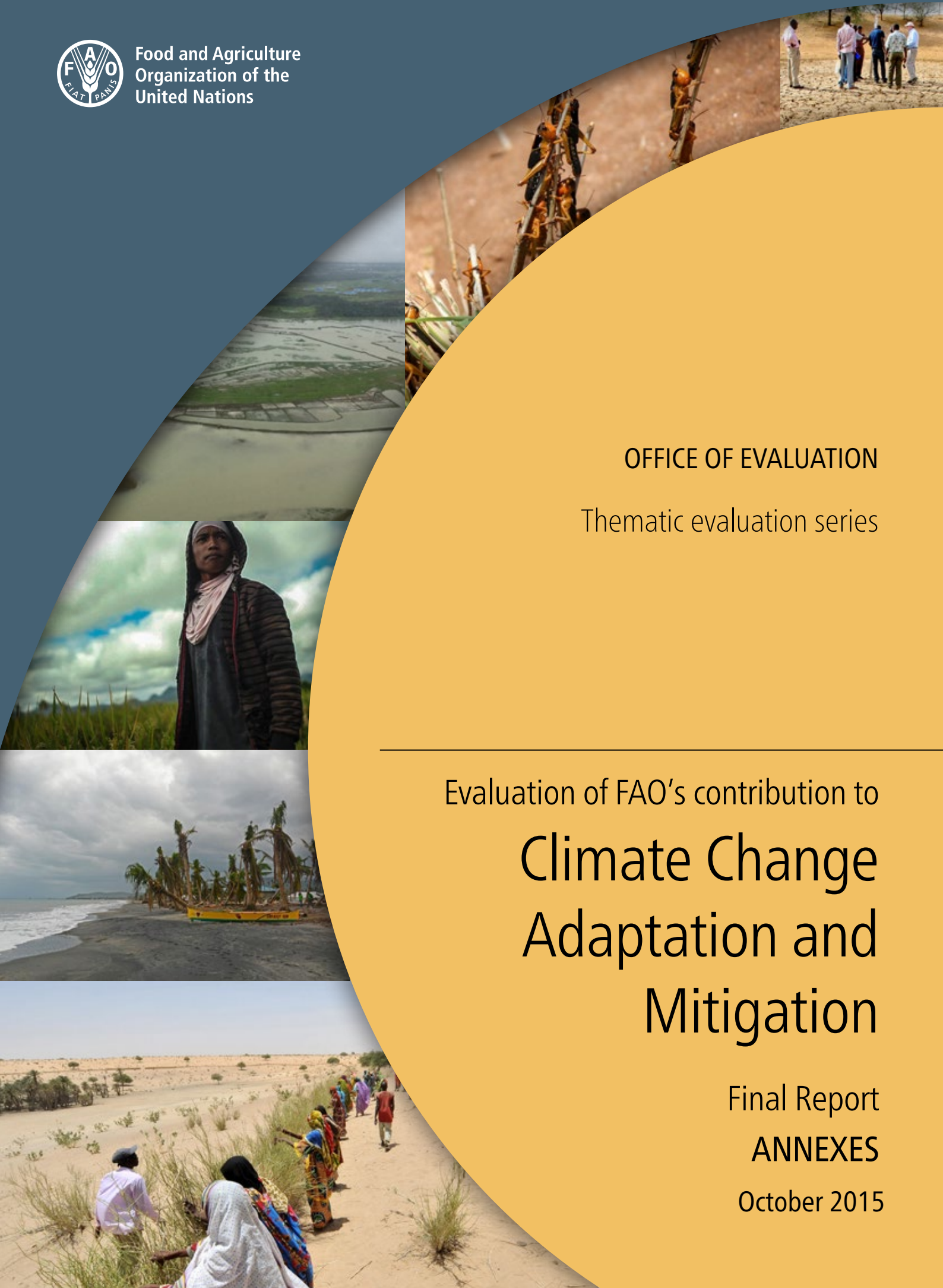




Food and Agriculture
Organization of the
United Nations



OFFICE OF EVALUATION

Thematic evaluation series

Evaluation of FAO's contribution to

Climate Change Adaptation and Mitigation

Final Report

ANNEXES

October 2015

Evaluation of FAO's Contribution to Climate Change Adaptation and Mitigation

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Annex 1. Terms of Reference

1.1 Introduction

In 2011, the Programme Committee (PC) in discussion with the Office of Evaluation (OED) over its rolling work plan, requested an evaluation of FAO's Work on Climate Change Adaptation and Mitigation. These Terms of Reference (TOR) are based on a significant number of scoping meetings held with senior managers of the different departments concerned with climate change (CC), many of the key staff in FAO involved in CC from the various technical areas in HQ and in the regional offices involved in FAO's Interdepartmental Working Group (IDWG) on Climate Change, in the Climate Smart Agriculture (CSA) Task Force, and in the Climate, Energy and Tenure Division (NRC), which has had a coordinating role on the issue in FAO. The TOR is informed as well by OED's own evaluative analysis and framework. The TOR provides a background on FAO's efforts on climate change, the questions the evaluation will address, methodology to be used to address the questions, and the evaluation process to be followed.

The purpose of the evaluation is:

- To help provide accountability to the Governing Bodies and Senior Management on the performance and contributions of FAO in the area of climate change; and
- To provide the FAO departments and offices involved in addressing CC with lessons to support and enhance FAO's work on this critical global issue as they move forward, and to thus be utilization-oriented.

1.2 FAO's Work on Climate Change Adaptation and Mitigation

Over the last decade, the adverse impacts of CC on agriculture, forestry and fisheries have begun to be seen globally, and these have been particularly pronounced in the developing world, where vulnerabilities to gradual climate changes, increased variability in climate, and the increased frequency and intensity of extreme weather and climate events are greater. Climate change, it has been projected, will significantly affect agricultural production, food security, and the state of the world's forests, fish stocks and water supply in conjunction with population rise and changed consumption patterns. It will also more likely hurt small producers and the poor to a greater degree, thus hindering global efforts for food security and poverty reduction. It stands today as perhaps the most serious threat to global agriculture, food security poverty reduction and natural resource conservation, which underpin long-term development and with which FAO and the international development community must properly contend.

During this period, FAO, like other international development institutions, recognized this threat and initiated various efforts to assist its member countries (MC's) on CC adaptation, in the form of both responding to climate trends and climate variability, and on mitigation. FAO's activities on CC have been carried out across the agency by a wide range of different departments and divisions and from HQ to the country level. The assistance or activities have been in the form of global, country and regional interventions for policy support, knowledge development, technology provision, community livelihoods, and analytical and normative work. The involved entities in FAO have been the Departments of Agriculture and Consumer Protection, including the Animal Production and Health Division; Economic and Social Development, including the Statistics, Agricultural Economics and Rural Employment Divisions; Fisheries and Aquaculture; Forestry; the Natural Resources Department, involving the Climate, Energy and Tenure and Land and Water Divisions; Technical Cooperation, including the Investment Centre and Emergency Divisions; FAO's Legal Office, and its regional, sub-regional and country offices. Approaches similar in nature on the issue have been implemented from a wide range of divisions. The Climate, Energy and Tenure Division (NRC) of the Natural Resources

Management and Environment Department has had the responsibility of providing overall coordination for the agency's CC efforts and facilitating integration of its cross-sectoral work.

While there have been a number of activities targeting CC adaptation and mitigation explicitly, it appears that FAO has pursued these objectives indirectly or as additional ones through a number of other avenues as well. In initiatives in the different technical departments, and informed by FAO's approaches such as *Save and Grow*, sustainable agriculture and natural resource management along with strengthening ecosystem services and ecosystem-based management have been pursued with the aim of promoting adaptation as well as mitigation on the premise that these approaches would contribute to these ends. The mainstreaming of CC considerations, particularly of adaptation, may have occurred in other forms of interventions as well, and according to the framework document, FAO-Adapt, as discussed below, much of FAO's work, not only that in agriculture but in food systems as well, has contributed to adaptation.

FAO's work on disaster risk reduction (DRR) has also been one of the agency's intended avenues to promote CC adaptation. Indeed, countries are increasingly being affected by both incremental CC and more frequent and severe climate-related disasters, making DRR one necessary form of adaptation. Additionally, in a number of countries, such as in Eastern and Southern Africa, where FAO has implemented emergency interventions in response to civil conflicts or weather fluctuations affecting food security, there has been significant vulnerability to climate change. To what extent long-term CC has been considered in this assistance to build resilience remains to be understood. An equally important question is how much FAO's non-emergency CC projects in these countries have been implemented in consideration of their protracted crisis situations, and, more broadly and in light of recent FAO policies, how much integration there has been of the agency's emergency and development work. Understanding FAO's performance and contributions on CC require the adoption of a broad perspective on the agency's operations.

The diffuse nature of FAO's CC work has been due in part to the fact that the agency has not had an explicit organization-wide CC strategy. Under its former Strategic Framework, CC-oriented activities were pursued under a number of different areas. Additionally, its framework documents on CC, as illustrated below, have in fact promoted a variety of means to achieve adaptation and mitigation. With FAO's new Strategic Objective (SO) framework, adopted in the 2014-2015 biennium, further clarity on FAO's CC priorities and actions to address them has been achieved in that CC as an issue falls largely under SO 2, "increase and improve provision of goods and services from agriculture, fisheries and forests in a sustainable manner", and SO 5, "increase the resilience of livelihoods to threats and crises." A Climate-smart Agriculture (CSA) Major Area of Work and its project portfolio under SO2 is also in the process of being defined. Greater clarity on FAO's spending on CC is as a result emerging. At the same time, according to the SO2, CC adaptation and mitigation is to be achieved largely through sustainable resource management for production.

In terms of projects directly addressing CC adaptation and/or mitigation, between 2008 and the present, FAO has had roughly 300 closed, ongoing or pipeline ones, according to FPMIS. Outside of FAO's involvement in the UN-REDD+ programme, the projects of which constitute an FAO programme on REDD+, there have been 2631 closed, ongoing or pipeline projects during the period of 2008-present with a total budget USD 311.6 million. Yet providing a budget figure for all of FAO's work relating to CC, including staff and coordination costs is difficult.

¹ The figure is based on a search using the keywords "climate", "adapt" and "mitigation." Any non-CC projects using these terms were omitted, as were Telefood ones. It should also be noted that these do not include the investments of multilateral development banks on which FAO's Investment Centre provides technical advice, which will also be included in the evaluation.

While FAO has undertaken CC-related work since early- to mid-2000, it was largely in 2008 that the momentum on the issue in the agency increased, where began to FAO further develop and articulate its frameworks and approaches on CC. In that year, the agency issued the FAO Profile for Climate Change, outlining its current work in its MC's and its future priorities. While FAO was assisting some MC's with adaptation, it was also calling for the need to find synergies among adaptation and mitigation, since greenhouse gases (GHG's) from the agriculture, forestry and land-use (AFOLU) sector account for 24 percent of total global emissions and the sector could contribute to global mitigation efforts, and because adaptation practices, it was argued, have the capacity to reduce emissions and increase productivity in some cases, without incurring higher costs. Equally important, the Profile noted, was the need to determine the trade-offs between such measures and the potential outcomes for production and food security. Creating stronger links between adaptation and mitigation strategies was set out as a broad aim for FAO, later embedded in the concept of Climate-smart Agriculture (CSA).

A second key message of the document, which was to reflect the efforts FAO was carrying out, was that adaptation and mitigation activities could be promoted through existing development interventions of FAO through a "no-regrets" approach involving sustainable natural resource management. Finally, the document, laying out the roadmap for FAO's future potential contribution on CC, also highlighted that adaptation for ensuring food security would require substantial investments and action. In many respects, the Profile reflected FAO's approaches over the years that followed.

In 2011, in response to the Programme Committee's recommendation that FAO coordinate cross-cutting issues, such as CC across FAO's strategic objectives, the Interdepartmental Working Group on Climate Change (IDWG) released an FAO framework for climate change adaptation, FAO-Adapt. The document was to serve a dual purpose, to: 1) identify and systematize the adaptation activities underway across the organization to assist them in moving towards a clear and unified goal, and, through this; (2) allow FAO to present its work to the external world as it seeks support to expand its adaptation activities in response to the growing needs of member countries. FAO-Adapt was to add to this support by mainstreaming climate change adaptation into all of FAO's development activities at national, regional and global levels. In fact, according to FAO-Adapt a large body of the agency's work, including for rural development, income diversification, value-chain development, was found to promote adaptation. The core principles below were presented as guiding FAO's work in the area:

- Focus on food security
- Mainstream climate change into development
- Support country-driven processes
- Build synergies between adaptation and mitigation
- Promote ecosystem approach
- Design participatory, gender-responsive and location-specific adaptation activities
- Deliver through partnerships and as One UN
- Support trans-boundary collaboration
- Develop a long-term programmatic approach

Designed to be aligned to the Cancun Adaptation Framework, the document was to cover a period of five years. FAO-Adapt also presented the priority themes and actions on adaptation, linked to the principles above and based on an analysis of the local, national, sub-regional, regional and global adaptation needs in the agriculture, forestry and fisheries sectors, which FAO has promoted and would continue to support:

- Data and knowledge for impact and vulnerability assessment and adaptation

- Institutions, policies and financing to strengthen capacities for adaptation, particularly at the national level
- Sustainable and climate-smart management of land, water and biodiversity, for the resilience of ecosystems
- Technologies, practices and processes for adaptation
- Disaster risk management, as an entry point for adaptation work

Over the period of 2008 to the present, various FAO CC guidance documents have reiterated the principles and actions to achieve them listed above.

A key approach that FAO has helped develop in the field of CC and agriculture has been that of Climate-Smart Agriculture (CSA). Proposed in its essence in *The Profile* and presented more fully in *FAO-Adapt*, and as presented by FAO at the Hague Conference on Agriculture, Food Security and Climate Change in 2010, CSA is based on three central pillars – food security, climate change adaptation, and climate change mitigation - and consists of agricultural, forestry and fisheries practices and policies that enhance adaptation, production and food security, but which also act to mitigate GHG emissions and sequester and store carbon in terrestrial ecosystems. The approach has been intended to assist MC's in their primary need to adapt their agricultural sectors to the changing global climate as they continue seeking to increase output and food security, but also seeks to address where feasible the sizeable GHG emissions of the agricultural sector.

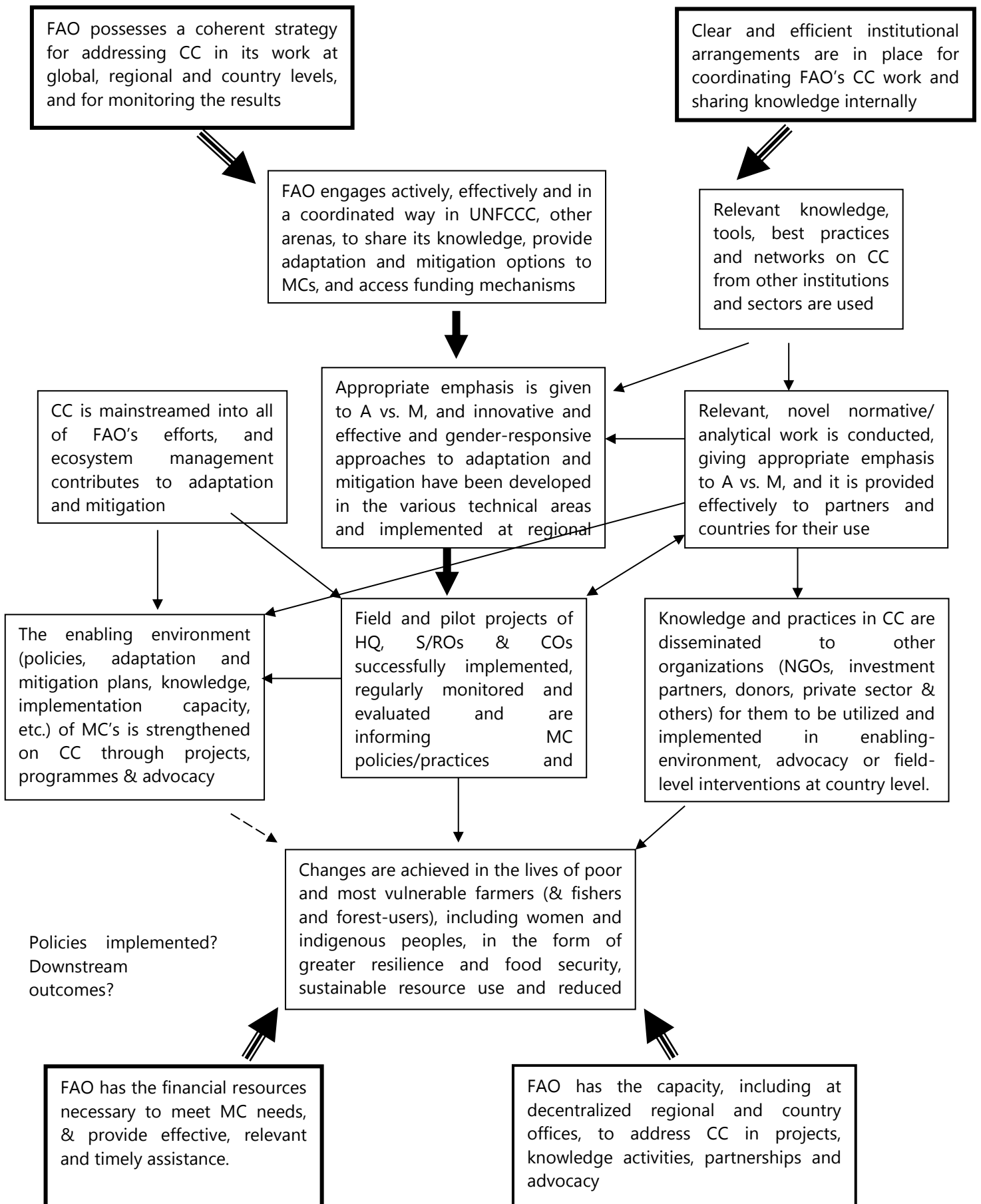
The CSA approach has been broadened to encompass and characterize much of FAO's activities on CC. In 2010, "Climate-Smart" Agriculture: Policies, Practices and Financing for Food Security, Adaptation and Mitigation was published, which presented this approach and it was then further developed." In 2013, an NRC-coordinated agency-wide effort of professionals from several FAO departments, in collaboration with the IDWG-CC and in consultation with various partner organizations (IFAD, UNEP, WB, WFP and CGIAR/CCAFS) produced the *Climate-Smart Agriculture Sourcebook*, a guide to CSA along with modules and practices for each of the technical areas.

However, CSA, or as FAO has tended to define it, has been debated with regard to how appropriate its inclusion of mitigation has been for meeting the demands of MC's, particular the LDC's who are concerned more about adaptation given the impacts of CC predicted for them. Some other development organizations and donors view CSA differently and that the adaptation and mitigation link is problematic. From an operational perspective the question has been raised of how adaptation and mitigation can be linked, since adaptation is achievable in the medium-term, whereas mitigation requires longer timeframes. Others though point out that adaptation practices are also generally good for mitigation.

While FAO has sought to promote adaptation and mitigation in the MC's directly through various projects and programmes in the different sectors, it has a global role to be considered as well. FAO has been recognized for its provision of advanced normative and analytical work and data, and as a neutral convener of MC's on the issues. With respect to CC, FAO's engagement at the global level in the UNFCCC and other arenas on climate change as additional avenues through which to assist countries has also been important for the organization. FAO as an observer organization to the UNFCCC has had the opportunity to share its analytical knowledge on CC with the parties, provide options on mitigation and adaptation to them, and influence the use of and access various funds to support NAPAs, National Adaptation Plans (NAPs) and Nationally Appropriate Mitigation Actions (NAMAs) at country level, namely the Adaptation Fund and, in the future, the Green Climate Fund. Other UN agencies, more specifically UNDP and UNEP, have also engaged on these funding mechanisms of the UNFCCC, for which the Global Environmental Facility (GEF) is the administering agency, and have obtained resources from the GEF's Trust Fund, Special Climate Change Fund (SCCF) and Least Developed Countries Fund (LDCF) funding windows for CC at the national level.

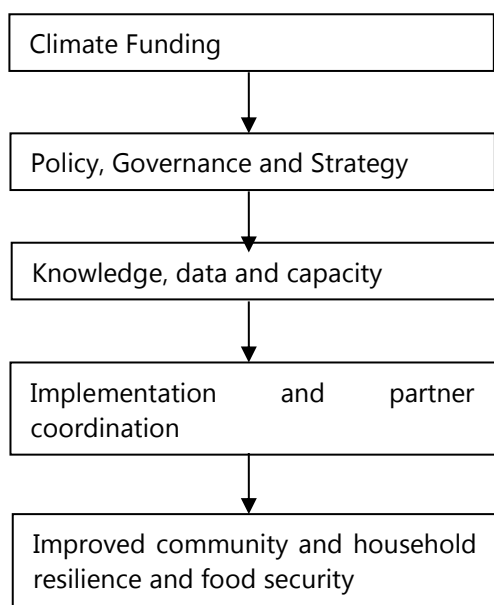
The universe of FAO's activities on CC and their implementation is a highly complex one, owing to the number of divisions in the agency that have been involved, the diffused nature of the work on CC in FAO, the multiple countries and their different contexts in which FAO has provided assistance, the different forms of assistance, and the uncertainty of what actual climate change impacts will be on the agricultural sectors and the people in them. These factors and others make it difficult to develop a TOC that captures all of FAO's work and is meaningful. A relatively simple one describing how FAO seeks to contribute to adaptation and mitigation may however be constructed, as illustrated in Diagram 1 below. It is against this theory of change that the evaluation can assess more systematically FAO's performance. Furthermore, influencing the agency's ability to contribute effectively are broad factors affecting performance that operate at all levels of the organization; strategic guidance, institutional arrangements, resource availability and organizational capacity.

Diagram 1. A Theory of Change for FAO's Work on Climate Change Adaptation and Mitigation



As the diagram above illustrates, FAO's various activities ostensibly seek to enhance national systems for adaptation and mitigation in the relevant technical sectors and to improve the resilience and the food security of economically poor rural communities. Based on both the areas in which FAO has sought to provide support at country level (through, advice, data, capacity strengthening, technology provision, partnerships and other means), and the elements that, according to the global development community, a national system needs to be climate change-ready, the following diagram can be constructed:

Diagram 2: A Theory of Change for Country-level Climate-Readiness



FAO's various efforts for adaptation and mitigation can be mapped to these national-system elements to understand more broadly how the agency has been contributing.

1.3 Scope of the Evaluation

The evaluation will:

Cover the period from 2008, when FAO began to develop its strategies on CC, to the present. It will furthermore seek to assess FAO's work in light of these strategies and the practices and approaches these documents put forth (i.e. how effective have we been on them?), and the following aspects of FAO's work in climate change:

- i. FAO's contributions to country-level outcomes;
- ii. FAO's comparative advantage and partnerships;
- iii. climate change-mainstreaming throughout FAO's work;
- iv. global-level advocacy and engagement with the UNFCCC; and
- v. FAO's normative and analytical work.

Focus on assessing the results of FAO's work at country-level in terms of improvements in national systems for climate change adaptation and mitigation, and in the livelihoods resilience of beneficiaries (i.e. small-producers in agricultural sectors, and the poor and vulnerable, including women and indigenous peoples);

Assess how FAO made *contributions* to national-level outcomes rather than *attribute* changes to the agency, given that several other development organizations, the Government and local actors were also playing roles, and the difficulty of the latter.

Analyze the contributions that FAO has made in its MC's to CC adaptation and mitigation in the different sectors, agriculture and livestock, fisheries, forestry, land and water;

Help to assess FAO's performance regarding CC using the SO2 and SO5 outputs relevant to climate change, given that a number of the questions the evaluation will ask are aligned with SO2 and SO5 Outputs.²

1.4 Evaluation Methodology

The methodology for the evaluation has been developed by the OED Evaluation Manager in consultation with the Lead Consultant and other members of the evaluation team. The contribution of FAO on climate change will be assessed according to the set of evaluation criteria that OED, along with other UN and other international development agencies, employs in its evaluations, consisting of relevance, effectiveness, efficiency and sustainability. Additionally, the evaluation will examine gender mainstreaming, partnerships and organisational learning in FAO's work on CC. Various lines of inquiry, through which the evaluative questions will be answered, have been developed and are listed in Annex 1. For certain lines of inquiry, particular methods and tools have been developed and are described in Annex 2.

Relevance

1. How relevant has FAO's work on CC adaptation and mitigation been over the period under study with respect to i) the global-level dialogues on the issues; ii) FAO's CC strategies and framework documents, including the pillars of climate-smart agriculture; iii) FAO's comparative advantages; iv) member-country needs and national and local contexts experienced by beneficiaries, particularly the most vulnerable; and v) the need to mainstream CC throughout FAO's programme of work; including its emergency response activities?

Effectiveness and Impact

2. How effective have FAO's interventions in the different sectors, including its analytical and normative work, been in bringing about outcomes and impacts at country-level for adaptation and mitigation with respect to i) policy, governance and strategy; ii) data and knowledge; iii) climate financing; iv) institutional coordination for implementing technologies and practices; and v) household adaptation and resilience, food security and GHG mitigation?

Efficiency

3. How cost-effective and timely has FAO's assistance on CC to its MCs been, in light of the resources available to it, the internal and external transaction costs, and the results achieved from its interventions?

Sustainability and FAO's Work in the Future

4. To what extent are the different outcomes, achieved or potential, at country, regional and global levels to which FAO has contributed likely to be sustained in the future and bring about impacts and replication? And, what factors, technical, political, institutional, economic and environmental account for the successes or shortcomings?

² Where a question is related to an SO Output, it is followed by the Output in italics. The full SO2 and SO5 results frameworks can be found at <http://www.fao.org/pwb/en/>. The SO Outputs are also reflected in the theory of change tool for outcomes at country level that the evaluation will employ.

Gender Mainstreaming

5. To what degree have gender considerations been incorporated into FAO's adaptation and mitigation CC work, in terms of the gender-differentiated impacts of CC; the gender-differentiated roles of participants contributing to CC adaptation and mitigation; and gender relations and the barriers that women as beneficiaries face in mind in order to ensure that women are able to participate in and benefit from the FAO projects?

Partnerships

6. Has FAO developed strategic partnerships with the private sector, other UN agencies through the One UN, regional organizations, civil society and others on CC and agriculture at global, regional and country levels, and how relevant and effective have they been?

Organizational Learning

7. Is FAO monitoring progress and outcomes of its work and making adjustments as necessary? Particularly in light of the uncertainties of CC and its impacts, has FAO had organizational processes that have allowed it to adapt for purposes of relevance and effectiveness, i.e. learn continuously from ongoing field, country and regional experiences, new external knowledge and internal expertise, and use these to revise its understanding, strategies, foci, normative work and interventions?

Broad Factors of Performance of FAO

8. Broad factors that affect the performance of FAO in its work on climate change will also be assessed against the evaluation criteria outlined above. These factors of performance include i) coordination; ii) strategy; iii) capacity; and iv) resources. The lines of inquiry for these aspects of FAO's performance are also outlined in Annex 1.

1.5 Common methods for data collection and analysis

The evaluation will use a variety of methods for data collection and analysis to provide evidence for each of the evaluative questions. Some methods and tools will be used to address all of the evaluative questions and factors of performance and these common methods and tools are outlined here:

Semi-structured interviews

Interviews will be conducted for each of the evaluation questions with all of the relevant stakeholders; FAO staff, government officials, partner organizations and beneficiaries, whether at global, sub-/regional, national and local level, to solicit their views. The information gathered from each stakeholder on a question will be compared with that gathered from the others (or from documents, data or analytical frameworks) for verification purposes. This general process of triangulation will be the basis for all the evidence the evaluation provides.

Review of documents

FAO, government, partner and external documents, as both primary and secondary sources, will be consulted to assess FAO's activities on each of the criteria. In terms of FAO's documents, these will consist more specifically of FAO's Strategic Framework, agency and departmental CC-related strategies and frameworks, normative and analytical guidance documents, project/programme strategic documents and progress reports, OED project, country and thematic evaluations, Country Programme Frameworks, and financial documents and data. Government and partner documents will consist of national and donor strategies, including at the sector level, technical reports, contextual and project assessments, primary data on project outcomes and impacts, and budget information. They will be used for answering the questions of the relevance of FAO's efforts to country contexts and aims, the design of interventions, including with regard to CC mainstreaming, the effectiveness of the agency's work against its stated goals and its contributions, efficiency of FAO's operations, and the nature of and benefits from partnerships.

Use of team technical knowledge

The evaluation team members have been recruited based on their solid technical knowledge of climate change and the relevant agricultural sectors and their experience with development institutions. The information triangulated will therefore also include analysis based on this knowledge and experience.

Surveys of Staff, Countries and Development Organizations

Detailed surveys addressing some of the evaluation questions will also be used to gauge the views of key stakeholders on a wide scale on a selected number of issues. One will be sent to technical and other FAO staff to ascertain their level of knowledge of climate change, extent of CC mainstreaming in their work, their views on FAO's priorities for climate change, and their views on the level of CC awareness in FAO. Surveys will also be distributed to FAO's partner organisations to help assess the value of the contributions FAO has made on CC and its global comparative advantage, and to government focal points in countries that could not be visited to elicit their experiences with FAO.

Past Evaluations

The evaluation will also draw to the extent possible on project, country and thematic evaluations that OED has completed or planned which cover FAO's work on CC for relevant findings and conclusions. For FAO's contribution to the UN-REDD programme for forest carbon mitigation the evaluation will draw upon a completed assessment of the global UN-REDD programme. To help gauge the contribution of FAO's assistance on investment projects of the World Bank and IFAD projects, the CC evaluation will also examine the evaluations or completion reports of these projects that the partner organizations have conducted. The survey results will be analysed statistically.

Gender Mainstreaming

An important and indispensable aspect of the evaluation will be to assess the extent to which gender considerations have been incorporated into FAO's adaptation and mitigation CC work. In general, the common methods and tools outlined above will be used to assess the extent to which gender has been mainstreamed and incorporated throughout FAO's work on climate change. Furthermore, gender will be considered throughout the evaluation process, and will inform the lines of inquiry and methodological tools outlined above. A set of guidelines will be prepared for team members on how to incorporate gender considerations into their evaluation work, and this will be distributed to the evaluation team in the early stages of the evaluation, prior to interviews with stakeholders.

1.6 Evaluation Process

Preparation

The evaluation team members will first review relevant FAO documentation on FAO's CC activities that the OED team provides to them in order to prepare for an initial evaluation team planning meeting and interviews with staff working on CC in HQ. At this stage, the roles and responsibilities for each of the team members in terms of sector and country coverage will be agreed upon, the various tools, such as interview questions or others, will be revised as necessary and finalized, and the data collection plan will be developed.

Inception Mission

The whole evaluation team will carry out an inception mission together to one country where FAO activities in a majority of the relevant sectors has occurred, in order to test the evaluation questions and methods and revise them as necessary. A brief Inception Report will be produced by the Lead Consultant if any changes are made to the evaluation approach.

Country Missions

The evaluation team members will be assigned to carry out missions to the selected countries between October 2014 and February 2015, on which they will conduct interviews with country, sub-regional and regional FAO staff and external stakeholders, both involved in FAO's activities and independent of

them, and gather documentation. Following each mission, the team member(s) will share a report on the information s/he gathered in the agreed-upon format.

Development and Sharing of Preliminary Findings

Following the missions, the evaluation team will meet in Rome to review their data and formulate the evaluation's preliminary findings, conclusions and recommendations. These in turn will be shared with an Internal Reference Group (IRG) of FAO staff established for the evaluation, and other relevant staff for validation of and comments on the preliminary findings. At this stage, the team will also agree upon each member's responsibilities for the draft evaluation report. Additional interviews will be held with FAO HQ staff if necessary.

First draft report

Based on the evidence gathered and the comments on the preliminary findings, each team member will produce the written contribution under his/her responsibility. The Lead Consultant will synthesize these contributions to produce a first draft evaluation report. This draft will be reviewed by the Evaluation Manager and modifications in the report may be required.

Consultation on first draft with Expert Panel and IRG

The revised draft will be submitted to an External Expert Panel, IRG and all other FAO stakeholders interviewed for the report for their comments. A focused session will be held with the IRG to ensure the usefulness and feasibility of the revised draft report's recommendations. Additionally, the draft will undergo a peer-review process within OED.

Final Report

Comments from the various stakeholders will be incorporated as appropriate by the Lead Consultant for the purpose of producing a final draft for the Evaluation Manager. The final draft may be revised as needed by the Evaluation Manager.

1.7 Evaluation Principles

The evaluation team will follow evaluation best practices and UNEG norms and standards and:

- a) Conduct systematic, objective investigations based on evidence.
- b) Communicate their methods and approaches accurately, clearly and in sufficient detail to allow others to understand, interpret and critique their work; making clear any limitations.
- c) Uphold ethical principles in their dealings with clients and stakeholders, including declaring and avoiding any conflict of interest.
- d) Fairly and clearly represent their findings and conclusions.
- e) Respect the security, dignity and self-worth of respondents, program participants, clients, and other evaluation stakeholders, and protect sources.
- f) Acknowledge intellectual property and the work of others.

All evaluation recommendations will be clearly supported by evaluation evidence, action-oriented, practical and specific, and will indicate where possible clearly defined responsibility for each action.

1.8 Evaluation Management

The evaluation will be conducted by an OED Evaluation Manager, supported by a Lead Consultant, eight team members and two Evaluation Analysts. The data-gathering and analysis will be led by the Lead Consultant, who will consolidate the research outcomes as the basis for the draft report. The Lead Consultant will support the Evaluation Manager during the validation and quality control process of the draft. The report and its recommendations will be finalized by OED.

1.9 Schedule

Activity	Date
Background (scoping interviews, FAO programme analysis, internal and external document consultation)	Mid-March to late April 2014
-Identification of External Expert Panel members	April-July 2014
Concept Note	- Draft ready by end-April 2014 - Circulation to, and comments from, key FAO stakeholders in May-June 2014 - Circulation to External Expert Panel in August 2014
Identification, selection & recruitment of evaluation Team Leader	April to July 2014
Identification, selection & recruitment of evaluation team members	June to September 2014
Country and project selection, prelim. data-gathering, and methodology	July to August 2014
Internal Stakeholder consultation workshop	September 2014
Draft Evaluation TOR for Internal Reference Group and Expert Panel comments	September 2014
Final Evaluation TOR	Late September 2014
Evaluation team planning and Headquarters mission	Early to mid-October 2014
Regional-office and country missions	October 2014 to February 2015
Various surveys (HQ, country and regional staff, external organizations) and desk reviews	October 2014 to February 2015
Evaluation Team members' sharing of findings, discussions with key FAO focal points and draft report planning	February 2015
Evaluation team report write-up and submission of contributions to Team Leader	February to March 2015
Zero draft evaluation report to OED for Evaluation Manager inputs	April 2015
Draft evaluation report for OED peer-review and comments from External Expert Panel, FAO stakeholders, and selected external stakeholders	May 2015
Final evaluation report	June 2015

ANNEX 1. Lines of Inquiry

Under the criteria of relevance, effectiveness, efficiency and sustainability, detailed lines of inquiry have been developed which will aid in answering the core evaluation questions outlined in the main text of the Terms of Reference. The lines of inquiry are organized here according to the evaluation criteria listed in the terms of reference, and the broad factors affecting performance.

