCA Finland reviewed the entire document,

coordinated FAO inputs into the publication, adding relevant findings from MICCA activities, and led the arrangements of the side event when the publication was launched at World Food Day, October 2015.

Building and Supporting Communities of Practice

Led by a MICCA team member with substantial experience in the use of online tools to inform and engage online participants to build virtual communities, the project has developed a CoP toolbox that consists of four main platforms: i) DGroups, an email discussion list widely used by FAO and other organizations, ii) Webinar Space, which has used Adobe Connect in use since 2012, iii) Web pages, for background documents and summaries, and iv) a LinkedIn Group for sharing news, articles, and professional networking.

Two CoP groups that have substantial (~80%) overlap--the original MICCA community and Climate Smart Agriculture online discussion list--have been very successful, with well over the threshold of 400 participants regarded by the MICCA team, others at FAO and other online communities such as the CLEAN network as being needed to reach a critical mass for vibrant online communities. Three others--Gender, Livestock and Youth, are around the threshold, but much less active, and two others, Peatlands and Nationally Appropriate Mitigation Actions (NAMA)--are below that level. Two other groups focused on Spanish and French language communities have only a few members and are placeholders that will require dedicated support to grow and sustain.

While the CoP efforts of MICCA have been directed by the MICCA communications expert, whose primary duties are to cultivate and moderate the CoPs through the discussion groups and webinars, the entire MICCA staff have been involved in widely communicating and sharing knowledge and insights of their findings and emerging effective practices, both inside and beyond FAO.

While not all learning events have been well attended and not all the CoPs have come to fruition, most of them have proved to be viable and important ways for the expanding the sharing of information and, in the case of the CSA CoP, debating ideas. Two CoP groups in particular have been very successful - the original Community of Practice for Climate Change Mitigation in Agriculture (referred to in this review as the MICCA CoP) and Climate Smart Agriculture (CSA) online discussion list, with well over the threshold of 400 participants that MICCA staff, others and FAO and other online communities such as the CLEAN Network accept as being a sufficient critical mass of participants for establishing a vibrant online communities. A CoP with fewer than 400 participants can still be viable for sharing information but may lack a sufficient number of active contributors to allow for engaging discussions. Evidence examining indicators of robustness of the CoPs are provided in Annex 4.

Each CoP is made up of a unique group of self-selected individuals representing an organization or their own personal interests. The CoPs are a mix of experts from academia, civil society, and government agencies, although very few individuals who participate in any of the CoP identify themselves as government representatives, even in the NAMA group, which has 220 members as of mid-October 2015. This does not mean that those responsible for developing the NAMAs or related INDC plans are not participating in the list, but rather that it is difficult to identify their role.

The CoPs are all moderated and managed to minimize off-topic postings, ensure respectful discussion and debate, and to filter spam. Responses to a requests for input from members of the CSA, MICCA and Peatlands CoPs indicated the discussions were positive and in some cases enthusiastic, in part reflecting the fact that the members of such virtual communities are self-selected and will unsubscribe or never sign up if they don't benefit in some way from the communications.

The discussion groups have also been an important means for disseminating MICCA-related publications. One respondent wrote: "MICCA's publications have been very useful in my work both in my previous work well as my current job as gender adviser in agriculture sector. I have been able to use them as practical guides and reference material. I have also learnt from webinars and appreciate the news email as I do not have time to collect information on CSA in so many sources."

For many, the primary value of the CoP discussions are in the information shared.

One participant wrote: "I have benefited more from the links shared by colleagues than the discussions. Some of the links shared have been wonderful and have provided fresh insights for my work. I look forward to applying these in my work."

One individual thought that "MICCA is an ideal platform to share news, post, helps that are based on the common subject thematic."

Another indicated: "Even I am not able to actively participate as much as I would like to, I enjoy reading the many relevant and inspiring comments .I find this approach more efficient, to get a little portion every day... I really enjoy being part of this community!"

The CSA CoP discussions have benefited from a series of questions that have been seeded by the facilitators into the conversation. For example, in response to the question " What are the practical lessons that you have learned from implementing agricultural practices that are climate-smart that you wish to share with others?", one member of the community wrote a detailed story--in effect an informal case study--describing the challenges their organization experienced in trying to provide farmers with timely weather data (see box).

An important aspect of the discussions is that they are regarded as neutral and trusted, one of FAO's most important qualities that must always be maintained. On the CSA list, strong opinions about climate smart agriculture were expressed, even when some of those expressing their views were somewhat antagonistic toward CSA if it included large multinational seed and fertilizer companies, who some individuals viewed as part of the problem rather than part of the solution. As plans for the Global Alliance for Climate Smart Agriculture (GACSA) were being developed in 2014 and leading up to the launch of the alliance in September 2014, the CSA list helped in the sharing of views and perspectives on CSA's ideals and practices.

Informal case study contributed by a CoP participant:

"So, after a disastrous start, we re-grouped and one of our local advisors suggested that instead of putting these weather stations at Ministry offices, we should put them in schools, establish weather clubs and then train the students and teachers how to monitor the weather, make weather reports and encourage the students, especially, to go home and tell their parents about what they learned about the weather every day. That way, we could at least cover the 5 school day weather forecasts since the students were in school 5 days a week. That worked very well. We moved the equipment (that was still working) to the schools (mostly primary schools). The students formed weather clubs. The teachers were given training in how to use the equipment and so were the students. They were all eager to learn these skills and be able to predict the weather, learn how to gauge wind speed, temperatures, read about the humidity, etc."

One individual who had expressed

strong critical opinions about CSA during this period wrote, “I had wondered if my critical comments might get blocked, but this was not the case.” See section below for more on GACSA.

The discussion and debate about CSA and related approaches without the facilitators pushing for a specific agenda or outcome was important to some participants. One indicated: “The main value of MICCA for me is making contacts for networking with similar approaches (agro-ecological approaches in my case). I’ve learnt the who’s who of the different supporters of different agricultural perspectives from watching the conversations. I’ve been able to see the arguments of people coming from various perspectives and this has helped me to frame my perspectives which I have in turn used to influence my organisation at several levels.”

The launch of the CoP Dgroups often coincided with physical or virtual events, and the Dgroups have offered a means for continuing the conversations and building community after the events. It should be noted that while organizing the learning events is more time-intensive than facilitating the CoPs, once the events are completed, the CoPs serve to further extend the reach of the materials from the learning events. For example, the Technical Workshop on Peatlands Management held in May 2013 at FAO HQ had only 36 participants, but the presentation slides and recordings have had over 10,000 views since then. Another example is the February 2014 Gender and Climate Smart Agriculture webinar, which reached 270 participants, but the resources from the webinar have been viewed over 990 times since then.

The origins of another community, Nationally Appropriate Mitigation Actions or NAMA, can be traced back to the early years of the project when learning events were held that focused on greenhouse gas measurements and mitigation, but the online Dgroup was only formed in October 2014 when the need was more clearly defined.

E-learning at FAO and stricter adherence to FAO Capacity Building protocols was brought-up for one FAO staff member external to MICCA Finland, but the additional costs, delays and potential for complicating the current streamlined process suggest this is not warranted or recommended.

Communities of Practice Evaluation

An online survey conducted in the spring and summer of 2015 of active CoP members provides some insight into the communities and their overlap. Among the 40 self-selected respondents, CSA was the primary CoP they participated in (78%), followed by MICCA—the first CoP started with around forty initial members (46%), and Youth (19.5%). A strong majority, 70.8%, indicated the CSA CoP has been useful (29.3%) or extremely useful (41.5%) for their activities related to CSA.