Relevance

1. To what degree has FAO engaged in a coordinated manner in the UNFCCC, IPCC and other international institutions to share its knowledge on CC, provide mitigation and adaptation options in the agricultural sectors to MC's, and pursue associated funding mechanisms to assist them?[‡]
2. What has the local-to-global mix of FAO's activities been across the following areas; i) normative work and analyses, (ii) convening stakeholders, (iii) assisting on country enabling environments, including institutions and financing, (iv) strengthening MC data and knowledge, (v) technologies and practices, and (vi) field implementation? And, how relevant has it been according to FAO's comparative advantages?
3. How value-adding or "cutting-edge" have FAO's analyses and approaches been on CC adaptation and mitigation in comparison with the contributions of other organizations in this area?
4. To what degree has FAO's work on CC been aligned to the approaches as stated in its past and present framework documents and strategies?
5. Have FAO's interventions in the different sectors and countries sought to pursue synergies between all three CSA pillars, i.e. achieving food security, adaptation and mitigation, with a focus on food security?
6. To what extent has CSA, as a conceptual approach linking adaptation and mitigation, served as a useful one for FAO, given the greater interest of MC's in adaptation on the one hand, and the growing understanding of agriculture's contribution to global GHG emissions on the other?
7. To what extent have FAO's interventions and products responded to the requests of intended MC beneficiaries, including as a result of FAO advocacy on issues and services, and thus been country-driven?
8. Has the design and implementation of FAO's projects been participatory and location-specific, taking into consideration the national and local contexts and issues that the intended beneficiaries, including small-producers, the poor and vulnerable, including women and indigenous groups, experience?
9. To what extent have landscape, ecosystem-wide and multi-sectoral approaches been adopted in FAO's CC work at country level?
10. How much has FAO pursued transboundary initiatives, addressing the local-to-regional scale issues?
11. How much have CC adaptation and mitigation been mainstreamed into FAO's other interventions in the agricultural sectors, including in its food systems activities? Considering a more specific sub-set of work, to what extent have FAO's projects to maintain and enhance ecosystem services, or support ecosystem management, been designed with consideration of climate change, and how much have they appeared to contribute in implementation to adaptation and mitigation?

[‡] This line of inquiry could also be considered as one of Effectiveness. One question is whether FAO is engaging in important fora (relevance), another is the degree to which it is doing so (effectiveness).

12. To what degree have FAO's disaster risk reduction and emergency programmes sought to mainstream and enhance longer-term climate change adaptation and resilience at sub-regional, national and local levels?
13. Has FAO adopted more programmatic approaches on CC rather than individual project interventions at regional and country level?

Effectiveness and Impact

1. How much has FAO contributed in each of the following outcome areas at country-level for climate change- and disaster risk reduction-readiness across the MC's and the different sectors; i) policy, governance and strategy; (ii) data and knowledge; (iii) financing; (iv) institutional coordination for implementing technologies and practices; and (v) household adaptation and resilience, food security and mitigation? In which areas has FAO been more successful and are there strengths in the foci that FAO has adopted on some areas? Are there areas or bottlenecks that FAO could address better in the future to contribute more to adaptation and mitigation and benefit rural communities? *SO2 Outputs 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.4.1, 2.4.2, 2.4.3. SO5 Outputs 5.1.1, 5.2.1, 5.2.2, 5.3.1, 5.3.2.*
2. To what degree have there been indirect and unexpected "downstream" positive outcomes outside FAO's sphere of influence in national systems from improvements in the enabling environment?
3. Has FAO's normative work, analysis and data been adopted by the MC's? To what degree have FAO's projects, programmes and Country- and Regional-Office advocacy work, drawn upon FAO's normative and analytical work?
4. What achievements have resulted from FAO's CSA interventions in terms of adaptation and resilience, food security of small producers, and mitigation? Have the CSA interventions demonstrated results on all three pillars?
5. Has FAO's work assisted and increased the resilience of the poorest and most vulnerable groups to CC, including Indigenous Peoples, whether through field projects or assistance on national policies?
6. To what degree have advocacy efforts been undertaken to share approaches and lessons from adaptation or mitigation pilots at field-level with MC governments for the purposes of shaping decision-making, and to what degree have they been effective?

Efficiency

1. What have been the transaction costs, real or perceived, of MC's to receive FAO assistance on CC compared to the actual or potential results achieved?
2. What has the perception been within FAO of the costs in terms of administration and institutional arrangements in comparison to the funds that have been available for addressing CC, and in comparison with the actual or potential results achieved from interventions?

Sustainability

1. To what extent will the different outcomes, achieved or likely to be, at country, regional and global levels to which FAO has contributed be sustained in the future? And, what factors, technical, political, institutional, economic and environmental account for the successes or shortcomings?
2. What is the likelihood that the outcomes generated so far will lead to long-lasting impacts?
3. How likely is it that FAO have the necessary resources, capacity, guidance and coordination at all levels of the organization in the future to sustain its need to respond to growing demands of its MC's on CC?

Gender Mainstreaming

- Have FAO's adaptation and mitigation projects and programmes considered the gender-differentiated impacts of CC and the gender-differentiated roles of participants contributing to CC adaptation and mitigation?
- Have FAO's adaptation and mitigation projects and programmes been designed and implemented with gender relations and the barriers that women as beneficiaries face in mind in order to ensure that women are able to participate in and benefit from the FAO projects?
- To what degree have FAO's normative products on gender and climate change been utilized in policy and field interventions?
- To what extent have FAO's knowledge products on CC incorporated the gender dimension where relevant?
- What outcomes have resulted for women and gender relations from FAO's field-level CC interventions?
- Have FAO's adaptation and mitigation projects positively influenced women's empowerment, including participation in decision-making and control over resources?
- What if any gaps have there been in terms of staff capacity on gender and CC issues, budgets, and other factors for quality gender mainstreaming in FAO's CC work?

Partnerships

- Has FAO developed strategic partnerships with the private sector, other UN agencies through the One UN, regional organizations, civil society and others on CC and agriculture at global, regional and country levels, and how relevant and effective have they been?
- To what extent has FAO disseminated its knowledge and practices on CC to other organizations involved in research and analysis, advocacy, investment and field implementation in order to see these utilized and implemented more widely for greater impacts at country and regional level?
SO2 Output 2.3.2.
- How much has the agency drawn upon the research and knowledge of other organizations (e.g. scientific, academic, research, development and others) in the area of CC to support its analytical work and projects?
- To what degree has FAO's contributions on CC been leveraged by its investment partners?

Organizational Learning

1. Is FAO monitoring progress and outcomes of its work and making adjustments to it as necessary? Particularly in light of the uncertainties of CC and its impacts, has FAO had organizational processes that have allowed it to adapt for purposes of relevance and effectiveness, i.e. learn continuously from ongoing field, country and regional experiences, new external knowledge and internal expertise, and use these to revise its understanding, strategies, foci, normative work and interventions?

Broad Factors of Performance

Strategy Design

1. How has CC been incorporated into FAO's past and present corporate strategic objectives (SOs) and in its departments and across them? And, has there been a clear results-oriented framework to guide the agency in planning, implementation and assessment of its various CC efforts?
2. To what degree have MC, partner and beneficiary needs and concerns shaped FAO's CC strategic guidance?
3. How has this guidance influenced, and how will it influence, the direction of FAO's work, particularly at country level?

Institutional Arrangements

1. Has there been coordination and communication across FAO's departments, different institutional entities (e.g. the IDWG, SO teams, CSA Task Force) and decentralized offices on agency engagement in global initiatives, priority-setting, partnerships, knowledge generation and lesson-learning? And, how has the level of coordination influenced results at country level?

Resources

1. What influence has the level and allocation of Regular Programme and extra-budgetary resources had on FAO's ability to address CC?
2. How well has FAO mobilized or made use of available internal or potential external resources for promoting adaptation and mitigation at country level in relevant and effective ways?

Capacity

1. Has FAO's staff capacity been adequate for effectively addressing CC? What measures have been undertaken to increase staff knowledge on CC and how effective have they been?
2. What influence has FAO's decentralized structure had on the organization's ability to engage on CC, including through advocacy, partnerships and resource mobilization at regional and country level?

ANNEX 2 - Specific Methods for exploring Lines of Inquiry

The lines of inquiry in Annex 1 will, in general, be explored and answered using the shared methods and tools as outlined in the main text of the Terms of Reference. However, some specific lines of inquiry will require particular targeted tools and methods. These lines of inquiry, along with the specific tools and methods that will be used for each, are organised here according to the different aspects of FAO's work in climate change that will be covered by the evaluation. These include:

- vi. FAO's contributions to country-level outcomes;
- vii. FAO's comparative advantage and partnerships;
- viii. climate change-mainstreaming throughout FAO's work;
- ix. global-level advocacy and engagement with the UNFCCC; and
- x. FAO's normative and analytical work.

1.9.1 Evaluating FAO's Contributions to Country-level Outcomes, the Use of Programmatic Approaches and the Relevance of Country Activities

In order to assess the effectiveness of FAO's contributions to country-level outcomes in terms of climate change adaptation and mitigation, the following lines of inquiry will be used:

- **Effectiveness:** How much has FAO contributed in each of the following outcome areas at country-level for climate change- and disaster risk reduction-readiness across the MC's and the different sectors; i) policy, governance and strategy; (ii) data and knowledge; (iii) financing; (iv) institutional coordination for implementing technologies and practices; and (v) household adaptation and resilience, food security and mitigation? In which areas has FAO been more successful and are there strengths in the foci that FAO has adopted on some areas? Are there areas or bottlenecks that FAO could address better in the future to contribute more to adaptation and mitigation and benefit rural communities? SO2 Outputs 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.4.1, 2.4.2, 2.4.3. SO5 Outputs 5.1.1, 5.2.1, 5.2.2, 5.3.1, 5.3.2.
- **Effectiveness:** What achievements have resulted from FAO's CSA interventions in terms of adaptation and resilience, food security of small producers, and mitigation? Have the CSA interventions demonstrated results on all three pillars?

- **Effectiveness:** Has FAO's work assisted and increased the resilience of the poorest and most vulnerable groups to CC, including Indigenous Peoples, whether through field projects or assistance on national policies?
- **Effectiveness:** To what degree have advocacy efforts been undertaken to share approaches and lessons from adaptation or mitigation pilots at field-level with MC governments for the purposes of shaping decision-making, and to what degree have they been effective?
- **Effectiveness:** To what degree have there been indirect and unexpected "downstream" positive outcomes outside FAO's sphere of influence in national systems from improvements in the enabling environment?
- **Efficiency:** Has there been coordination and communication across FAO's departments, different institutional entities (e.g. the IDWG, SO teams, CSA Task Force) and decentralized offices on agency engagement in global initiatives, priority-setting, partnerships, knowledge generation and lesson-learning? And, how has the level of coordination influenced results at country level?
- **Relevance:** Has FAO adopted more programmatic approaches on CC rather than individual project interventions at regional and country level?
- **Gender Mainstreaming:** Have FAO's adaptation and mitigation projects positively influenced women's empowerment, including participation in decision-making and control over resources?
- **Partnerships:** Has FAO developed strategic partnerships with the private sector, other UN agencies through the One UN, regional organizations, civil society and others on CC and agriculture at global, regional and country levels, and how relevant and effective have they been?
- **Partnerships:** To what extent has FAO disseminated its knowledge and practices on CC to other organizations involved in research and analysis, advocacy, investment and field implementation in order to see these utilized and implemented more widely for greater impacts at country and regional level? SO2 Output 2.3.2.

To assess FAO's contributions to CC adaptation, including DRR, and mitigation at country level, as well as their relevance, FAO and academic literature was used to develop a theory of change (TOC), or outline of the elements required at country level for climate-change adaptation and mitigation. This was done for each of the four sectors (agriculture & livestock, fisheries, forestry, and water).

The TOC's, in accord with Diagram 2 in the main text consist of a sequence of five domains in which the different elements for country-level CC-readiness are organized; i) climate funding; (ii) policy, governance and strategy; (iii) data and knowledge, (iv) institutional coordination for implementation; and (v) community and household food security and resilience. The fifth domain at the producer/household-level is based on the Sustainable Livelihoods Framework (SLF) that FAO has employed and consists of climate change-related practices, knowledge and assets under the five areas of capital (human, financial, natural, physical and social) of the SLF model (See Annex 3 for the TOC's). The TOCs, to be applied on country missions and project reviews, will be used to map where and how the agency has contributed in national systems and at the community level. As a result, they will be used to answer various questions under relevance, effectiveness, gender mainstreaming, partnerships and sustainability.[§] The semi-structured interview questions for stakeholders, and participatory rural appraisal techniques used at community-level, will be designed according to the TOC's.

The TOC's are not intended to reflect the sequence of inputs, outputs and outcomes of FAO's programme, as a TOC would traditionally do. To evaluate the efficacy of each project/programme intervention directed at achieving an outcome in the TOC, the evaluation team members will be responsible for assessing logical frameworks for each project (or set of them) selected for analysis.

[§] It is important to remember that vulnerable communities are also effective actors in relation to both mitigation and adaptation. They have a strong body of knowledge and expertise that can be used for mitigation, disaster reduction and adaptation. Furthermore, women's responsibilities in households and communities, managing natural and household resources, positions them well to contribute to livelihood strategies adapted to changing environment.

This assessment will as a result also examine as a necessary step FAO's inputs and outputs. Inputs may consist of resources, capacity, and institutional arrangements. Outputs would be in the form of normative products, policy assistance provided, trainings, data and models furnished, and adaptation or mitigation technologies provided. The quality of these, particularly of normative products, will be assessed and the evaluation will ascertain whether they led to outcomes in the TOC's.

Country and Project Selection

The evaluation of country-level outcomes will depend to a large degree on examining the set of national projects and of regional and global programmes with country-level activities. A select number of countries were therefore chosen to cover adequately each of the sectors and regions where FAO's CC work is focused.

Following a search in the FPMIS database for projects focusing specifically on climate change, the portfolio data was categorized by type (e.g. country- vs. regional-level), sector, status of implementation and other criteria. Additional searches and analyses were conducted for DRR projects as they relate closely to climate change adaptation, and for emergency response projects in selected countries for the purpose of evaluating the mainstreaming of adaptation in emergency initiatives. Based on the following criteria, countries were scored for their inclusion in the evaluation:

- Climate change vulnerability**;
- Development ranking^{††};
- Number of national projects or global or regional programme activities in each of the sectors/themes (agriculture, fisheries, forestry, water, DRR and emergency) in them;
- NAP development processes have begun; and
- Recommendations by FAO staff during the scoping phase.

Other factors considered were the following:

- The need to include Small Island Developing States (SIDS), as they are particularly vulnerable to CC;
- The necessity of ensuring appropriate consideration of all sectors; and
- Past or planned OED evaluation missions in the countries;
- The information and views that FAO Representations and Regional and Sub-regional offices provided on the countries/projects proposed.

Those countries with the highest scores in each of the regions (Africa, the Near East and North Africa, Asia and the Pacific, and Latin America and the Caribbean) were selected as those on which the evaluation will focus.^{‡‡} Two to four countries in each region will be visited, bringing the total to 12. Collectively, as indicated in the table below, they enable an evaluation of FAO's work in each sector in 4-6 countries. For the list of projects in the countries, see the accompanying document.

The countries and projects selected also allow analysis of the key and innovative interventions, according to FAO staff, those funded by both the Regular Programme and extra-budgetary resources, and One UN partnership joint programmes.

** <http://index.gain.org/ranking/vulnerability>

^{††} LDC's have generally been selected on the assumption that they would require FAO's assistance most.

^{‡‡} Based on budget, logistical feasibility and the portfolio of projects in Europe and Central Asia, the evaluation did not include this region.

List of 12 Countries to be covered

Countries	Position of the country in the ND - GAIN INDEX ranking, over 177 countries	Least Developed Country (LDC) status	Rural Population (%Total population) 2013	Score (based on Number of FAO CC projects)	Climate Change projects By Sector					
					Agriculture	Fisheries	Forestry	Water or Land	DRR	Emergency
Africa										
Kenya	153		75	16	X	X	X	X	X	X
Uganda	137	X	85	11	X				X	X
Malawi	136	X	84	11	X	X		X		X
Zambia	128	X	60	4	X				X	X
Asia-Pacific										
Bangladesh	145	X	67	10	X		X	X	X	X
Philippines	105		55	25	X		X	X	X	X
Vanuatu*	108	X	74	4		X (no mission)			X	
Viet Nam	112		68	10	X	X	X	X	X	
Latin America & Caribbean										
Bolivia	110		32	7	X			X	X	X
Peru	76		22	4	X		X	X	X	
St. Lucia*	45		82	4	X	X?	X	X	X	
Near East & North Africa										
Morocco	95		41	6	X	X	X	X		

*Small Island Developing State (SIDS)

Cross-site comparisons and identifying patterns

As the evaluation will cover several countries, sectors and projects within each of them, the evaluation will make cross comparisons at different levels. The country-level TOC's will be utilized to compare the nature of the contributions FAO has made in the different national systems and identify patterns in, and learn lessons from it. Additionally in each country visited, the team will assess selected projects across the different sectors, from the policy to the community level, and rate them using OED's six-point scale for each of the key UNEG evaluation criteria (see Annex 4 for the rating system). The ratings will be used to identify patterns in performance for the different intervention types, countries and sectors.

Evaluating FAO's comparative advantages and its partnerships

Comparative Advantage

In order to assess FAO's comparative advantage in its work on climate change, the following lines of inquiry will be pursued:

- **Relevance:** What has the local-to-global mix of FAO's activities been across the following areas; i) normative work and analyses, (ii) convening stakeholders, (iii) assisting on country enabling environments, including institutions and financing, (iv) strengthening MC data and knowledge, (v) technologies and practices, and (vi) field implementation? And, how relevant has it been according to FAO's comparative advantages?
- **Relevance:** How value-adding or "cutting-edge" have FAO's analyses and approaches been on CC adaptation and mitigation in comparison with the contributions of other organizations in this area?

The evaluation of FAO's comparative advantages will examine the strengths, weaknesses and opportunities regarding the range of FAO's climate-change activities. It will rely on interviews and documents as information sources and use three basic criteria to assess the relative significance of the services FAO provides:

- The scope of activities—the type and extent of current and recent CC activities at global, regional and country level that reflect demand for FAO's services by MC's, donor organizations and other stakeholders;
- Organizational capacity—the institutional mechanisms, technical expertise and financial resources for delivery of CC services (measures include mandate and established programme structure and processes, staff skills to assist on CC adaptation and mitigation, and adaptation/mitigation technologies and practices, and ability to secure funding and co-financing arrangements for CC projects and initiatives);
- Stakeholder response—client and donor assessments of the relevance, advantages and limitations of FAO support on each of the services, and any identified gaps and opportunities to utilize or enhance FAO assistance for CC adaptation and mitigation.⁸

Partnerships

The approach to evaluating CC partnerships will focus on external coordination and collaborative arrangements and practices, the benefits and synergies derived from the partnerships, and the utilization and leveraging of FAO's contributions by partner organizations. In so doing, the evaluation must consider the following questions:

⁸ This is also linked to evaluation of Relevance criteria

- **Effectiveness:** Has FAO developed strategic partnerships with the private sector, other UN agencies through the One UN, regional organizations, civil society and others on CC and agriculture at global, regional and country levels, and how relevant and effective have they been?
- **Relevance/Effectiveness:** How much has the agency drawn upon the research and knowledge of other organizations (e.g. scientific, academic, research, development and others) in the area of CC to support its analytical work and projects?

Using documents and stakeholder interviews, the evaluation will use the following criteria to assess the attributes and effectiveness of these partnerships:

- Partnership attributes—the type of CC partnership arrangements, including direct ones (co-management/implementation) and indirect ones (co-financing/input provider);
- Level of collaboration—the extent of cooperative linkages as measured by inputs (research, data, funding, etc.) provided to FAO by other organizations and the onward use of FAO outputs (knowledge products, technical assistance, etc.) by partners;
- Working relationships—effectiveness of partnership arrangements and collaborative activities, as reflected in views of the participants and completed evaluation reports;
- Partnership effects—downstream influence of the partnership or of FAO contributions on specific CC adaptation and mitigation plans and initiatives.⁹

Assessing CC Mainstreaming

CC mainstreaming in FAO's development activities

- **Relevance:** How much have CC adaptation and mitigation been mainstreamed into FAO's other interventions in the agricultural sectors, including in its food systems activities? Considering a more specific sub-set of work, to what extent have FAO's projects to maintain and enhance ecosystem services, or support ecosystem management, been designed with consideration of climate change, and how much have they appeared to contribute in implementation to adaptation and mitigation?

To evaluate the extent to which consideration of climate change has been mainstreamed in FAO's development work as a whole, and the extent to which the agency's ecosystem services (or ecosystem-based management) projects have supported adaptation, a conceptual framework for this component will first be developed using recent academic and development-institution literature on ecological and social resilience, vulnerability risk reduction and climate change mainstreaming. For the mainstreaming analysis, a set of criteria will then be developed to assess a representative set of projects not focusing on CC for their level of mainstreaming. The projects selected will be on value chains, food enterprises, marketing and other elements in the food system in order to assess the extent to which climate change adaptation and mitigation has been considered by FAO in not only agricultural production, but in the entire food system. The maintenance or enhancement of ecosystem services (ES) in projects will be used to an extent as a proxy for mainstreaming of (or increasing resilience to) climate change. However, as enhancing ES would not necessarily lead to CC adaptation, ES-specific projects - or a selected number of them - will also be assessed for their consideration of climate change, using the conceptual framework developed.

CC mainstreaming in emergency response programmes

- **Relevance:** To what degree have FAO's disaster risk reduction and emergency programmes sought to mainstream and enhance longer-term climate change adaptation and resilience at sub-regional, national and local levels?

⁹ This is also linked to evaluation of Effectiveness and Impact criteria

The evaluation will analyze programme design documents to ascertain whether any climate change vulnerability and adaptation needs were addressed in them in the form of technology provision, institutional capacity development, vulnerability assessment and mapping, and policy. Additionally, the evaluation team will conduct semi-structured interviews with relevant FAO staff at all levels, with government and partner organization staff in the key countries visited, and with communities through site visits, to gauge the mainstreaming of CC, its implementation and outcomes. The evaluation will also consider the agricultural, ecological, economic, social and emergency contexts at the sites to determine what long-term CC adaptation measures, if any, would be appropriate and feasible. Countries in which FAO has responded to natural calamities and which have been chosen for the evaluation are Kenya, Uganda, Malawi, Bolivia and the Philippines.

Global-level advocacy and engagement in the UNFCCC

- **Relevance:** To what degree has FAO engaged in a coordinated manner in the UNFCCC, IPCC and other international institutions to share its knowledge on CC, provide mitigation and adaptation options in the agricultural sectors to MC's, and pursue associated funding mechanisms to assist them?¹⁰

A more detailed set of questions will be developed to conduct qualitative interviews with the relevant FAO staff, UNFCCC country negotiators, and selected international development institutions on their views of FAO and its knowledge and positions. Government documents and the team member's own knowledge as a government negotiator to the UNFCCC will also be drawn upon for compiling evidence. The evidence gathered will also serve as an input for answering the question about FAO's comparative advantage.

Assessing FAO's normative work in climate change

The objective of the assessment of normative climate change products is to provide a detailed analysis of the relevance and the usefulness (uses and users) of climate change normative products based on their internal institutional coherence and external coherence and relevance with regard to relevant international agreements and commitments. To achieve this objective, the evaluation will consider the following lines of inquiry:

- **Effectiveness:** Has FAO's normative work, analysis and data been adopted by the MC's? To what degree have FAO's projects, programmes and Country- and Regional-Office advocacy work, drawn upon FAO's normative and analytical work?
- **Effectiveness:** To what extent has FAO disseminated its knowledge and practices on CC to other organizations involved in research and analysis, advocacy, investment and field implementation in order to see these utilized and implemented more widely for greater impacts at country and regional level? SO2 Output 2.3.2.

This assessment of normative products requires to be evaluated for quality, relevance and, where appropriate, effectiveness. A purposive and selected sample of analytical tools, guidelines, manuals, and e-learning tools has been identified based on discussions with FAO technical staff.

All sector specialist team members will have responsibility for assessing FAO's normative work in climate change. Through interviews with staff members from FAO's divisions about the design, development and distribution of normative materials, with particular reference to FAO's work in climate change. The team member will also visit the field to assess the extent to which the materials have been used and to see what products are produced in the field that are unavailable at

¹⁰ This line of inquiry could also be considered as one of Effectiveness. One question is whether FAO is engaging in important fora (relevance), another is the degree to which it is doing so (effectiveness).

headquarters, will use feedback from other members of the evaluation team who will undertake country visits.

The core evaluation team at OED will prepare a preliminary list of materials to be assessed, based in part on the recommendations of each division. Normative products will be selected upon the following criteria:

- developed and/or used by FAO and its development partners between 2008 and 2014;
- two or more samples from each department;
- illustrative of the quality of the materials produced and distributed by the department; and
- intended for use in offering guidance, knowledge and/or developing capacity in the area of climate change adaptation and/or mitigation.

Once a representative selection of climate change normative products has been selected, they will then be evaluated partly in light of their contribution to the outcomes described in the Theories of Change as well as in terms of their content, design, distribution, and use (see table below). An abbreviated list of criteria based on the UN Evaluation Group (UNEG) Guidelines for the Evaluation of Normative Work.

Table 1. Criteria for assessing FAO's normative climate change products

Content
Relevant to & consistent with the target countries' development priorities & contexts with respect to climate change adaptation and mitigation
Appropriate level of information for target audiences
Technically accurate
Brings new analysis and understanding
Design, production
Developed with the participation of intended beneficiaries and field-tested
Produced in collaboration with other departments at FAO and/or with other organisations
Use
Extent of use by target groups, and Evidence of a contribution to CC adaptation/mitigation policies/strategies
Spin-off uses—unexpected uptake, multiple uses

ANNEX 3 - Theories of Change

Agriculture and livestock – Theory of change for CC adaptation and mitigation

Policy, Governance and Strategy

- Strong awareness of climate change at ministerial level exists
- Coordination on CC among relevant sectors exists
- CC has been mainstreamed in all agricultural and livestock policies
- A quality NAPA, NAP and NAMA including agriculture & livestock are in place and being implemented
- Specific policies are in place to support CSA among farmers & livestock keepers, including incentive schemes, emission targets, land-use policies, conservation laws to protect natural carbon sinks such as forests from change in land use.
- Effective measures are in place to address land degradation
- Policies are in place to ensure tenure security for land and natural resources, particularly among vulnerable groups (e.g. smallholder farmers, women, ethnic minorities)
- Inter-sectoral and participatory land-use planning has occurred for an integrated landscape approach
- Policies supporting DRR mechanisms are in place

Climate Finance

- National government and donors (Banks such as World Bank, Asian Development Bank, African Development Bank, IFAD, GEF, foundations, bilateral donors, etc.) provide adequate funding for agricultural sector and CC measures, infrastructure, monitoring and research
- Strong collaboration and partnership with the private sector exists to share the costs of CC adaptation/mitigation.
- Funds from PES are available

Knowledge and Data

- Capacity and facilities for accurate climate monitoring (for slow onset, climate variability and disasters) has been developed
- Quality models, tools and data to understand the CC impacts on crops and rural livelihoods exist
- Investment has been awarded to agricultural R&D to examine climate change effects and develop improved crops and livestock breeds
- Thorough vulnerability mapping has been conducted, and vulnerable communities have been identified
- The application of ICTs and innovative technologies to agriculture is researched and explored
- Recognizing traditional and local knowledge for DRM/R

Coordination for implementing technologies and practices

- Decentralized public entities have the capacity and budgets to effectively and efficiently enforce policies, incl. incentive schemes
- Producer organizations and other institutions (e.g. NGOs) represent small farmer & livestock-owner needs, including against practices such as land-grabbing
- Civil-society groups ensure inclusion of marginalized groups (e.g. women, youth, ethnic minorities) as beneficiaries of programs
- Extension services, public and private, are disseminating data on CC, and new research & technologies, and farmer field schools and exchanges are operating
- The private sector is heavily involved in promoting sustainable agricultural techniques and linking farmers to markets.
- Innovative technologies such as SMS, radio, and other ICTs are being used to communicate with farmers
- Services (such as agricultural credit and insurance schemes) from financial institutions are available for small producers
- There is strong coordination among farmer groups, local and national government, extension services, NGOs/CSOs and private sector actors, including for sharing knowledge and advocacy
- The roles and comparative advantages (skill, regional, etc.) of each institution in assisting small producers are clearly identified and acted upon
- For disasters, there is strong humanitarian response coordination among the various national and international actors to implement recovery programs

Community/ household food security and resilience to climate change (See overleaf for detailed TOC)

Human Capital

- Farmers have knowledge of post-harvest storage techniques to improve food security and increase resilience to shocks
- Farmers incl. women have knowledge from extension and advisory services, ffs, training for CC adaptation and mitigation and sustainable intensification to reduce GHG emissions (CSA techniques)
- Farmers record crop successes and losses
- Farmers, incl. women, receive timely information from climate monitoring and early warning systems
- Farmers are meeting certification standards (organic, fair trade, etc.)
- Information on climate risks, vulnerabilities and responses are provided to government agencies and communities
- Farmers have the ability to understand, interpret and act upon weather information.

Financial Capital

- Insurance system is in place to compensate farmers in cases of failed harvests
- Emergency funds are available for disaster response
- Farmers have access to credit/finance to fund cc adaptation inputs (such as seeds, machinery, irrigation equipment) and increase productivity
- Farmers have diversified sources of income, including non-farm income, so as to ensure resilience in case of failed harvests
- Agriculture provides farmers with a reasonable, living wage
- Farmers have reliable markets for their produce, ensuring a steady income

Physical Capital

- Food and livestock grain storage facilities exist
- Access to electricity exists, allowing better connection to weather information
- Improved access to better-performing, climate-resistant varieties (seed and livestock breeds), and organic fertiliser
- Rural infrastructure has been improved to facilitate market access
- Farmers have secure land and resources tenure
- Farmers use terraced land, adapted livestock, suitable housing, improved animal sheds and irrigation facilities

Social Capital

- Farmers share information, techniques, equipment and resources (e.g. seeds)
- Farmers, incl. women, are members of co-ops, farmer associations, business organisations
- Emergency food aid programmes/plans are in place in case of food security crisis.
- Collaboration between universities, research centres and farmers exist
- Social safety-net programmes are in place

Community/ household
food security and
resilience to climate
change

Natural Capital

- Farmers employ sustainable agricultural techniques (such as CSA, agroforestry, feed and pasture management, seed saving, crop rotations & diversification) to improve resilience of natural farming capital such as soils, water
- Agricultural practices in place that build organic matter in soil and conserve water, such as mulching with organic matter
- Rainwater is harvested, and water is collected from multiple sources
- Heirloom seeds and local varieties are stored and maintained so as to increase resilience of genetic resources
- Pastureland is maintained in a sustainable manner
- Agroforestry & mixed farming systems ensure sustainable land management, higher resilience to cc, as well as fodder crop for livestock
- Land is used as per the land-use capability classification
- Agricultural burning is limited/avoided – e.g. burning of crop residues, animal dung
- Farmers ensure the judicious and safe use of chemicals such as nitrogen fertilizers and pesticides

Sources:

- Agrawal, A. Kononen, M. and Perrin, N. (2009), The Role of Local Institutions in Adaptation to Climate Change, *Social Development Papers: Social Dimensions of Climate Change*, Paper No. 118/June 2009. <http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1164107274725/sdp118.pdf>
- Bours, D., McGinn, C., Pringle, P. (2014) Guidance Note 2: Selecting indicators for climate change adaptation programming, SEA Change, UKCIP <http://www.ukcip.org.uk/wordpress/wp-content/PDFs/MandE-Guidance-Note2.pdf>
- Cabell, J. F., and M. Oelofse. 2012. An indicator framework for assessing agroecosystem resilience. *Ecology and Society* 17(1): 18. <http://dx.doi.org/10.5751/ES-04666-170118>
- FAO (2013), *Climate-Smart Agriculture Sourcebook*, FAO, <http://www.fao.org/docrep/018/i3325e/i3325e.pdf>
- FAO (2009), *FAO Adapt: Framework Programme on Climate Change Adaptation*, FAO <http://www.fao.org/climatechange/27594-03ecd7bd225b93086e7dca3944de64307.pdf>
- Glantz, M. H, Gommers, R., and Ramasay, S. (2009), Coping with a changing climate: Considerations for adaptation and mitigation in agriculture, *Environment and Natural Resources Management Series, Monitoring and Assessment – FAO*, 2009, No. 15 <http://www.fao.org/docrep/012/i1315e/i1315e.pdf>
- Horrocks, L., Pringle, P., Le Cornu, E. and Winne, S. (2012) Review of international experience in adaptation indicators. Available from: www.seachangecop.org/node/2660

Water – Theory of change for CC adaptation and mitigation

Policy, Governance & Strategy

- Coordination on CC among relevant sectors exists
- CC has been mainstreamed in all water policies
- The NAPA, NAP and NAMA include the water sector
- Effective international agreements for shared trans-boundary water resources (lakes, river catchments, etc.) in place to conserve existing resources
- Strong environmental laws exist to protect scarce water resources
- Increased capacity at ministerial level to recognise the threats of climate change, and to respond appropriately
- Improved water pricing, including reduced subsidies, in place to conserve resources and prevent GHG-emitting agricultural practices
- Freshwater storage capacity is increased to cope with shortages, droughts and floods
- Water infrastructure is developed to cope with floodwater drainage; protect freshwater from contamination; salinization, etc.)
- Riparian habitats are restored to enhance ecosystem services and other resources
- Inter-sectoral and participatory land-use planning has occurred for an integrated landscape approach that conserves water
- Watershed and wetlands mapping and management
- Policies are in place to ensure tenure security for land and natural resources, particularly among vulnerable groups (e.g. smallholder farmers, women, ethnic minorities)
- Terrestrial and marine planning
- Specific policies are in place to support CSA among farmers



Climate Finance

- National government and donors (Banks such as World Bank, Asian Development Bank, African Development Bank, IFAD GEF, foundations, bilateral donors) provide adequate funding for agricultural sector and CC measures, infrastructure, monitoring and research
- Strong collaboration and partnership with the private sector exists to share the costs of CC adaptation/mitigation.
- Funds from PES are available



Knowledge and Data

- Comprehensive vulnerability mapping is regularly undertaken to identify areas of priority and cc impacts across sectors
- Increased capacity of meteorological services and early warning systems in predicting and reporting extreme weather events (flooding, etc.) and in informing rural communities
- Monitoring of groundwater quality, access and use
- Increased research on innovative technologies to facilitate cc resilience (e.g. water purification, rainwater harvesting, efficient irrigation, wastewater re-use, groundwater discovery)

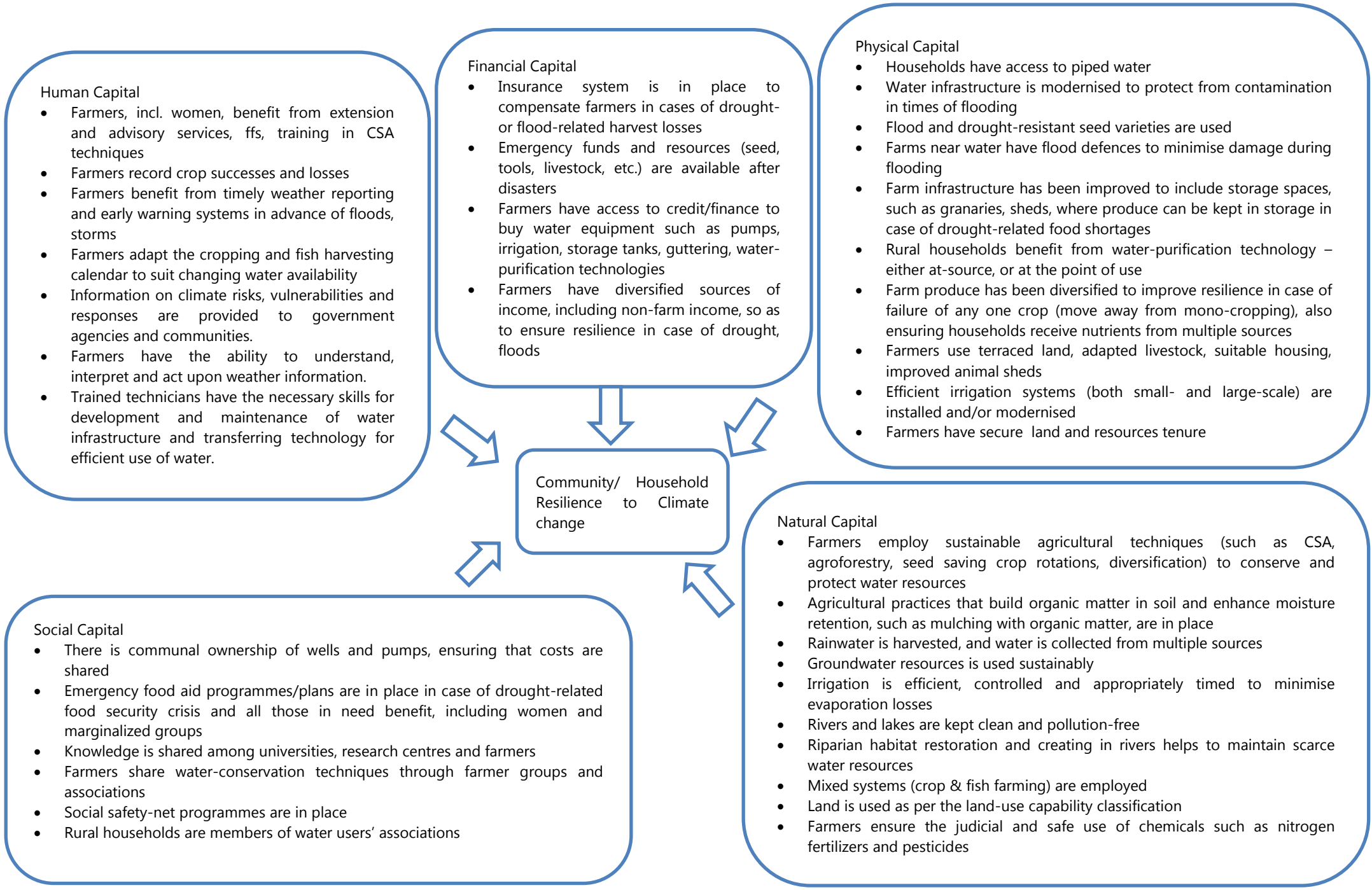


Coordination for implementing technologies and practices

- Decentralized public entities have the capacity and budgets to effectively and efficiently enforce policies, incl. incentive schemes
- Water-users associations exist and promote sustainable resource use
- Civil-society groups ensure inclusion of marginalized groups (e.g. women, ethnic minorities) as beneficiaries of water-related or disaster response programs
- Extension services, public and private, are disseminating data on CC, and new research & technologies related to water use, and farmer field schools and exchanges are operating
- The private sector is involved in promoting sustainable water use and agricultural techniques
- Services from financial institutions are available for small producers to purchase improved water technologies
- For disasters, there is strong humanitarian response coordination among the various national and international actors to implement recovery programs, with the comparative advantages of each recognized and acted upon



Community/ Household Resilience to Climate change (See overleaf for expanded TOC)



Sources:

Agrawal, A. Kononen, M. and Perrin, N. (2009), The Role of Local Institutions in Adaptation to Climate Change, *Social Development Papers: Social Dimensions of Climate Change*, Paper No. 118/June 2009.

<http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1164107274725/sdp118.pdf>

FAO (2013), *Climate-Smart Agriculture Sourcebook*, FAO, <http://www.fao.org/docrep/018/i3325e/i3325e.pdf>

FAO (2011), Climate change, water and food security, *FAO Water Reports No. 36*. <http://www.fao.org/docrep/014/i2096e/i2096e.pdf>

Horrocks, L., Pringle, P., Le Cornu, E. and Winne, S. (2012) Review of international experience in adaptation indicators. Available from: www.seachangeop.org/node/2660

UNESCAP (2012), Climate change adaptation for water management in a green growth economy, *Working Paper Series* <http://www.unescap.org/sites/default/files/Climate-Change-Adaptation.pdf>

Wilk, J. and Wittgren, H.B. (eds). (2009), Adapting water management to climate change, Swedish Water House Policy Brief No. 7, SIWI. http://www.siwi.org/documents/Resources/Policy_Briefs/SWHWaterClimate.pdf

Fisheries – Theory of change for CC adaptation and mitigation

Policy, Governance and Strategy

- Strong awareness of climate change at ministerial level exists
- Coordination on CC among relevant sectors exists
- CC has been mainstreamed in all fisheries-related policies
- A quality NAPA, NAP and NAMA including aquaculture and fisheries are in place and being implemented
- Specific policies are in place to protect vulnerable fish stocks – regulating over-fishing, pollution of waterways, environmental laws, emissions from fishing fleets.
- Clear international agreements are in place to protect and regulate common and shared fisheries – regional fishing quotas, bilateral agreements, fishing rights
- Policies supporting DRR mechanisms are in place to protect fishing fleets and port infrastructure from storms and extreme weather events
- Fishing fleet sizes are regulated to reduce over-capacity
- Policies are in place to ensure that emergency funds are available to deal with climate-related disasters
- Terrestrial and marine planning
- Integrated coastal zone management
- Policies are in place to ensure tenure security for land and natural resources, particularly among vulnerable groups (e.g. smallholder farmers, women, ethnic minorities)

Climate Finance

- Strong networks and linkages have been formed between national government and donors including Banks such as World Bank, Asian Development Bank, African Development Bank, IFAD, GEF, foundations, bilateral donors.
- Strong collaboration and partnership with the private sector helps to share the costs of CC adaptation/mitigation.
- Funds from PES are available

Knowledge and Data

- Institutions have been strengthened to improve weather forecasting
- Early warning systems are in place to warn fishermen of weather changes – using SMS, radio etc.
- Fish stocks are monitored yields are recorded, so as to keep an up to date inventory and prevent overfishing
- Risks and vulnerabilities of fishing communities are assessed in relation to
- Ecosystems and habitats are monitored and protected from climate change damage (e.g. mangroves, coral reefs) as well as from human damage
- Risk assessment of aquaculture zones is carried out regularly so as to assess vulnerability, as well as suitability of zones
- Quality models, tools and data to understand the CC impacts on fisheries and aquaculture systems exist

Coordination for implementing technologies and practices

- Decentralized public entities have the capacity and budgets to effectively and efficiently enforce policies, incl. incentive schemes
- Fishing associations exist and promote sustainable resource use
- Civil-society groups ensure inclusion of marginalized groups (e.g. women, ethnic minorities) as beneficiaries of programs
- The private sector is heavily involved in promoting sustainable practices and linking producers to markets
- Innovative technologies such as SMS, radio, and other ICTs are being used to communicate with fishing communities
- Services from financial institutions are available for small producers
- There is strong coordination between farmer groups, business organisations, local government extension services, NGOs/CSOs and private sector actors.
- The roles and comparative advantages (skill, regional, etc.) of each institution in assisting small producers are clearly identified

Fishing community/ household food security and resilience to climate change (See expanded TOC overleaf)

Human Capital

- Increased community awareness of conservation needs of fisheries and habitats
- Fish-farmers and fishermen are aware of climate change and its potential impacts
- Fish-farmers and fishing communities are consulted as local knowledge sources in monitoring fish stocks and changes
- Farmers and fishing communities play an active role in the conservation and restoration of fishing habitats
- Farmers and fishermen keep records of successes and losses
- Farmers and communities have the capacity to attain certification in standards, such as organic, fair trade, rainforest alliance
- Farmers have the capacity to manage the effects of extreme weather on aquaculture systems
- Aquaculture systems are closely monitored by farmers to detect new climate-related diseases and threats to production
- Information on climate risks, vulnerabilities and responses are provided to government agencies and communities
- Farmers/Fisherfolk have the ability to understand, interpret and act upon weather information.

Financial Capital

- Insurance system is in place to compensate farmers and fishermen in cases of climate-related losses
- Emergency funds are available for disaster response
- Farmers and fishing communities, including women, have access to credit/finance to fund cc adaptation inputs (such as improved fish species, fishing equipment, boats, post-harvest processing equipment etc.)
- Farmers and fishermen have diversified sources of income, including non-farm income, to ensure resilience in case of failed harvests & catches
- Fishing and aquaculture provides farmers with a reasonable, living wage
- Producers have reliable markets for their

Physical Capital

- Improved port infrastructure exists such as cold-chain storage facilities for post-harvest
- Fishing communities have access to modern ICTs - thereby benefitting from advanced weather warnings, wind and tide information, and GPS location services
- New varieties and species, that are more resilient to cc, are being used.
- Aquaculture infrastructure can now withstand extreme weather and contamination from flooding
- Farming aquaculture infrastructure includes modern storage facilities and refrigeration
- Aquaculture systems are integrated into agricultural systems to ensure diversified produce and diets
- Modernised rural infrastructure facilitates market access
- Fisher-folk enjoy Local access to fishfeed
- Fishermen use appropriate net sizes to prevent over-exploitation of fisheries
- Farmers have secure land and resources tenure

Social Capital

- Fishing communities and aquaculture farmers share information and techniques
- Effective fisheries co-management arrangements, including women, exist
- Male and female producers are members of co-ops, farmer associations, business organisations
- Emergency response and fisheries equipment-supply programmes are in place in case of disasters
- Collaboration between universities, research centres and farmers and fishing communities
- Social safety-net programmes are in place

Fishing community/
household food security
and resilience to climate
change

Natural Capital

- Natural barriers such as mangrove forests are in place, rather than hard artificial barriers which may damage the ecosystem
- Fisheries are regulated to prevent over-exploitation
- Fish stocks are closely monitored and the catching of young fish as well as endangered species is not permitted
- Pollution-free lakes and rivers ensure healthy fish stocks and a continual supply for fishing communities
- Seaweed and algae farming is being promoted as a greenhouse gas mitigation option.
- Water bodies are maintained for inland aquaculture

Sources:

De Silva, S.S. and Soto, D. (2009) Climate change and aquaculture: potential impacts, adaptation and mitigation. In K. Cochrane, C. De Young, D. Soto and T. Bahri (eds), *Climate change implications for fisheries and aquaculture: overview of current scientific knowledge*, FAO Fisheries and Aquaculture Technical Paper. No. 530. Rome, FAO. pp. 151-212
<http://www.fao.org/docrep/012/i0994e/i0994e04.pdf>

FAO (2013), *Climate-Smart Agriculture Sourcebook*, FAO,
<http://www.fao.org/docrep/018/i3325e/i3325e.pdf>

FAO (2008), Report of the FAO Expert Workshop on Climate Change Implications for Fisheries and Aquaculture, Rome, Italy, 7-9 April 2008, Fisheries Report No. 870
<http://www.fao.org/docrep/011/i0203e/i0203e00.pdf>

FAO (2007), Building adaptive capacity to climate change, Policies to sustain livelihoods and fisheries, New Directions in Fisheries – A Series of Policy Briefs on Development Issues, No. 08
<http://www.fao.org/docrep/010/a1115e/a1115e00.pdf>

Forestry – Theory of change for CC adaptation and mitigation

Policy, Governance and Strategy

- National forestry legislation is aligned to international commitments and agreements to support climate change mitigation and adaptation (UNFCCC – Kyoto Protocol);
- CC mitigation and adaptation goals, aligned with SFM techniques, are integrated and mainstreamed throughout NFPs and forestry-related policies
- Strong awareness of climate change at ministerial level exists
- Quality NAPA, NAP and NAMA include the forest sector
- National Forest Monitoring Systems are in place
- REDD and REDD+ initiatives are operating at a national level
- Coordination on CC among relevant sectors exists
- The environmental services provided by forests have been recognized and this is evident in conservation programming and policies (protected area creation)
- Programmes are underway to increase national forest cover through reforestation and forest plantation
- Policies are in place to regulate human activities undermining forests extent and diversification (such as massive slash and burn for agricultural purposes, illegal logging and forest fires)
- Policies are in place to curb illegal unreported and unregulated (IUU) exploitation of natural resources
- Policies are in place to ensure tenure security for land and natural resources, particularly among vulnerable groups (e.g. smallholder farmers, women, ethnic minorities)



Climate Finance

- Strong networks and linkages have been established between national government and donors (Banks such as World Bank, Asian Development Bank, African Development Bank, IFAD, GEF, multilateral and bilateral agencies, NGOs);
- Private sector involved in the cost sharing process (individuals, cooperatives, small and large enterprises, direct or portfolio-based investments through international finance).
- Funds from PES (including REDD and REDD+) are available.



Knowledge and Data

- Capacity and facilities for accurate climate monitoring (for slow onset, climate variability and disasters) has been developed
- Quality models, tools and data to understand the CC impacts on forests and forest communities exist
- Investment has been awarded to forestry R&D to examine climate change effects and develop improved species and practices
- Thorough vulnerability mapping has been conducted, and vulnerable communities have been identified
- The application of ICTs and innovative technologies to forestry is researched and explored
- Forest monitoring includes cc-related aspects such as GHG emissions, Carbon storage capacity, water-use, etc.)



Coordination for implementing technologies and practices

- Decentralized public entities have the capacity and budgets to effectively and efficiently enforce policies, incl. incentive schemes
- Civil-society groups ensure inclusion of marginalized groups (e.g. women, ethnic minorities) as beneficiaries of programs
- The private sector is heavily involved in promoting sustainable forest management techniques and linking forest users to markets.
- Innovative technologies such as SMS, radio, and other ICTs are being used to communicate with forest communities
- Services from financial institutions are available for small producers
- There is strong coordination among the different stakeholders: forests users groups, private business organizations, local institutions and NGOs;
- The roles of each stakeholder in assisting forests users' resilience to cc are clearly identified;



Forest community/ household food security and resilience to climate change (see expanded TOC overleaf)

Human Capital

- Indigenous forest peoples are involved in decisions on the management of forests and their rights are recognised and respected
- Local forests users are aware of sustainable forest management techniques
- Forest communities are local knowledge sources in monitoring tree stocks and changes to forest inventories
- Local forest users play an active role in the conservation and restoration of forest habitats
- Forest users have the capacity to meet certification standards, such as FSC, rainforest alliance, CCBA
- Forest users play an active role in monitoring forests to detect new climate-related diseases and threats
- Forest users are aware of the effects of climate change
- Forests users employ integrated fire management techniques
- Information on climate risks, vulnerabilities and responses are provided to government agencies and communities

Financial Capital

- Funds from PES are available (including REDD+, carbon trading)
- Forest communities have diversified sources of income so as to increase resilience in case of climate-related shocks
- Emergency funds are available for disaster response
- Forest communities have increased revenues from the sustainable exploitation of forest and forests products: ecotourism, craftsmanship, small/medium enterprises, around wood fuel, timber and commercially valuable wood.

Physical Capital

- Forest communities have access to modern ICTs - thereby benefitting from advanced weather warnings and GPS location services
- New varieties and species, that are more resilient to cc, are being used.
- Forestry equipment and machinery is updated to increase efficiency of harvesting and transportation
- Modernised rural infrastructure facilitates market access
- Tree nurseries are established at community level to promote agroforestry and increase tree-cover

Natural Capital

- Forests users benefit from forestry ES such as: availability of fruits and edible leaves, medicinal plants, fodder, cultural values, clean water and timber.
- Natural barriers such as mangrove forests are in place, rather than hard artificial barriers which may damage the ecosystem
- Forest stocks are closely monitored for any cc-related threats or changes
- Riparian forests are maintained/established along rivers to reduce flooding, erosion and improve water quality while increasing biodiversity by providing habitats and ecosystems
- Native tree species are planted and protected as part of forestry management plans in order to increase biodiversity
- New, climate-change resilient tree species have been introduced in a controlled manner
- Reduced pressure on natural forests
- Land is used as per the land-use capability classification

Social Capital

- Forest users are members of co-ops, farmer associations, business organisations
- Producers co-manage their forest areas and resources, including to reduce/control fires
- Collaboration between universities, research centres and forest communities
- Social safety-net programmes are in place
- Forest users are members of Forest Users' Association

Forest community/
household food security
and resilience to climate
change

Sources:

FAO, RECOFTC (2009), Forests and natural disaster risk reduction in Asia and the Pacific.

FAO (2010), Managing Forests for Climate Change - FAO, working with countries to tackle climate change through sustainable forest management, <http://www.fao.org/docrep/013/i1960e/i1960e00.pdf>

FAO, (2011), Climate Change for Forest Policy-Makers

FAO (2013), *Climate-Smart Agriculture Sourcebook*, FAO, <http://www.fao.org/docrep/018/i3325e/i3325e.pdf>

Cannell, M, Cruz, R., Galinski, W., and W.P. Cramer (2009), Climate Change Impacts on Forests, in *IPCC Second Assessment Report*, Watson, R., Zinyowera, M.C. and R. Moss, (Eds.). https://www.ipcc-wg2.gov/publications/SAR/SAR_Chapter%201.pdf

McDonald, G.T. and M.B. Lane (2004), Converging global indicators for sustainable forest management, *Forest Policy and Economics* 6, 63-70
<http://www.sciencedirect.com/science/article/pii/S1389934102001016>

ANNEX 4 - Project Scoring Matrix

OED project scoring matrix										
A. Background information										
Project Title:										
Project Symbol:										
Project Start Date (EOD) (dd/mm/yy)										
Project NTE (at time of TORs) (dd/mm/yy)										
Project LTO										
Project Budget (DWH budget at time of TORs):		USD								
Type of Project:		TCD	Emergency							
Type of Evaluation:		Separate	Joint	Programme						
Timing of Evaluation:		Mid-Term	Final	Ex-post						
Mission dates in the country (dd/mm/yy)		From:		To:						
B. Assessment of the project - Questions and issues that require scoring are intended to read as "assess the degree to which...."										
Item No	Question/Issue	Item included			Scoring*					
		Yes	No	NA/NR	1	2	3	4	5	6
I. Project Relevance to:										
1	National/regional development priorities, programmes, needs of the population									
2	FAO Country Programming Framework									
3	FAO Global Goals, MDGs, Strategic Objectives and Organizational Results (list relevant and score)									
3.1										
3.2										
3.3										
3.4										
4	FAO Core Functions (list relevant and score)									
4.1										
4.2										
4.3										
5	Clarity, robustness and realism of the Theory of Change									
6	Quality and realism of project design									
6.1	Quality of the Logical Framework - validity of indicators, assumptions and risks									
6.2	Approach and methodology - stakeholder and beneficiaries identification and analysis									

Annex 2. Country Mission Reports

2.1 Bangladesh Country Mission Report – DRR/CCA

Names and Codes of Projects Referred to:

BGD/01/004/01/99 "Comprehensive Disaster Management Programme (CDMP): FAO Component: Sustainable Livelihood Adaptation to Climate Change"

Context

Bangladesh is one of the most disaster-prone countries in the world due its geophysical location, land characteristics, multiplicity of rivers and the monsoon climate variability. In addition, the coastal morphology of the country influences the impact of natural hazards, which impedes development.

Over the last couple of years, Bangladesh has made significant progress on DRR in relation to CC. The country has developed extensive experience on DRR and post-disaster response and created national strategies and action plans to address climate change. In Bangladesh exists a comprehensive range of tools on DRR, both at the national and local levels. At the national level, the National Plan for Disaster Management (NPDM)¹¹ is the key policy and planning instrument to address disaster risk reduction. To supplement and support the NPDM, it is expected that the GoB in 2015 will approve and implement a National Policy for Disaster Management.

The Ministry of Disaster Management and Relief (MoDMR) is the focal point for the implementation of DRR policies and is responsible for coordinating national disaster management efforts across all agencies, from the national level down to the local level. The MoDMR is also responsible for ensuring that the DRR agenda is mainstreamed into policies, plans and programmes of other ministries and departments and for coordination of research, capacity building, and awareness raising on DRR related activities.

The Climate Change Strategy and Action Plan (BCCSAP) is the main strategy to address CCA at the national level. It is implemented through two different CC funds: the Bangladesh Climate Change Trust Fund (BCCTF) and the Bangladesh Climate Change Resilience Fund (BCCRF). The two funds are administered by two different ministries, respectively, the MoDMR and the Ministry of Environment and Forests (MoEF).

At national level, Bangladesh has developed well-established – but separate – institutional frameworks to deal with DRR and CCA, from the national to the local level. At present, the country's DRR plans and institutions are more developed and robust compared to those of CCA, with well-established committees, at several levels of government, to manage and coordinate pre-disaster preparedness and post-disaster response measures.

There is a natural convergence between DRR and CCA in their mutual interest in addressing loss and damage arising from extreme events. As noted above, the GoB has a strong policy and institutional framework for responding to extreme events, but does not adequately account for how slow climate change processes will induce loss and damage and affect risks and vulnerability to extreme events over time.

¹¹ The GoB developed in 2010 the National Plan for Disaster Management (NPDM), which articulates specific DRR responsibilities and roles for all relevant stakeholders and at different levels of the government.

In collaboration with UNDP, the MoDMR implements the *Comprehensive Disaster Management Programme* (CDMP)¹², a flagship collaborative initiative and one of the largest initiatives ever implemented in the country to deal with disaster management and integration of DRR and CCA efforts. The main objective of the CDMP is – in an integrated manner - to strengthen the national capacity to manage disaster related risks, including the immediate response and recovery efforts, mainly related to climate change.

The CDMP is a large multi-donor programme, mainly funded by DFID, EC and UNDP. Phase 1 of the programme was implemented from 2004-2009 and included a comprehensive review of the existing framework for DRR and CCA interventions as well as a number of pilot testing initiatives. Phase 2, which is currently being implemented from 2010-2015, is focusing on a mainstreaming of the DRR and CCA into all sectors and further upscaling of the good results from Phase 1.

FAO provided technical support to the Department of Agricultural Extension (DAE) of the Ministry of Agriculture (MoA) for implementation of the Livelihood Adaptation to Climate Change (LACC) project, a subcomponent to CDMP Phase 1. The objective of this support was to strengthen disaster risk reduction management and climate change adaptation capacities for sustainable livelihoods and food security in agriculture (the rural sectors including crops, livestock, fisheries and forestry) and other key factors of rural livelihoods in the drought prone and coastal regions of Bangladesh.

Relevance

The LACC project interventions implemented with the support from FAO within two different regions in Bangladesh have been highly demand driven. The interventions have been carefully prepared within the two regions in Bangladesh that were covered by, respectively, Phase 1 (the Northwestern part) and Phase 2 (the Coastal Region) of the project. For phase 1 the "Study on livelihood systems assessment, vulnerable groups profiling and livelihood adaptation to climate hazard and long term climate change in drought prone areas of NW Bangladesh" (2006) was prepared and for phase 2 an "Situation Assessment Report in the Coastal Region of Bangladesh" (2009) was prepared. This was done in accordance to the Project Implementation Approach applied for the LACC project, where a situational assessment of the intervention area was the first task to be carried out, in order to collect basic information about the communities' vulnerability to climate risks and the factors determining their vulnerability, as well as to identify and assess existing adaptive responses to climatic risks by the local population. Both these assessments were carried out with technical guidance and support from the same technical staff from FAO Rome¹³ and this has contributed to ensuring of a similar approach to the two studies.

The studies were prepared in close collaboration with both central level and field officials from the DAE, through participative community level workshops as well as with suggestions and comments from other agencies. The specific objectives of the studies were to assess local perceptions of climate hazard, past and present climate risk/ impact, b) study livelihood systems and establish livelihood profiles of the major vulnerable groups considering household categories, c) investigate about current and past adaptive responses and coping strategies of the vulnerable groups to risks in particular climate risk, d) review the mandates, actual roles and capacities of communities and local institutions/organizations, e) and provide the physio-geographic environment and framework conditions of the study areas. In this way, **landscape, ecosystem-wide approaches and multi-**

¹² The CDMP focuses on achieving the following objectives: i) Strong, well-managed and professional institutions capable of implementing a comprehensive range of risk reduction interventions; ii) Reduced risks to rural and urban populations through raising awareness and empowering communities; iii) Improved overall effectiveness and timeliness of disaster preparedness; iv) Improved and broadened measures to ensure government ministries' budget include disaster provisions; and v) Implemented community-level interventions to be best prepared from disaster risks from a changing climate.

¹³ Dr. Stephan Baas

sectoral (through livelihood profiles) approaches have been adopted into FAO's DRR/CCA work in this project.

At the time of implementing the LACC project, **the integrated DRR-CCA focus applied by the project was quiet innovative**. It built on a thorough and participatory technical assessment of capacities, conditions, practices and challenges within the project areas in relation to natural disasters and climate change adaptation, combined with new technological options for the households. The LACC project introduced participatory working modalities in which farmers, researchers and extension officers came together for identification, validation, implementation and evaluation of the tests of suitable technologies for adaptation. Action research on farmers' field and associated learning how adaptation processes worked was used as the learning method. Emphasis was given to demand driven, interactive research based on mutual learning such as through farmers' field schools.

At the field level, the project was implemented by DAE through coordinated support from the existing extension systems of the departments involved. In addition, 10 field monitoring officers, one in each upazila appointed by FAO, to facilitate the project implementation and the monitoring of the adaptation option demonstrations. Although a number of NGOs were working with climate change issues in communities within the same regions, their approaches were not based on the same thorough technical analysis and did not have the same integrated focus on combining DRR with CCA.

The CDMP presents an example of a comprehensive and ambitious programmatic approach to DRR integration with CCA, led by the UN System (UNDP), where FAO has been given a very specific task, in line with its core mandate within the UN System, being the technical agency in agriculture. The preparation and implementation of the LACC project was done with considerable technical support from FAO HQ staff in Rome (see more under effectiveness).

Effectiveness

In relation to DRR integration with CCA, FAO's contribution to various outcome areas in Bangladesh has been as follows:

Although FAO is seen as a very strong player in Bangladesh in terms of mainstreaming/integrating DRR and CCA into planning processes through the relevant line ministries, FAO does not currently hold the same strong strategic position towards the MoDRM in terms of policy development and governance processes in relation to DRR integration with CCA¹⁴. At the same time, it was emphasized that a comprehensive policy on the integration of DRR and CCA still needs to be developed to address loss and damages from the impacts of both extreme events and the gradual climate change effects. There is still a need to integrate DRR and CCA in a multi-level institutional framework to address loss and damage under a common mechanism and to strengthen and enhance the capacity for mainstreaming loss and damage into national planning processes and develop vertical and horizontal linkages between sectors and institutions working in areas of development to ensure climate resilient development.

The absence of a comprehensive policy for DRR and CCA integration, is affecting policy coordination on these issues across ministries. So far, the MoDMR and the MoEF have not been able coordinate and align DRR and CCA in an effective way in terms of policies, programmes and projects. The Development Partners in Bangladesh therefore see a need for establishing of a policy body under the Ministry of Planning (MoP) and technical bodies at both the MoEF and the MoDMR, to serve as knowledge hubs and to provide expertise in DRR and CCA respectively to the loss and damage policy wing of the MoP. A challenging aspect of this model is that the capacities and knowledge of CC within

¹⁴ This is to a large part explained by difficult personal relationships in relation to the CDMP.

the MoP is limited. Some Development Partners¹⁵ are therefore currently considering implementing a CC capacity developing programme within the MoP.

So far, FAO's role on DRR integration with CCA has been mainly to provide pilot field level experience for potential further upscaling and replication. FAO's role in the CDMP project provides a very good example of this. However, as the interviews with key stakeholders pointed out, there is a tendency in Bangladesh that various public sector entities working on CCA issues are mostly focused on mainstreaming policy and coordinating financing from various national and international sources rather than concentrating on planning and implementing of CCA activities. There is a need for greater consideration of how local development planning processes can be integrated into national planning and response coordination. This will include establishing of guidelines to incorporate CCA perspectives and approaches into DRR institutional frameworks. Although both DRR and CCA plans and strategies acknowledge the importance of mainstreaming DRR and CCA into national planning efforts, their disparate bureaucratic bases – within the MoDMR and the MoEF, respectively – make it difficult to coordinate on issues where mandates and interests overlap.

On the other hand, this may provide new opportunities for FAO to become more influential in the future in relation to the policy area on DRR and CCA integration in Bangladesh. FAO's is currently leading the implementation of the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" project within the MoEF, a flagship project aiming at strengthening the human and organizational capacity of the MoEF and its agencies by improving their effectiveness, organization and sustainability to better address challenges in environmental, forestry and climate change issues. This particular project therefore provides a unique opportunity for FAO to also influence the strategy and policy discussions of DRR and CCA integration in Bangladesh.

FAO has made a significant contribution to enhancement of data and knowledge on DRR and CCA linkages. A major, and well-recognized, effort was done through the LACC project, where DAE and FAO also cooperated with the On-Farm Research Division (OFRD) at the Bangladesh Agricultural Research Institute (BARI). Alongside its own action program, BARI scientists actively assisted the DAE with selection of adaptation options under the LACC project across locations. Scientist from BARI also provided different types of technological back-up for BARI mandated crops/technologies. The collaboration between BARI and DAE/FAO focused on enhanced climate resilience and livelihood security of farmers in two extreme environments: drought (Northwestern part) and saline areas (the Coastal zone).

Through the LACC project, FAO assisted the DEA to prepare a **"Guide on good practices for climate change adaptation for extension workers"** (2009). The interviews carried out by the Evaluation Team confirmed that **this guide is still being used within DAE and that it is still widely available within DAE field offices.**

The Terminal Evaluation¹⁶ of the CDMP Phase 1 concluded that "LACC is a successful programme under DAE/FAO, which has developed a range of climate change impact evaluation schemes, especially in saline and drought prone areas. Knowledge and ideas under this project will be very useful for designing LDRRF¹⁷ projects. Therefore a strong link should be practiced in the next phase of CDMP so that climate adaptation knowledge developed in agricultural sector can be used in LDRRF projects". There is little evidence however that the knowledge from LACC has been effectively used in CDMP Phase 2. This was also confirmed from interviews with GoB representatives and Development Partners.

¹⁵ GIZ has the most concrete plans for this.

¹⁶ Bangladesh Comprehensive Disaster Management Programme, Terminal Evaluation, 2009.

¹⁷ Local Disaster Risk Reduction Fund.

Besides FAO's contribution to gathering of relevant data and knowledge, the institutional coordination for implementing of the most appropriate technologies and practices on DRR and CCA integration has been less effective. As mentioned above, in Bangladesh there is still need for establishing of an institutional framework through which local strategies for DRR and CCA integration can be reviewed, validated and integrated and for improving the adaptive capacity of communities in general and farmers in particular. According to the majority of the key stakeholders interviewed, the most appropriate institution to lead such validation process would be the DAE together with leading national research institutes, such as e.g. BARI.

In view of this, FAO would have the potential to become an important player for facilitating and supporting an institutional coordination process where DAE would be lead institution. FAO's strong relationship to DAE and the research institutions, as well as FAO's strong technical knowledge and experience from working with partners at different institutional levels, are considered important competencies to make these efforts effective. It is also considered that the larger NGO's in Bangladesh should be actively involved in this process, as they often play a very important role at community level in Bangladesh. It is important to ensure that the NGO's will apply the same validation criteria and whatever they recommend should undergo the same strict quality control, when they are promoting adaptation. In general, in line with their comparative advantage, it is however the perception of the interviewed stakeholders that the NGOs should focus more on the dissemination of tested good practices rather than on generating and validating practices for their suitability in the CCA context.

The LAAC Project component implemented by FAO has had a particular focus on communication and advocacy issues in relation to the lessons learned from the project. The "Communication for Sustainable Development Initiative" (CSDI) fielded two missions in Bangladesh to develop a Communication Assessment and Action Plan (CAAP) for the LACC Project¹⁸. Based on a stakeholder mapping and an assessment of the information/communication strengths, needs/gaps as well as suitable channels and communication approaches for community-based CCA at different levels in LACC II Project, the CAAP document experiences in participatory community learning (e.g. farmer field school, climate field school), information and communication practice for CCA within the context of LACC II; and drew up communication action plans indicating short-term recommendations for the LACC project. visited LACC stakeholders at both national and local levels in order to systematize lessons learned on the role of communication within project activities, as well as to design a proposal for an ad-hoc ComDev and ICT component for the next phase of the project. It was the intention that the recommendations from this study should be implemented during Phase 2 of the CDMP project, but the Evaluation Team found no evidence that this had actually happened.

FAO has been promoting the CSA concept in Bangladesh for some time now (this was confirmed in meetings with representatives from NGOs (Practical Action and Care)), World Bank and the Ministry of Agriculture). The World Bank and FAO had recently invested a significant amount of resources in developing of a large CSA project with GoB partners. This project failed however due to GoB cumbersome procedures. The NGO's are aware of the FAO concept for CSA, but they argue that the CSA concept is not much different from the way the NGOs have been operating at field level for several years now in Bangladesh. The Ministry of Agriculture had the impression that UNDP and FAO had both tried to promote the CSA concept as their own idea, and that FAO had "won" this battle.

¹⁸ This document "Communication Assessment and Action Plan for the LACC Project" (2009) was produced within the framework of the project GCP/INT/048/ITA Communication for Sustainable Development Initiative (CSDI), a joint effort of the Italian Ministry of Environment and Territory and FAO to promote communication as a key for sustainable natural resources management, climate change adaptation, and food security.

Efficiency

The services provided by the FAO Office in Bangladesh within the area of DRR and CCA integration (mainly the LACC project) were delivered on an efficient basis, compared to other Development Partners. The implementation of CDMP Phase 1 was delayed by more than 2 years, mainly due to cumbersome approval procedures by the GoB. However, within a more narrow timeframe, the DAE and FAO still managed to implement most of the planned activities within the approved budget.

Sustainability

Interviews with NGOs and researchers confirmed that the technological options introduced and developed by DAE/FAO through the LACC project had been well received and applied by the farmers within the communities. However, **there was little evidence of direct promotion and replication of these technologies to neighbouring households and communities**. This was explained by the financial inability of the farmers, which often become a significant barrier due to the involvement of initial and regular operational cost, even in case of low-cost technologies.

While this dilemma is well-known in Bangladesh, it was not fully factored into the LACC project designs. A possible way to mitigate this obstacle in the future would be to link farmers to microfinance agencies / organizations and thus facilitate the access to the financing and ensure better possibilities for replication and promotion of the technologies. In Bangladesh, the larger NGO's are often also acting as microfinance institutions and partnership models would therefore be obvious for FAO to consider. This could cause challenges in relation to the governmental institutions, which are often not in favour of collaboration with NGO's. However, FAO may need to take this role as facilitator/intermediator, together with its traditional role as technical expert/advisor, to work towards more sustainability of its interventions.

Gender Mainstreaming

Although the FAO Office in Bangladesh has had a Gender Focal Point (a woman) since 2012 **there is still no systematic approach to CC gender mainstreaming in the FAO Office**. Roughly, the Gender Focal Point spends around 20% of her time on gender issues in the office. She is not making a "gender screening" of all projects where FAO is involved, it is done on an ad-hoc basis and mainly where the funding agency may have a special request for reflection of gender issues in the proposal.