More than two thirds (68.3%) prefer to participate through the email discussions, and more than half (53.7%) view recordings of webinars and share/read background materials, and the same number were interested in creating a climate and agriculture CoP in their region or country. The participants came primarily from Africa (34.1%), and North America (26.8%), with fewer from Asia (17.1%) and South America (12.2%), and less than 10% from Europe, Pacific and Australia combined. It is unclear why participation from Asia is low. In the case of the lack of participation from Russia and Eastern Europe, language and lack of direct outreach is likely the primary obstacle.

Survey respondents were positive about participating in the online activities of their Community of Practice, citing knowledge and information sharing as an important attribute, as well as the engaged nature of the community. An open-ended question asking for feedback on changing or further developing in the CoP identified a few technical and language issues for some.

Clearly, those who lack the technological access-- i.e. robust enough Internet connectivity and necessary computer technology--or require languages other than English participate, are not going to self-select to participate in the CoP or respond to the survey. While English is the most widely spoken language worldwide and the third most spoken native language after Mandarin and Spanish, large segments of the world, such as central and Eastern Europe and the Middle East where English language usage is the exception rather than the rule, are not well represented by the current CoPs.

Another short evaluation was conducted as part of the October 2015 CSA in the field webinar. Participants were polled on what they considered to be barriers to scaling up climate smart practices. Six in ten of those polled considered lack of available financing a major barrier, and many of those attending were particularly interested in the information presented by an FAO staff person on the Green Climate Fund as a potential source of support. Overwhelmingly, those who responded to the online satisfaction survey after the webinar were positive in terms of what they had learned and the quality of the event, but of the eight people who responded to the question "If you did not take part in this learning event, could you please let us know why?" many--53.3%--indicated that lack of a good internet connection was the reason, suggesting that alternative ways of reaching the intended audiences, such as the Dgroups, which work well with limited Internet connectivity, are important.

The survey responses and other input is apparently helping in the development of a guidebook with the working title "*Tips, results and experiences from climate and agriculture communities of practice*" on how to set up and run participatory communities of practice in the climate change and agricultural fields. This resource is scheduled to be completed and released in the spring of 2016 but was unavailable for the Review Team to examine.

As the evidence in Annex 4 shows, the reach of MICCA's efforts to inform and engage different communities has varied widely. Some learning events that required substantial investments of time to organize have been sparsely attended, and some publications have few downloads. Others, such as MICCA 5 on Peatlands, with nearly 20,000 online views, the book "Tackling climate change through livestock," which nearly 70,000 views, and the Gender Training, with combined English and Spanish views of nearly 25,000 views, have been successful at reaching a substantial number of interested parties.

Annex 4 provides additional details on the chronology of various synergistic events related to particular Communities of Practice, the launch of specific Dgroups, and the relative robustness of these communities.

Learning Events and Conference Participation

Since July of 2010, MICCA has held ten face-to-face workshops at FAO HQ in Rome, beginning with a technical workshop entitled: "Towards a Framework for Smallholder Agricultural Mitigation: Terrestrial Carbon and other GHG Measurement and Simulation Models ". This initial workshop was held in conjunction with CCAFS(CGIAR Research

Program on Climate Change, Agriculture and Food Security) and had twenty-six participants, 17 male, 9 female. Most have been of similar size, although the most recent, a NAMA-related "Workshop on Reducing Costs for Greenhouse Gas Estimation in Agriculture to Inform Low Emission Development Options" held in November 2014, had 60 participants, 36 male, and 24 female. The only event with a reversed gender ratio was the November 2011"Workshop for the Gender and climate change research in agriculture and food security for rural development training guide", with 12 participants, two of whom were male. Other learning events have been held online and, because of their ties to CoPs, have been discussed above.

Another strong indicator of the MICCA Finland team's direct engagement with peers and cohorts in the climate change, agriculture sector is their active participation in professional conferences to present findings of MICCA, build "brand" recognition for the project, and network with other professionals in the field. While a list of these activities does not explicitly indicate impact, they are clearly a vital part of the project's training, communications and outreach efforts.

The Mid-Term Evaluation report included activities in the early years of the project. Annex 4 includes a list of representative workshops, forums, and other events that MICCA staff have participated in since 2013.

Internal FAO Communications and Related Capacity-Building

The MICCA Finland team has supported internal FAO communications and capacity building in a variety of ways, including on-going technical support for other groups and projects needing guidance on running webinars. Because of its experience in organizing and hosting virtual communities of practice, it was invited to host a workshop on "Facilitating Online Networks for Technical Results" in June 2015 to support FAO Technical Networks, and it has also been involved with the Climate Change Technical Network, which has over 200 members around the world and is headed by NRC.

The project has also coordinated the Climate Change Study Circle, which has been held semi-regularly since 2010. Organized as a lunchtime event to highlight the research of visiting or internal climate change experts, often to standing-room-only audiences, the recent *Evaluation of FAO's Contribution to Climate Change Adaptation and Mitigation, 2009-2014* called out the CC Study Circle, which "has served the purpose of sharing more advanced work of staff and external experts on CC."

The project team has also helped organize a March 2015 webinar on Climate Change, Food Security, and Nutrition in providing content and technical support. This effort built on collaborations that first began in 2011 and are synergistic with the climate change and food security efforts and networks at FAO. While the Global Food Security and Nutrition group at FAO does not use Dgroup email discussions, using the FAO Forum which has 6,000 members worldwide and two robust regional groups in West Africa and Europe/Central Asia--they lacked experience in organizing and facilitating webinars, which the MICCA CoP team helped provide. Co-located in the same hallway of FAO HQ, the MICCA team has been able to help with climate change questions, which often arise in discussions about food security.

MICCA Finland has also provided guidance and input for the Global Alliance for Climate Smart Agriculture (GACSA), which was launched during the September 2014 UN Climate Summit held in New York City as an independent alliance to promote CSA. GACSA has

benefited substantially from the CSA CoP by providing input and perspective on the issues of the CSA community. Politically sensitive and harshly criticized by those who accuse GACSA for being a "Trojan Horse" for corporate agricultural interests and developed nations that promote carbon markets for their own benefit, CSA in general and GACSA in particular have presented substantial communication challenges in the past several years.

Global Alliance for Climate Smart Agriculture - GACSA
Initially made up by over 100 members including 22 nations, an array of civil society organizations, and a few private companies, GACSA is facilitated in part by FAO. Its development and launch has not been without controversy. An Open Letter signed by many potential members of civil society in July 2014 was critical of the lack of environmental criteria, social safeguards, governance and other organizational issues: http://www.climatesmartagconcerns.info/open-letter.html

Some of the concerns expressed in the letter were addressed before the launch of GACSA, and the CSA CoP discussions were instrumental in allowing various perspectives to be addressed. Officially, FAO's role with GACSA is to host its Facilitation Unit, with the aim of having GACSA be "owned" and governed by its members. The prospect of the CSA CoP coming under the wing of this Facilitation Unit has been discussed in order to help sustain the community in the long term, but currently other options are being prioritized.

One way the project has helped to defuse the sometimes-contentious discussions on the CSA CoP discussion list is to invite participants to share practical examples of how they are incorporating CSA into their practices and what challenges and opportunities they face. This has helped facilitate the discussion in a productive direction.

MICCA Finland can take some credit for helping CSA evolve and for the development of the GACSA, but having the CSA CoP remain independent from GACSA will allow the community to serve as related but independent entity.