In general, the FAO Office staff do not have a common understanding of what gender is/means or on how to define gender indicators and measure progress on gender issues in the CC programs/projects. In the majority of the FAO implemented CC programs/projects that were reviewed by the Evaluation Mission, resources had not been allocated particularly to support these gender activities. In relation to CC in Bangladesh, the gender issue is even more of a concern, since the men are often leaving their houses after climate change events/disasters and leaving the women and children behind. The Gender Focal Point has used the FAO Document on "Gender in relation to Climate Change" to increase her knowledge on these issues in general, and she found the document useful. She had no particular insight into gender issues from DRR integration with CCA.

The "Situation Assessment Report" (2009) from the Coastal Region in Bangladesh included an identification of gender specific vulnerability. It was found in that area that **women were more vulnerable to disaster and climate risk due to gender inequalities in various social, economic and political institutions**.

Partnerships

In Bangladesh, the FAO Country Office has established good working relations/partnerships with particularly USAID, EU and DFID. These agencies see FAO in Bangladesh as being **"very strong technically", "a good institutional facilitator", "highly visible"** in relevant meetings and fora, **"pro-active"** and with **"a strong and result-oriented leadership"**.

On the other hand, the interviews carried out by the Evaluation Mission in Bangladesh point towards an ineffective coordination/cooperation among UN agencies in the country and strong internal competition among the agencies for funding. This tends to undermine the UN coordination work in the country. The internal "sector division" agreed between the UN agencies sometimes become a challenge for the system when e.g. bilateral agencies such as USAID and DFID, as well as the World Bank, start to look more at effectiveness/efficiency issues than at "UN sector division" when they approach UN agencies for collaboration. In Bangladesh, the ministries thematic coverage also sometimes makes it less obvious, which of the UN agencies that should be the obvious partner to them.

Based on the interview with different key stakeholder groups involved with DRR and CCA integration, there seems to be a scope for FAO to engage more strategically with the larger NGO's in Bangladesh in the future, to enhance replication and sustainability of field interventions. The larger NGO's in Bangladesh are important players community development in rural areas, often much more important and with more capacity and resources than governmental institutions. These NGO's offer a broad range of services, from microfinance, to health and insurance, which are all elements that would complement the FAO interventions.

Key issues for Organizational Learning

The experience from FAOs role in relation to DRR integration with CCA in Bangladesh points to some key points from an organizational perspective:

- The learning from the NFPSCP has indeed been used to frame the current flagship program on "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" within the MoEF. More broadly, FAO is promoting both of these programs at global events, as they are being seen as models with potential for replication.
- FAO has been capable of leading an effective, innovative pilot testing of DRR and CCA integrated processes and projects at the field level through demand-driven and participatory processes. The comprehensive experience of DAE/FAO with Farmer Field Schools in the country has provided a good basis for this work.
- Useful knowledge, data and research on DRR and CCA integrated field interventions has been provided through the pilot testing, however a weak institutional framework for coordination of DRR and CCA integration in Bangladesh has been a major limitation for further upscaling and uptake of the good practices.
- FAO made particular efforts on preparing a study on communication and advocacy issues in relation to the lessons learned from the LACC project. However, the recommendations from the study were not implemented by the CDMP partners to any large extent.
- FAO's contribution to DRR integration with CCA has so far been mostly of a technical nature, however there seems to be some particular good opportunities coming up for FAO in Bangladesh to play a more influential role at the institutional level within this high-profiled area in the future.
- Gender mainstreaming in relation to CC interventions is not fully institutionalised in the FAO Office and there is no particular knowledge on gender issues in relation to DRR integration with CCA.
- FAO may benefit for stronger and more strategic alliances with the larger NGO's in Bangladesh in the future.

2.2 Bangladesh Country Mission Report – Forestry and Fisheries

Names and Codes of Projects Referred to:

GCP /BGD/053/USA - Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies

GCP /BGD/055/LDF & GCP /BGD/056/LDF - Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh (FSP)

Context

Bangladesh is one of the most vulnerable country to the effects of climate change because of its extreme levels of poverty, high dependency on agriculture, low capacity to adapt to predicted changes in the climate, high risk of drought and flooding. Climate change threatens to compromise the significant gains made in poverty reduction achieved over the past two decades in Bangladesh.

FAO's support to the Forestry and Fisheries sector in Bangladesh is currently guided by the "United Nations Development Assistance Framework (UNDAF) for Bangladesh (2012 to 2016)" as well as the Bangladesh Country Programming Framework (CPF) 2014-2018".

The Forestry Sector

Forest resources in Bangladesh play an important role in the country's development and maintenance of environmental balance. According to the Forest Department, the total forest area in Bangladesh is estimated at 2.5 million hectares – corresponding to 17.5 percent of the country's total surface area. As the economy of Bangladesh is predominantly agricultural and about 80 percent of the population live in rural areas, forests and forest products are an integral part of livelihood strategies, providing food, fuel, shelter, clothing and many necessities of life to forest dwellers and the rural poor. Research in Bangladesh indicates that women tend to be very active in homestead agro-forestry, where they perform many activities such as collection and storing of seeds, raising seedlings, planting, watering, fencing, fertilizing, harvesting and processing¹⁹.

FAO has for a long time supported the GoB on forest inventory issues. Back in 2006, FAO initiated activities to strengthen the national Monitoring, Assessment and Reporting (MAR) on Sustainable Forest Management in Bangladesh. Since August 2010, FAO has been supporting the development of a Roadmap for the Readiness Phase of a National REDD+ Programme in Bangladesh, through a technical advisory team of international and national experts. The National REDD+ Steering Committee headed by the Secretary, Ministry of Environment and Forests approved the Bangladesh REDD+ Readiness Roadmap in December 2012. FAO is mainly assisting the GoB on Monitoring, Reporting and Verification (MRV) with the aim of bringing Bangladesh closer towards a comprehensive plan to realise the role of forests in tackling climate change. Within CC and Forestry, the current "flagship" intervention by the FAO Country Office in Bangladesh is the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program funded by USAID, which will run from September 2013 to August 2016 with a budget of USD 4.5 million. In Bangladesh, the Ministry of Environment and Forests (MoEF) is the focal ministry that oversees all works related to climate change in the country, including international negotiations. The MoEF plays the key role for formulating policy guideline and coordinating climate change activities of the other line ministries.

¹⁹ *Community forestry for poverty reduction in Bangladesh*, Proceedings of the Workshop on **Forests for Poverty Reduction**, FAO Regional Office for Asia and the Pacific, 2004.

The Fisheries Sector

In Bangladesh, inland fisheries and aquaculture are prime contributors to food security and employment. The fisheries sector is contributing 3.8 percent of the GDP and fish provides 55 percent of animal protein intake in Bangladesh. Bangladesh is one of the world's most important inland fishing nations. Aquaculture development has been strongly promoted by both the public and private sector in an attempt to meet the need of fish for food for the country's population. Shrimps and prawns are the second most important export commodities in Bangladesh next to textiles.

Bangladesh fisheries and aquaculture are very sensitive to climatic variability and climate change. Vulnerability involves food access, nutrition aspects, livelihoods, gender opportunities, etc. Although women are often considered to be less directly involved than men in fisheries activities due to lower social status, religious-cultural norms and values, restricted mobility and heavy responsibilities at household, reality shows that women are heavily involved in fish production systems such as feed preparation, fertilization of ponds and feeding fish and shrimp as well as post-harvest activities are often their responsibility.

The Ministry of Fisheries and Livestock (MoFL), through its Department of Fisheries (DOF), has overall responsibility for fisheries and aquaculture development, management and conservation in Bangladesh. FAO has been supporting development of the fisheries sector in Bangladesh for decades. This includes support to collection and analysis of relevant data for planning and scientific research as well as technical assistance in relation to preparation of national development programmes and 5-years plans for the sector.

Relevance

FAO's work in Bangladesh on CC in relation to Forestry and Fisheries is fully aligned to the relevant framework documents and strategies. "Climate change, environment and disaster risk reduction and response" is one of the seven pillars of the United Nations Development Assistance Framework (UNDAF) for Bangladesh (2012 to 2016) that should promote a balanced approach to ensure that key climate change, disaster risk reduction and environmental issues are anchored in national plans and strategies. Moreover, the "Bangladesh Country Programming Framework 2014-2018", which was prepared through extensive consultations and collaboration between the Government of Bangladesh (GoB) and FAO emphasize the strong focus on forestry and fisheries (as main sub-sectors to agriculture) and climate change within the period.

According to the majority of the interviewed representatives from the GoB, Development Partners and NGO's in Bangladesh, FAO is considered the most competent agency to lead development programs/projects that focus on Climate Change in relation to Forestry and Fisheries. For the following main reasons:

- FAO is the lead UN agency in forestry and fisheries and has the required technical expertise and experience in improving forestry and fisheries in terms of climate change management systems throughout the world.
- FAO is the global reference on international forestry affairs and fisheries and proactive in climate change assessment, mitigation, adaptation and negotiations.
- FAO has a long track-record in Bangladesh, implementing numerous development projects in the country since its independence in 1971. Over this period, FAO has built considerable expertise in the technical areas and approaches that apply particularly to Bangladesh's many agro-ecological zones and forest and management and fisheries practices.
- FAO has established strong and productive relationships with all stakeholder groups involved with forestry, fisheries and climate change interventions in the country.

In terms of **Forestry**, it was stressed by both USAID and the MoEF that FAO's successful lead of the National Food Policy Capacity Strengthening Program (NFPCSP) in Bangladesh (funded by USAID and EU) had been a major reason for selecting FAO to also lead the "Strengthening the Environment,

Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program. The NFPCSP program was a rather similar program that also provided support and capacity building within a technical ministry (Ministry of Food) in Bangladesh.

The program on "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" was developed based on a request from the Ministry of Environment and Forests (MoEF) in October 2011. Based on this request, FAO assisted in early 2012 the GoB to undertake a participatory situation analysis and capacity needs assessment of the MoEF and its departments and agencies. Following the completion of the situation analysis and the capacity needs assessment, the program formulation process was initiated. This process was led by a team of international consultants provided by FAO but with participation from key people from the Ministry. In addition, FAO's experience and lessons learned from NFPCSP within the Ministry of Food were used as inspiration and integrated into the new program where appropriate.

The process for formulation of the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program illustrates an integration of different FAO competence areas from inside and outside Bangladesh: The program formulation process was supported by a mix of FAO's technical expertise and international experience on Forestry and Climate Change together with its multi-sectoral experience from Bangladesh (from a similar program within another ministry).

The "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program also provides ***an example where FAO has adopted a programmatic approach on CC interventions*** compared to the more traditional individual project interventions at regional and country level. Through this process, the ***FAO Office in Bangladesh has demonstrated to have the full set of competencies and skills to manage and coordinate such complex programing processes at the country level, with targeted support and backstopping from Rome HQ.***

It is the impression that the potential for FAO to focus on regional and transboundary initiatives on CC in relation to Forestry is heavily underutilized in Bangladesh as well as in the region as such. The operational linkages between the FAO Country Office in Bangladesh and the Regional Office in Bangkok is weak. According to interviews at country-level, only limited information is provided from RAP on the regionally implemented projects, even those, which involve Bangladesh. This has created challenges in terms of ownership and follow-up on these activities.

The "Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh" project presents an innovative and coherent approach to development of climate resilient fisheries and aquaculture in the country in view of the challenges resulting from climate changes. The project includes an integrated focus on improvement on the national strategy and policy framework to facilitate climate resilient fisheries, integration of disaster risk management plans into local community development and strengthening of community adaptive measures through adaption of climate change resilient fisheries and aquaculture technologies. So far, very little has been done in Bangladesh to integrate climate resilience in the fisheries and aquaculture sector, which is considered of prime importance for the livelihoods and sustenance of the poorest people in the country. In view of this, the project is considered of high relevance by the key stakeholders in the sector and will consolidate FAO's position in the frontline of climate change interventions within the fisheries sector in Bangladesh.

Overall, Bangladesh provides an interesting example of how CC adaptation and mitigation is mainstreamed into FAO's interventions in the agricultural sector and sub-sectors, not least through FAO's dominant role within food security in the country. A review of FAO's program/project portfolio, which include a relative large amount of food security interventions, shows that the vast majority of

the programs/projects include elements of climate change. This is not due to the existence of a particular "climate change mainstreaming strategy" at the FAO Office in Bangladesh, but is more a consequence of the high vulnerability and exposure of poor communities all over the country to climate events. In particular in the Southern part of Bangladesh, which includes the most vulnerable and poorest communities in the country, it makes little sense to focus program/project interventions just on one single sector or sub-sector (e.g. either agriculture, fisheries, forestry or livestock). The reality in that particular part of the country is that the households relies on an integrated and diversified livelihood strategy, which include elements from all these sectors/sub-sectors. The developing programs/projects will need to reflect these realities to become successful. It is in order to reflect such realities that most of the FAO programs/projects within the food security portfolio suggest integrated interventions, which include elements of both agriculture, fisheries, forestry, livestock as well as of climate change.

The close link between FAO's important role on food security and climate change in Bangladesh is further illustrated by the Food Security Cluster, which was formed in 2012 and is co-lead by the FAO and the WFP. A particular role of the Food Security Cluster is to support the Government and the Local Consultative Group on Disaster and Emergency Response (LCG-DER) on both preparedness and response measures in times of emergencies, mainly in relation to natural disasters. The Food Security Cluster members in Bangladesh include Government partners, NGOs, UN agencies and other Development Partners.

Effectiveness

In relation to climate change in Forestry and Fisheries FAO has contributed to various outcome areas: FAO has now become a key strategic player for strategy/policy development and for governance in relation to CC and Forestry in Bangladesh. The culmination has been FAO's lead role in the prestigious and comprehensive "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program, which provides a unique opportunity for FAO to become the main contributor to the GoB within this area in the future. It is interesting to note that FAO has reached this key position through the organizations good performance on related assignment over the past 7-8 years in Bangladesh. This includes FAO's support to the GoB on the UN-REDD Programme as well as FAO's comprehensive support to the Ministry of Food on similar capacity strengthening aspects. In this way, FAO has managed to build up a good reputation among the GoB and Development Partners in Bangladesh on its capability to support key strategic institutional development processes.

FAO has been the agency contributing most importantly to improving the data and knowledge base in Bangladesh on CC in relation to both Forestry and Fisheries. This was confirmed by both the GoB, researchers and Development Partners. In Forestry, FAO's contribution through the MRV and the REDD+ program has been remarkable over the past 7-8 years and has included technical guidance and advice on the development and implementation of the national forest inventory to support the national forest monitoring system and reference emission level(s) for components of the national REDD+ Roadmap. On the other hand, the interviewed representatives from the GoB and research institutions in Bangladesh, were not able to provide any concrete examples on the use of relevant FAO's normative and knowledge products in relation to Forestry, neither could they name any of these products. This strongly indicates that advocacy and dissemination of these products have not been that effective in Bangladesh.

In **Fisheries**, FAOs importance as a provider of relevant knowledge and data appears to be more significant in Bangladesh. Although the interviewed key stakeholders did not consider the FishStat data and information on Bangladesh to be particularly reliable²⁰, ***the FishStat database is widely referred***

²⁰ The data is collected by the GoB and submitted to FAO for further assessment and analysis.

to by both Development Partners and NGOs as the best and most comprehensive available source of data information on the fisheries sector in Bangladesh²¹. The information provided by FishStat, including country fact sheets, are used by the partners as input to their formulation and planning of development interventions within the fisheries sector, including with a view to the impact on fisheries from climate change. On the other hands, although fisheries resources survey and assessment of stocks are undertaken by GoB institutions, the information is not used extensively for fisheries management planning in the country.

FAO provided an important support to the GoB in relation to formulation of the "National Aquaculture Development Strategy and Action Plan of Bangladesh 2013–2020". The Strategy and Action Plan was formulated based on a working paper prepared by FAO through a stakeholder consultation workshop in December 2012. Subsequently the technical content of the paper was reviewed extensively by experts from the Department of Fisheries and Aquaculture at FAO HQ in Rome and finally reviewed for the strategy and policy issues by the National Working Committee for the Sustainable Development of Aquaculture Industry. The Committee endorsed the Strategy and Action Plan and the MoFL approved the document in November 2013. The FAO project on "Identification and understanding of key technical, economic and social constraints to seed and feed production and management in Bangladesh" also provided input to the strategy formulation process. The strategy and action plan is comprehensively dealing with the impact from climate change on aquaculture.

Through the technical support from FAO, Bangladesh is the first developing country to initiate an innovative and important multi-sectoral, integrated and inclusive investment planning in environment, forestry & climate change. This is done through the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" and as part of this exercise, 11 high level government officials from Bangladesh attended an orientation training in Rome in October 2014 with the purpose to enhance understanding and knowledge on the needs, importance and formulation of Country Investment Plans (CIP) for the environment, forestry and climate change sectors for better environmental security and sustainability in the country²². The Bangladesh CIP will have 3 main components: (i) reducing the impacts of climate change vulnerability (building a climate resilient society), ii) ensuring sustainable flow of ecosystems goods and services and (iii) maintaining clean living environment (air, soil and water pollution control).

FAO will be the key agency to support more effective institutional coordination on implementation of policies, technologies and practices in relation to CC and Forestry in Bangladesh. The "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program is a flagship program, not only for FAO but also in Bangladesh in terms of policy, governance and strategy in relation to Climate Change and Forestry. In Bangladesh, the linkages between the technical and policy departments in the ministries have traditionally been very weak. Because of this, the climate change relevant policies that have been formulated in the ministries are not reflecting the technical realities on the ground and therefore become difficult to implement. FAO will obviously also be facing some of these challenges in this program, however the GoB and the

²¹ FAO is the only intergovernmental organization formally mandated by its constitution to undertake the worldwide collection, compilation, analysis and diffusion of data and information in fisheries and aquaculture.

²² The training was organized by the Forest Governance Team with the support of the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program in Bangladesh, and built on FAO's experience through the Investment Center, the Agricultural Development Economics Division, in supporting the development and implementation of country investment plans in food security, nutrition and agriculture in Africa and Asia. Including on: 1) Concept and process of CIP, its uses and linkage to policy development; 2) Monitoring and Evaluation (M&E) aspects and investment tracking systems in environment sectors; 3) Institutional capacities needed for CIP implementation and monitoring; and 3) Governance principles and mechanisms of financing instruments for climate change and forests.

Developing Partners have confidence that FAO may be in a particular a good position to strengthen the linkages between the technical and policy departments in the ministry, due to the organizations strong experience on both these issues (technical expertise and policy formulation).

FAO's contribution to CC in relation to Forestry and Fisheries at community level has been less visible and effective. Although FAO has been involved in number of interventions on CC in relation to Forestry and Fisheries at community level, the key stakeholders do not see any large footprints from FAO in the community context. In particular, NGO's with large presence at community level and with good knowledge of FAO's interventions within this area are critical to FAO role and performance. According to most of the NGO's interviewed, the visibility of FAO at community level is low, even where FAO has programs/projects going on. The NGO's often see international experts from FAO visiting an area for a short time and leave again without any effective follow-up mechanism in place. In this way, FAO's interventions at community level tend to lose the dynamics and offer limited support for replication and up-scaling.

There is a large number of research projects going on in Bangladesh on CC, including in relation to Forestry and Fisheries. In general, there is very limited coordination and overview of these activities and the **mechanisms for putting research results into use/practice is not well-developed in Bangladesh.** As a consequence of this, so far the interventions in the field have most often not been guided by well-documented research studies and data. **This is an area, where many key stakeholders see a role for FAO to play to play in the future.**

FAO's support to CC within Forestry and Fisheries in Bangladesh is ultimately aimed at benefitting and increase the resilience of the poorest and most vulnerable groups in the country, as these people are those that are most exposed to CC and natural disasters in the country. According to interviews with ministry staff and NGO's, FAO could play a larger and more prominent role on advocacy to share relevant Climate Change approaches and lessons from the field level. In Bangladesh, a large number of Climate Change activities are being implemented at community level, however the experiences/best practices are rarely being gathered and up-scaled. There is a huge gap here, and there is a feeling among key stakeholders that FAO could potentially play a key role in this process of interpreting and facilitating the transfer of relevant (technical/community) knowledge and experiences from micro to macro level, and eventually support further uptake. Most key stakeholders consider FAO to have a somehow unique position for this, through its strong technical field level experience on the one hand, and its access and interaction with governmental institutions on the other hand. It is particularly mentioned that CSA here presents a case in point, as it is a concept that has become well-known and received across different stakeholder groups (NGOs, donors, government) and it has a large potential for up-scaling.

Efficiency

The services provided by the FAO Office in Bangladesh within the area of CC and Forestry and Fisheries are in general considered to be delivered on an efficient basis, compared to other Development Partners. This was mentioned as an important reason by some of the Development (funding) Partners for still choosing FAO as a preferred lead partner for program/project implementation, including for management and administration issues.

FAO's leading role in the formulation of the "Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh" project was highly appreciated by the stakeholders. The formulation process was being considered as very inclusive and had allowed for input and suggestions from a large amount of key stakeholders. This has included workshop arrangements other feedback sessions.

On the other hand, the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program has recently provided some

challenges to FAO in terms of program management and administration. The program has faced a number of delays during the inception period (delay in program approval by the government, in staff recruitment as well as in the establishment of a fully furnished PMU). This is not exceptional in itself as it is more or less the "rule" in Bangladesh that development programs and projects are delayed, most often due to cumbersome approval procedures by the GoB. Although most of the delaying factors in this case have been outside the control of the FAO Office, there are some issues (in particular staff recruitment) where the program partners would have expected FAO to be more efficient. This may however illustrate a potential challenge to FAO for this program: if staff profiles are not within FAO's core area of technical expertise (in this case, the program is looking more for "generalists" than for "technical" staff profiles) the search may have to be done outside the normal FAO "circles", which it has taken some time to recognize for the program management unit.

Sustainability

The main FAO supported interventions on CC in relation to Forestry and Fisheries are still in implementation and therefore difficult to judge in terms of sustainability. Sustainability of institutional strengthening interventions is always a huge challenge in Bangladesh. There is a frequent rotation of staff and management across departments and ministries and often a lack of incentives to make any changes. The "history" in Bangladesh shows few results from the large number of institutional support programs that have been implemented by different Development Partners. In the case of the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program, the FAO is also challenged by working within a Ministry where they are not fully at "home" (compared to the Ministry of Food, where FAO has been a main strategic cooperation partner for many years) and with primarily a "non-technical" intervention. In addition to the institutional part, the "Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh" project is emphasizing community engagement and includes some strong awareness-raising and capacity-building elements. However, it is the experience from other development projects in Bangladesh (e.g. the LACC Project) that sustainability often becomes challenging when investments in new technologies (even relatively smaller investments) are required. Even through this project has a high potential for upscaling and replication as Fisheries is a large and significant sector, it is not fully clear yet from the project documentation how this issue will be effectively addressed.

Gender Mainstreaming

Although the FAO Office in Bangladesh has had a Gender Focal Point (a woman) since 2012 **there is still no systematic approach to CC gender mainstreaming in the FAO Office**. Roughly, the Gender Focal Point (GFP) spends around 20% of her time on gender issues in the office. The GFP is not making a "gender screening" of all projects where FAO is involved, it is done on an ad-hoc basis and mainly where the funding agency may have a special request for reflection of gender issues in the proposal. This has been the case for the GEF project formulation on "Community-based Climate Resilient Fisheries and Aquaculture Development in Bangladesh" on which the GFP has been involved, and where gender concerns are dealt with in detail under each component. In relation to the "Strengthening the Environment, Forestry and Climate Change Capacities of the Ministry of Environment and Forests and its Agencies" program a specific "Gender Strategy" has been drafted on request from USAID.

In general, the FAO Office staff do not have a common understanding of what gender is/means or on how to define gender indicators and measure progress on gender issues in the CC programs/projects. In the majority of the FAO implemented CC programs/projects that were reviewed by the Evaluation Mission, resources had not been allocated particularly to support these gender activities. In relation to CC in Bangladesh, the gender issue is even more of a concern, since the men are often leaving their houses after climate change events/disasters and leaving the women and children behind. The Gender Focal Point has used the FAO Document on "Gender in relation to Climate Change" to increase her knowledge on these issues in general, and she found the document useful.

Partnerships

In Bangladesh, the FAO Country Office has established good working relations/partnerships with particularly USAID, EU and DFID. These agencies see FAO in Bangladesh as being "**very strong technically**", "**a good institutional facilitator**", "**highly visible**" in relevant meetings and fora, "**pro-active**" and with "**a strong and result-oriented leadership**".

On the other hand, the interviews carried out by the Evaluation Mission in Bangladesh point towards an ineffective coordination/cooperation among UN agencies in the country and strong internal competition among the agencies for funding. This tends to undermine the UN coordination work in the country. The internal "sector division" agreed between the UN agencies sometimes become a challenge for the system when e.g. bilateral agencies such as USAID and DFID, as well as the World Bank, start to look more at effectiveness/efficiency issues than at "UN sector division" when they approach UN agencies for collaboration. In Bangladesh, the ministries thematic coverage also sometimes makes it less obvious, which of the UN agencies that should be the obvious partner to them (e.g. it could be argued that both UNDP and FAO would be the most obvious "fit" in relation to the MoEF).

Based on the interview with different key stakeholder groups, there seems to be a scope for FAO to engage more strategically with private sector stakeholders in the future, and the area of CC in relation to Forestry and Fisheries, provides good opportunities for FAO-private sector linkages. Closer engagement with private sector stakeholders would also provide FAO in a better and more balanced position to facilitate the dialogues between the GoB and the private sector on e.g. CC and Forestry/Fishery issues.

Key issues for Organizational Learning

The experience from Bangladesh shows that:

- It is possible for FAO to promote the organization towards provision of a more programmatic and holistic approach and delivery of the full "package" of policy, institutional and technical support.
- FAO is capable of taking an innovative and integrated multi-sector approach.
- It is possible to mainstream CC into development projects when an integrated livelihood approach is adopted.
- FAO has a lead position on building of national capacity on both Forestry and Fisheries data and monitoring, including in relation to CC, however the use of FAO normative and knowledge products by key stakeholders in Bangladesh, and for bringing research into use, is limited, in particular within the GoB.
- Gender mainstreaming in relation to CC interventions is not fully institutionalised in the FAO Office.
- The potential for obtaining of synergies and coherence across and between FAO regional and country office level activities is heavily underutilized.
- FAO currently benefits more from partnerships outside the "UN family" and in the future there may be room for stronger alliances with private sector actors and NGO's (at field level).
- Strong management and leadership skills at the FAO Office is of key importance to attract external funding.

2.3 Bolivia Country Mission Report – Water and Agriculture

Relevant projects:

OSRO/BOL/902/ITA: Promoting climate risk management and reducing vulnerability to strengthen sustainable agriculture production in selected regions of Bolivia

OSRO/RLA/101/EC: Preparedness and risk reduction in response to extreme climate events and water supply problems in vulnerable communities of the Peruvian - Bolivian highlands.

Context

Bolivia is estimated to contribute only 0.04% human induced CO₂ emissions globally (McDowell and Hess, 2012) yet the effects of anthropogenic change are likely to be of a greater magnitude and experienced sooner in the Andes than in other part of the globe (Bolivia Information Forum, 2009). A changing climate will have major repercussions for economic activity, especially for vulnerable rural communities dependent on mountainous ecosystems for their livelihoods. Their livelihoods are highly sensitive to climate variability and change because of the challenges regarding traditional relationships between social and ecological systems (Arana et al., 2007). Not surprisingly, in Latin America, climate adaptation and mitigation practices, programs and policies have assumed an increasingly prominent attention in dialogue on the political agenda between policymakers, donors, practitioners and development agencies (Adger et al., 2009; Nelson et al., 2009; Evans et al., 2014; IPCC, 2014).

Climate change is widely acknowledged to be a serious threat to agricultural systems in regions that are food insecure. Bolivia is often cited as one of the most vulnerable regions in Latin America since a significant portion of its national economy is dependent on agriculture. An increasing frequency of extreme events has highlighted the risks to poor communities involved in both cropping and livestock. The situation is exacerbated by the fact that farming techniques are relatively primitive and the smallholder systems that dominate the agricultural landscape have limited capacity to adapt. For the rural poor – many of whose livelihoods are already in a precarious situation – maintaining a viable, productive agricultural sector resilient to climatic change is fundamental to rural poverty alleviation. However, whilst new techniques to support agricultural diversification are underway, indigenous communities in the region are well known for their ancestral knowledge of the environment and for developing techniques that have allowed them to survive and adapt to extreme weather. This ancestral knowledge therefore needs to be embedded into current CCAM strategies.

This report summarises the key findings from a technical mission to Bolivia from 19th-23rd January 2015 to interview a number of key informants including the FAO Bolivia Representative, government ministries (Ministerio de Desarrollo Rural y Agropecuario, Viceministerio de Defensa Civil, Gobierno Departamental de Oruro, City Council of Toledo), international banks (World Bank, Inter-American Development Bank), and other organizations (European Commission, UNDP) with a focus on climate change adaptation and mitigation in water and agriculture. A short field visit was also made to Oruro to visit OSRO/BOL/902/ITA and OSRO/RLA/101/EC.

Relevance

FAO has been working in Bolivia since the late 1970s supporting policies to improve food security and develop agricultural productivity. Recently, programmes implemented by FAO (with support from others) have focused more on emergency relief and disaster risk reduction providing assistance and rehabilitation to the agricultural and livestock sectors that have been severely damaged by climate-related emergencies. For example, in the Andean region that borders Bolivia and Peru, rural communities have been subject to an increasing frequency in extreme weather, including excessively low temperatures coupled with high winds, and recurrent droughts. Since 2010, a number of catastrophic climate events have impacted on cropping (grassland, cereals and vegetables) and livestock systems (camelid), triggering FAO emergency intervention, and supported by donors and NGOs. These climate extremes have had dramatic impacts on production (yield), livestock health and

mortality and the resilience of communities to withstand recurrent climate shocks, and have provided a sharp focus for CCAM related activities in the region.

Since 2007, FAO CO in Bolivia has been pioneering a more integrated approach to combine not only short-term emergency assistance but also medium to longer-term disaster risk reduction and climate change adaptation strategies. This has primarily been instigated through its lead role in a number of recent emergency assistance projects. These have directly contributed to a greater awareness of CCAM risks and helped to mainstream climate change at national and regional policy levels. As a result, FAO have played a key role in enhancing the development and implementation of climate change adaptation and resilience measures at regional and local levels. The Government of Bolivia has similarly adopted an integrated approach to CCAM and building its national emergency assistance support along similar lines. This demonstrates a strong recognition of FAOs ability to influence the country enabling environment and to influence CCAM advocacy.

Recent projects implemented by FAO in Bolivia have been funded by ECHO and the Italian Cooperation, with NGO support (e.g. Care, Hunger in Action) usually post project to ensure sustainability. The national counterparts have included the Ministry of Rural Development and Transport, the National Meteorological and Hydrological Service (SENAMHI) and the Civil Defense. Cooperation between the government and FAO CO is guided by "Marco de Programación de País FAO-Bolivia (2013/2017)" which has climate change and sustainability explicitly stated as one of its four priority intervention areas.

Understanding FAOs comparative advantages in Bolivia helps explain where its priorities and successes have been in terms of delivering a mix of local-to-global activities. Interviewees confirmed that FAO has a high technically based capacity to understand the local context and with a low turnover of staff its team understands the country context particularly well. FAO has a very strong relationship with the government at municipal and national levels, and commands a high degree of trust. It also has a strong understanding of indigenous communities and its work at local level has delivered useful normative products that reflect a balanced mix of combining ancestral knowledge with new science. For example, in OSRO/BOL/902/ITA (promoting climate risk management and reducing vulnerability to strengthen sustainable agriculture production) this has created 'captive buy-in' from farming communities, and particularly women's groups who view FAO as a key partner in supporting and developing their local familiar farming methods. There was strong evidence of very close engagement by FAO with local municipalities and communities in the areas visited and a strong sense of community ownership. FAO have also played a pivotal role in fostering community engagement in the CCAM agenda, brokering meetings with stakeholders to encourage better integration between national and regional level priorities. FAO is viewed as having a neutral vision and stable relationship with ministries and an ability to coordinate activities between different ministries. It has played an important role in CCAM advocacy, although climate change is a highly politicized issue in Bolivia with policies led by the Foreign Ministry.

In terms of the mix of activities, there is clear evidence that FAO has delivered an array of useful normative work; for example supporting government ministries with the implementation of Madre Tierra and the National Plan for Wheat Production and Transformation, local level support to women farmer groups for improving seed germination using simple rainfall prediction guidelines, and training local municipalities in using an early warning system for coping with weather extremes (in conjunction with SENAMHI). For example, a field visit to meet beneficiaries in OSRO/BOL/902/ITA confirmed that the FAO has been highly effective at the smallholder level through interventions to support farmers in understanding how erratic rainfall events impact on crop germination. In one area, the FAO have provided practical guidance to help farmers estimate the current soil moisture reserve based on simple rainfall recording to then inform planting dates. Prior to FAO intervention, the losses from planting were very high, mainly due to insufficient soil moisture to trigger germination; the womens group

visited in Camiri demonstrated a clear understanding of the rationale for a new approach to planting and confirmed that they had fully embraced the FAO approach, are were actively disseminating it to other local groups. The key to success here has been the trusted relationship between FAO CO field staff and the local communities, showing empathy to their traditional methods of cultivation but suggesting new ways of farming that could reduce their risks to greater future climate uncertainty.

FAO has also been very successful in convening local stakeholders through its close relationships between local municipalities and national and regional government. It has greatly assisted the country enabling environment by helping to mainstream CCAM through its integrated approach to combining short-term emergency assistance with medium to longer-term disaster risk reduction. The general sense in Bolivia was one of FAO working effectively in supporting CCAM activities, driven by a focus on DDR and emergency assistance.

FAO has also supported provision of MC data and knowledge through undertaking baseline studies to inform projects (e.g. OSRO/RLA/101 EC) although some interviewees felt that given FAOs unique position in understanding the international context and its inter regional links, that it should be doing more in this area. It has also been active in promoting new technologies and practices to reduce climate risks in agriculture through technical support to farmers, for example, supporting new seed banks, small scale drip irrigation systems, small fisheries based on water harvesting and crop diversification in farmers gardens. Toledo was highlighted as one of the main beneficiaries of FAO intervention providing a seed bank (mainly for cows), a new fishery, contingency wall to divert floodwater and new water harvesting technologies. FAO also assisted in capacity building, including demonstration farms. Many of these initiatives are implicitly helping rural communities to cope with greater climate uncertainty and rainfall variability, but were not being branded or promoted as climate change adaptation.

FAO is widely viewed as being an expert in agriculture (crops and livestock), water and disaster risk management, but not climate change in Bolivia. This is largely due to the fact that FAO do not have critical mass in CCAM; they are closely linked with those that do (GIZ, Swiss Corporation), but they aim to add value to CCAM activities by bringing independent external strategic thinking and new ideas, more so than local consultants whose approaches are often influenced by local circumstances or politics.

FAO activities in Bolivia seem to be well aligned to FAO framework documents, including FAO-Adapt and climate smart agriculture (CSA) and its strategic objectives (SO2 and SO5) although these are more directed to poverty reduction rather than CC activities per se. These are reflected in their contributions to the development of national strategic plans including the National Plan for Wheat in Bolivia and Plan de Riego (and equivalent) Plan Graac in Peru. FAOs recent work in Bolivia in agriculture provides strong evidence that their interventions are aiming for synergies between the three pillars of CSA. For example, a women's collective farmer group based in Camiri, set up and supported by FAO, was clearly addressing increased food security, cropping adaptation to rainfall and increased food security (generating crop surplus for markets). Similarly, the farmer group and fishery development project in Toledo provided strong alignment with CSA pillars. FAO has also helped to set up local disaster management committees, connected to the local mayor and ministries providing a good link between the FAO mandate and local activities (linking food security with family farming – consistent with three pillars of CSA). Most activities were targeted more to adaptation and building resilience, rather than mitigation. However, whilst there was a general awareness and acknowledgment that CSA was a useful conceptual framework, there was limited recognition that it was anything particularly innovative or ground breaking and that FAO had been the originator of the concept.

There is strong evidence that FAO interventions in Bolivia have been participatory, inclusive, appropriate and responded well to MC needs. They have also been framed well within the local context. In Camiri and villa Mercedes, the women farmer groups provided excellent exemplars of

participatory and local specific implementation. On agricultural advocacy issues, FAO has advised and provided policy suggestions to the government, but interviewees made it clear that government makes its own decisions, informed by, but not based on FAO. FAO has also provided much support to local communities (e.g. Toledo) in understanding local norms, rights and legislation regarding land tenure playing a useful advocacy role, but not explicitly linked to the CCAM agenda; rather broader aspects relating to water, food security and agricultural development. FAO have also managed to tailor their work well to the very different environments given the huge diversity of ecological systems and agroclimatic conditions that exist in Bolivia. Trans-boundary initiatives to tackle CCAM were not obvious, although OSRO/RLA/101 EC provided an opportunity for inter-regional collaboration via training of Bolivian agricultural extension advisors travelling to Peru.

FAO has not yet adopted a programmatic approach to CCAM in Bolivia but its approach to short term emergency assistance coupled with longer term climate change adaptation is driving change and moving implementation towards a more programmatic framework. However, FAO is constrained by funding models for projects with most being short-term and responsive rather than necessarily strategic. One criticism levied by interviewees was the need for FAO to adopt a more integrated approach to CCAM, which is particularly for Bolivia where many of the social dimensions of climate change in agriculture and food security seem to be overlooked.

Effectiveness and impact

In relation to CCAM in agriculture and water, FAO has made a number of positive contributions, some already highlighted above. In addition, it has provided clear contributions to policy, governance and strategy, not only in relation to CC and DRR, but also in food security and forestry. For example, the Government of Bolivia has adopted the FAO plan for wheat production and transformation (2015-19) which is viewed as a flagship initiative for increasing national production. Bolivia has a strongly patriotic agenda, hoping to export surplus wheat by 2025. FAO is also active in a number of national committees and takes a lead food security (but not CCAM).

FAO interventions have stimulated some indirect downstream positive outcomes by encouraging local communities to work together and towards a more market based economy. For example, in Villa Mercedes, a major achievement linked to an FAO project has been the ability of the women farmers group to generate a surplus in production beyond family subsistence needs so that the surplus is now sold in local markets, thus generating additional cash for further project development and casual labour. This was not anticipated at the project outset. The group is now focusing on how it can extend its drip irrigation on maize and diversify into other cash crops (yucca, sweet potato, peanuts) and improve its transport links to market. The field visits suggested that FAO has played an important role in building capacity and knowledge; for example, the early warning system developed with SENAMHI was being used in rural areas to support risk management in agriculture; FAO support for farmers to reduce their vulnerability to crop failure by implementing a simple rainfall monitoring and soil moisture estimation procedure was had also been implemented and was working well. Evidence from the field mission to Toledo to visit local municipality staff who had been involved in the application of the Early Warning System (EWS) developed in OSRO/RLA/101/EC highlighted that the sustainability of the project and value of FAO intervention will depend largely on continued support for its use by the existing municipalities, promoting its benefits to other communities to encourage adoption and integrating the service into regional level plans on CCAM and DRR. Without active use and continued support the service although showing great promise to improve climate resilience will lose its momentum and thus uptake.

The challenge for FAO is in up-scaling these successful demonstration projects to get much wider buy in from the larger communities. The main barrier is a high dependence on traditional farming techniques and a reluctance to try new approaches. FAO has made particularly good progress with empowering women farmer groups.

FAO activities in Bolivia provide clear demonstration of increased awareness by local communities and indigenous people of the risks of climate change (extremes) and benefits of collective action and uptake of new technologies. FAO's field level interventions have had a very strong focus on the poorest and most vulnerable groups to CC including women. Field projects have helped to diversify production, increase productivity through better crop and water management and new technology (drip irrigation). The most beneficial outputs from FAO intervention include (i) training in municipalities for risk management and early warning, (ii) resources for wells, seed provision, veterinary products and other inputs, (iii) help with other inputs, although it is recognised that they are temporal (one year support but not the following year), and (iv) working at municipal and departmental level.

Funding agencies and development partners confirmed FAO CO provides an efficient project management and administration unit, although it was stressed that contracting and approval processes were unnecessarily bureaucratic. There have also been challenges with FAO linking up with NGOs to maximise funding benefit, balancing the different scales of operation. Resourcing projects has also created some conflicts over who does what, mainly between FAO and NGOs. It was felt that FAO had a more useful role in managing projects at national level, and that local level support should then be the responsibility of NGOs. FAOs strong relationship with government has also supported efficient project delivery, but the highly fragmented nature of institutional governance has not fostered effective working between ministries (staff churn is a major problem).

Sustainability

In Bolivia, as in other countries where FAO has representation, the key to achieving genuine long term sustainability in outcomes is in handing over responsibility, ownership and control to local groups. However, given the relatively short time scale for projects (typically 18 months to 3 years) and the lack of a programmatic approach to project formulation, sustainability is usually dependent on follow-on projects to maintain momentum. Strong relationships with government ministries, local donors and NGOs of course also helps to provide a platform for supporting projects post completion and for ensuring sustainability. However, a key factor that will influence FAO success is the political will and desire of the government to make climate change a key policy issue for socio-economic development. FAO have been instrumental in supporting the Government of Bolivia in quantifying the risks from climate change and supporting policy and strategies, in providing local municipalities with technical services and normative products and in bringing key stakeholders together to discuss climate change, but the fragmented institutional framework and lack of 'responsible development' is hampering progress. For example, in contrast to Ecuador where natural resources are being used to fund sustainable development there is reluctance to adopt a similar approach in Bolivia, despite its large reserves in natural resources. A high turnover of staff (e.g. Seven Vice Ministers in 4 years) in government also means that FAO needs to be continually committing resource to maintain contacts and reputation with the relevant ministry.

These challenges with securing long-term project funding and maintaining links with key staff in government ministries are important externalities that impact on FAOs ability to achieve sustainability; but FAO also needs to resolve its own internal challenges by mainstreaming CCAM in its own activities more explicitly, in resolving conflicts between UN agencies on competing for CCAM projects and in deciding with whom it should form strategic alliances in order to build a stronger critical mass in CCAM. At present, FAOs contribution to CCAM in Bolivia is driven by its strong interest in DRR/emergency assistance; its activities in the agricultural and water sectors are fairly superficial and are explicitly dealing with many of the longer-term challenges of CCAM. This was highlighted in Oruro where key informants stressed that providing DRR assistance does not resolve the longer term fundamental challenges of CCAM in the area – it's a responsive mode action to a problem that needs more structural assistance and FAO should be looking more at ways to focus on prevention rather than disaster reduction.

More fundamentally, it is also critically important for FAO HQ to provide much clearer signals and direction of where and how it wants to influence international CCAM dialogue and policy. At present, FAO is not a leader in CCAM discussion on the international stage; it is viewed as being a technical partner working on the periphery, with limited strategic priority on CCAM issues. FAO HQ needs to resolve the internal issue of dealing with CCAM as a much more cross-cutting issue, rather than it being led from one division. Interviews with numerous FAO HQ staff confirmed that CCAM is a divisive issue and that the current institutional framework for dealing with CCAM does not engender multi-disciplinary and/or cross divisional engagement. A working party on CCAM to share ideas and cultivate much stronger inter-disciplinarity and an integrated approach to CCAM would be a major improvement.

It will also be essential for FAO to identify new ways to leverage its impact, through strategic alliances with development investment partners, NGOs, South-South Cooperation and possibly the private sector. Long-term sustainability will also be a function of how FAO decide to engage with the private sector in CCAM. Evidence confirms the need to adopt a much more systematic value chain approach that offers marketing and value added opportunities for small holder farmers. In Morocco, there is scope for smallholder farmers to be more closely linked with larger scale export agriculture. Given reducing funds for projects, the private sector is also now interested to commit funds for supporting development. CC adaptation could be an ideal focus. With their politically neutral reputation, this could be an excellent opportunity for FAO to bring private funding and investment into their food security and climate change arenas of expertise.

Gender mainstreaming

The field visits to projects with a focus on agriculture in Bolivia demonstrated a very strong component of gender mainstreaming and engagement, although this was not by design, but rather by circumstance. For example, the women's farmer group based in Camiri (part of OSRO/BOL/902/ITA) demonstrated gender empowerment with FAO playing an important role in supporting the women to change farming practices and adopt normative tools to improve crop establishment. The combination of using rainfall recording and a simple soil moisture balance methods had helped the women to reduce risks of crop failure from excessive drought during planting. FAO were using the lessons and experiences from this group (and four others) to promote wider uptake and adoption to 60 other families in the municipality.

In the forestry sector, gender mainstreaming was not explicit. There was limited evidence of inclusion of women in forestry projects (not CCAM focused). Feedback from interviews with ENFI staff suggested that gender aspects of CC are generally not considered, but that women need much greater support and training in activities that are not directly linked to the physical attributes (i.e. logging) of forestry management, but rather on how to 'add value' to timber products. The existence and activities of the Gender Focal Point in Bolivia was not obvious.

Partnerships

There was limited evidence of FAO CO in Bolivia developing CCAM strategic partnerships, although many interviewees confirmed that this should be more strongly encouraged. FAO has identified a complementarity partnership with the National Foundation of Santa Cruz with ARA (WUA, municipality, National Foundation and beneficiary). Other WUAs now want to adopt a similar approach. This represents a good example of complementarity and how different funds and partners can working together. However, there are challenges in partnership working at the municipal level, in complementing work through up-scaling. However, two areas where this was thought it could be developed were in promoting seedbanks and local technological innovations.

There was a strong feeling that FAO needs to have much greater and closer participation with local universities and research organisations, possibly though designing joint programmes. Whilst it has solid relationships with government ministries and agencies (e.g. EU), there seems to be a correspondingly weak relationship and lack of institutional partnership with universities and research institutions in Bolivia. FAO are thus not fully aware of the potential opportunities and synergies that

might exist to embed activities from these institutions into their work programmes. Given that one of FAO's main roles is in knowledge aggregation, it was not clear in Bolivia how FAO was drawing on cutting edge or state of the art knowledge in CCAM from relevant Bolivian or indeed from Latin American research.

On CCAM, FAO currently benefits more from its informal partnerships the EU/ECHO, the World Bank and others, but it does not seem to be so closely linked with its neighbouring UN agencies. CCAM is a prickly subject between UN agencies when discussing collaboration opportunities.

There were, however, positive partnerships in place with NGOs, but no evidence of private sector engagement. It was suggested that FAO should be more proactive in developing its links with the private sector and some of the larger NGOs, particularly at field level, to assist with knowledge transfer and capacity building. In Bolivia, as in Peru, there are opportunities for FAO to develop better links with the private sector (notably the extractive and large agri-industries). Given the situation of reducing funds for project development, the private sector (extractive mining) is now interested in committing funds for development. Climate change adaptation would be an ideal focus. With their UN reputation, this could be an excellent opportunity for bringing private funding and investment into FAO's food security and CC remit. Raising the profile of corporate social responsibility (CSR) in mining also provides an opportunity for FAO to benefit from funds that need to be spent on rural development. There are also opportunities for FAO to engage with large agribusinesses in linking small holder agriculture to the value chain. Many interviewees felt that the time was right for FAO to engage much more proactively with the agrifood industry and to connect small farmers to the market, helping to engage them in adding value to their products. FAO clearly needs to develop initiatives in this area, but it should not discount active collaboration with the private sector to gain traction.

2.4 Bolivia Country Mission Report - Emergency DRR/CCA

Names and Codes of Projects Referred to:

OSRO/BOL/104/EC Increasing local resilience to drought in the Bolivian Chaco building on successful strategies (Phase I)

OSRO/BOL/302/EC Geñoï - Consolidating local resilience to drought, on the basis of successful strategies to protect and strengthen traditional livelihoods and food security conditions of vulnerable families in the Bolivian Chaco. (Phase II).

Context

In Bolivia, the majority of the population relies on the agriculture sector for their livelihoods, and the large majority of the farmers can only produce at subsistence levels. Over the last decade, Bolivia has experienced an increasing number of natural related disasters, which have made the rural population in the country, more vulnerable than ever. FAO's work in Bolivia has also been affected by these developments and an important part of FAO's work in the country has become directed towards emergency assistance and enhancing of local capacities to cope with natural disasters in the future.

Since 2007, FAO has through emergency assistance projects supported a number of vulnerable communities living in areas affected by droughts, cold waves and floods by promoting adaptation measures, community disaster risk management and early warning systems to mitigate the negative effect of climate change. These emergency assistance projects have been funded mainly by ECHO and the Italian Cooperation and have been implemented by FAO together with NGO's. The main national counterparts to these projects have been the Ministry of Rural Development and Transport, The National Meteorological and Hydrological Service (SENAMHI), the Civil Defense (which is the institution responsible for coordination of disaster risk management in Bolivia) as well as the municipalities and communities involved.

The cooperation between the Government and FAO in Bolivia is guided by "Marco de Programación de País FAO-Bolivia (2013/2017)" which has "Climate Change and Sustainability" as one of the four prioritized intervention areas. The FAO Office in Bolivia is organized into two intervention units: the *Emergency and Rehabilitation Unit* and the *Program and Operation Unit*. The Emergency and Rehabilitation Unit only works with short-term projects (up to 18 months). The Program and Operation Unit manages all development projects.

Relevance

Through its lead role in a number of emergency assistance projects implemented since 2007, the FAO Office in Bolivia has been introducing a more integrated emergency assistance approach in Bolivia, including not only short-term emergency assistance but with a particular focus also on disaster risk reduction and adaptation measures. In this way, FAO's Emergency DRR/CCA projects have contributed to mainstreaming and enhancing of longer-term climate change adaptation and resilience through emergency assistance at both national, regional and local levels in Bolivia. Interviews carried out with government representatives, Development Partners and NGOs in Bolivia are all emphasizing how important FAO's contribution has been to introducing these linkages between emergency response and DRR/CCA interventions in the Bolivian context. The stakeholders stress that FAO as an organization has been well-positioned to implement this approach, since FAO is considered to have both the relevant technical knowledge, the strategic focus on the vulnerable rural population as well as the direct access and working relations with all institutional levels in the country. It is the impression by the government representatives, that none of the other Development Partners with important work on DRR/CCA in Bolivia (e.g. GIZ and the Swiss Cooperation) nor the NGO's working in this field, would be capable of offering the same integrated approach to emergency DRR/CCA interventions as does the FAO. The interventions of the other Development Partners and NGO's working within this field are seen as being more punctual.

The FAO supported emergency assistance projects in Bolivia have been on request by the Bolivian government and the relevance of these project interventions has been high, not least from an institutional perspective. From an institutional point of view, the government representatives emphasized the importance of having a number of subsequent emergency DRR/CCA projects implemented by FAO since 2007, as this has allowed building more robustness and sustainability into the institutional parts. As examples were mentioned FAO's continuous support to enhance the operationalization of the Disaster Risk Management (DRM) Units in the municipalities, establishing of an early warning system (linking the national meteorological system to the municipalities through the DRM Units), as well as support to development of relevant policy and legal framework.

The Evaluation Mission found that the relevance of the adaption measures directed towards the direct beneficiaries at community level was mixed. The nature of the adaptation approach applied through the Emergency DRR/CCA projects has tended to be primarily supply-driven. It has included introduction/testing of new (more tolerant) seed varieties, different cultivation practices, animal health care issues etc. to the affected farmers. Some of these activities have required particular efforts and additional work load for the farmers.

The direct project beneficiaries of the emergency DRR/CCA projects have included the most vulnerable communities in the affected areas including women, but their contribution to the project formulation process has been limited. The initial formulation of the Emergency DRR/CCA projects have mostly been done directly by FAO staff building on their own knowledge of the affected areas and previous experiences with similar types of interventions. There has always been some interaction and discussions with people in the relevant ministries. One reason for the limited involvement of project beneficiaries in the formulation process is that emergency projects need to be prepared within a relatively short timeframe. After project approval, there has been more involvement of local stakeholders e.g. in relation to the selection of participating communities. At the more general level,

the government representatives emphasized that they have observed a positive change with FAO over the past couple of years in the sense that the organization had become more open for dialogue and listening to the counterparts. As an example, the current FAO Programme Framework in Bolivia (2013-17) was developed through a comprehensive and participatory process, which involved high-level representatives from several ministries and the civil society.

A few transboundary initiatives that have also addressed DRR/CCA issues have been launched between Bolivia and Peru. Given somehow similar conditions e.g. in some of the mountain areas within the two countries, the potential for learning and up-scaling of bi-national project activities are considered to be high by the FAO Office staff as well as by other stakeholders. However, in relation to emergency DRR/CCA linkages, joint projects become more difficult due to the particular funding arrangements for emergency projects.

The two-legged organizational structure of FAO's Office in Bolivia, with the Operational and Program Unit as one leg and the Emergency and Rehabilitation Unit as the other leg, provides both challenges and opportunities for integration of emergency DRR/CCA project elements with other development programs. There is no systematic approach to how learning and experiences from the emergency projects implemented by the Emergency and Rehabilitation Unit is being transferred to the development programs in the Operational and Program Unit and vice-versa. Given the different nature and shorter timeframe of the emergency projects, the staff in the Emergency and Rehabilitation Unit is working under different conditions than the staff members in the other unit. The staff considered it being a challenging factor for the Emergency and Rehabilitation Unit that they were under constant pressure to identify new project funding opportunities. On the other hand, the FAO Office in Bolivia is a relatively small office and in practice, there is a lot of informal knowledge sharing taking place between the two units and both units are benefitting from the other units institutional and personal relationships with external partners.

Effectiveness

In relation to the Emergency DRR/CCA projects FAO has contributed to various outcome areas:

FAO has been effective in providing support to policy development and governance in relation to emergency DRR/CCA interventions in Bolivia: The government representatives and Development Partners emphasize FAO's role as a main facilitator of coordination efforts among different ministries at national level as well as for the inter-institutional cooperation between national, regional and local levels. Examples are the operationalization of the DRM Unit system (the linkages from the ministries to the municipality), the establishing and operation of an early warning system (again, linking information from the national level to the municipalities and further down to the communities) as well as support to the policy and legislation framework. It is the perception of the stakeholders that FAO's support within this area has been key to the achievements at outcome level.

The awareness and use of FAO data and knowledge products for emergency DRR/CCA interventions is in general low in Bolivia among key stakeholders and the products are not effectively promoted through the project interventions. In the ministries, the interviewed management and staff were not able to point to particular value-added of FAO data and knowledge products in relation to their work. In addition, there was a weak linkage between FAO and research institutions, including universities, in relation to supporting development of policy and legislative frameworks.

The FAO Office in Bolivia has been successful in attracting financing for emergency projects on a continuous basis since 2007. Several Emergency DRR/CCA projects have been funded in this period, mainly through ECHO and the Italian Cooperation. These projects have all been defined as "emergency projects" with the characteristics of relative short implementation periods (up to maximum 18 months). While the short implementation periods have been a limitation for achievements of wider results

within each individual project, the continued flow of emergency projects has allowed FAO each time to build further on previous project results/experiences, and in this way gradually achieve higher-level results. In this way, the project portfolio implemented by FAO's Emergency and Rehabilitation Unit since 2007 has had some similarity to a programmatic intervention, with well-defined milestones for each "phase".

FAO has been an effective facilitator for institutional coordination for implementing technologies and practices in relation to emergency DRR/CCA interventions. FAO has successfully facilitated coordination among different ministries at national level as well as for the inter-institutional cooperation between national, regional and local levels in relation to implementation of the Emergency DRR/CCA projects. In particular, the activation of an early warning system has been a remarkable achievement within the period. In November 2014, the Bolivian Government approved Law 602 Art. 43 on implementation of an early warning system in Bolivia. This was a major achievement from FAO's work on different Emergency DRR/CCA projects over the past 7 years. FAO has contributed to build up a meteorological platform, which provides prognostics and early warnings (48 hours). The system links the national meteorological institute to the municipalities, which further communicates to the communities. Likewise, the activation and operationalization of the DRM Units within municipalities in the country has been a significant achievement. Up to 2008, the DRM Units did not have any central budget allocations and were therefore operationally inactive. From 2011 however, the Bolivian Government have started to allocate particular funds in the annual budget for the functions of these units, mainly due to effective lobbying done by FAO. A number of the municipal DRM Units have received capacity building through the FAO implemented Emergency DRR/CCA projects.

In terms of household adaptation and resilience, FAO has been less effective in its support to upstreaming of pilot experiences and best practices from emergency DRR/CCA projects, including from other countries in the region, and make these applicable more widely in Bolivia. Through the emergency projects, FAO has been active in implementation of different DRR/CCA project activities at the community level. FAO has assisted with building of embankments, which allows to face two continuous disasters of high recurrence (flood and drought in a same place at different times of the year), with only one type of infrastructure. The retained water into the channels during the dry season also benefits the implementation of several small familiar or communal plots or gardens for crop production. FAO has also provided animals to vulnerable families and training in order to establish familiar herds and subsistence production of protein. These animals are the basic material for giving the elemental knowledge of animal management, including veterinary health, sanitary concepts and procedures, reproduction, livestock feed and feeding, and better basic transformation of the by products for the best way of its consumption into the familiar nucleus. By distributing to small farmers distinct species of seeds (rice, maize, beans and cassava) and tools, new routines of crop production has been established, year by year, under the FAO's technical concepts of selection, post-harvest conservation and use of the best seeds for the recurrent and sustainable production.

Based on the interviews with Development Partners and NGO's, there is however a perception that FAO is tending to compete/overlap too much with community work that could often be more effectively done by NGOs, which often have a better local knowledge and a more permanent stay in local areas. It was suggested by some of the partners that FAO should aim at stepping one level up and try to work more at the advisory/supervision level in relation to community level interventions. FAO is recognized for its strong technical knowledge, which would then need to be transferred to some extent to e.g. relevant NGOs working directly with the communities. The view of other development partners in Bolivia is that FAO should focus its attention and efforts more towards the institutional level and take further advantage of its easy access and recognition in the ministries e.g. in order to more effectively support replication and further uptake of good practices and experiences. In terms of adaptation practices, although publications on best practices have been prepared and

distributed through FAO, there is still little evidence on replication of these practices across regions in the country and this challenge is recognized by all stakeholders.

The partners from the Bolivian government, the Development Agencies, NGO's and the benefitted municipalities and communities, see **FAOs main comparative advantages in relation to Emergency DRR/CCA** as follows: **high technical capacity** (e.g. in terms of eco-systems nationwide, Bolivia has more than 85 different eco systems); **good institutional relationships, lobbying and facilitation skills; broad experience from other countries in the region and for different regions within Bolivia**; disaster issues in Bolivia is closely linked to **vulnerability issues in agriculture**, which is where FAO has a strong comparative advantage and; **an integrated focus on agricultural sector development**.

The staff in the Emergency and Rehabilitation Unit in FAO's Office in Bolivia is well aware of FAO's normative work, statistics and data. **FAO reference documents, data bases and other information is used when emergency projects are formulated, in particular to provide the context and analytical background for the interventions**. The particular FAO information that is being used in these cases depends on the particular emergency case. On the other hand, **FAO staff rarely share products from FAO's normative work and analysis with project partners**.

The advocacy efforts of the FAO Office in Bolivia for sharing of approaches and lessons from Emergency DRR/CCA projects with the Bolivian government for the purposes of shaping decision-making have been effective. According to interviews with representatives from the Bolivian government and Development Partners, the integrated approach introduced by FAO for emergency DRR/CCA projects have now been well-rooted within the relevant ministries in Bolivia and is being used as point of departure for emergency intervention responses by the government itself. At decentralized levels, this approach has also been effectively advocated. The Evaluation Mission met with the Mayors Office in 2 Municipalities in Oruro and in both these places, the representatives from the Mayors Office emphasized the importance of not only focusing on short-term emergency assistance but to include also the perspective of disaster risk reduction and adaptation measures in relation to emergency assistance.

Efficiency

Compared to the relatively low budgets of the Emergency DRR/CCA projects, the achievements have been notable. The Bolivian government representatives interviewed by the Evaluation Mission, considered the value for money to be much higher for the Emergency DRR/CCA projects implemented by FAO relatively to larger programs implemented within the same area (e.g. programs funded by the Swiss Cooperation). One reason for this is that the projects have been much more realistic and with concrete deliverables within a limited timeframe compared to the programs much broader scope in time and content. The same point of view was expressed by donors and NGOs involved in the projects, and they also added that FAO had been efficient in terms of project management and administration, ensuring a smooth project implementation. The multiple emergency projects implemented by FAO are therefore considered to have been more efficient than programs implemented within the same field.

In the FAO Office in Bolivia, it is also the perception that the efficiency of emergency project implementation has been high. On the other hand, **FAO staff points to the high transaction costs each time a new emergency project proposal has to be submitted**. Although less requiring than a program document, a number of the same issues (context, background, approach, organization etc.) still need to be worked through.

Sustainability

In general, it is a challenge to sustain outcomes of the Emergency DRR/CCA projects due to the relatively short timeframe of implementation. However, there are good chances that some key outcomes from the Emergency DRR/CCA projects implemented by FAO in Bolivia may be sustained to

a large extent, in particular the institutional outcomes related to the early warning system and the operations of the DRM Units. This is mainly due to the following reasons:

According to the EU Office in La Paz, DRR/CC will become pillar of a new EU budget support in Bolivia for 2016-2020. The EU will encourage the Bolivian Government to allocate this funding to activities that will build further on some of the important achievements from the ECHO funded emergency DRR/CCA projects, implemented by FAO. EU is the only donor providing budget support in Bolivia, and has therefore a strong policy influence within these areas.

A new Emergency DRR/CCA project to be implemented by FAO has just been launched in Bolivia. The project is funded by the Italian Cooperation and is titled "Strengthening local resilience to food insecurity, based on successful livelihood strategies, to develop a national early warning system for vulnerable rural families in the High Andes zone and in Beni". This project includes a continuation and further sustaining of some of the key outcomes from the previous emergency assistance projects implemented by FAO, in particular related to the early warning system. The project is running from January 2015 with a duration of 12 months.

A complementary programme on disaster risk reduction (funded and implemented through the Swiss Development Cooperation) with focus on a strengthening of the early warning system at community level has just been launched in Bolivia. Through this programme a methodology for will be developed for using bio-indicators²³ at community level to forecast changes in local weather as a complementary tool to the early warning system operated by the meteorological institute. Each community will appoint "Observers" who will receive training in the methodology to be applied.

Finally, both the EU and FAO make particular efforts to ensure that the emergency projects become complementary to other development programmes. The Evaluation Mission saw an example of this in the Chaco Region, where an EU funded Climate Change project component is being implemented in some of the municipalities. This component includes some infrastructure works, which complement emergency project activities implemented by FAO in the region through the ECHO funded project. Likewise, the FAO is supporting the Ministry of Rural Development and Transport on technical and policy issues, where experiences from the emergency assistance projects are also applied.

On the other hand, **in Bolivia the decentralized levels are challenged by very frequent changes of staff and serious resource constraints**, which will constitute a constant threat to sustainability. In view of this, it must be considered a very important achievement that the national early warning system is now approved by law in Bolivia and that the national budget in Bolivia now includes an allocation for the decentralized DRM Units, which were previously not operationally due to lack of funding.

At the same time, other type of outcomes will still need further consolidation and uptake if they should lead to long-lasting impacts. This is in particular the case for the outcomes related to the adaptation measures implemented at community level. The Evaluation Mission visited women groups in two vulnerable communities in the Chaco Region, which had been supported through the ECHO emergency assistance programme. Although the women were still motivated to continue with the activities promoted by FAO through the programme, both groups had started with more than 20 members and were now down to 5 members, which was considered an absolute minimum for the maintaining of the groups. Likewise, despite the hard work of the women, the income generated from the activities was still rather low and did not allow for any unexpected cost. The experiences from the demonstration trials is disseminated through workshops and other events, where farmers from the pilot communities also attend to tell their stories. Due to the large variation in eco-system conditions

²³ Within some communities in Bolivia, observation of local bio-indicators have through centuries provided a local agro-meteorological service.

in Bolivia, it is a challenge in itself to transfer good practices from one area to another, however it is still an issue that will require more attention in the project designs.

Within 5 of the 7 municipalities involved in the Chaco Region, "mesas técnicas" have been established with support from the ECHO emergency assistance project. The main purpose of these "mesas" is to serve as coordination mechanisms and for discussion of technical issues in relation to the development projects in the municipalities, to avoid overlap and ensure a certain coherence in the approaches applied. These "mesas" will also need further support to become sustainable and for being expanded to more municipalities. In view of this, the multi-agency project set-up that has been applied for the Emergency DRR/CCA projects has the advantage that it will be possible for some of the partners (NGOs) to provide a continued follow-up also after project completion within some of the municipalities, where they have a more permanent presence.

The strong "emergency profile" of the FAO Office in Bolivia, is strongly related to the presence of the Emergency and Rehabilitation Unit in the FAO Office. This was confirmed by the interviewed stakeholders. It is therefore without any doubt that if a decision will be taken at some point of time to merge the Emergency and Rehabilitation Unit with the Operational and Program Unit it will be at the cost of a less visible emergency profile of the office.

From 2013, councils have been established at Department level in Bolivia with the aim to come up with list of priorities investments for the respective Departments. The councils are open for participation for different stakeholder groups (producers, private and public sector, NGOs, Development Partners etc.). The prioritized investment lists are forwarded to the Ministry of Rural Development and Transport in order to become reflected in the national budget allocation. The establishment of these councils is by the Government of Bolivia seen as a key instrument for participative investment planning in the future, including on emergency DRR/CCA related issues. FAO has so far not been engaged with the department councils, however the impression by management at the ministry level is that **FAO should aim at playing an advising/suggesting role for these councils at Department level, given its lead position in the country within these fields.**

Gender Mainstreaming

The "Marco de Cooperación de Desarrollo entre las Naciones Unidas y el Estado de Bolivia 2013-2017" has a strong focus on securing of the rights of excluded groups, including women, and to work from a gender perspective. The "Marco de Programación de País FAO-Bolivia (2013/2017)" is less specific on support to gender development and women empowerment, but has a strong focus on the family/subsistence perspective ("agricultura familiar") in the agricultural sector.

In terms of gender mainstreaming, the Emergency DRR/CCA project designs have not been formulated with any particular strong gender perspective. Gender issues have been implicitly considered through the projects strong focus on vulnerability within affected communities. In practice, and as things have turned out, some of the emergency projects have ended up supporting women groups within the communities (e.g. in the Chaco Region, visited by the Evaluation Mission).

Partnerships

On Emergency DRR/CCA interventions, FAO has worked closely together with EU (through ECHO) and the Italian Cooperation. Although not formalized partnerships, these alliances have built a strong mutual trust among the partners and FAO is referred to as "a preferred partner" on emergency assistance projects. So far, the FAO Office in Bolivia has not worked in partnership with other UN Agencies on Emergency DRR/CCA projects. Although One UN obviously provides an opportunity for partnerships and joint programming among the UN Agencies, in terms of Emergency DRR/CCA projects, the experience so far is more that the agencies have been competing for funding e.g. for the ECHO funded projects.

Organizational Learning

The experiences from FAOs support to Emergency DRR/CCA interventions in Bolivia provides some interesting issues in terms of **internal and broader organization learning**:

The existence of an Emergency and Rehabilitation Unit in the FAO Office: The existence and performance of this particular unit has been a main reason for the ability of the FAO Office to mobilize funding from ECHO and the Italian Cooperation for several emergency projects. The perception among the development partners is that the existence of a particular emergency unit in the FAO Office sends a strong signal of particular priority given to this area. In addition, there has been limited change of the staff of this unit over time and the existing staff is highly praised by the development partners for their dynamics and engagement as well as for their technical knowledge and personalities. All these factors are considered important by the development partners when they have to identify the most appropriate partners for their emergency projects.

Integrated projects with multi-agency support: One main characteristic of the emergency DRR/CCA projects in Bolivia is that they include *multi-agency support*. This has allowed a more focused and context specific project intervention, with stronger perspectives for sustainability, due to the continued presence in the project areas of some of the agencies involved (e.g. the continued presence of participating NGOs in the Chaco Region is important to sustain the established "mesas técnicas" in 5 Municipalities as well as to follow-up with the supported farmer groups).

Emergency DRR/CCA projects with focus on institutional development and capacity building: The FAO supported Emergency DRR/CCA projects in Bolivia have included a particular focus on strengthening of relevant institutional issues that would contribute to a reduction of the risk of future disasters (such as establishing of early warning systems, operational DRM Units in the municipalities with direct linkage to relevant ministries, policy framework and legislation). The general view of the project partners is that FAO has been well-positioned to facilitate this interaction among different institutional levels (national-department-local) but that more attention will still be needed to strengthen these inter-institutional relations.

Monitoring, lessons learned, replication/uptake: The emergency DRR/CCA funded projects have mostly focused on *numbers* of beneficiaries (e.g. farming households) and less on the quality aspects of the interventions. No baseline exists for the projects and no systematic collection and use of lessons learned. The sharing of knowledge and learning from the emergency projects takes place in a non-systematic and ad-hoc basis within the FAO Office in Bolivia. There is little evidence of replication and further uptake of good practices, in particular at the field level.

Use of FAO normative and knowledge products: Although used by FAO Office staff to some extent, no particular efforts to further disseminate/encourage use of these products among other relevant stakeholder groups.

2.5 Kenya Country Mission Report - DRR and CC in Emergency Programme & Gender Mainstreaming

Names and Codes of Projects Referred to:

UNJP/KEN/202/ITA Addressing Gender inequity in Disaster Risk Reduction (DRR) and Resilience Building in the Arid and Semi-Arid Lands (ASALs) of Kenya

UNJP/KEN/075/WFP Joint Initiative between the Government of Kenya and Rome-based UN Agencies on Disaster Risk Reduction (DRR) on Resilience Building in the Arid and Semi-Arid Lands (ASALs) of Kenya

The Kenya Climate Resilient Agricultural Livelihoods Programme (KCALP)

Full Names of Normative Products Referred to:

- Gender and Climate Change in Agriculture and Food Security for Rural Development
- Tackling Climate Change through Livestock
- Resilient Livelihoods: Disaster Risk Reduction for Food and Nutrition Security
- Voluntary Guidelines on the Responsible Governance of Tenure
- Climate Smart Agriculture Sourcebook

Relevance

Normative Products

The normative documents listed above are for use at sub-regional and country office levels. They are relevant and consistent with the countries' development priorities and CC adaptation and mitigation agendas. However the strong focus on mitigation in 'Tackling Climate Change through Livestock' is not especially useful to Kenya's mainly small scale farmers and herders for whom coping and adaptation are more relevant. FAO Regional Office has promoted 'Gender and Climate Change in Agriculture and Food Security for Rural Development' through the DRR Network in Kenya. This serves well the national gender inequality and climate change issues of Kenya, where 75% of the agricultural labour force are women. CC staff of FAO Kenya were unaware of the 'Resilience Livelihoods: DRR for Food and Nutrition Security' document and so were not referencing it to Kenya programme staff. The 'Climate Smart Agriculture Source Book' is referred to by staff and national level partners in Kenya for its relevance, but its volume of information is rather overwhelming and challenging for staff to apply. FAO Kenya has a small-scale initiative applying the 'Voluntary Guidelines on the Responsible Governance of Tenure', with capacity building and awareness raising activities. Staff appreciated the guidelines as highly appropriate and relevant. Government staff at district and county level were not aware of the CSA manual or other FAO manuals.