5.5 Crosscutting issues

5.5.1 Partnerships / alliances

Most of the work undertaken by MICCA Finland has been done in collaboration with other FAO divisions and with other organisations. The partnership approach can be considered both a philosophy and a necessity for the project. Philosophy, because it is clear from all feedback received that the first project coordinator was from the start convinced of the benefits of collaboration with others in terms of building a broad alliance of partners with good knowledge on the potential of mitigation in agriculture. Necessarily, because the breadth of activities that the project intended to undertake could never be implemented by the small team of core staff.

The collaboration with FAO divisions and Country Offices is discussed in section 4.4 and 6.1.1. This section focuses in particular on the collaboration with external partners.

The main partners the project collaborated with include ICRAF, CCAFS, EADD, UNIQUE, CARE International, Wetlands International and various universities.

A review of the Letter of Agreement on collaboration on the pilot projects with one of the main partners, ICRAF, reveals that this is not so much an agreement based on an equal partnership, but rather a contract between FAO and a service provider, in this case ICRAF. In other words, the project was formally in control of the activities to be undertaken, and also fully funded all these activities. It is not clear whether attempts were made for a more equal

partnership relation that would also involve some funding commitment from, in this case, ICRAF.

There are a number of important benefits for MICCA Finland that have resulted from partnering with external organisations:

- It has tremendously increased the expertise available to the project for research, modelling and piloting activities. FAO is neither a research organisation nor an organisation particularly geared towards implementing small-scale field level projects, so these aspects were effectively covered by the partners.
- The collaboration with the consultancy company UNIQUE has been crucial in Kenya, both for the development and submission (to the Gold Standard) of the dairy LCA methodology and for the work with the national government. Although the collaboration contracts seemed to have been based on an outsourcing arrangement between FAO and service provider, the feedback from partners indicates that they felt very much in "co-control" of the activities, and have a strong sense of ownership with regard to the results of the work undertaken.
- The collaboration with research organisations has allowed the project to publish papers (as collaborative efforts) in a number of science journals
- The prospects for scaling up of CSA practices and for longer-term sustainable results are much more favourable.

Inevitably, partnerships also pose a number of challenges:

- Organisations (including FAO) tend to want to "plant their own flag" on activities. This has led at times to some tension between the project and some of its partners, in particular in relation to the work in Kenya on the dairy NAMA, which has gone, as one partner called it, "through a rocky period".
- Related to the above is a sentiment within the project that partner organisations are not always properly acknowledging the support that MICCA has been providing. Changes in MICCA project staff, and related changes in management and communication styles, have contributed to some level of discontent amongst some of the partners.
- It is always difficult to find a good balance between delegating work to others while still ensuring timely delivery of good quality results. There have been numerous delays in delivery of reports and several examples of unacceptably low quality of reports, which required a very thorough review and improvement process.

These challenges notwithstanding, the overall feedback on the partnerships has been extremely positive, with most partners having welcomed the opportunity to work on CSA issues in collaboration with MICCA, and generally praising the support that MICCA staff has provided during the partnership. The success of the partnerships is evident in the fact that all main partners are building on the joint work with MICCA in other activities:

- The inclusion of CSA in the proposal for a 2nd phase of EADD
- Papers produced by ICRAF on results from their involvement in the pilot project
- The dairy NAMA work in Kenya (led by the Kenyan Ministry of Agriculture/State Department of Livestock, but still with MICCA involvement)
- CARE now building on the CSA knowledge gained in the Tanzania pilot project in new project proposals.
- The recognition of the value of the CSA CoP by GACSA
- Current development of CSA compendium led by ICRAF (still with MICCA support)
- Current development of CSA guidelines in Tanzania led by the Ministry of Agriculture, Food Security and Cooperatives.

While the MICCA support might not always be explicitly acknowledged in all these activities, it is ultimately more important that work on CSA is scaled up through these partners.

There are also some missed opportunities. The pilot project in Kenya and Tanzania were implemented without any direct involvement of the national governments. It would have been good to expose government policy makers to the realities of promoting CSA practices in the field. The same applies for the FAO-CO in Tanzania, which only became directly involved in MICCA at the national workshop held after the completion of the pilot project.

Similarly, there are a number of NAMA tools and efforts from different organizations to provide decision-makers with the knowledge and skills to produce robust NAMA plans for national INDCs, and while MICCA's NAMA tool is specific for the AFOLU sector and is included in the UNFCCC NAMA registry, a more collaborative and less ad hoc effort would likely have allowed MICCA's NAMA work to be better integrated and disseminated with other overlapping efforts.

5.5.2 Capacity Development

The project is aiming to build capacity on mitigation in agriculture and more broadly on CSA at various levels:

- At farmer level in Kenya and Tanzania
- At national government levels, in particular in Kenya, Tanzania and Vietnam
- Internally at FAO
- At the wider CC mitigation expert community.

Farmer / local level

Rapid capacity needs assessments[10] were undertaken at the start of the pilot projects. In Tanzania, the approach for capacity development at field level followed the model of Farmer Field Schools. The final report of the pilot projects gives some impressive numbers of people trained in various practices in Tanzania: 740 on soil & water conservation (SWC) measures, 590 on cook stoves and 1418 on Conservation Agriculture practices.

The projects used a farmer-trainer and Farmer Field School (FFS) approach. A number of farmers were directly trained by the project and they trained other farmers through the FFSs and through exposure to CSA practices. Through direct support by the project a total of around 600 terraces and other SWC measures were implemented, and a total of 736 improved cook stoves constructed. The constructed terraces and cook stoves visited during the field visit are of good quality and are all actively being used. The training activities were undertaken by project staff in collaboration with local extension officers. The latter have therefore also seen their capacity for CSA increased.

Adoption of these measures by other farmers is so far very limited. Given the short duration of the project, this is not surprising. There was not enough time to build a critical mass of adopters, and without any further external support it is unlikely that there will be any substantial spontaneous adoption in the future. In that sense, the effectiveness of the capacity development efforts is rather limited, and would be much higher if the project would have a

[10]They also covered local and national government level, but the focus was on farmer level capacity needs

follow up phase. The Farmer Field Schools have also ceased to function, with only one of them having had a meeting since the end of the pilot project. Seen from the point of view of informing future larger scale CSA programmes, the capacity building efforts have been effective since they have allowed piloting of CSA practices at field level.

In Kenya, the capacity building efforts used the EADD extension structures. The project was not visited by the review team, which makes it difficult to assess the effectiveness of the CD efforts. Based on the final project report and the adoption study however, it seems the situation is largely the same as for Tanzania, with more time being required for really effective capacity development i.e. leading to widespread adoption of the introduced CSA practices. Since EADD is continuing to support the pilot area the prospects for widespread adoption are significantly better than for the Tanzania pilot site.

National level

The project is engaging directly with government partners in Kenya, Tanzania and Vietnam.

In Kenya and Vietnam the project aims to build capacity of the government for the development of NAMAs in agriculture. The main tool for this is the NAMA learning tool, discussed in section 5.3.5. The main approach followed is to provide backstopping to processes led by others: CCAFS/UNIQUE in Kenya, and the FAO-CO in Vietnam (through the IFES NAMA preparedness project).

In Vietnam, project staff has participated in workshops related to NAMA development and has also contributed to a broader ASEAN workshop on Low Emission Development (including sponsoring participants). The capacity building efforts so far have been mainly at the level of awareness raising, but the IFES project is planning to pilot MRV work, with backstopping from MICCA, which will expose government staff to more hands-on capacity building. In Kenya, MICCA follows more or less a similar approach through backstopping support for the development of the dairy NAMA.