Programming

Kenya FAO has been implementing projects and programmes in the sectors of climate resilient conservation agriculture, livestock, gender equality, forestry, and emergency assistance in the Arid and Semi-Arid Lands (ASALs). These covered the five domains of policies, climate finance, knowledge and data, technologies and practices, and community and household-level adaptation and mitigation. FAO Kenya leadership has been keen to develop a programmatic and cross-sectoral approach, to provide effective and efficient services to the most needy populations, in comparison to a less efficient project-based approach. The programme approach has been applied in the new Climate Resilient Agricultural Livelihoods Programme (KCALP) in cooperation with WFP and IFAD.

At the national office level, FAO Kenya has initiated relevant practices to design and implement a programmatic approach:

- Human Resource Approach following its programmatic approach
- One Work-plan for the Office
- Focal Counties
- One Budget
- Result Frameworks combining results of different initiatives of FAO Kenya
- An external consultant has been hired to support the move into a programme approach
- A design process of new programmes involving sectoral consultation, encouraging cross-sectoral cooperation and contribution including cross-cutting issues of gender and CC.

However, there remain some blockages to the programme approach:

- Slow change in the management system
- Challenges in acquiring long term funding from donor agencies

- Lack of continuity in communications and support from headquarters for such direction change: The Director of FAO in Kenya had communicated to Headquarters regarding the Country Office needs, in order to support the programme approach, including a programme budget for approval in-country. But this had not yet been approved by Headquarters.

FAO has relevant positioning advantages in the region and in Kenya:

- Supporting development of policies on Climate Smart Agriculture and Conservation Agriculture (within Kenya's Agriculture Sector Development Strategy 2010-20 to reduce food insecurity). Food security remains a concern in northern Kenya. Disasters including drought, dry spells and conflicts are the main drivers of food insecurity.
- Government researchers, officials and staff of extension services at District level and NGO staff all expressed their clear understanding of the CSA concept, with both mitigation and adaptation interventions in Kenya. But they expressed difficulties in implementation of the CSA approach.
- Coordinating a range of regional and national networks on food security
- Maintaining strong partnerships with major stakeholders in the country and in the region
- Promoting Farmer Field Schools and Pastoral Field School models. It is a comparative advantage of FAO, to disseminate and provide training on these grassroots participatory approaches to government staff, especially those in the newly established counties. FAO carries more influence than NGOs, with these officials, making their adoption of these approaches more likely. Also, by working at both local and national levels, FAO has the opportunity to use working results and evidence from grassroots levels for advocacy at national level. NGOs such as CARE International, working in the same geographic areas as FAO, use the technical support of FAO for training on the FFS and PFS models to government officials. This type of strong partnership with NGOs increases efficiency: NGOs are primary implementers, while FAO can provide technical guidance, monitoring, and can negotiate space for voices of stakeholders, and can gather evidence.
- Addressing land-use rights issues, best practices on land use, land use planning and land tenure. In the context of adapting to climate change, land is a farmer's most valuable asset. Farmers can also use land titles as collateral to raise further financial resources for household adaptation initiatives, and for disaster preparedness. But in areas where FAO works, the majority of women have no control or ability to use their land as collateral to secure loans, and many landowners – women and also men – still have no title deeds. In the longer term, land ownership and tenure will be a critical incentive for farmers, male and female, to make best decisions on land use in relation to both adaptation and mitigation.
- Having reliable data on emergency and humanitarian assistance, in comparison with government
- Focus on market-oriented approaches to support farmers.

In line with its own internal policy changes, FAO sub-regional, regional and Kenya national offices have also moved to link emergency, DRR and CC in several significant initiatives. FAO sub-regional Emergency and Rehabilitation Office for Eastern and Central Africa developed a comprehensive DM Framework for the region in cooperation with country offices for the period from 2010-2013. This Framework covers the three important priorities of a) enhancing and promoting risk reduction concepts and practices in programming; b) increasing the timeliness and quality of emergency response to disasters, crises and threats; c) integrating transition concepts and linkages related to transforming risks into programming.

However, the project-based operation linked to donors' funding mechanisms for emergency projects creates challenges for the sub-regional office to embrace longer term activities in disaster preparedness, CC, resilience and livelihoods activities at community levels. It also constrains the operationalization of the DRM Framework at Country Office level. The FAO sub-regional DRR Office in

South Africa has been leading in the provision of a DRR Field Guide, in cooperation with other UN agencies, as part of the operationalization of FAO's Strategic Objective 5, "*Increasing the resilience of livelihoods to threats and emergencies*". Although this document is produced by the South Africa Office, many of its principles and technologies are applicable to the Kenya situation. The Kenya Office may also choose to use the Guide as a model, to build upon and adapt it further for more specific use in East Africa/Kenya. The Regional Office for Africa (RAF) has also initiated the CC Network within FAO, promoting the integration of CC into FAO programmes and projects, and enhancing the awareness and capacity of staff of national offices. FAO Kenya's projects and programmes are good examples of going beyond emergency assistance, even in short term interventions, focusing on resilient crops, livestock and gender equality. The working model of KCALP admirably demonstrates this by enabling target groups to access inputs of natural resources, technologies, capacity development opportunities, social capital and markets, alongside emergency relief.

Scope to address CC through the Emergency/Recovery Programme is Clearly Reflected and Defined

The FAO Regional Programme Framework for DRM has clear key strategies for countries in the region to follow, to address climate change:

- Promotion, application and significant up-scaling of conservation agriculture, in particular soil conservation and stabilization and water harvesting techniques
- Promotion and application of agroforestry practices, in particular the use of species
- Sustainable charcoal production through controlled commercialization and harvesting of trees
- Policy and advocacy on unsustainable use and overuse of natural resources (forestry practices and deforestation, other land and water use)
- Awareness through community based structures such as FFS, PFS and Junior and Adult Farmer Field Life Schools.

In the FFS and PFS, and through other measures above, farmers become more aware of the impacts of climate change and disasters. They learn to recognize different types of disaster, and they understand management measures including soil and water improvement and management in the context of increased frequency of drought. They have better understanding of pest management measures, ways of improving water-efficiency, and use of drought-resistant crops. They learn about adaptation and mitigation concepts, and they are stimulated to engage in mitigation measures – tree planting and use of efficient cook-stoves.

The key CC projects under review have clearly addressed CC issues through their activities including:

- Promoting drought-resistant and highly nutritious crops
- Conducting Vulnerability & Capacity assessments within the projects
- Conducting Food Security assessments with climate risks and disaster information
- Addressing gender inequality and women's empowerment through functioning groups
- Promoting an understanding of CC mitigation with energy-efficient cook-stoves
- Implementing DRR planning from community to national level
- Addressing issues of land-use and access and control over resources, focusing on community-based land use planning
- Promoting rainwater-harvesting for livestock and domestic use
- Facilitating Soil and Water Conservation mechanisms
- Enabling access to appropriate seeds and promotion of group seed-conservation measures
- Supporting improvement of soil fertility (composting and fertilizer)
- Supporting village banking system and index-based livestock insurance

- Facilitating fodder production and management through availability of drought-tolerant seeds
- Assisting post-harvest management and market linkages
- Financial services to boost yields and income generation for re-investment in agriculture
- Developing capacity of value-chain stakeholders including the youth, small scale farmers and women (especially women-headed households), to complement the support to drought resistant crops and traditional varieties of vegetables, enabling farmers in the resource-poor areas of the ASALs to gain a decent income.

The design of these interventions has been informed by a range of disaster-related information such as (in the gender project) a hazard, capacity and vulnerability analysis. Official long-term climate change projections and short-term climate variability data are not trusted by the FAO Kenya Representative, and therefore these projections and data are not mentioned in the project design documents.

Programmes Address the Relevant CC Issues at National, Provincial and Local Levels

Key relevant climate change issues are:

- the new establishment of county governance systems which should work as a key resource provision agency for local communities in their adaptation and mitigation efforts
- Resilient livelihoods and food security policies and programmes at national level, as livelihoods and food security are seriously threatened by disasters and climate events
- Most vulnerable target population groups, especially poor, women and elderly in highly vulnerable areas with lowest development indicators
- Key challenges in DRR planning, emergency efforts, gender inequality, resilient livestock and crops plantation and conservation agriculture at local level.

FAO programmes and projects are carried out at all levels, from national to local levels. In 2012 the Kenyan Government promoted decentralization of national level power to the 47 counties. FAO likewise promoted its partnerships at county level whilst maintaining partnership with the Ministry of Agriculture and relevant national agencies for policy-advocacy.

Until 2010, emergency assistance from donors and UN agencies had been the norm for Kenya each year in response to drought. But in 2011, the Inter-Governmental Authority on Development (IGAD) resolved to end the recurrent drought emergencies in Africa, and each country developed actions based on this resolution. In line with this shift, FAO provides assistance for resilient livelihoods and food security. Projects and programmes of FAO Kenya target groups of poor women, poor and small food-insecure farmers, youth and other disadvantaged groups in communities in the ASALs, which have the lowest development indicators and highest incidences of poverty in the country. The programmes focus on DRR, climate resilience, gender equality, conservation agriculture, resilient livestock and food security, and are well aligned to national and local CC needs and contexts. At national level they are aligned to the national CC Response Strategy of Kenya, National Action Plan of CC of Kenya, the National Disaster Management Policy 2012, the National Policy for Sustainable Development of Northern Kenya and other Arid Lands, and the Kenya Country Programme Framework (CPF) for Ending Drought Emergencies.

FAO has coordinated with WFP at regional level under the 'Implementation Plan 2011-2013 of the WFP-FAO Road Map for joint DRR/M Collaboration and Coordination in Central, Eastern, Southern and Western Africa'. This contributes to achievements in the thematic DRR/M Food Security areas 'Prevention and Risk Mitigation' and 'Transition and Linking to Early Recovery and Development'.

CC Programme Reflects Relevant DRM and CC Experiences from Global, Regional and National Level

FAO has collaborated with many regional countries to implement the regional and national DRM mechanism. For example, the secretariat of the New Partnership for Africa's Development (NEPAD) developed the African Regional Strategy for DRR and the Programme of Action for the Implementation of the Africa Strategy (2005-2010) in close collaboration with the International Strategy for Disaster Reduction (ISDR). The second Africa Ministerial Conference on DRR in 2010 extended the Programme of Action for the Implementation of the Africa Strategy to 2015, in line with Hyogo Framework of Action (HFA), and recommended that the African Union embrace agriculture and food security as priority sectors in the achievement of DRR in Africa. FAO's sub-regional DRR Office for Southern Africa has developed a Field Guide on DRR, highlighting DRR experiences in the region in 11 topics. This will be valuable for DRR in Kenya and regionally.

The national programme already appears to reflect relevant regional and global experience in conservation agriculture, improved resilient crops and animal breeds, financing mechanisms, market based production, gender considerations, and general capacity development for local partners. However FAO should seek to apply more best practices in the areas of community-based DRR planning, accessing DRR financing, non-farm livelihoods support, early warning systems, capacity building on climate risks and DRR, seasonal forecasting for farmer groups, and in-depth action research on the impacts of climate change on crop production, livestock, pests and diseases, varieties and breeds and management practices. Such best practices are available within FAO regionally or globally, or with other agencies and networks in Kenya.

Land is a key asset useful for Kenyan farmers for both climate change adaptation and mitigation purposes, and land tenure status is a critical determinant on how farmers use the land for these purposes. FAO Kenya has worked in partnership with NGOs, Government, counties and communities to support legislation for equitable land tenure. FAO Kenya has collected evidence from grassroots levels to contribute to advocacy for the implementation of laws which benefit poor communities and minority ethnic groups.

Programme provides a) Resilient Livelihoods Activities and b) DRR Strategies

FAO Kenya programmes have a strong focus on resilient livelihoods including crops, livestock, value chains, markets access and policy-advocacy contributing to sustainability of the interventions. Resilient livelihoods are supported primarily as a short-term response to drought. Climate change is going to increase the frequency of droughts (the most recent serious drought was in 2011), and as much of agriculture in the ASALs is rain-fed. Therefore these programmes contribute positively to long-term adaptation to climate change. Other aspects of climate change, notably floods, higher temperatures and changing rainfall patterns, are not clearly considered in the design of resilient livelihoods activities.

CC projects and programmes address gender considerations and gender equality. The impacts of climate change are leading to an even greater burden of work for women: longer periods of farming due to more intense droughts or unpredictable rainfall; more stress and labour during disasters and extreme climate events (due to yield loss, more hunger among children and elderly in the household); and longer hours for water collection due to drier rivers and more scarce water resources. Due to the strong presence of women in the project areas, and as they are the main beneficiaries, there has been a valuable emphasis on: women's leadership; empowerment; access to finance; access to technologies and resilient livelihood options (for example efficient cook-stoves to save cooking and firewood collection time for women); social support among women's groups for both technical knowhow and financial and social capital for women; and policy advocacy in the counties to meet the needs of

women and children regarding both development and climate change. This has been supported through training, technology, gender-sensitive Participatory Rural Appraisal methodologies for planning, implementation and monitoring processes, and sensitization and capacity development on gender issues. With these measures, women are increasingly aware, and better able to respond to climate change and disasters in their localities, and are obtaining more immediate support for their adaptation processes.

While resilient livelihoods have been well supported, the other three pillars of FAO's Disaster Risk Reduction for Food and Nutrition Security Framework (the enabling environment, watch to safeguard, prepare and respond) are only considered in major programmes such as the KCALP programme. Smaller, short-term projects have not developed community capacity in DRR and have not included Emergency Preparedness or access to DRR finance and planning. Climate Change staff at the FAO Kenya Office are not aware of the four integrated thematic pillars. This has sometimes been offset by other development agencies including UN agencies which have supported CC and DRR actions in the same region as FAO projects.

Effectiveness

FAO Kenya's effectiveness is enhanced by its partnerships where skills and experiences are shared. In this regard, FAO Kenya has actively contributed to key policy documents in Kenya including:

- The Food and Nutrition Policy, which also promotes integration of climate change adaptation into agricultural development programmes and policies, improvements in forecasting of climate change, and support to communities to respond to new opportunities and challenges. The Policy also addresses emergency preparedness, linking emergency efforts to early recovery and development.
- UN Development Assistance Framework in Kenya
- Country Programme Paper for Ending Drought Emergencies
- REDD + Reform and Implementation Recommendations for Kenya (FAO Kenya is supporting the Kenyan government in the process of their current application for the UN-REDD Programme)
- The 'One Voice Against Gender Inequity: Addressing Gender Inequity in Disaster Risk Reduction (DRR) and Resilience Building in the Arid and Semi-Arid Lands (ASALs) of Kenya' was reviewed, showing the total number of beneficiaries to be 663 households (represented by 588 females and 75 males) and 23 groups of farmers. All the project objectives have been achieved well within the timeframe of the project. Key results of the project related to DRR are a) a demonstrated increase in household and community knowledge and skills; b) increased plantation and utilisation of drought-tolerant crops and soil, water and cultivation management systems; c) an increased engagement of duty-bearers to respond to the needs of women's groups; d) increased production and use of fuel-efficient cook-stoves, and income from the sale of these cook-stoves, serving both adaptation and mitigation purposes; e) enhanced capacity of women's groups to voice their needs; and f) the implementation of adaptation and mitigation actions at household and community levels.

Most projects/programmes of FAO Kenya relating to DRR and CC were set up among multiple agencies including FAO, WFP, IFAD, the Kenyan Food and Nutrition Security Network for ASALs, ministries such as the Ministry of Agriculture, Ministry of Water and Irrigation, the State Department on Environment and Natural Resources, the Drought Management Authority and its sub-divisions. At local levels, projects and programmes collaborate with NGOs, CSOs, Users' Associations, women's groups, youth groups, farmers' associations and community DRM Committees. The engagement and 7-year commitment of key donor agencies for the KCALP will promote its effectiveness.

Effectiveness could be enhanced with additional collaborations, for example with the Kenyan Meteorological Service, or with the Adaptation Consortium which is financially supported by DFID and

UNDP, active in the ASALs, or with the national CC & Gender Network. Increasing effectiveness within KCALP could be achieved with the participation of NGOs at community levels.

Headquarters, Regional, Sub-regional and Country Office Coordination on DRR and CC

FAO Headquarters provides both technical knowledge and experience from global level to the regional and country offices, conducts advocacy at global level, and creates partnerships with other Rome-based agencies and multilateral agency headquarters for long term programmes. But headquarters staff also sometimes bypass regional and country offices to work directly with in-country partner agencies. For example FAO Kenya was relatively unaware of the MICCA project implemented by ICRAF in Kenya. No clear problems were cited, but staff of FAO Kenya and the FAO Regional Office expressed significant concern and disappointment regarding the design. The project aims to improve policy advocacy, using research activities to identify gaps in decision-making. However, the FAO Kenya Office could have been considered to take on this role, in support of their engagement with the government, and as stipulated in the FAO Kenya Country Strategy.

This is not the most effective approach because regional and country offices are more familiar with the country situation and networks at national level, and know their CPF and country actions. Limited engagement of regional and country offices in such initiatives from headquarters level is a critical issue needing further internal review.

The Regional Office of Africa initiated an internal CC network in 2013 with the participation of CC staff of sub-regional offices, although only one CC staff from the Kenya Office has participated so far. The network aims for bi-monthly meetings or meetings on demand. Country Office staff consider this a valuable initiative for sharing and learning practical experience on CC work in the region. However there is a missing link, as DRR staff are not aware of the network. The network needs to extend its reach to actively engage Country Office DRR and CC staff.

Sub-Regional Emergency Office for Eastern and Central Africa (REOA) manages the FAO Regional Programme Framework for Disaster Management, and is assigned to provide technical DRR/DRM and Resilience support to the Country Offices in the Eastern and Central Africa regions. But the support has been mainly request driven. When there have been no requests, no support has been actively provided. REOA also has an information-sharing and networking role at local, national and regional levels with development partners. They have the important role of linking Country Offices with regional African bodies for the purpose of policy-advocacy and information sharing. But Country Offices have not had full advantage of this opportunity, either due to the limited available time of the Country Office staff, (tasked with CC but also working full time on the REDD initiative, with almost no time for integration of CC in the offices), or due to inadequate awareness of the value of these networking opportunities.

The strengths of the Sub-Regional Office are: a) intensive and credible partnerships with development agencies including donors, NGOs, regional African bodies and government agencies through regional initiatives; b) DRR/M resource staff available for the country offices; c) the DRM Framework 2010-2013, and an updated version expected soon; d) the incorporation of capacity development for resilient livelihoods for local farmers' groups through FFS. This includes support to disaster-resilient crops and vegetables, and income-generating activities.

Key Issues of the Regional Office, Sub-Regional Office, and Country Office Coordination

- The project-based approach as a result of the short term (less than one year) emergency funding mechanisms of donor agencies, creates difficulties to implement longer term resilience activities such as capacity development. The donor funding mechanism is rigid and challenging.

- Limited technical provision and training reaching the Country Offices. Technical support for the Country Offices remains very request-driven. Even with the comprehensive DRM framework, the staff of the Sub-Regional Office do not have the opportunity to orient the CC and DRR Country Office staff with the document, or to participate in integrating the framework at the Country Office. Mainstreaming DRR/M into programmes appears entirely dependent on the request of the Country Office. This is mainly because staff at the Sub-Regional Office are tied to emergency projects, limiting their involvement in mainstreaming at Country Office level.
- Communication among office on key DRM/DRR issues is infrequent. This is partly due to a lack of a regular sharing mechanism.

Efficiency

No wastage of resources was identified, and therefore in the context of FAO's own cost norms, the subject programmes/projects are expected to be normally efficient. Increased partnerships, where appropriate, with the NGO sector, can increase efficiency by reducing costs. Increasing NGO involvement, according to their expertise, in the KCALP programme is a relevant possibility.

Occasionally efficiency has been compromised by time-keeping issues. The signing of the Letter of Agreement between FAO and NGO partners was late, and project activities were delayed, which impacted the timing for crop plantation in the 'One Voice Against Gender Inequality' Project. In another case, limited funding from FAO led to a halt in programme activities.

There remains the possibility for further inputs to be added to programmes/projects with relatively little cost but potentially significant increase in quality of outputs. Additional staff, and further capacity development of staff and partners relating to CC and DRR, could measurably raise the quality of outputs. Additional financial resources for pilot action research within projects would also likely be a cost-efficient means of reaching higher quality results. Additional time and financial resource allocation to CC and DRR policy-advocacy would undoubtedly and efficiently multiply the successes of FAO Kenya's interventions, but such efficiency would probably not be measurable.

Sustainability

FAO has developed a good strategy of sustainability, combining policy-advocacy, with empowerment of beneficiary groups to hold government agencies to account on inclusion of beneficiary needs, particularly of women and youth, in county integrated development plans. Project partner agencies monitor the planning and budgeting processes at county level, and facilitate beneficiary groups to hold direct discussion and dialogue with local authorities including the county governor (as in the case of the One Voice Against Gender Inequality project). Not all project activities are yet included in the county integrated plans, but many basic needs such as health and education are supported and funded. This successful empowerment is contributing very positively to sustainability.

Some key livelihood activities including FFS are based on trusting partnerships where partners have their own independently sustainable funding streams. For example, other donor support directly to ActionAid, other national NGOs and the Local Government Extension Office contributes to the sustainability of FAO partnerships in livelihoods programmes. KCALP and Joint Initiative on DRR and Resilience Building in ASALs, have made an impressive attempt of joining resources from the EC, IFAD, FAO and WFP, ensuring long term engagement with a focus on sustainability.

Gender Mainstreaming

FAO Regional Office has actively circulated the training manual on Gender and CC in Agriculture, and Food Security for Rural Development, in regional networks, contributing to increasing gender mainstreaming within the region and by national partner organisations. Output 4 of Outcome 1 in the Country Programme Framework (CPF) of FAO Kenya clearly outlines the task of 'increased capacities of agricultural stakeholders to mainstream gender and nutrition in policies and programmes related to Livestock, Crops, Fisheries and Forestry'. The range of activities include gender capacity assessment,

building capacity at national and county level, gender sensitive data, and networks of gender experts in agriculture for advocacy and technical advice. Outcome 4 of the CPF focuses on 'improved livelihood resilience of the targeted vulnerable population'. This is in line with the National Policy for DM in Kenya 2012, which recognizes the importance of mainstreaming issues related women and children in DM programmes. This Outcome is partly being pursued by gender and nutrition initiatives that enhance protection, safety and other specific needs of women and children. The evaluation team's field trip to Mwingi highlighted the issue that men in the ASALs have opted to migrate en masse for work, leaving women as the main labour force in rural areas, along with other vulnerable groups (elderly, youth and children). Therefore a key strategy of FAO has been developing capacity for women's and youth groups and associations, so that they can ensure food security at household level, as well as raising their needs and voices to local government agencies to be more included in development processes. For example, in the gender project implemented by FAO and Action Aid in the ASALs, there have been intensive training courses on awareness of CC and disasters and their impact on people's lives, technical adaptation measures at community and household levels, planting of drought-resistant traditional varieties, promotion of drought-resistant and heat-resistant livestock (goats), soil and water management, water-efficient farming practices, and energy-saving cook-stoves (reducing emissions and working time of women, and generating income for women groups). The training on leadership and advocacy for women groups leads to a stronger voice of women to advocate to the counties for practical issues that affect their lives, and teaches them how to budget for those issues. The training of groups, in group working skills, and group savings & credit schemes, also supports women to increase their financial capital which in turn enables them to better cope with the impacts of disasters and climatic events.

The FAO Kenya Gender Focal Point is experienced and highly appreciated by colleagues and collaborators. She is tasked with enhancing gender capacity development for staff in the office, and gender mainstreaming in FAO projects/programmes. She does this through feedback on programme and project design, and by contributing to gender mainstreaming advocacy within national and regional networks such as the Gender Sector Coordination Group chaired by Ministry of Agriculture. Many gender activities have been implemented in the national and regional FAO offices including:

- Gender checklist
- Gender audit was conducted in 2012, and a report is available
- There is a gender strategy to implement Gender Audit recommendations
- Gender and CC Research in Agriculture and Food Security for Rural Development manual
- Gender related workshops and conferences in the country and in the region

However, the Gender Focal Point needs further understanding of CC and gender. Further training and experience-sharing on this topic would enhance her effectiveness for FAO.

The CC and Gender network has 45 member organisations including for example UNEP, CARE International, Transparency International. But FAO is not yet a member. The network focuses on:

- Policy-advocacy with evidence and through face-to-face meetings
- Training and capacity development
- Analysis of gender in CC, gender research, and gender mainstreaming into NRM
- Hosting of multi-stakeholder dialogues and round tables with policy makers and decision makers at national level.

Participation in this active network would benefit FAO's work in the ASALs and would enhance its ability to communicate its successful gender interventions to national and regional policy makers.

Key challenges in advancing gender mainstreaming at national level are:

- Mainstreaming gender in adaptation in NAPA
- Limited awareness and skills

- Lack of gender-disaggregated data
- Weak government gender focal points
- Whilst the government has performance indicators for gender, its assessors do not know enough about gender so cannot follow up effectively.

Key opportunities in advancing gender mainstreaming at national level, are:

- Policies are available (gender development policies)
- The Constitution
- Existing Human Rights legislation especially on water and environment
- Adaptation findings
- Ministry of Environment focuses on gender
- Performance indicators and targets on gender
- Medium Term Framework 2030 (indicators on gender mainstreaming)
- Donor presence and requirements

Key Gender Issues to be addressed are:

- Traditions hindering gender equality in practice
- Access to resources
- Decision-making power
- Time and food security for women

Partnerships

FAO Regional and Kenya Offices are highly active in regional and national networks including the Food and Nutrition Security Working Group, Common Market for East Africa Region and South Africa, SEACAP, African Union, ASAL Donors Working Group, CC Donors Working Group, and the Kenya DRR network. FAO is also active in thematic meetings on livestock/pastoralism, IPC, markets, nutrition, dryland farming, gender, emergency coordination, agriculture cluster groups, and the new food security cluster. Active involvement in these networks and working groups enables FAO to influence current DRR and CC policies of the government, and to work closely with donor agencies in the region and at country level. FAO expects to be a future convening agency for DRR and CC agencies and networks in Kenya. FAO Regional Office is highly appreciated by the regional IGAD, and is assigned to coordinate and manage some regional networks and resilience initiatives. Through its role in the regional Resilience Initiative, the FAO Regional Office can influence national ministries of Kenya. At national level, FAO has a high reputation among NGOs working on CC. NGOs have appreciated direct engagement with FAO and technical support including the sharing of technical expertise on FFS and manuals, sharing of datasets, and their policy influence with government agencies. FAO has engaged in both formal and non-formal partnerships with other UN agencies, donor agencies and networks. FAO has engaged in partnerships with NGOs and CSOs to implement projects and programmes. This is a strategy of both Sub-Regional Office and FAO Kenya, based on the comparative advantages of NGOs in working with both local authorities and communities. The strategy is in line with the direction of the government which clearly stipulates the importance of NGO contributions in their DRR and CC policy development process (NAPA, Adaptation Fund). NGOs themselves have developed extensive networks to join voices and efforts for more effective advocacy to county authorities and national government. FAO should continue its involvement and support to the advocacy capacity and programmes of these small but potent organisations.

Currently, some of the key roles of NGOs are:

- Supporting grassroots initiatives and directly engaging with farmers' groups and local authorities
- Providing training in working methods and other capacity development activities with target groups

- Bridging the services of counties and government technical departments with the needs of farmers' groups
- Sharing the activities of various donors, funding CC and other development interventions in priority geographic areas to enhance efficiency, effectiveness and sustainability
- Documenting evidence to advocate for change in policy
- Providing CC adaptation and resilience experiences, working approaches and lessons learned to FAO for replication in CC fieldwork elsewhere
- Jointly organizing systematic CC policy advocacy with UN agencies and others
- Implementing FAO normative products where relevant.

As a UN agency, FAO can play a strong role in facilitating NGOs, CSOs, Government and other stakeholders to join open discussions or negotiation on policy formulation with people's participation, and in policy implementation, especially as it relates to the most vulnerable populations. FAO can also provide high quality expertise to government agencies in technical areas related to CC and in working methodologies. FAO can support national government in international negotiations to gain the access to adaptation and mitigation funding. FAO can use grassroots evidence to showcase which policies work and which do not, and to highlight gaps. FAO can leverage other funding sources and initiate strategic partnerships at global level for longer term programmes in Kenya.

Organisational Learning

FAO Regional Office in Africa has established a CC network for CC staff of sub-regional offices and the Kenya FAO Office. The FAO Kenya CC Focal Point participates in this, and the network has proved to be very beneficial in terms of informing of CC-related developments at policy level and in programme implementation. But there has been insufficient take-up by DRR staff of sub-regional offices, while DRR and CC staff of other Country Offices appear not to have been invited to join.

Within FAO Kenya Office the process of sharing project design documents among the sectors and CC focal points has served as a useful learning process. Staff from other sectors have enhanced their understanding of CC components within their projects.

The sub-regional office for Southern Africa has produced a Field Guide for DRR summarizing DRR experiences available to share with colleagues in Country Offices and other development partners in its sub-region. 'The Gender and CC Research in Agriculture and Food Security for Rural Development' manual is a clear training guide for staff and partners in the region. Climate change focal points and the CC team actively keep staff updated with FAO CC materials, design reviews, and through team discussions. However, as the CC staff are normally busy with their own technical work, they find little or no time to develop or follow a strategy for capacity development for all office staff. There is no clear, concise guidance from FAO Headquarters on DRR and CC which would serve as a systematic introduction on DRR and CC, to be referred to by Country Office staff especially during project/programme design.

The results of past project evaluations, and the systematic programme development approach adopted by the Country Office in cooperation with other agencies (WFP and IFAD) have resulted in careful assessment of the DRM and CC situation within Kenya, and of the needs of most disadvantaged groups. Evidence of organizational learning from these assessments, both formal and informal learning, is apparent in the design of subsequent programmes and interventions.

Factors of Performance

The FAO CPF has been a milestone document guiding the organization in addressing CC adaptation and mitigation in Kenya. The CPF development process has a reputation among relevant local stakeholders as being notably participatory and consultative. FAO Kenya staff are rightly proud of this achievement, and aim to put the Framework's priorities into consistent practice.

The FAO Kenya Office should seek to optimize its benefits from relations with the Sub-Regional Office for Eastern and Central Africa, the DRM and CC Management Framework for 2010-2013, the Sub-Regional Office for Southern Africa, the Regional Office for Africa with CC Network, and their DRR and CC staff and consultants. Optimising benefits to the Kenya Country Office depends on management attention, and fluent working mechanisms of staff and communications.

Strong relationships between headquarters staff of key development partners especially WFP and IFAD have led to improved performance and good, trusting cooperation within Kenya on DRM and CC.

Strong reputation and performance have been mutually supportive, with FAO's strong reputation within the region enhancing its reputation within Kenya and opening opportunities to further demonstrate its performance in practice. To its credit, FAO has demonstrated a range of performance capacities, in implementation of fieldwork, in coordination of forums and networks, in policy formulation and in advocacy. This range of performance capacities is recognized by FAO partners and government authorities.

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Names and Codes of Projects Referred to:

GCP/GLO/270/MUL: "Making agriculture part of the solution to climate change – Building capacities for Agriculture Mitigation" (below called MICCA project)

OSRO/RAF/307/COM: "FAO Technical Support to the Common Market for Eastern and Southern Africa (COMESA) – Eastern Africa Community (EAC) – Southern Africa Development Community (SADC) Programme on Climate Change Adaptation and Mitigation in Eastern and Southern Africa Region" (below called COMESA Project)

GCP/KEN/078/USA: "Enhanced National Capacity to promote climate smart natural resource management in Kenya" (below called CSNRM project)

FMM/GLO/006/MUL: "Strengthening capacity for climate change adaptation in land and water management with focus on Sub-Saharan Africa" (below called SLWM project)

Relevance

In Kenya, there is a good understanding of Climate Change (CC) issues in government institutions at national level, and a good level of CC mainstreaming into sectors. Each sector, through the corresponding ministry, is appointed with particular issues in the National CC Response Strategy (2010) and in the National CC Action Plan. As an illustration of the level of mainstreaming of CC in sectors, all the ministries have created CC units. The Ministry of Agriculture has created the unit in 2011. It is provided with 4 full time members. In addition to this, each of the 5 directions of the ministry have a CC focal point whose role is to liaise with the CC unit and raise CC issues in their corresponding directions.

The country has engaged in a "devolution process" (decentralization), with a transfer of competences to counties. CC issues are not known at county and farmer level as it is at national level. FAO has engaged at county level, supporting the elaboration of integrated development plans and more specifically agriculture work plans and their implementation. However, this work is not explicitly on CC issues and FAO's work on CC issues should be addressed at county level, in addition to national level. However, a first initiative in this sense will be training of stakeholders at county level on the Climate Smart Agriculture (CSA) manual prepared in the CSNRM project.

FAO's work in CC in Kenya

FAO in Kenya works in 4 sectors: fisheries (not active yet, programmes under design), livestock, crops, natural resources. Several projects with explicit CC or climate-smart components are implemented:

- A one year CSNRM project, whose main expected outcomes are increased mainstreaming, awareness and capacities on CSA, through the production of a manual and trainings.
- COMESA regional project, that aims to contribute to addressing the impacts of climate change in the Eastern and Southern Africa region. FAO's contribution to the project includes, among other activities, the assistance for the formulation of specific investment programmes on CSA in the framework of the Comprehensive Africa Agriculture Development Programme (CCADP), the establishment and/or expansion of Conservation Agriculture (CA) coordination and promotion platforms at national and regional level, the in-situ assessment of CA models at country level and scaling up of best practices, a regional synthesis of the status of CA and sharing among partner and the development and dissemination of materials to enhance adoption of climate resilient practices on a larger scale.
- A sustainable land management project that has been implemented in partnership with the Kenyan Agriculture Research Institute.
- The MICCA project, which is integrated to the Eastern African Dairy Project, with specific activities on CC awareness and GHG emission measurements.
- FAO supported in 2013 the elaboration of a Tea sector CC strategy.

These projects address the following areas:

- Convening stakeholders: FAO supports the coordination of climate smart activities, and more specifically CA, through the support provided to the CA national task force.
- Assisting on country enabling environment: FAO has supported the elaboration of the CC strategy of the tea sector. FAO has produced one manual on CSA for extensionist. According to the Ministry of Agriculture, it was the first time such a manual was produced. In addition to this, FAO has carried out a screening of the level of mainstreaming of CSA in agriculture policies, and disseminated the results.
- Strengthening member country data and knowledge: Through different projects (MICCA, SLWM), FAO has produced knowledge on the GHG emissions and the adaptation capacities and potential of different practices. Research work have been carried out and results are about to be disseminated through meetings and papers.
- Field implementation: Two projects (MICCA and SLWM) have supported farmers to improve their productivity, adaptation capacity and/or reduce their GHG emissions, regarding crops, dairy production and fisheries.

FAO's comparative advantage

According to interviewees, FAO's comparative advantages are:

- Technical capacities: the expertise of FAO at different level (HQ, regional, national) benefits to local projects. FAO is recognized to have a higher technical capacity and accuracy than other institutions that rely mostly on consultants.
- Good understanding of the CSA concept, which allows to support policy review and advocacy on CSA.
- As a global organization with presence in many countries, FAO allows to benefit from the experience of other regions and countries, and to replicate successful experiences.
- This advantage adds to the long-term presence and sound knowledge of FAO of Kenya context.
- FAO is recognized to have a very strong link with the government, and to support and align with government policies, which is not the case of all the stakeholders.
- The mix in some projects of research or policy work and field interventions looking for an impact at farmers level is appreciated. FAO has the capacity to work at different levels.

CSA conceptual approach

FAO's activities on CC in Kenya address the three pillars of the CSA concept. FAO focuses its interventions in arid and semi-arid regions of the country, which are the most affected by CC, and most food insecure. Also, these regions are where the population pressure on natural resources is higher. FAO's food security and adaptation projects focus on these areas. The MICCA project, on the contrary, does not intervene in the most food insecure areas. Its focus is on productivity and reduction of GHG emissions. While FAO addresses the three pillars overall in Kenya, mitigation is not present in projects other than MICCA. There is also no adequate and reliable data on emissions in the different agricultural sectors. The MICCA project's measurement activity is relevant to this need.

The country priority for CC is adaptation. However, mitigation is also present in policies and there is an interest for mitigation co-benefits. FAO has focused its CC work on productivity and income.

Participation and extent to which FAO's activities respond to Member Country requests

Two of the projects that explicitly address CC have been proposed from a higher level in the organization than the country (at regional or global level), and do not respond to a demand from the MC. However, these projects are adapted to the specific needs of the country/beneficiaries. For example, in the MICCA project a joint identification was carried out by FAO and the World Agroforestry Center (ICRAF, who is the implementing partner of the project in Kenya) to identify relevant opportunities where the project could provide an added value and profit from existing dynamics and structures (the MICCA project adds to the Eastern Africa Dairy Production projects which has been implemented by ICRAF and other organizations in Kenya for several years). As far as the COMESA project is concerned, one of the proposed activity is to support the formulation of CSA policies at national level. However, the Country Office believes that it is not the role of COMESA to influence national policies, and COMESA should focus on elaborating regional policies. Regional synergies or problematic are essentially addressed through the COMESA project, which supports the scaling up of CA in eastern and southern Africa.

Local and indigenous knowledge and experiences have been taken into account in at least one project (SLWM).

CC mainstreaming into FAO's activities in Kenya

The Country Office considers CC as a cross-cutting issue that should be mainstreamed in all activities. However, according to it, FAO's model based on projects does not support the mainstreaming of a concept such as CC. In addition, projects are often driven by different institutions (donors, Ministries), which affects the mainstreaming of the concept and the implementation of a programmatic approach. The development of a programmatic approach also faces internal constraints: financial, management, structures, frameworks, and human resources. In Kenya, the CO has developed a more programmatic approach based on the Country Programme Framework (CPF). The CO has engaged in a process that includes the elaboration of 1 work plan for all projects, 1 single budget and 1 results framework. This model also brings more dialogue among the sectors. The country office has access to some guideline from the HQ to guide this process, but it is mainly an initiative taken from the country office.

The Country Office strongly wishes to have all projects designed at regional or HQ levels in order that they support the CPF. The COMESA project at least does not seem to have been designed with this aim in mind.

An interviewee from the regional office, with a regional perspective, considers that CSA is not mainstreamed into all activities, and is still addressed through specific projects, which should not be the case. However, integration of CSA into FAO's activities is progressing in the region. Awareness of FAO's staff on CSA is growing and specific events are organized (e.g.: 2 weeks ago, an internal meeting was organized to present and explain the CSA concept).

Effectiveness

According to interviews with government stakeholders, CC issues have been integrated in the agriculture policies only recently, and this is the reason why FAO's support on them are recent. Before, FAO's support was focused on natural resources management (water and soils), without explicitly using a climate smart approach. Therefore, several expected achievements are still in progress.

As explained below, the SLWM and the MICCA projects have produced some outcomes at local level, while other projects have only produced outputs at that level:

- SLWM project: increased income for the direct beneficiaries of the project, changed perceptions on CC at local level, alignment of fisheries practices with the government policy for the Lake region, measurement of adaptation capacities. This project was designed as a research project. However, it also intended to produce an impact at local level for beneficiaries. The scaling up of the findings of this project is under discussion. However, this process does not seem to be clearly defined.
- The CSNRM project has produced a manual on CSA for extensionists. Trainings at county level are in preparation (in 16 counties). It is expected that these activities will create awareness among stakeholders at county level on CSA.
- COMESA project: Kenya already has a large field experience on CA. As it is planned in the COMESA project, in countries with such an experience, the project does not implement field activities. In Kenya, the project has supported the reactivation of the national CA task force that has been inactive during two years, has carried out a screening of CSA mainstreaming in agriculture policies and organized a workshop to disseminate findings, and has supported the attendance of two ministry staffs to a scientific conference on CA. At regional level, the project has supported the creation of a regional task force which joins together governments of the region, research organizations, the civil society and the private sector.
- MICCA project: The project directly supported farmers to adopt climate smart dairy production practices (plantation of fodder and fodder trees, production of biogas). Interviews with farmers showed that these activities allowed them to reduce the land used for grazing, which allowed for diversification of activities (plantation of tea), reduction of time spent for animal care (grazing), production of an surplus that is marketed and creates an income, and reduction of vulnerability to the climate variability effects (through storage of fodder). On the other hand, the project has carried out measurement of GHG emissions of 3 practices (natural pasture, improved pasture, fertilization on tea farm). Results are not available yet.
- A Kenya tea climate change strategy has been elaborated with the support of FAO in December 2013.

It can be observed that all the outputs and outcomes obtained or on process come from very different projects, which don't have any clear common approach, objectives or synergies. All these projects are also limited in terms of duration and budget.

The Country Office considers that this approach, with small-scale projects of short duration, is not appropriate for creating a real impact, and FAO needs to be more ambitious in term of investments and a programmatic approach. This is why the CO is now looking for opportunities for much larger scale interventions. Currently, FAO is in the process of designing a large scale CA project (more than 100 million euros budget) jointly with the International Fund for Agriculture Development (IFAD) and the World Food Programme (WFP).

Efficiency

Only some evidence has been collected on the efficiency of interventions in Kenya. The COMESA project has a confusing management structure, with the budget holder in Accra, the technical coordination in Johannesburg, and another level of technical coordination in Addis Ababa. This structure creates confusion on the leadership of the project, which affects the implementation of activities.

It can be also observed that there is no ownership from the Country Office on projects that have been proposed/designed from HQ or regional level (MICCA, COMESA).

Sustainability

As mentioned above, only a few outcomes, limited to local level, have been achieved to date. Due to the fragmentation of projects, there are no common trends on sustainability factors. However, some comments from stakeholders have been collected.

The SLWM project made sure that the inputs required for the practices promoted are available locally. However, it seems that the financial capacity for farmers is still an issue. Beneficiary farmers have not been linked to financial institutions, and one of the biggest challenges reported for farmers to uptake climate smart practices and adopt new technologies is the access to financial capital. The government has "picked up" some initiatives developed in the project to be scaled up. This is in particular the case for fish farming activities. The project paid attention to have an inclusive approach with local stakeholders (including private sector).

Another reported challenge for farmers to adopt innovations is their low capacity for assuming additional risks, to the already high level of uncertainty they face.

Projects should always include an exit or sustainability strategy, which is not always the case. However, the MICCA project included a sustainability measure based on the involvement of the Dairy Farmers Federation who will undertake a follow up of the activities after the end of the project implementation period. This federation was created by farmers and is funded by them. However, the MICCA project does not address critical issues for farmers to adopt and sustain the proposed innovation, such as the value chain and cost of the innovation. Also, this project proposes a completely different production system than the traditional one, and adoption can only be considered through a long term and sustained support and promotion.

Other reported factors of sustainability are the need to link CC interventions to a value chain approach, considering that value chains are not efficient in Kenya.

Gender Mainstreaming

Only the SLWM project defined a proper gender approach that included a gender analysis at the beginning of the project. In addition to this, the CSNRM project plans to invite 50% of women among participants to the future training.

Several challenges have been reported for gender mainstreaming in Kenya:

- Fewer technicians are women than men, which makes the approach to gender issues more difficult with communities.
- There are strong socio-cultural factors that affect approaching gender issues. The illustration of this is the fact that the first draft of constitution was rejected because it proposed to give the benefit of land heritage to women, in addition to men.
- Resources and productive capital is often owned by men.

Despite these factors, according to the Ministry of Agriculture, gender has been mainstreamed for a long time in the extension work. Policy documents on CC have specific chapters on gender.

Partnerships

FAO has built strong partnerships with a few institutions for project implementation: Ministry of Agriculture (all the activities), research institutes (KALRO, ICRAF). In addition to that, more punctual or superficial relations exist with other types of institutions (private sector, civil society).

The type of inputs provided by FAO varies in projects. In all the projects, FAO channels funding from donors, but FAO does not always provide technical inputs and knowledge on CC. For example, for the elaboration of the CSNRM manual for extensionists technicians from the ministry provided all the

technical inputs, and the role of FAO was essentially financial. However, in other projects, such as the MICCA project, FAO is engaged at field level, with regular visits from the HQ (the CO is not involved in this project) and provides a lot of technical inputs. Or in the SLWM project, FAO provided a lot of technical material that has been directly used by KALRO for the project implementation.

Due to its limited budget and capacity, it was decided with ICRAF that the MICCA project would be added to an already existing initiative, in order to profit from existing structures and synergies. More generally, FAO is considered to be a reliable and highly technically qualified partner.

Organizational Learning

At least two projects include a strong learning component: The SLWM project, and the MICCA project. The MICCA project has not yet produced formal findings, however, informal findings have been taken in account for the elaboration of the CSA manual (CSNRM project). As far as the SLWM project is concerned, dissemination of results was organized through meetings and papers. It was reported that some practices have been adopted at a larger scale (fishing practices).

Factors of Performance (As per evaluation TOR, i.e. FAO's strategy, resources, coordination and capacity, as well as any external factors).

As mentioned above, the fragmented project based approach of FAO is a strong limitation factor for creating impact. As a result, projects that address CC are small scale, short duration and not related or coordinated between each other. On the contrary, CC adaptation and mitigation impact requires a long term and program approach, with a higher level of investment. The CO is adopting such an approach, but this is its own initiative which is not supported/encouraged institutionally. Also, while CC has to be mainstreamed into all FAO's activities, it is still mainly handled by Natural Resources teams. In Kenya, there is still a lack of detailed studies on the effects of CC. Analysis and interventions are based on past trends, not on what is expected to happen in the future. Predictions of CC and effects are not reliable enough. Most of the models have an error higher than the prediction confidence. No assessment has been carried out to determine to what extent predictions have been verified.

In addition to this, none of the projects implemented in Kenya are based on vulnerability analysis. As said above, adoption of CSA practices require a number of conditions that don't necessary exist and are not systematically addressed in projects (e.g. effective value chains, financial capacity of farmers).

2.7 Malawi Country Mission Report - Agriculture

Names and Codes of Projects Referred to:

GCP/INT/139/EC: "Climate Smart Agriculture, Capturing Synergies Between Mitigation, Adaptation and Food Security" (below called the CSA project)

OSRO/RAF/220/EC: "Supporting smallholder farmers in southern Africa to better manage climate-related risks to crop production and post-harvest handling" (below called the Southern African project).

OSRO/RAF/307/COM: "FAO Technical Support to the COMESA-EAC-SADC Programme on Climate Change Adaptation and Mitigation in the Eastern and Southern Africa Region" (below called the COMESA project).

UNJP/MLW/049/UNJ: "National Programme for Managing Climate Change in Malawi" (below called the National CC programme).

OSRO/MLW/202/CHA: "Emergency assistance to support food insecure populations affected by climatic shocks in six districts of the southern region of Malawi"

Relevance

In Malawi, FAO is explicitly engaged on CC adaptation and mitigation objectives through the following projects:

- The CSA project, which has several components on evidence base building, capacity building and institutional and policy influence.
- The Southern African project (OSRO/RAF/220/EC) which is a participatory research project on climate related risks management, focused on agriculture production and post-harvest technologies.
- The COMESA project, which includes in Malawi the review of agriculture policies and the support to Conservation Agriculture (CA) coordination.
- Frequent emergency and post-emergency operations to respond to natural disasters, which include the promotion of CSA practices.

CC has been recognized as a priority in Malawi relatively recently (since 2006). Previously, it was considered by the Malawi Government as a periphery issue, while issues such as afforestation and soil erosion were priorities.

However, it is now recognized as a very critical issue, which impacts on all sectors and specifically the agriculture and health sectors. It became a priority for the government, and is addressed through different plans and policies at national level, and in particular with the National Climate Change Programme (NCCP). However, this recognition is recent.

In the agriculture sector, the Land Resources and Conservation Department of the Ministry of Agriculture manages CC issues. The Ministry of Agriculture is organized in sub-sector Directions and according to several interviewees, these directions work in siloes. Currently sub-sectors have policies but there is no overall policy for the agriculture sector.

These factors contribute to a low level of CC mainstreaming into the sector. In addition to this, the main focus of the agriculture sector in the last years has been the quick increase of agriculture production, through the Fertilizer Input Subsidy Programme (FISP), which mobilizes 80% of the budget of the Ministry and is considered by several stakeholders not cost-efficient. The aim is only production and not productivity and sustainability.

An overall agriculture policy is in process of being elaborated. A first draft has been produced and will be subject to a phase of consultation with stakeholders in the next weeks. FAO has not participated to the elaboration of this first draft.

In parallel to this process, FAO, and more specifically the CSA project, is elaborating a CSA development framework. The timeframe is appropriate and FAO sees an opportunity to promote a higher level of mainstreaming of CC issues in the agriculture sector through the agriculture policy. However, CC is almost not mentioned in the draft policy. The COMESA project, implemented in 12 countries of East and Southern Africa and that aims to increase the number of farmers in these regions implementing CSA and CA in particular through institutional and policy interventions, carried out a relevant activity of screening of the level of integration of CC issues into policies.

Other critical needs mentioned by several interviewees in relation to CC issues are the lack of knowledge and data, and the lack of capacities. The CSA project is relevant to these needs, with its components of building an evidence base and capacity building. The Southern African project, which aims at building knowledge on CSA production and post-harvest practices, is also relevant to these needs. However, while these projects have generated sound CC data for Malawi, they have perhaps missed an opportunity for developing capacity for data analysis both within the government and also

within the FAO country office, as most of the analysis was done by external consultants and/or the project team based in Rome.

Stakeholders generally consider that FAO's **comparative advantage** should be on policy influence, knowledge, capacity development, technical assistance, and technology transfer. The majority of the stakeholders interviewed consider that FAO could have more impact working at these levels, than with direct implementation field projects. However, there is an expectation from the Land Resources and Conservation Department for FAO to work also at field level. This expectation is also shared by an EU staff, which believes that field activities are more effective for capacity building.

Until recently FAO's office in Malawi has been a very operational office and did not focus on these potential areas. In particular, the Director of the Department of Environmental Affairs considers that FAO has not played its influential role of the Ministry of Agriculture on CC issues until now. However, there is a wish from the FAO office management to switch from this operational profile to a policy, knowledge and advocacy role. The CSA project is considered by the FAOR a very important first initiative in that sense.

Several other opportunities for promoting the mainstreaming of CSA and a higher consideration to CC issues have been mentioned, such as the Joint Agriculture Sector Review (a bi annual review of the Agriculture Sector-Wide Approach (ASWAP) implementation where CC is not much discussed and FAO is not very visible), and the review of the Farm Input Subsidy Program (FISP).

Another essential comparative advantage of FAO comes from its strong relationship with the Ministry of Agriculture, which gives FAO a privileged position for advocating on CSA. FAO supports the Ministry and is seen as well performing in building capacities, while other actors often compete with the government for implementation.

Another role mentioned that FAO could play is to support the definition of technical standards for CSA activities. It was mentioned several times that there are many actors present at field level, which use and promote different, sometimes contradictory, messages and practices.

Other stakeholders put the emphasis on the fact that policies are not always correctly implemented in Malawi, and FAO could play a role in supporting policy implementation.

In addition to the above-mentioned ongoing contributions of the CSA, COMESA and Southern African project, relevant to the mentioned needs, FAO intervenes in **linking Disaster Risk Management with CC adaptation**.

Malawi is very prone to disasters, in particular caused by climatic events (floods, dry spells, droughts), and the intensity and geographical scope of disasters has increased in the recent past.

FAO co-leads the agriculture cluster and implements regular emergency/post-emergency projects, which always include components of longer-term adaptation. For example, the 6-month emergency project OSRO/MLW/202/CHA, although primarily focused on the provision of inputs, also included training of lead farmers in conservation agriculture techniques. In addition to this, in the cluster work, FAO advocates for medium and longer-term interventions that address the underlying causes of chronic vulnerability. The resilience agenda, which is important in Malawi, is managed by the Disaster Management Affairs Department. There is an overlap between risk reduction and climate change adaptation, which are under the responsibility of two different ministries. For example: irrigation and CA are present in the risk reduction strategy. The harmonization including at institutional structure level is a challenge.

As mentioned above, among the **three pillars of the CSA**, the priority of the Ministry of Agriculture has over the past years been food production in order to enhance food security. According to interviewees, both adaptation and mitigation are given equal priority from the policy perspective.

CSA is often associated with CA, and there is too much focus on CA. There is also confusion between the two terms and the true definition of CSA is not fully understood among the various stakeholders. A more holistic approach to CSA is needed, one that goes beyond Conservation Agriculture and integrate other approaches and techniques related to water management, diversification and risk management, post-harvest technologies, seeds, and any other areas that are CSA and have already been developed in Malawi.

In practice, there is not much emphasis put on mitigation from the agriculture sector. There are some activities of re-forestation and agroforestry implemented, but most mitigation work is carried out by the Ministry of Environment and Climate Change.

In addition to this, there is a lack of knowledge and tools for measuring GHG emissions from different techniques and quantifying mitigation benefits. The CSA project contribution with the introduction of the EX ACT tool is relevant to this situation.

Currently, in FAO's activities, CC is mainly addressed through specific projects with explicit objectives, while the office considers that **CC should be mainstreamed**. There is no internal system in place for promoting the mainstreaming of CC into all FAO's activities. However, the office management is considering creating internal thematic clusters that could support this mainstreaming.

The FAO country office management has sought to adhere to its Country Programming Framework (CPF) to ensure results. However, this has meant that certain projects, particularly related to forestry, have been rejected by the country office as they do not align with the CPF. The CPF does not explicitly target afforestation, reforestation or reduction in deforestation nor does it mention the forestry sector. While the diligent adherence to the CPF is laudable, it is apparent that deforestation is a critical issue in Malawi and it has arguably contributed to increased incidents and intensity of flooding events. The FAO office is of course aware of this, but has decided to focus its efforts in other sectors as it "cannot do everything".

Effectiveness

FAO's work on CC adaptation and mitigation in Malawi started recently, through several projects that are still ongoing and have not yet created impact, with the exception of several locally focused and short term disaster response projects.

However, several outputs - and even outcomes - have already been registered:

Policy, governance and strategy

- FAO has been an important contributor to the National Disaster Risk Management Policy
- Under the CSA project, a draft CSA strategic framework has been prepared and will be presented for consultation to government stakeholders in the coming weeks. It is expected that this framework will contribute to better integrate CC and CSA in agricultural policies and strategies, and more specifically in the future overall agriculture policy.
- The CSA project organized a policy dialogue that brought together the Ministry of Environment and CC and the Ministry of Agriculture. As a result, agriculture was given more consideration in the national CC policy. However, this policy dialogue did not have any impact on the future Agriculture Policy. Also, only the Land Resources and Conservation Department was present from the Ministry of Agriculture, and consequently this exercise did not contribute to advocate for a better mainstreaming of CC issues in other departments. More generally, the project is implemented in partnership with the Land Resources and Conservation Department,

and did not succeed in involving other departments. The project has also organized a session at the national parliament that helped to raise awareness on CC and CSA.

- The COMESA project carried out a screening of the level of mainstreaming of CC issues in the agriculture policies. Results were presented to stakeholders.

Data and knowledge

- FAO supported the implementation of a land cover mapping exercise (which is an update of a previous mapping carried out in 1990) and a land use diagnostic and atlas, under the National Programme for Managing Climate Change in Malawi. It is considered essential for defining relevant specific adaptation measures. Although the atlas was very informative and useful, it was not distributed at district level, which is the level where the atlas is more likely to be used.
- Still under the National CC Programme, FAO supported the CC and Meteorological Department for the validation of the AQUACROP model for the estimation of agriculture production. However, due to a lack of appropriateness of the project period to the validation plan (3 agriculture seasons); the model validation was not achieved with FAO's support. Another planned activity, the crop weather calendar, was not achieved neither.
- The CSA project has carried out analysis on a number of topics related to CSA that represent the base for the elaboration of the CSA strategic framework. Results and findings will be presented together with the framework in the coming weeks.
- The CSA project organized two scenario-building sessions that were much appreciated as interventions have often been reactive to the changes that have already occurred, rather than being pro-active.
- The Southern Africa Project is testing several traditional and imported production and post-harvest practices, in farms and in controlled conditions' station. It is expected that this activity creates evidence on the validity of the different practices that are tested.
- On mitigation, the CSA project has introduced the EX ACT tool in the country, and has tested it with a University; it is not clear to what extent conditions are met so that this tool will be used by practitioners. The project also worked with the Department of Statistics in order to integrate agriculture-related data on mitigation benefits in the Integrated Household Survey. This will help to generate more data on mitigation practices.

Capacity building

- The CSA project supports students for post graduate scholarships (8 masters and 1 PhD), who are working on a number of CSA related topics (soil and water conservation, efficient input utilization, crop and livestock diversification, small holder irrigation management, agroforestry, bioenergy and investment and financing). These works are still ongoing and they are expected to contribute to locally produced knowledge and capacity building of professional workers.
- The CSA project has also prepared a CSA manual for extensionists that has been pre-tested and will be validated soon. Trainings of extensionists will be organized.
- The CSA project as supported staff from the Ministry of Agriculture to attend the COPs (with funding and mentoring). This allowed participants to improve their understanding of CC issues at global level, to increase the awareness of the Ministry in adaptation and mitigation, and finally to integrate CSA promotion in the budgeting and extension package.
- On capacity building, on several activities (land coverage mapping, CSA project evidence base), interviewees found regrettable that the main analysis work was produced from Rome, without any participation of national stakeholders or the FAO office. The FAO office and stakeholders advocate for undertaking more of the analysis work in Malawi so that it can feed a capacity building process.

Financing

- No achievement has been reported on financing in the agriculture sector. However, FAO is about to start the implementation of a GEF project on fisheries.

Institutional coordination for implementing technologies and practices

- Through several project, FAO supports coordination of Conservation Agriculture stakeholders at national (CA task Force) and regional level (Regional Working Group).
- FAO supports the co-leads of the agriculture cluster, where issues such as Disaster Risk Management and resilience are discussed.
- FAO supports the Steering Committee on Climate Change with funding and inputs for the organization of meetings. FAO intervened in the Committee to clarify the concept of CSA that was creating confusion among stakeholders. This committee enables improved coordination among field stakeholders, thereby reducing duplications and ensuring better coverage.

Household adaptation and resilience, food security and mitigation

- As mentioned above, most of the processes that FAO has engaged on CC issues are still ongoing and have not yet produced outcomes or impact at the household level. However, outcomes and impact may be evident at the household level for a number of field disaster response projects. For example, OSRO/MLW/202/CHA was a 6 month emergency response project which sought to provide inputs (seed, fertilizer, seedlings) to drought-affected households. The careful management of these inputs by farmers allowed for the creation of a revolving fund which is used regularly by farmers as a means of credit, thereby increasing resilience to future shocks.

As far as FAO's **normative and analysis work** is concerned, several institutions use FAO's products:

- UNEP has used FAO indicators in assessing the ASWAP
- The AQUACROP model is being validated and is expected to be adopted for the production estimation made by the CC and Meteorology Department.
- AgrometShell (AMS) and Cropwat have both been used by the Meteorology Department.
- The FAO phyto-sanitary standards are used by the Department of Crops for exports standards.
- Several technical staff at senior management level and the practical level regularly consult FAO's products through the internet.
- Partner organizations also consult FAO publications – specifically the CSA Sourcebook.

More generally, there were concerns regarding multi-country projects proposed from the regional or HQ level, on the extent to which they support the Country Programme Framework, and the extent to which they are appropriately coordinated with the Country Office and national stakeholders. In addition to this, some concerns were expressed on how realistic it is to expect an impact with limited budget shared between several countries.

Efficiency

A few problems related to efficiency have been reported:

- The National CC Programme timeframe and budget didn't match with the requirement for the validation of the AQUACROP model for the estimation of agriculture productions. As a consequence, at the end of the project, the CC and Meteorological Department had to look for complementary funds for continuing and achieving the validation process, which has registered a significant delay.
- Still on this programme, there were no funds available on the budget to distribute the land use atlas at district level. This was an important inconvenience, as district is the level where the atlas should be more useful for planning.
- The Southern African project (OSRO/RAF/220/EC) experienced a delay at the beginning, due to "internal bureaucracy at FAO", which has affected the research component (field sampling and establishment of learning centres).
- Several overlaps have been reported between projects. Both COMESA and a USAID project support Conservation Agriculture coordination. Both COMESA and CSA projects had initially the objective to support the elaboration of CSA investment frameworks. UNDP is also undertaking a CSA project – the crossovers and linkages with FAO's CSA project are unclear.

Sustainability

Findings from the CSA project evidence base are not available yet. However, from our interviews the following observations can be made on the adoption of CSA practices:

- Several practices are adopted by farmers: agroforestry, soil and water conservation, CA, crop rotation with legume.
- Farmers don't adopt the full CA package (combine no tillage with mulching, or mulching with basins...). The adoption of practices depends on farmers' capacity.
- On CA, there is a major challenge for maintaining the soil covered, which is the competition with livestock breeding and tobacco nurseries for the use of crop residues, and the burning practice for hunting and destruction by termites.
- Usually CSA practices are adopted in small parts of farmers' lands (0,1 or 0,2 ha). Labour is the main limiting factor.

Other stakeholders expressed their skepticism regarding adoption of CA considering that is considered very labor intensive, the lack of availability of crop residues and inputs. Farmers themselves agreed that the new techniques were labor-intensive in the initial phases, but they said that the results were worth the extra effort.

More generally, a factor that is considered as essential for sustainability is time in order for farmers to develop ownership and capacities on innovations.

According to interviewees, it is common to observe the decrease of adoption of the technics that have been promoted after the end of the implementation phase of a project.

The new Agricultural Sector policy is likely to revise the Farmer input Subsidy Programme, such that lower-income farmers may no longer receive the subsidy. Instead, it is proposed that these farmers would receive social support along with training in CSA techniques to increase production and resilience. FAO staff are keen to use this opportunity as a means to promote CSA. However, given that the FISP is a very popular and politically-sensitive subject in Malawi, there is the risk that CSA could be seen by farmers as the lesser prize compared to the fertilizer subsidy. This could affect adoption of the techniques. Furthermore, it is unclear whether the government will make the politically-risky decision to scale back the subsidies.

Gender Mainstreaming

The FAO office in Malawi only has a full time gender focal point since July 2014, funded by a UN Woman initiative that aims at building capacities in UN agencies and the government on gender issues.

For FAO's activities, the focal point has only intervened on three projects so far that do not have explicit objectives on CC. However, overall, the projects did not contain in-depth analysis of gender and climate change. Furthermore, gender issues may be implicit in some of the projects but they were not dealt with explicitly.

The main focus put on gender in CC projects is the collection of sex-disaggregated data and the inclusion of a certain percentage of women as beneficiaries.

In addition to this, FAO has promoted gender equality in its relation with government partners: promotion of the collection of sex disaggregated data and organization of several sessions on gender mainstreaming. The latest was found effective for data collection (for example, participants learned about ensuring that there was equal male/female attendance at meetings, and also the importance of ensuring men and women equally attended/participated in extension trainings, plus sex disaggregated data collection).

Several barriers in FAO and the government for the promotion of gender equality were identified during the course of the evaluation mission:

- Gender issues tend to be delegated to the gender focal point, with the result that gender is not addressed in a mainstreamed manner.
- There is a lack of mainstreamed gender skills and knowledge in the FAO Malawi country office and also at government level.
- There is a lack of budget programming for gender and lack of resources for gender approach.
- All FAO projects are implemented by government, and yet capacity for gender issues is lacking at government level.
- Regional and global projects are formulated elsewhere (e.g. in Rome, or at the Regional office) and then just "applied" to the Malawi context, thereby offering little scope for the inclusion of contextual gender concerns.

Partnerships

FAO develops its work on CC in a large approach of partnerships:

- FAO collaborates with other UN agencies through joint UN programmes (the National CC Programme), and has other direct interactions with UN agencies (UNDP, UNEP) in formal and informal exchange mechanisms on CC issues
- FAO is a strong partner of the Ministry of Agriculture. All FAO projects, except disaster response projects, are implemented in partnership and in support to the government. However, all the CC projects are implemented by the Land Resources and Conservation Department while the participation of other departments would be required in order to increase awareness and achieve a higher level of mainstreaming of CC issues in the Ministries' policies and activities.
- FAO has developed partnerships with other appropriate public institutions such as research centres and Universities, for research or academic activities.
- FAO works with NGOs for disaster response interventions, considering that government agencies are not fast enough for a rapid field implementation.

In addition to this, FAO is present in all the relevant coordination bodies that address CC issues such as the Donor Working Group, and the National Technical CC Committee.

The Bunda University, which participates to the CSA project for the activities on scholarship and elaboration of a CSA manual, considered that FAO proposed more a consultancy work to the university than a real partnership relation for a research project. The project was too rigid when it was proposed to the university and lacked flexibility.

However, FAO doesn't seem to have developed partnership with the private sector (beyond a commercial relation for the provision of inputs), despite the fact that the private sector is engaged in CC issues. As an example, Monsanto is engaged in the promotion of CA and short cycle varieties, and collaborate with the Ministry of Agriculture (provides demo plots, organizes field days with all stakeholders). The Seed Traders Association also collaborates with the Ministry of Agriculture and participates in a project aimed at raising awareness on CA and the environment.

Organizational Learning

As mentioned above, FAO in Malawi has engaged recently on CC adaptation and mitigation, explicitly, and it is too soon to analyze to what extent the knowledge that is being created, in particular in the CSA project, will facilitate institutional learning at country-, regional- or HQ-level.

There is no mechanism at the country office level aimed at disseminating knowledge and mainstreaming CC issues into all FAO's activities.

Factors of Performance (As per evaluation TOR, i.e. FAO's strategy, resources, coordination and capacity, as well as any external factors) FAO's intervention in CC adaptation and mitigation in Malawi is still project based, as opposed to programme based where projects contribute to the same aim and are well coordinated from their design phase to their implementation.

CC is not mainstreamed into all FAO's activities, and is still addressed through specific projects, despite the fact that it is mentioned several times as a crosscutting issue in the Country Programme Framework. There is no internal mechanism in place to promote CC mainstreaming.

Several interviewees from institutional organizations considered that FAO had limited capacities in the Country Office, which have decreased recently, and that an interaction with the HQ was necessary in order to benefit from FAO's comparative advantages. Other agencies may rely more on consultants (as opposed to institutional knowledge and capacity), but their capacity is located in the country. FAO representation and visibility in the country, on CC and other issues, has improved with the current FAOR. Before, FAO's activities and participation to processes that associate stakeholders was not very visible.

2.8 Morocco Country Mission Report - Forest Adaptation

Projects

GCP/GLO/440/FRA & GCP/GLO/458/FRA —Maximize the production of goods and services of Mediterranean forest ecosystems in the context of global changes.

UTF/MOR/037—L'appui à la mise en œuvre du Programme Forestier National (PFN) Phase II

GCP/INT/093/SPA Inter-Regional Program for Poverty Alleviation and Combating Desertification Through Collaborative Watershed Management.

TCP/INT/3405—Appui à la phase intermédiaire du projet interrégional de lutte contre la pauvreté et la désertification et d'adaptation aux variations climatiques à travers la cogestion des bassins versants.

Context

With increasing temperatures and reduced rainfall predicted for much of Morocco as a result of climate change (CC), not only agriculture but forests and the environmental services they provide as well stand to be adversely affected. The critical role of forests and the need for action to conserve and adapt them to CC lies in their ability to maintain healthy watersheds for furnishing water for the country and its agricultural sector and preventing soil erosion and dam siltation, and in the high dependence of rural inhabitants on various forest resources; fodder, fuelwood and various non-timber forest products. In fact, CC threatens Morocco's and Mediterranean region's forests more than any other in the world.

Morocco's architecture of government institutions in the agriculture and related sectors is well-developed and complex, with a number of specialized public and quasi-governmental entities in existence. As a MIC, the country also has strong technical capacity at the national level. The governmental institution responsible for both forestry and water is the Haut Commissariat aux Eaux et Forêts et à la Lutte Contre la Désertification (HCEFLCD). However, the Ministry of Environment is the lead agency on CC. In rural areas poverty still exists and technical and planning capacity at sub-national levels is weak. Following the political turmoil in Egypt and other Arab countries, a new constitution was formulated that transferred powers to the regions. Each region, including mountainous and oasis ones, is to now create its own development plans. Morocco and FAO have had a long history of engagement, but more so on the country's water and irrigation sector.

Relevance

FAO's work in forest adaptation to CC in Morocco has been in the areas of knowledge generation and provision, strategy development and at the field level for watershed protection.

In knowledge provision, FAO under a regional programme, "Maximize the production of goods and services of Mediterranean forest ecosystems in the context of global changes", funded by the Fonds Français pour l'Environnement Mondial (FFEM), assisted in developing projections of the climate change impacts on selected forests in the country. The agency's contribution to strategy formulation was made through a Unilateral Trust Fund (UTF) project, for supporting the implementation of the National Forestry Programme.

At the more local level, FAO has been implementing a series of projects for watershed co-management in the Atlas Mountains, specifically in the Midelt area, "Inter-Regional Program for Poverty Alleviation and Combating Desertification Through Collaborative Watershed Management", and "Appui à la phase intermédiaire du projet interrégional de lutte contre la pauvreté et la désertification et d'adaptation aux variations climatiques à travers la cogestion des bassins versants."

Based on an evaluation of FAO's forestry adaptation efforts in Morocco from 2009-present, the agency's comparative advantage has lay in providing advanced data on CC's projected impacts on selected forests in the country. The FFEM project, a multi-partner regional initiative under the FAO statutory body, *Sylva Mediterranea*, has been operating since 2011 in six countries of North Africa and the Near East and consists of five components. Out of these FAO has been responsible for two components. The first of these is the production of data and the development of tools to support decision-making and management concerning vulnerable Mediterranean forest ecosystems affected by climate change and their ability to adapt to global change.

The methodology to assess CC impacts on forests has been from a multifunctional perspective and developed with the other partners. It has been the first of its kind for Morocco and the other participating countries. Regarding the generation of the forest data, the FAO project pieced together the different methodological components from various partners. Rather than being the technical-specialist agency, it acted as a generalist institution and recognized and capitalized on expertise worldwide.

The other component, implemented by a programme partner, PlanBleu, has been for the use-optimization of the environmental goods and services provided by Mediterranean forests and the valorization of these goods and services, including carbon sequestration. It along with the other components is intended for ultimately developing a REDD+ plan for some of the Mediterranean countries. Plan Bleu is also developing participatory and territorial approaches for forest governance in these ecosystems. However, an area of work that remains for forest conservation and adaptation is identifying and tackling the drivers of deforestation.

The REDD+ plan would propose receiving REDD+ payments for the ecosystem services forests provide, such as water, non-timber forest products and fodder, for livelihoods and development, and to use the payments for the maintenance of these non-carbon benefits for forestry adaptation. The aim is therefore innovative and ambitious.