In Tanzania, capacity building has been done by supporting the government with the development of CSA guidelines. The government itself is leading, through the EMU of the Ministry of Agriculture. Meetings with government staff indicate that their knowledge of CSA practices has been significantly increased through the work with MICCA, and in particular through the hands-on work on the guidelines, which included undertaking a baseline assessment.

In all three countries, the CD approach at government level is based on supporting a concrete activity. This is likely to be much more effective than a broad general and more theoretical capacity development approach. The main factor hampering the effectiveness is the limited time available. While the CSA guidelines in Tanzania will likely be completed before June 2016, the next main challenge will be the implementation of these guidelines. The same applies for the NAMAs in Kenya and Vietnam. Further capacity development will be required for their effective implementation but cannot be provided by MICCA.

Internally FAO

Capacity building within FAO through the knowledge management activities, including the CC study circle, has already been discussed in detail in section 5.4. Through these activities, awareness has created on the potential of mitigation in agriculture as a co-benefit of climate change adaptation.

The collaboration with divisions like AGAL and ESA on concrete MICCA-related work has helped build their knowledge and capacity in specific aspects such as LCAs and adoption barriers in CSA. Feedback from both divisions indicates that they have learnt a lot through the collaborative work under the MICCA project.

Capacity building at the FAO regional and country offices has been largely limited to 2 of the 3 countries where the project works on concrete policy issues: Tanzania and Vietnam. Feedback from those offices has been positive in this respect, although in Tanzania the CD efforts could have been more effective if the Country Office had also been involved in the pilot project. It is not very clear why this was not done. Although the project is also active in Kenya, the FAO-CO in that country has not been much involved because the geographical focus of MICCA's livestock work is different from the geographical focus of the livestock component in the Country Programming Framework.

Broader CC mitigation expert community

In the industrialized, developed world, climate change mitigation is primarily focused for obvious reasons on industry, transportation, and buildings, with industrial-scale agriculture practices sometimes included as an afterthought. Conveying the complexity of agricultural practices that directly or indirectly relate to mitigation, especially to the 90% of farmers who produce 80% of the food in the world, is enormously challenging, but MICCA has established a foundation that must be continued and expanded.

5.5.3 Gender

The review team could not corroborate the finding in the Mid Term Review of the project that *Gender issues were central to the planning of MICCA and its associated pilots. A comprehensive set of gender guidelines for ensuring proper incorporation of gender issues into MICCA activities have been developed and tested.*

In fact, this review team has found few signs of effective gender mainstreaming within the project's activities in the initial stages. In some cases, like LCA modelling, this is understandable, but in other cases where gender issues are important these have not been addressed in a structural manner. This is most evident in the socio-economic surveys undertaken at the start of the pilot projects in Kenya and Tanzania. Although the survey conducted interviews with men and women, resulting data on e.g. household assets, income, agricultural practices, benefits from the project (EADD) are, with a few exceptions, not gender-disaggregated. The surveys also do not include any structural gender analysis on issues such as climate vulnerability, land tenure and how different CSA practices may impact on the position of men and women. A scan of the MICCA papers also confirms that gender issues have been given very little attention, yet subjects like smallholder adoption of CSA (MICCA paper no. 4) and climate responsible peatland management (MICCA paper no. 9) have important gender dimensions.

The situation has improved significantly over the years, with gender issues brought up more consistently in MICCA's engagement with partners. Gender issues are more prominently presented in presentations and discussed in workshops (such as the national workshops in Kenya and Tanzania at the end of the pilot projects). Positive feedback was also received on the "Gender and Climate Smart Agriculture" webinars held in 2014. One stakeholder interviewed mentioned that his participation in the webinar had directly influenced a change in a project design to include specific activities for women.

During the actual implementation of the pilot projects, the gender issues did get due attention with the projects promoting balanced participation of men and women in activities. Women's views were taken into account during the final selection of the CSA practices. One screening criteria was gender to make sure that the practice would not increase women's workload. Women groups were established by the pilots to make sure that women can receive the support they need and exchange among them. In Tanzania, improved cook stoves were introduced as a specific activity to reduce the time that women have to spend collecting firewood. And contrary to the socio-economic surveys, the progress reports and the adoption studies for the pilot projects do provide gender-disaggregated data.

5.5.4 Human Rights Based Approach

Finland's development policy emphasises the application of a Human Rights Based Approach (HRBA) in all Finnish-supported development actions. This includes crosscutting criteria (non-discrimination, participation, accountability, transparency, impact and sustainability). The most basic element is 'do no harm'.

The MICCA Finland project has no explicit HRBA approach. However, there are clear elements of a human rights based approach in the project's activities. At the global level, the project provides evidence and support to developing countries (as rights holders) to engage effectively in global climate change fora, including at the current COP21 in Paris. Within countries like Vietnam, Kenya and Tanzania, the project's support to national governments on NAMAs and CSA guidelines can be seen as building capacity of these duty bearers to deliver appropriate climate-change related services to their rights holders (in this case in particular the small-scale farmers).

At the project level, beneficiaries were selected through a transparent and non-discriminatory process. Men and women from all villages had the opportunity to sign up as project beneficiaries. The fact that many did not sign up at the time (but do want to sign up now, as confirmed by feedback from focus group discussion in Tanzania) appears to be related more to cultural issues (newcomers in the area are initially treated with suspicion and are often rumoured to be "bloodsuckers") than to the project's approach for selecting beneficiaries.

5.5.5 Environment

CSA practices are based on promoting a more sustainable use of land resources. At an overall level, the project can therefore said to contribute to environmental protection. A direct positive environmental impact has been achieved at limited scale in the pilot projects, e.g. by reducing slash and burn in Tanzania.

The improved cook stoves introduced in Tanzania also have some positive environmental impact. However, the project seems to have overlooked the fact that high amounts of wood are used in the project areas for burning bricks. In fact, visual feedback from the area would indicate that this is the main use of wood in the area and hence the main cause of forest degradation after the slash & burn practice. A positive side effect of the improved cook stoves is reduced time required to collect firewood, since these stoves use far less wood than the traditional 3-stones cook stove.

Further examples of environmental mainstreaming include:

- Better manure management in Kenya that has led to reduced emissions and nutrient leakages;
- Making extensive use of webinars compared to workshops have reduced the need for travelling and thus reduced the carbon footprint;
- Limiting paper use by sharing documents mainly through website and pen drives.

6 Analysis by specific evaluation criteria

6.1 Relevance

Given the rapid rate of climate change, the vulnerability of farmers, particularly in developing nations, and the complexity of responding to the known and unknown impacts of changing climate, there are substantial gaps of and need for information and knowledge on climate change in agriculture in general and the co-benefits of mitigation in particular.

MICCA has been instrumental in identifying and addressing these gaps and information needs. In addition, the Project has made important contributions to FAO goals and strategic objectives, the global expert community, national development priorities in selected partner countries, including FAO Country Programming Frameworks. In the future, this foundation can be leveraged to help inform much larger scale efforts that will benefit farmers, governments, civil society and others directly and indirectly involved with food and agriculture production in the era of climate change.

6.1.1 Relevance to FAO

FAO strategic objectives

MICCA's activities and their current and potential longer-term impact relate to several of FAO's strategic goals. The main link is with SO2 - "Make agriculture, forestry, and fisheries more productive and sustainable", and all MICCA's results are reported under that strategic objective. By emphasising Life Cycle Assessment and the co-benefits of mitigation in the pilot projects and other communications, MICCA also contributes to SO3 "Reduce rural poverty." Through their gender-related efforts and overall knowledge sharing, they provide strategies that relate to SO4 - "Enable inclusive and efficient agriculture and food systems".

MICCA also supports FAO's knowledge Strategy, which in its 2011 document states:

> "As a knowledge organization, FAO's job is to support Members in ensuring that the needs of the world in its area of mandate are fully met – not necessarily to undertake each task itself... FAO must now become strategically integrated to ensure that the world's knowledge of food and agriculture is available to those who need it when they need it and in a form, which they can access, and use... [including] advocacy... capacity development... and policy advice" (IEE Message 8).

FAO Country Programming Frameworks

MICCA's work in Tanzania on the pilot project and the support to the government for the development of CSA guidelines relates directly to one of the priority areas of the FAO-CO CPF, namely priority areas B – Sustainable management of natural resources, which includes an output on NRM best practices (including climate smart agriculture) into agriculture policies and development plans.

In Kenya, the focus of the FAO-CO for livestock is on the Arid and Semi-Arid Lands (ASAL), whereas the pilot project was undertaken in an area that is not part of ASAL. However, the current policy work on supporting the government with a dairy NAMA relates well to the Country Programming Framework's (CPF) outcomes on policy development and increasing small-scale farmer productivity.

MICCA's support for NAMAs in Vietnam is very much aligned to the CPF, which explicitly mentions climate change adaptation and mitigation as a priority area, including the promotion of NAMA development.

6.1.2 To the international Climate Change community

The transfer of knowledge from the climate science research community to those who can benefit from this knowledge is challenging on many levels. The science itself is complex and domain specific. A peatlands expert, for example, may be able to understand some of the science of an expert in livestock since both involve carbon emissions, but there will still be a learning curve to fully grasp the dynamics and possible mitigation solutions. For a farmer or member of civil society who lacks the background in the science, the challenge is far more difficult, and resources for literacy-building in the form of publications, trainings, and technical consultations are necessary to build the literacy and know-how that will allow for practitioners to make informed decisions. MICCA Finland has made a substantial if initial contribution to building this foundation for literacy and capacity building.

The international climate change community is large and diverse, ranging from the research science enterprise and large scale data gathering, analysis and modelling efforts at national laboratories and in academia to those in the field working to build resilience and mitigate the sources of climate change at the local level. The primary mechanism for the international climate change community has been the United Nations Framework Convention on Climate Change (UNFCCC), which began to be negotiated in December 1990 and was signed and went into force in March 1994. The Parties to the Convention, essentially every nation in the world, have been negotiating ever since to develop agreements and strategies to address the many complex challenges of mitigating and adapting to climate change. However, agriculture has not been directly included in the negotiations and is not mentioned in the Paris Agreement of 2015, with the term "food" only appearing three times.

As previously noted, it was assumed when MICCA was first developed that a strong agreement would emerge from COP15 in Copenhagen that would give momentum to funding for agricultural mitigation. When that did not occur as anticipated, MICCA was scaled back from multiple pilot projects to just two. Since then, the Project has had some success in engaging with government representatives who are directly involved with the UNFCCC negotiations, interacting directly with the Ministries of Agriculture negotiators and national climate focal points in Kenya, Tanzania and Vietnam, sponsoring the participation of Tanzanian negotiators at negotiations. The Project Coordinators have in the past engaged with negotiators from Annex 1 and non-Annex 1 countries at conferences.

The UNFCCC Parties are asked to submit post-2020 pledges known as Intended Nationally Determined Contributions (INDCs). While FAO management has called for the organization to contribute to Parties' INDC efforts, shortage of staff in the division has constrained FAO's ability to comply. MICCA staff have managed to support these efforts by up-dating FAO internal INDC memoranda, helping inform AFOLU INDC efforts in Africa, Latin America and Europe, and in one instance reviewing a developing country's draft INDC, which was then submitted as recommended to the UNFCCC prior to COP21. Others at FAO NRC have also benefited from MICCA's internal capacity building at FAO, such as the Climate Change Study Circle, which has helped in knowledge sharing within the organization. The Project's efforts internally at FAO, at the negotiations, and through the CoPs have all supported the

objective of having agriculture as a topic in the Subsidiary Body for Scientific and Technological Advice (SBSTA) in 2015 and 2016.

An area where MICCA has had more direct involvement is in supporting the development of Nationally Appropriate Mitigation Actions (NAMA), which are proposed mitigation actions taken in the context of sustainable development that many Developing Countries are or will prepare as part of their national efforts to address climate change. MICCA's NAMA CoP, the inclusion of the NAMA tool (a tutorial to help in scoping and developing a NAMA) in the NAMA Registry, related learning events and technical assistance around NAMAs in Kenya and Vietnam show promise but will require additional prioritization and resources to bring to fruition.

6.2 Potential impacts

In the original project document the long-term impact of MICCA was formulated as "Developing countries are moving towards low carbon agriculture by sustainable internalisation of agriculture mitigation practices to reduce emissions, enhance sequestration and displace emissions by providing substitutes".

This formulation is partly overtaken by the strategy adopted by MICCA to frame mitigation as part of a broader CSA approach. In essence, impact will be achieved when developing countries move towards adopting CSA practices.

The prospects of MICCA contributing to this impact are excellent. While this is most evident in the countries where MICCA is directly working with the national governments on NAMAs and CSA guidelines, a much broader impact is also likely, for various reasons:

- The project has created awareness within FAO on the fact that mitigation in agriculture can, and usually does, go hand in hand with increasing food security and climate resilience and as such is an integral element of CSA. Through for example the Climate Change Technical Network (bringing together staff from FAO HQ and from COs), this message will be relayed across the globe and is bound to have an impact on the programmes and priorities of FAO Country Offices in developing countries.
- Through all knowledge management activities, the same positive message on mitigation in agriculture has been shared with many stakeholders in developing countries, including from government. It will help allay the negative perception on mitigation as threatening to food security and as something that only the developed countries should address.
- Partnerships such as the collaboration with the World Bank on CSA publication, with EADD on the pilot project and with others, have contributed to the mainstreaming of CSA in programmes and projects of such partners.

The main challenge for large-scale impact lies maybe not at policy level, but at the implementation level. As the pilot projects have shown, adoption of CSA practices by small-scale farmers will require a long-term process. Ideally, this will require governments in developing countries to strengthen the capacity of the extension services in the country, a process that needs a different type of support from donors than the current focus on relatively short term projects and programmes.

6.3 Sustainability

Sustainability for the MICCA Finland is considered at different levels:

- Overall continuation / scaling up of CSA practices through / by others
- Sustainability of pilot project results
- Sustainability of policy work
- Sustainability of the knowledge management activities

There are clear signs that CSA practices as researched / piloted under MICCA will be scaled up, thanks to the principle adopted by the project from the start to work as much as possible in partnership with other organisations. Examples of this scaling up have been provided earlier in this report and include EADD's inclusion of CSA in its second phase, WB's mainstreaming of CSA in many of its programmes, Wetlands International's work on promoting "wet agriculture" in peatlands and ICRAF continuing work in the area of CSA (through proposed collaboration the African Union's NEPAD and African CSA Alliance). While this scaling up is to a varying degree the direct result of MICCA's work, it is likely that in all these cases the publications and other knowledge management activities (CoPs, webinars, side-events) have or will be a source of reference information.

Based on the field visit, the sustainability of the results of the Tanzania pilot project are reasonably good, when considering only the direct results in terms of the concrete measures implemented with support of the project, such as terraces and double digging and improved cooking stoves. Based on the very positive feedback from the men and women directly involved in these activities, it is likely that they will continue to practice these CSA related measures. However, chances for scaling up of these practices beyond this relatively small group of direct beneficiaries is limited. The project has had too little time to build a critical mass of adopters who have both the drive and the capacity to support their fellow farmers in constructing / adopting CSA practices. Since the end of the project, there has been no further spontaneous adoption of these practices with the exception of a small number of additional cook stoves constructed. However, the project has definitely increased the awareness of the farmers and of local extension staff on the potential of CSA practices to increase their food security and strengthen their resilience to climate change. A follow-up project would therefore likely have a much higher impact, but unfortunately there are no concrete plans for such a project.

While the Kenya pilot project was not visited, the adoption study for the project also indicates that likelihood of adoption is directly related to the involvement in the training activities. It is assumed therefore that the overall situation with regard to sustainability would be similar to the Tanzania pilot i.e. sustainability in terms of continued use of the newly introduced CSA practices by the current adopters, but limited prospects of spontaneous scaling out if there is no further concrete (project) support. As opposed to the Tanzania situation however, there is continued support from EADD to the pilot project site, so it is likely that scaling out of CSA practices amongst more farmers in the area will happen.

While it is assumed that the policy formulation work (NAMAs in Kenya/Vietnam, CSA guidelines in Tanzania) can be successfully concluded before the end of the MICCA project, meaningful sustainability would see the NAMAs and CSA guidelines also implemented. This will require a sustained capacity building effort at many levels as well as substantial financial resources. For the NAMAs in Kenya and Vietnam the prospects for both are reasonably good. In Kenya, the FAO, through AGAL, is expected to continue to play a role in the dairy

NAMA, in collaboration with partners CCAFS, while in Vietnam the FAO-CO will continue its involvement in the NAMA work. . There is also strong general donor interest in funding NAMAs (such as through the UK/German funded NAMA facility), although it remains to be seen how broad capacity building at field level (directly of farmers and indirectly through extension services / NGOs) can be realised.

For the funding of the implementation of the CSA guidelines in Tanzania there are some concrete options that look promising. First there is the possibility currently being explored of a Technical Cooperation Project through FAO-Tanzania, which could provide some modest funding for capacity building of local government authorities and extension staff. A further concrete option is the DFID-funded regional Climate Smart Agriculture Programme (CSAP, operating from South Africa), which has chosen Tanzania as one of its priority countries[11].

What currently appears to be missing, however, is a formal programme or project that can continue to coordinate, catalyse and promote the development of CSA and mitigation related research, policies and scaling up efforts across countries and continents, a role that MICCA Finland has been playing to great effect. There is a real and substantial risk of key staff leaving and of the project's "lessons learned" and talent being lost.

[11] Contacts between this programme and the Environmental Management Unit have been facilitated by the evaluation team

7 Conclusions

The MICCA Finland project has been successful in putting mitigation in agriculture on global, national and FAO agendas and contributing to broad climate change agriculture community and capacity-building efforts. It is the first of its kind in supporting a broad range of research, modelling and piloting activities related to analysing and piloting mitigation options that focus primarily on small-scale farmers in developing countries.

By strategically framing mitigation in agriculture as part of CSA and by sharing the results of its research through its communication activities, the project has created awareness amongst a very broad range of stakeholders on the fact that mitigation in agriculture can, and usually, does reinforce food security and climate resilience of small-scale farmers.

Beginning with a technical workshop in July 2010 entitled "Towards a Framework for Smallholder Agricultural Mitigation: Terrestrial Carbon and other GHG Measurement and Simulation Models," the project has undertaken a truly impressive number of activities during the six years of implementation. The project has followed a flexible and opportunity-driven approach rather than a results-based approach based on a logical framework with pre-defined results and targets. While this makes results-based management and an objective evaluation measuring actual results against targets more difficult, the review team concludes that a certain level of flexibility is appropriate for a project like MICCA Finland, which works in a dynamic and evolving field--climate change mitigation in agriculture--that is a largely unexplored area of work, not only for FAO but globally.

It is this flexible approach that led the project to successfully frame mitigation as a sub-component and co-benefit of CSA. It also allowed the project to seize on emerging opportunities such as the work done on peatlands and NAMAs. In addition to making the measuring of results and impacts more challenging, the danger of such an approach is the risk that if too many opportunities are explored and available resources are spread too thin, some promising opportunities that would benefit for a more dedicated efforts are not brought to fruition.

For example, of the ten Communities of Practice, which help extend information sharing and develop communities around specific themes or learning events, four have more than 400 members--which is generally considered within and outside of FAO as the threshold needed for a robust online community. These most active and mature CoP groups are made up of the original MICCA CoP and CSA groups, which have an estimated overlap of ~80% of participants, the Gender CoP and the LinkedIn group, while the Peatlands, NAMA and Livestock CoP are smaller, less active but still important online communities.

Flexibility was also called for at several stages of the project due to substantial changes in funding. The project has shown excellent adaptive management capacity in the way it has dealt with these unexpected setbacks. This has also been evident in the way the project reorganised the original five components of the project (which are overlapping in nature) in work streams that relate to more discrete activities such as the work on LCAs in livestock, policy support activities, and the work related to gender in CSA. The link with the original sub-components, however, was maintained in both the Project Implementation Plans and the semi-annual progress reports.

A core team of highly committed staff has very effectively implemented the project through a strong partnership approach, while ensuring that the quality of the work delivered through the collaborative efforts (MICCA publications, research papers, pilot project activities, technical workshops, webinars, etc.) complied with high quality standards, as confirmed by all stakeholders interviewed during the evaluation. Team collaboration within the project has been strong, allowing for a flexible use of the expertise of each of the staff members. The management styles of the first and second project coordinator are markedly different (a hands-off and a hands-on approach respectively), but both have been effective in delivering on activities.

The team has a strong sense of ownership of the activities undertaken, which has led to some frustrations when partners undertook new initiatives that built on the collaborative work with MICCA without explicitly acknowledging the earlier collaboration. Rather than consider such new initiatives problematic, such efforts should be considered as indicators of success, demonstrating that the partners also have a strong sense of ownership of the joint work done. This will ultimately contribute to both sustainability and scaling up of emerging effective practices around mitigation and related efforts in agriculture.

Through the various work streams, the project has delivered a number of important results, which have been documented in a large number of publications and otherwise presented in workshops, webinars, side events and the Communities of Practice. While the main results of the work streams are at the level of awareness raising, some important next steps have been taken such as the development of LCA draft guidelines for the livestock sector (through the LEAP partnership), the submission of the LCA-based model for GHG emissions in livestock to the Gold Standard for certification, and a number of concrete policy support initiatives: support to NAMAs in Kenya and Tanzania and support to the development of CSA guidelines in Tanzania.

The effectiveness of the pilot project in Kenya is difficult to gauge, in particular where it concerns informing the on-going policy work in Kenya. While MICCA staff indicate that the pilot is and will inform the development of the dairy NAMA, other stakeholders interviewed dispute this. It is clear however that through the national CSA workshop and NAMA training key stakeholders like the Ministry of Agriculture, Livestock and Fisheries have at least been exposed to the lessons learnt from the pilot project. The LCA modelling work on the other hand seems to not have used any of the results of the pilot project. Although this was also not initially planned, it would have made sense to more explicitly promote synergies between the pilot project and the modelling work.

For the pilot project in Tanzania, there are clear signs that lessons learnt from the pilot project, such as on the need for a long-term programme to promote adoption of CSA by farmers, have informed the draft CSA guidelines.

Both in Tanzania and Kenya there is little evidence that the scientific components of the pilot projects have informed the current policy work in a substantial manner.

Like many of MICCA's outputs and activities, its knowledge sharing has been at once diverse and opportunistic, with a wide range of products and strategies. Outreach has included physical and online learning events, participation in conferences, symposiums, and workshops, inside and outside of FAO. Its physical products include peer reviewed journal articles, infographics, and contributions to and sometimes financial support of publications.

All of these have been to varying degrees synergistic with the various CoPs, which have helped in promoting, informing and sharing the results of the products. The current challenge now facing is MICCA team is how, given the little time and funding that is remaining, the products can be further disseminated and communities continued and expanded.

For the implementation of all activities, the project developed partnerships with a broad range of stakeholders, from other FAO divisions to research organisations to development practitioners. Although there have been a few hiccups in the collaboration with some of the partners, the partnership approach has generally been very successful. It has allowed the project to tap into a wealth of expertise, but has also strengthened the awareness and capacity of the partners with regard to CSA issues, as acknowledged by all.

Gender mainstreaming within the project appears to have been rather weak initially, evidenced for example by a lack of a gender analysis and gender-disaggregated data in the socio-economic baseline studies for the pilot projects and little attention for gender in the earlier MICCA papers. This is somewhat disappointing for a project that has contributed to a detailed Gender Training Guide and to the Gender in Agriculture Source book through the "Gender and Climate Change" work stream. Whether influenced by the results of this work stream or for other reasons, it is clear that the attention for gender within the project's activities has increased significantly over the last few years with gender issues more structurally mainstreamed in the pilot project implementation work and adoption studies, and generally in all workshops, presentations and reports. There are however still important gaps that need to be addressed such as the limited gender awareness in the draft CSA guidelines.

The main focus for capacity development by the project has been on building awareness across a wide range of stakeholders on mitigation in agriculture and its integration in CSA through all the KM activities. The project is now building on these efforts by providing more targeted CD support through the policy work in Kenya, Tanzania and Vietnam[12]. The adopted approach to provide hands-on capacity development support related to concrete activities (NAMAs, CSA guidelines) is likely to be more effective than a broader more theoretical capacity development effort.

The effectiveness of all capacity development efforts is ultimately limited by time constraints. For the policy work it means that the project in its current phase won't be able to provide support to actual implementation of the developed policies, whereas at the pilot project field level the project has not been able to provide long enough support to build a critical mass of farmers who adopt the introduced CSA practices. It should be recognised however that the main objective of the pilot projects was not to scale out CSA practices to a large number of farmers but to test how to plan and implement CSA practices at field level.

The sustainability of MICCA's policy work are somewhat better given the involvement of partners like CCAFS/UNIQUE and FAO Country Offices, which will ideally be in a position to facilitate access to donor funding to support the implementation of the NAMAs and CSA guidelines. Without such support it is unlikely that these policy initiatives will be implemented at a meaningful scale.

[12] The decision by the project to develop the NAMA learning tool as a downloadable file rather than a full e-learning course is now paying dividend since it is already being used in Kenya/Vietnam whereas an e-learning course would likely still be under development.

To avoid the loss of knowledge and to further maximize the products and relationships forged over the past six years, it is imperative that another project or programme, such as MAGHG, continue the role that MICCA Finland has been playing to great effect, of coordinating, catalysing and promoting the development of CSA and mitigation related research and policies, helping in scaling up efforts across countries and continents. At a minimum, the continuation of the main KM activities like the Communities of Practice and related events need to be guaranteed to maintain the momentum created by MICCA Finland.

8 Recommendations

The recent "*Evaluation of FAO's Contribution to Climate Change Adaptation and Mitigation, 2009-2014*" report calls out the need to pursue "a larger-scale programme, building on the soon-to-end MICCA project, to develop the evidence base on mitigation benefits for different agricultural practices, including those gains possible through adaptation measures."

As turned out to be the case in the original MICCA vision and proposal, it is often difficult to anticipate the institutional, technical, social and economic challenges that will allow for effective innovations, processes and supporting evidence to be up-scaled and mainstreamed. Despite external and internal challenges, the foundation established by the Project will allow, with proper planning and follow-through, for widespread diffusion of lessons learned well beyond the Project's current stakeholders and beneficiaries.

The recommendations in this chapter aim to maximise the prospects of sustaining and up-scaling the project's results and products by the beneficiaries and partner institutions and programmes after the formal termination of the MICCA Finland project, foreseen for June 2016.

At the end of this chapter the recommendations are summarised in a table indicating the scope of each recommendation and the proposed key responder(s).

Management and institutional issues

Recommendation 1. Results-based final report

Since its beginning in 2010, the MICCA project has mainly reported on progress with activities. As argued in this report, it is ultimately the results and impacts of those activities that count. For the final report, the project should consider a more results-based reporting, in particular describing how the activities have influenced stakeholders (possibly using the Knowledge, Attitude and Practices or KAP approach also used in this report) and the institutional environment (organisational changes within FAO, policy changes in countries and at global level, donors, networking initiatives, etc.). It would also be useful to revisit the original logical framework in the final report, and assess which aspects of the logical framework have been addressed and which aspects have not been addressed and might require further attention in future.

Recommendation 2. Lessons learnt with stakeholder input

In the remaining months of the project it would be worthwhile for the MICCA team to spend some portion of their time reflecting on and revisiting what the key learning goals are for each of the five main content domains, and how they can best be summarized and conveyed to intended learners as measurable outcomes. This exercise should include views from stakeholders, either through a type of "write workshop" or, if this is not feasible given the limited funds and time available, through an online exercise.

Recommendation 3. Strengthen integration between MICCA Finland and MAGHG

With the arrival of the new project coordinator for the sister project MAGHG, there is a new opportunity to increase the coordination and collaboration between the two MICCA projects. This opportunity should be seized upon by re-introducing the regular meetings of the full core teams of both projects. Ideally the projects would move towards full integration by transitioning staff and related workflows from MICCA Finland to the sister project. The new

project coordinator of MAGHG has the necessary background and skills to facilitate this transition and lead the combined projects and staff once the current project coordinator of MICCA Finland leaves at the end of 2015.

Recommendation 4. Actively engage within FAO

Outside the AGAL, ESA and NRC divisions, mitigation to CC in agriculture is still a subject that receives far less attention than adaptation to CC. The project should through the CC Study Circle and other outreach efforts continue to actively engage other divisions (fisheries, crops, forestry) and where possible support them in integrating mitigation aspects in their strategies and programmes. The project could for example promote the application of the Life Cycle Assessment approach in crop agriculture and fisheries. The project should also develop a realistic strategy that ensures that the issue of mitigation in peatlands is anchored institutionally within the organisation. All of this is likely to require active engagement with the highest level of decision-making within FAO and ideally will extend to country offices around the world through the CC technical network and other channels, such as GACSA.

Priority work areas

Recommendation 5. Completing the policy development efforts

MICCA Finland has half a year of implementation left to produce sustainable results. Given that in particular the concrete policy support work in Kenya, Tanzania and Vietnam is still far from completed, it is recommended that the project does not take on any new research or capacity development initiatives but rather focuses on supporting this on-going policy work, and particularly building the capacity of key stakeholders to implement the NAMAs and the CSA guidelines.

One critical role of MICCA Finland in all three countries is to ensure that a broad range of stakeholders are engaged in the policy development. Apart from national governments, research institutions and NGOs, there is also a need to involve others such as farmer organisations and private sector companies active in agriculture. These appear not to be well represented currently, yet their involvement in and support for these policies are critical for their long-term success of these efforts. Another category of stakeholders to be engaged more actively are the ministries within the countries responsible for the long term economic and financial planning. Convincing the economists and financial planners of a country of the economic benefits of CSA and appropriate mitigation actions will go a long way in increasing long-term financial commitments from the governments for the implementation of such measures. The project, as co-financer of the policy development work, can promote the inclusion of such stakeholders in the process.

Another critical role to be played by the project in the policy work is the effective mainstreaming of gender issues in the finalisation of the NAMAs and CSA guidelines. The current draft version of the CSA guidelines makes clear that more attention to gender issues is warranted, and the project has the unique expertise to provide guidance on this. This will require more than providing suggestions on gender mainstreaming as part of the review process of the policy documents. It will in fact require a specific exercise through a workshop or similar. This should be done as soon as possible since effective gender mainstreaming will not be possible if it is only brought in towards the end of the policy development process.

Recommendation 6. Further dissemination of MICCA knowledge products

The Project has invested substantial financial and human resources on knowledge generation and sharing and communication on climate change and agriculture aspects including mitigation, CSA and gender and it is imperative that this foundational knowledge and know-

how be retained and more widely shared. The added value that MICCA has provided through their literacy, knowledge, community and capacity-building efforts should not be lost, and this will require appropriate levels of funding to afford the continuation and expansion of these important efforts. It is vital that the technical expertise of the staff and their network of consultants and partners, which are an important asset to FAO, its members, and the CC community, should be continued.

Existing and forthcoming MICCA products, including infographics, publications, articles, and the booklet being developed to help others inside and beyond FAO host learning events such as webinars, should be marketed and promoted widely, starting with FAO offices and members around the world, translating materials where necessary. Many of these products have potential for widespread use in education and training environments where teachers and other instructors are looking for high quality, scientifically robust content.

Recommendation 7. Maintain the continuity of the Communities of Practice

Related to the previous recommendation but warranting its own emphasis, one of the biggest risks now facing the MICCA Project is the potential loss of technical knowledge, years of experience, and partnerships forged through personal relationships of the staff. This is especially true in the case of the Communities of Practice, which have been led by the MICCA communication expert who brought substantial experience developing online communities to FAO and has built on that experience since becoming part of the team. While the task of moderating and maintaining the CoPs could be accomplished by any individual with the requisite skills, the current Officer has a special gift for facilitating this process. Whether the current Officer is able to continue or a replacement is brought on board, careful planning will be required to insure that this is done well.

The CSA CoP in particular has achieved what the Mid Term Evaluation report called for in terms of "creating a unique forum involving scientists, practitioners, extensionists, and farmers' associations." Others, particularly those on Gender, NAMA, Peatlands, and Livestock are viable but less robust, and still others, including the CoP for Youth, Spanish and French language participants, will require strong partners and support to help them become more active.

Recommendation 8. Use effective pedagogical and assessment practices

Setting clear learning goals for the intended audiences and then measuring the knowledge and skills gained requires a more formal pedagogical approach than MICCA has generally used. While asking participants of learning events to self-report how much they feel they benefited provides an initial impression of the success of the effort, it does not reflect what the specific benefits are and what has been learned, which is far more difficult to measure. But because the work of FAO in general and MICCA in particular are inherently involved in awareness and literacy-building, it is important that conducting user-needs assessments and identifying key principles, concepts and skills are that need to be emphasized and how they can be measured as outcomes. This had been done to some extent but not methodically throughout the sub-projects.

The Gender and Climate Change Training Guide, which, according to several informants, benefited from additional review and revision after the first edition, provides an example of how key learning concepts can be highlighted and taught, and, importantly, how practitioners can measure learner outcomes to ensure the training is effective.

Preparing for post MICCA Finland

Recommendation 9. Transitioning and contingency planning

The review team concludes that there is a need for a programme or project that can continue to coordinate, catalyse and promote the development of CSA and mitigation related research, policies and scaling up efforts across countries and continents, a role that MICCA Finland has been playing to great effect. As a minimum, the continuation of the main KM activities like the Communities of Practice and related events need to be guaranteed to maintain the momentum created by MICCA Finland. As previously noted, an ideal transition to support the sustainability of essential MICCA efforts will be for key staff to be transitioned to the MAGHG project and report to its project coordinator, and that longer term funding for a project merging the two efforts be pursued.

Recommendation 10. Strategic refresh

Whether timely funding will be secured or not for a second phase, it will be useful for the project to identify the areas that a new project on mitigation in agriculture should focus on. This can be done in the form of a concept note or project proposal. The preparation of a first concept idea was initiated, but not finalized, pending discussions with the donor of the MAGHG project (Norway). Areas that will require continued support include the Communities of Practice, the capacity building efforts of both policy makers and development practitioners and influencing the global discourse on mitigation in agriculture. Further research should only be prioritised again after significant scaling up efforts for CSA implementation has taken place. Thanks to the all the research already undertaken by MICCA Finland, the main challenge right now is not the lack of information, but the lack of widespread dissemination of this information to appropriate parties and the implementation of CSA practices at farmer level.

Recommendation 11. Support post-MICCA implementation of policy work

Parallel to the efforts of securing funding for a second phase, the project should also actively support the partners in Kenya, Tanzania and Vietnam in securing specific funding for the work on the NAMAs and CSA guidelines. For Tanzania, concrete opportunities through a TCP and possibly through the DFID-funded CSAP programme have already been identified and can be followed up. A clear direct involvement of FAO is likely to help raise the profile of any funding efforts, which should ultimately help guarantee that the NAMAs and CSA guidelines will be implemented at a large enough scale to have a meaningful impact. If support for field level implementation can be secured for Tanzania, the site of the CSA pilot project should be high on the list of areas to be supported. Thanks to the pilot project, awareness on the benefits of CSA has been created, and a new CSA intervention in the area can build on this.

Recommendation 12. Elaboration of exit strategy document

All the above recommendations, in as far as they will be adopted, should form the basis for the project's exit strategy. Ideally, a short document should be elaborated that indicates what needs to be done during the remaining months, with expected results, timeline, budgets and responsibilities.

Summary of recommendations with scope and proposed key responder:

Recommendation	Scope	Proposed key responder(s)
1. Results based final report	Remaining 6 months	MICCA project team
2. Lessons learnt with stakeholder input	Remaining 6 months	MICCA project team + NRC division
3.Strengthen integration between MICCA Finland and MAGHG	Programmatic linkages during and beyond project	NRC division
4. Actively engage within FAO	Remaining 6 months	MICCA project team + FAO HQ and regional/country offices
5. Completing the policy development efforts	Remaining 6 months	MICCA project team
6. Further dissemination of MICCA knowledge products	Remaining 6 months and beyond	MICCA project team and FAO in general (HQ and regional / country offices)
7. Maintain the continuity of the Communities of Practice	Remaining 6 months and beyond	NRC division + MICCA project team
8. Use effective pedagogical and assessment practices	Remaining 6 months and beyond	NRC division + MICCA project team
9. Transitioning and contingency planning	Programmatic linkages during and beyond project	NRC division + MICCA project team
10. Strategic refresh	Remaining 6 months	MICCA project team + NRC division
11. Support post-MICCA implementation of policy work	Remaining 6 months and beyond	MICCA project team + FAO Country Offices in Kenya, Tanzania, Vietnam
12. Elaboration of exit strategy document	Remaining 6 months	MICCA project team + NRC division