What has made this regional initiative possible and what involves another comparative advantage of FAO as well has been the Committee on *Sylva Mediterranea* Forestry Questions, an FAO Statutory Body of European, North African and Near Eastern countries bordering the Mediterranean. *Sylva Mediterranea* provided a crucial platform for the development of the Collaborative Partnership on Mediterranean Forests, which is supporting work in six Mediterranean countries with financial assistance of the Governments of Germany and France. The FFEM project "Maximize the production of goods and services of Mediterranean forest ecosystems in the context of global changes" is carried out by FAO in collaboration with other partners. FAO is regarded as being the neutral facilitator. This body also involves a large number of donors, NGOs and knowledge organizations through the Collaborative Partnership on Mediterranean Forests (CPMF). These institutions are generally larger or more resource-endowed than FAO, but the agency is regarded as being the neutral facilitator with the

necessary technical expertise and which the governments trust, and that can bring the parties together for collective decision-making. According to donors and other development agencies as well, only FAO has this role in the natural resource and agriculture sectors and apart from its position as a UN agency, it is because of the agency's historically close relationships with the governments, which has allowed it to influence public practices. The FFEM Project Manager also serves as the Secretary of *Sylva Mediterranea*, which has only served to benefit FAO's efforts.

More broadly and beyond the FFEM project, FAO's strength as a facilitating agency could, according to several government officials, add real value in Morocco by bringing together the various national sector institutions addressing climate change, in agriculture, water, forestry, environment and others, together to harmonize their different policies and strategies. The different ministries and programs have overlapping responsibilities, do not coordinate their actions well with one another and tend to compete. Morocco's challenge in tackling CC no longer consist of a lack of resources or technical expertise. It is one of weak cooperation among the different government ministries and other bodies. FAO brings a wide vision encompassing food security, poverty reduction and all the natural resource sectors, and if it were to use it along with its comparative advantage in being a coordinating entity, it could address this institutional challenge and foster the creation of broader landscape and programmatic approaches. More specifically, it could help the country address in a holistic manner the agricultural drivers of deforestation, namely grazing and non-timber forest product collection, which in turn is affecting water availability.

There are other domains as well in which government stakeholders believe FAO has the ability to play a contributing role. For example, watershed and forest management at national scale remain important for ensuring water supply. Yet a different ministry or entity is responsible at each stage, from watershed management to water use; the HCEFLCD for upstream forest conservation and silt control, the Hydrology Department for water capture and the Agriculture Department for water use. Coordination among these institutions is difficult and needed. Similarly, the development of marginal areas, including increasing the resilience of the human populations in them and with a multi-sector environmental approach, involves an inter-governmental committee of seventeen different government agencies and is a challenging task for the Ministry of Agriculture's Division of Marginal Areas to conduct on its own.

Despite the strategic contribution that the FFEM and other non-forestry projects are making, FAO is overall losing ground as a main partner of the government of Morocco on CC and other issues owing to the large number of much development institutions operating in the country that are either greater in staff size or have more resources to bring to the country. The GIZ, for example, has 140 technical staff in Morocco, in the areas of forests, water, environment, and other areas, and is focusing on capacity development and civil society. The EU is providing USD 40 million to fund the country's forest policy development. If FAO does not move progressively in the direction of being a coordinating body it is likely to play a reduced technical role in Morocco.

With the substantial level of technical skill in the country, some key national stakeholders ask whether FAO presently, with its smaller size compared to earlier years, really has to capacity to bring much technical and policy-related added value on CC. FAO is still regarded as a source of technical expertise, unlike multilateral investment partners which only bring resources, but only in cases where it cannot be found in country. Indeed, even external funds are not critical for Morocco to obtain. Given the high level of technical capacity in Morocco, part of the government's interest in a relationship with FAO is the opportunities that South-South Cooperation can bring and the agency's ability as a neutral agency to leverage resources from other donors.

There has also been significant competition from other organizations in the areas under FAO's mandate and CC. As an illustration, the institutions that have been most successful in procuring GEF

projects, including those related to CC, have been UNDP and the World Bank. This is despite the fact that FAO has a comparative advantage in the technical areas, which are under its mandate, and can take an inter-sectoral approach. Areas where FAO can contribute on CC in the future with GEF funding are the fisheries sector, early warning systems and DRR, insurance for agricultural producers, and innovative agricultural technologies for CSA.

Another area where FAO has the potential to contribute, according to government and other stakeholders, is in incorporating CC knowledge available from other development institutions into policy-making. The quality of CC projections in Morocco has improved since 2008 when the country was affected by a serious drought and the government sought to strengthen national capacity in monitoring. However, robust data on the long-term effects of CC on the sectors, and what options are to address them does not yet exist. While FAO may not be in a position to provide this information, it can gather the information of other, research-oriented organizations, local and global. Furthermore, despite the presence of adequate CC projections, it has yet to be fully considered in development and sector plans. FAO could use its close relationship with government and greater skill in policy influence to communicate external data to ministries and help ensure CC is properly mainstreamed in strategies and policies.

The aims of the TCP project for watershed co-management have been relevant in light of the importance of watersheds for water provision, the state of forest degradation and desertification, the low income levels in Morocco's mountain areas, and the effects of CC on communities there. Community co-management and institutional strengthening at local sub-national government levels, while not a new approach globally, has been needed in the country given the past command-and-control approach of the HCEFLCD, which the entity is seeking to move away from. The project's aim was to continue the activities of a Spanish-funded interregional project for collaborative watershed management, which included small investments for livelihoods, and to develop a model of integrated watershed co-management for a second phase of four years.

However, the initiative is rather limited, and its relevance diminished, in the context of Morocco's similar and much larger programme for participatory forest conservation and watershed management. The HCEFLCD's programme, from 2005-2014 and with a budget of 8 billion Dirham, emphasized the multi-functionality of forest ecosystems and social and community development in forest areas, and was implemented at decentralized levels.

The UTF forestry project produced a plan to address risk management, forest health, cedar forest deterioration, and monitoring and thus indirectly also contributed to adaptation. The involvement of FAO was sought for implementation of the strategy as officials stated that it exists only in formally and required articulation in real terms. The project was initially to include a more specific CCA component but given the nature of the FFEM project's work this became unnecessary.

With regard to being innovative, the development of a REDD+ proposal for payments based on the ecosystem services and social and economic benefits that forests provide for livelihoods rather than on carbon storage potential, and using the mechanism to promote adaptation, has been novel. The effort is also not expecting benefits from a global REDD+ payments mechanism—since the price for carbon storage of Moroccan forests would not be great—but instead, under a Moroccan Forest Partnership (modeled upon Costa Rica's experience), from private sources for activities such as watershed reforestation.

Regarding the Climate-smart Agriculture (CSA) approach, the government and small producers place much greater importance on adaptation given its climate and agroecological conditions and because the country is not a high GHG emitter. Mitigation in the agricultural sector is being pursued through using renewable energy for irrigation. Additionally, among the country's public and quasi-

governmental forestry institutions, CSA is not regarded as a concept that captures the context and issues of the sector.

Adopting programmatic and multi-sectoral approaches has not been a strength of FAO's work regarding the forestry sector in Morocco. Although the agency and other organizations have taken a broad perspective on forest adaptation issues through *Sylva Mediterranea*, in light of the close relationship between the forestry and water sectors there has been a need for more cross-divisional communication and collaboration in FAO between the departments working on them. Government officials and development organizations in the country see the agency as the only one that has the potential to adopt a broad intersectoral vision and the hope is that FAO will implement it. But within FAO the water and forestry divisions and departments have had little knowledge of the work of the other. Even within the forestry department its different projects operating in Morocco are unaware of each other while the HCEF is aware of all of FAO's interventions in the sector. For the different ministries to work together, and to also deal with agriculture and grazing as drivers of deforestation, it will first be necessary for FAO to take a multi-sectoral and landscape approach.

The FAO Representation has been a small country office that is now engaging to the extent possible with government and all of the agency's projects, even those led by HQ and the regional office. However, like many other FAO Country Offices it lacks any technical expertise for more in-depth dialogue with government, and recognizing the need for it would like to possess some to develop more project ideas. The main driver of work at the country level has been HQ, particularly the water team there.

Effectiveness

Under the FFEM project, FAO has created a database on all scholarly articles relating to Mediterranean forests since 2000, produced 24 distribution maps of Mediterranean tree species based on the pilot sites, and done a CC vulnerability assessment of forests in five sites, one of which is in Morocco. For the country, the project generated CC projections under two scenarios, BAU and optimistic, and under the former the results show a high vulnerability in the present and a very high one in thirty years. The project also trained national government staff to conduct further analysis, and utilized Moroccan experts to develop the capacity of governments in other participating countries.

After four years of implementation on watershed co-management, the projects together appear to have been successful in generating improved livelihoods, having delivered fruit trees to some households, livestock to others, including to women, and built small infrastructure to prevent flooding from rivers and large-scale water run-off from deforested hills that destroyed homes. As a result, the departure of households from the area has stopped. The projects have also re-planted trees in denuded areas and established an experimental plot to test different indigenous species for their ability to grow at the site. However, despite the length of the projects, there has been little if any co-responsibility and community-governed management of practices for sustainable use of natural resources such as of forests for forest-product collection and grazing, the latter being a major driver of deforestation. Whatever producer associations that exist were established before the project and they have their own rules about harvesting resources. The main change in the approach has been that while in past the government acted on its own, there is now consultation with the communities on what livelihood schemes should be implemented. There is interest in the Swiss-funded follow-up project to create a link in the project with policy-makers, but it is unclear what lessons on co-management can really be communicated and implemented at a larger scale if the project has achieved it. Regarding the TCP's goal of continuing the lesson-sharing from local level to decision-makers, it is not evident that actual experiences on ground are being transmitted. While the livelihood schemes the project introduced were designed in light of the local context and with some community input (though beneficiary selection criteria was unclear in some cases), the FAO HQ project team,

along with the Swiss and Spanish donors who negotiated the project, seem remote from what is occurring on site.

The inadequate approach to co-management reveals the risk that FAO faces in losing its status as an organization of expertise, and generator of knowledge to share on new social approaches, given that globally co-management has been used for many years. The ability of FAO's normative work to draw more accurately on the agency's field interventions and of these efforts to be provide real value needs improvement.

Efficiency

Regarding the delivery of the projects there were no problems in terms of efficiency. The UTF was in fact quite cost-effective since it used government funds to procure FAO assistance. The co-management efforts, however, have been less than efficient as four years have passed, in two projects, and still there has been no real introduction of co-management to the beneficiary communities.

Sustainability

The watershed co-management efforts will soon receive Swiss funding to continue for another three years. However, considering that they have been underway for four years and community participation in watershed resource management has hardly emerged, it is not likely that any co-management gains will be sustained.

Gender Mainstreaming

Integrating the gender dimension into FAO's work in Morocco has been difficult as the focal point is able to devote only a small percentage of her time (around twenty percent) to the issue and many of the projects in the country, on CC and other issues, have been designed and implemented by HQ. There have, nevertheless, been trainings on gender in the Representation and in the regional office. A novel approach that the Country Office has taken is to mainstream gender directly into the Ministry of Agriculture and other public entities, such as the HCELFCD, and their work. It has sought to do this through involving the institutions in various trainings.

In the watershed co-management project, it is not known to what extent the context that women are in relating to CC impacts or the barriers they may face in adapting to them were taken into account during the project's design. However, a number of women were recipients of livelihood schemes, specifically in livestock-rearing, that the project offered and have benefited from them. They have reported increased revenues and been pleased with the veterinary assistance provided to them. The livestock scheme has in this sense helped the women to cope with flooding disaster and longer-term CC, and because it also involves stall-feeding it has also helped ostensibly though only to a small extent given the scale of the project in the conservation of forest and watershed resources. As mentioned earlier, the project does not appear to have raised the awareness of the women and of the communities more generally concerning watershed co-management or led to any shared responsibilities for it. While the project provided the women with ownership of the livestock as resources, they had already organized themselves and have been active in associations to aid them in marketing and other issues.

Partnerships

There has been considerable partnership of FAO and other organizations in the forestry sector in Morocco and further opportunities for it exist. The FFEM project has involved a partnership with another knowledge institution, and it sits within and is supported by the regional Sylva Mediterranea that includes, besides the MENA governments, various regional and global development organizations. However, some greater outreach to and involvement of other relevant institutions should have been carried out for the project. The national forest remote sensing institution, Le Centre Royal de Teledetection Spatiale (CRTS), which possesses sophisticated data on deforestation and forest degradation, provides data and capacity building for various sectors and government departments,

including the HCEFLCD, and is involved in a number of environmental projects, has not been involved in or aware of the FFEM project. The institution does not conduct monitoring of CC impacts on forests, but could have been provided with the capacity to do so under the project. The Ministry of Environment has similarly not been aware of the project and its REDD+ plan development efforts, but is the national lead agency on CC and has a strategy for it.

Morocco's technical capacity in the forestry and agriculture sectors is substantial and both national institutions and FAO believe that the country could assist other developing countries substantially through South-South Cooperation (SSC). The CRTS already conducts capacity building in other Arab and West African countries, and has trained about two thousand people so far. The recent signing of a SSC arrangement with FAO could place Morocco in a position to contribute to developing CC-related capacity in other countries and enable FAO to expand its impact, if FAO develops a strategy for CC to be followed in its SSC.

Organizational Learning

The extent to which this has occurred with respect to CC has been in the water division at HQ, which has had a longer engagement with Morocco. Institutional learning for adaptation can be said to be taking place in the FFEM project and the broader CPMF and Sylva Mediterranea where the institutions are generating knowledge to help them take action in the future (through the REDD+ plan), and implementing various strategies for forest conservation and adaptation, such as forest fire prevention, to gauge how they are succeeding. The watershed co-management project being an interregional one could have carried out better learning and adaptive management to identify how the communities could be engaged to actively sustain the watershed's resources and to develop with the beneficiaries livelihood activities that would also achieve this.

2.9 Morocco Country Mission Report – Water and Agriculture

Relevant projects:

GCP /INT/130/EC (EU/FAO Improved Global Governance for Hunger Reduction (2012-2015) Modelling System for Agricultural impacts of Climate Change (MOSAICC)

FAO UTF/MOR/038/MOR (operationally active) Assistance technique à l'Unité Centrale de Gestion du Projet (UCGP) de modernisation de l'agriculture irriguée dans le bassin de l'Oum Er Rbia

Context

Morocco, like many other countries in the Middle East and North Africa faces multiple challenges linked to land and water management, including increasing water scarcity, over-exploitation of ground water resources, limited supplies of fertile areas, increasing land degradation, soil erosion and recurrent droughts. Irrigated agriculture is also a major consumer of freshwater, principally to support high-value export agriculture but it also provides a valuable resource for subsistence agriculture supporting local income generation and employment for rural livelihoods. However, an increasing frequency of droughts and water scarcity coupled with uncertainties regarding climate change has highlighted concerns regarding food security and environmental sustainability. Efforts to achieve food, water and energy security are further compounded by global challenges linked to rising food prices, growing energy demands and competition for water, all of which collectively affect food security in all its four dimensions –availability, accessibility, stability and utilization. Climate change threatens to exacerbate that situation.

In Morocco, a changing climate poses a major risk to the sustainability of rural livelihoods and water resources management. International efforts to achieve improved sustainability and enhance the resilience of rural populations and their livelihoods are the focus of development projects and policy

initiatives. In response to these climate risks, Morocco has been implementing a national strategic agricultural program (Plan Maroc Vert) since 2008 to support and upgrade smallholder agriculture as well as encourage larger-scale private investment. The program is also expanding its scope to producers in more marginal areas vulnerable to a changing climate. FAO has played a key role in this.

FAO has a long history in Morocco, dating back to 1968 when it was engaged in supporting establishment of the Ecole Nationale Forestière des Ingénieurs (ENFI) focusing on watershed management and forestry. Since then it has consolidated its position and enjoyed a privileged role acting as a technical agency providing strategic and policy guidance to government ministries (notably agriculture) and adding value to NGO and bank funded development projects at local level through targeted technical support. It is widely viewed as being independent and objective with a high degree of institutional memory, giving it comparative advantage over other UN agencies and NGOs operating in the country.

This report summarises the key findings from a technical mission to Morocco in February 2015 to interview a number of key informants including the FAO Representative, government ministries (Ministère de l'Agriculture et de la Pêche Maritime (MAPM), the forestry institute (ENFI) university and research (IAV Hassan II), international banks (ADA, Crédit Agricole and Banque Mondiale), and other organizations (Société Nationale de Commercialisation des Semences (SONACOS), Mutuelle Agricole Marocaine d'Assurances (MAMDA) and Conseil Economique , Social et Environnemental) with a focus on climate change adaptation and mitigation. A short field visit was also made to the Midelt region to visit GCP/INT/093/SPA and TCP/INT/3405.

Relevance

The FAO has a long history of activities in Morocco that have focused on normative studies and analyses (supporting ministries and government departments in providing baseline assessments, horizon scanning, providing evidence to support policy formulation), providing the 'social glue' for convening stakeholders in CCAM activities, strengthening member country data and knowledge (although it is an area that interviewees feel FAO should do more of) and supporting implementation of new technologies and practices at local level. These have predominantly been targeted to land and water management, including a series of successful projects focusing on irrigation modernization and establishment of water user associations, water scarcity and coping with droughts.

However, with specific reference to CCAM, FAO has been less active and visible in assisting in country enabling environments, including institutions and financing, and engaging with key stakeholders in high level climate change dialogue. NGOs and other UN agencies (UNEP, UNDP) have a much more presence and gravitas in setting and shaping the CCAM agenda in Morocco. This is possibly because FAO technical expertise in climate change adaptation and mitigation in relation to agriculture and water management is located in Rome HQ; thus exposing the FAO CO to a lack of technical competency in the subject area and being able to actively contribute to CCAM advocacy issues at the national and regional levels.

Whilst there is extensive evidence of normative work and assessments to support water scarcity and agriculture (e.g. irrigation modernization) there is much less tangible evidence of products, data and knowledge on climate change adaptation and mitigation. The exception is MOSAICC (Modelling System for Agricultural Impacts of Climate Change), a server based software webtool platform developed by FAO NRC within the framework of an EU/ FAO Programme on improve global governance for hunger reduction. As part of its development, Morocco was selected as a pilot country for deployment, to train users and carry out a reference impact study at national level. This represents the most important and tangible FAO contribution directly relevant to CCAM activities in Morocco, but further support is needed to promote wider uptake and application in the north Africa region. During interviews with key informants in Morocco, it was also viewed by some key informants as being more a

researcher's tool for modelling CCAM scenario rather than a normative product for stakeholders, but it does offer potential to inform strategic government assessments of climate impact in Morocco and for examining trans-boundary climate-water management issues in the MENA region (TCP/INT/3301).

Interviews and the field visit in Morocco confirmed that within CCAM, there is limited evidence of FAO operating at the cutting edge, compared to some of its competitors (notably NGOs), in providing a pathway for 'knowledge aggregation' and dissemination of climate change research to stakeholders. For example, whilst promoting community governance and local responsibility has helped reduce flood risk in small upland rural communities and promoted forest regeneration (leading to reduced land erosion risk) (TCP/3405, 093/SPA) there was little tangible evidence on the ground from key informants of genuine co-management at the watershed level. This is essential for developing adaptive capacity at the local level. Interviews with beneficiaries in the Middel region were unable to pinpoint any clear examples of FAO intervention in CCAM, despite there being some good examples of local interaction in other areas (e.g. agricultural and livestock extension type technical services).

FAO are one of a collection of organisations working in Morocco within CCAM, including NGOs and other institutions, but they lack critical mass in understanding and analysing CCAM issues at the country and regional level. They are linked closely with those that do, but they could add significant value to CCAM activities by bringing independent external strategic thinking and new ideas to CCAM problems by providing greater depth and knowledge in the subject area, much more so than local consultants, as their ideas and approaches are not biased by local circumstances or politics. The ability of FAO to offer a broad international perspective (e.g. African wide experience Morocco) is something other organisations cannot offer. Their contribution is therefore much more on adding value to existing CC initiatives rather than delivering 'cutting edge' CCAM thinking.

Some organisations would also benefit from more active involvement/support from the FAO. For example, ENFI highlighted a need for greater support in training, contributing to course delivery and linking in with their research activities. It was reported that there were no obvious barriers to closer collaboration, just a need for better incentives and mechanisms for enabling FAO collaboration. Given that CCAM is a cross cutting issue this seems a sensible recommendation. FAO doesn't need capacity development but rather capacity mobilization. Evidence also suggests that FAO is very good at developing approaches and implementation of pilot projects, but not so involved or engaged in the 'up-scaling'.

In general, FAO activities in Morocco seem to be well aligned to its current framework documents and strategies on climate change, including FAO-Adapt, Climate Smart Agriculture (CSA) and its strategic objectives (SO2 and SO5). However, most are more directly aligned to water security and increasing resilience to water risks rather than explicitly CCAM. In the water and agriculture sectors, there is evidence that FAO interventions are striving for synergies between the three pillars of CSA, but with a focus on adaptation, rather than mitigation. In the Midelt region (TCP/INT/3405) synergies to improve water management practices and adapt to rainfall extremes with impacts for agricultural production and food security were evident, helping to reinforce CSA principles, but showing limited relevance to the FAO framework on CCAM. There was also a general agreement amongst interviewees that the FAO CSA was a useful conceptual framework for planning projects, but no recognition that it was particularly innovative. With increasing competition for funding, the challenges identified were on how to reach a higher level of responsible development without polarising views, for example, regarding CSA. This highlights an important evaluation issue –whether CCAM needs to be explicitly stated in FAO projects in order to reflect FAO capacity in CCAM.

Agriculture is often cited as being one of the sectors most at risk from a changing climate, and Morocco is no exception. However, it was apparent that there was a much greater demand for CCAM assistance in Morocco, both in advocacy and via programme implementation, than the FAO was currently providing and/or supporting. The role of FAO in CCAM advocacy was generally not visible to

stakeholders, either as a key activity or an institutional strength. There was also evidence that whilst FAO was increasingly working at policy level, providing technical advice to inform institutional development and build capacity, it was not explicitly in CCAM; rather broader aspects relating to water scarcity, food security and agricultural development. This is inevitably due to a lack of technical competency in CCAM in FAO CO.

Despite this lack of CCAM technical competency, the design and implementation of projects in Morocco was perceived by interviewees as being participatory and location-specific, and reflecting national and local contexts. FAO clearly has a strong international perspective and track record in watershed management, but in CCAM it needs to address issues in a much more holistic way, linking in with other institutions and stakeholders who have critical mass in understanding climate change science. Most FAO approaches to CCAM in water and agriculture have focused on individual interventions (or follow-on projects) at regional/municipal level, rather than being programme based. One criticism often levied by interviewees was the need for FAO to adopt a more integrated and holistic approach to understanding CCAM as many of the key social dimensions of climate change in agriculture and food security seem to be overlooked. A programmatic approach would help to foster a stronger multi-disciplinary approach and promote greater horizontal integration across technical and socio-economic issues. This highlights a more fundamental concern about FAO and how existing internal divisional structures in HQ Rome do seem to be severely hampering CC integration across different sectors in the organization. This view was also corroborated by staff interviews at Rome HQ.

Although the FAO CO reputation for shaping strategic and advocacy issues on CCAM at national and regional levels was considered to be weak, it does have a very strong historic reputation for delivering strategic and policy relevant activities. It also has comparative advantages that it should capitalize on more proactively to address its shortcomings in CCAM capability. For example, the FAO can draw on much wider pan-African and international expertise and knowledge than other organisations, and its ideas and approaches are not biased by local circumstances or politics. At a national level, the FAO also has the capacity to bring actors and stakeholders together for discussion on key issues, including CCAM; this is a unique attribute that FAO possess. Given its strong links with government and its neutrality, there is a major opportunity for the FAO to position itself more strategically as the key integrating organization to help aggregate information and CCAM knowledge (not just on water and agriculture, but across the all FAO relevant sectors). This would help to combine the individual strengths of knowledge in CCAM from NGOs, government ministries, the private sector and civil society.

Effectiveness and impact

In relation to CCAM in the water sector, FAO has contributed with mixed success to various areas: The FAO has been effective in providing technical services to support policy development and governance in relation to water management and strategic water resources development in Morocco. Its relationship with the government (MAPM) began in the 1960s with the Sebou basin development; since 2005 efforts have focused more on adapting to climate variability and the implementation of a water savings programme, in which FAO played a significant role. Since 2007, FAO have supported implementation of the Green Plan, via three programmes (i) water saving (irrigation modernization), (ii) improving water use efficiency (WUE) and (iii) supporting major expansion of irrigated production. Effective FAO interventions were based around helping to prepare the national water saving programme, helping to define policies and coordination of a pilot project with Spanish cooperation (GCP).

FAO have also been effective in delivery of a new normative tool in support of assessing the impacts of climate change on agricultural development and water resources through MOSAICC (GCP /INT/130/EC (EU/FAO)). This has led to the provision of a decision support system to help agencies and stakeholders evaluate alternate scenario of climate change. A programme of training in Morocco as part of the

webtool development has helped to build some capacity and understanding of CCAM in Morocco, but more is needed. The tool also offers potential for much wider application across the MENA region and internationally, dependent on country demands and ongoing FAO support.

There was also solid evidence from a number of interviewees on the value and contributions of FAO in supporting programmes for large-scale irrigation modernization (World Bank), technical support and training for farmers to establish water user associations and implementation of the national water saving programme. This has involved the development of new tools and management support to help farmers switch irrigation technology (from gravity fed schemes to pressurized drip systems) and in providing institutional support to encourage the formation of water user associations (WUA). These activities are clearly important and central to building long term resilience to a change climate but the projects are driven by objectives relating to drought and water scarcity rather than CCAM per se.

FAO has encountered mixed outcomes and effectiveness with respect to promoting support for climate change adaptation in watershed management and deforestation. For example, the watershed project in Midelt provided unconvincing evidence of effective intervention and impact with respect to co-management, although it is recognized that the project has clearly helped reduce flood risk in selected rural communities and risks from land degradation. However, it was unclear what field level interventions were directly attributable to FAO. Furthermore, how these actions explicitly related to CCAM strategies was not clear.

Interviews with FAO CO staff and others confirmed that limited resources and particularly technical competency in CCAM at FAO CO level are major constraints to achieving critical mass. Longer term decentralization of expertise to Morocco would provide a major uplift in technical capability and help to rebalance the high levels of expertise in CCAM currently being observed in other agencies and donors with a presence in Morocco. It is clear that FAO is operating on the margin of CCAM; its strengths lie in drought, water and agriculture, but CCAM is a major driver for investment and programme development. FAO needs to carefully rethink its strategic approach to supporting CCAM as it will become increasingly marginalized in this thematic area unless there is much more decentralized support for technical support.

It is also questionable to what extent FAO's work in Morocco on CCAM has genuinely increased resilience of the poorest and most vulnerable groups. Since most projects do not explicitly define climate change as a key risk and/or objective, it is difficult to objectively assess the benefit of intervention. Interviews with ministry staff confirmed that the FAO has clearly been proactive in sharing its approaches and lessons within the MC governments; however the effectiveness of these efforts varies considerably. In Morocco, FAO's advocacy efforts on irrigation water management have been highly effective and there is a strong technical network of support between Morocco and FAO HQ. Conversely, CCAM approaches have been largely ineffective and the degree to which CCAM is mainstreamed in government institutions at national, regional and local level is not being driven sufficiently firmly by FAO.

In terms of efficiency and impact, it is apparent that limited resources at FAO CO level are a barrier to having critical mass in CCAM competency, particularly when compared to some well-resourced NGOs. In relation to projects evaluated or visited, no evidence was obtained on whether the resources available were sufficient and costs incurred were reasonable. However, an important point that was raised by interviewees was FAOs timid presence in the funding market. Given its comparative advantages, some felt that the FAO should be much more outwardly market facing and aggressive – in contrast, other agencies and organisations (e.g. ADB, IFAD, WB) were all perceived to be much stronger and more influential in CCAM discourse.

Sustainability

For Morocco, FAO's strong relationship with government and its long-term presence in the country have provided a solid platform for supporting sustainability. However, a key factor that will influence success is the political will and desire of the government to make climate change a key policy issue for development and natural resource management. Recognising the national risks from climate change and providing institutional leadership and support for programmes to tackle climate change will be key. The uptake and sustainability of FAO services and products will be dictated by the policy environment within which they are promoted. However, as FAO becomes increasingly involved with institutional issues as well as investment planning in addition to its traditional technical advisory role, the prospect of generating more sustainable outcomes and impacts in the future has improved. But this will have resource implications for FAO CO to maintain higher levels of engagement and activity in CCAM.

More fundamentally, it is also critically important for FAO HQ to provide much clearer signals and direction of where and how it wants to influence international CCAM dialogue and policy. At present, FAO is not a leader in CCAM discussion on the international stage; it is viewed as being a technical partner working on the periphery, with limited strategic priority on CCAM issues. FAO HQ needs to resolve the internal issue of dealing with CCAM as a much more cross-cutting issue, rather than it being led from within one division. Interviews with numerous FAO Rome HQ staff confirmed that CCAM is a divisive and contentious issue with respect to project funding and that the current institutional framework for dealing with CCAM does not engender multi-disciplinary and/or inter divisional engagement. A working party on CCAM to share ideas and cultivate much stronger inter disciplinary and a much more integrated and open approach to working in CCAM would be a major improvement.

It will also be essential for FAO to identify new ways to leverage its impact, through strategic alliances with development investment partners, NGOs, South-South Cooperation and possibly the private sector. Long-term sustainability will also be a function of how FAO decide to engage with the private sector in CCAM. Evidence confirms the need to adopt a much more systematic value chain approach that offers marketing and value added opportunities for small holder farmers. In Morocco, there is scope for smallholder farmers to be more closely linked with larger scale export agriculture. Given reducing funds for projects, the private sector is also now interested to commit funds for supporting development. CC adaptation could be an ideal focus. With their politically neutral reputation, this could be an excellent opportunity for FAO to bring private funding and investment into their food security and climate change arenas of expertise.

Gender mainstreaming

In terms of gender mainstreaming, the water and agriculture project designs in Morocco have not explicitly been formulated with any particularly strong gender focus perspective. Gender issues have been more implicitly considered through projects that have focused on livelihood vulnerability within affected communities (for example, in the Midelt region GCP/INT/093/SPA and TCP/INT/3405 where women groups and women farmers were actively involved and supported). In the MOSAICC project (GCP/INT/130/EC) the webtool was equally suited for application by male and female users. The training workshops also attracted a good gender mix. Gender mainstreaming was not a key issue in this project.

Partnerships

The FAO has a long history of partnership in Morocco, with most interventions strongly linked to agricultural systems and land and water management, helping to address medium term water security impacts on productivity (yield) and rural livelihoods. However, until recently, there has not been an explicit focus on climate change adaption and mitigation; the MOSAICC project (GCP /INT/130/EC (EU/FAO) stands out as the only tangible example of a direct effort to understand climate change impacts and risks on agriculture and water resources. Most other projects have implicitly included

'climate change' as one of a number of externalities or drivers for addressing water scarcity. This is understandable given that Morocco faces significant challenges in securing its water future in the short to medium term – many of the elements of climate change including recurrent drought, extreme events and greater rainfall uncertainty are already being experienced in Morocco. Hence there is evidence of projects aiming to reduce vulnerability to these aspects and 'climate proof' agricultural water management, through for example, the establishment of Water User Associations (WUA), new technical services and normative products to improve irrigation scheduling and system modernization (FAO UTF/MOR/038/MOR). These activities implicitly help to support communities to build greater resilience to climate change by increasing their adaptive capacity and reducing climate vulnerability. Recent FAO initiatives to support the development of a new water strategy (Water Security Initiative) in the MENA region and to help establish 'Centres of Excellence' in agricultural water management in the North Africa region will also support initiatives for strengthening FAO partnerships with technical service providers in Morocco.

Whilst there is clearly a strong relationship between the FAO and government ministries, there is unfortunately a relatively weak relationship and lack of institutional partnership with key universities and research institutions; FAO are thus not fully aware of the potential opportunities that exist to embed activities from these institutions into their projects and to look for synergies. For example, there are no active relationships or partnerships with either ENFI or IAV Hasson II in CCAM. It is important, however, to make a distinction between FAO engaging with these organizations at an individual (expert) level and the lack of formal institutional partnerships, and whether FAO should actually be involved in research programmes or simply acting as a knowledge aggregator (providing the conduit for disseminating the research outputs to end users and farmers). At present, the partnerships are based on individual experts from the research and university sectors being contracted onto FAO projects for their specific expertise for short term assignments on specific subjects (e.g. crop protection, livestock nutrition). But they are acting as individuals on contract through government ministries for short term support; they not representing the broader intellectual capacity of their institutions. This was identified by interviewees as being a missed opportunity for FAO, to build stronger partnerships with key research institutions, as this would provide means to strengthen the dissemination of research, to foster closer involvement of researchers in FAO (and other) projects (adding value through student projects, and providing field sites for PhD research) and providing a resource to supporting more extensive data collection to support FAO activities in CCAM.

Establishing stronger institutional partnerships would also promote knowledge transfer (KT) to end users and farming communities. For example, IAV Hassan has an institutional relationship with JICA acting as a Centre of Excellence for their African training; a similar model could be developed with FAO.

It is also not clear what FAOs position is with respect to NGO partnershipss, and there is evidence from Morocco to suggest it has lost ground to the larger NGOs (notably GIZ, JICA and AFD). These organisations have changed their *modus operandii* in recent years, bringing 'turn-key' projects, with staff resources being embedded in country. They rely on FAO strategy reports to define what should be done and where, but implementation is increasingly done without FAO intervention. It is therefore critical that FAO decides who it should be forming strategic partnerships with in CCAM and then developing appropriate institutional arrangements to foster and strengthen those partnerships. There is strong evidence of competition between UN agencies in the CCAM space.

Finally, interviews with key informants confirmed that FAO needs to be much more aggressive and less passive in its positioning within CCAM particularly with respect to agriculture and water, where it has many comparative advantages. FAO have deep technical knowledge and extensive international experience through its normative products, data and services, but it needs to be more progressive by developing a clear partnership strategy, and being more commercial in its outlook.

2.10 Peru Country Mission Report

Projects examined

TCP/PER/3301 Elaboracion del Plan de Gestion de Riesgo y Adaptacion al Cambio Climatico en el Sector Agrario, Periodo 2012-2021 (PLANGRACC-A) (TCP/PER/

GCP /INT/126/JPN: Assessments of Climate Change Impacts and Mapping of Vulnerability to Food Insecurity under Climate Change to Strengthen Household Food Security with Livelihoods' Adaptation Approaches, AMICAF

UNJP/PER/042/SPA "Gestión Integral y Adaptativa de Recursos Ambientales para minimizar vulnerabilidades al cambio climático en microcuencas altoandinas"

TCP/INT/3405 Apoyo a la interfase del proyecto interregional de lucha contra la pobreza y la desertificación y la adaptación al cambio climático a través de la cogestión de cuencas hidrográficas

Context

Among the countries in Latin America, Peru is one of those most affected by climate variability and change. The country has been experiencing frosts, unseasonable cold spells, floods, droughts and water shortages on a frequent basis. According to climate projections, temperatures are expected to rise by 1–2 °C, shifts will occur in rainfall by region, and tropical glaciers in the high Andes will recede. Small-scale producers in the agriculture and livestock sectors are among those who are being most affected by the changes.

Peru's economy has been growing, with an average annual increase of 6.4 percent in GDP since 2004, and is now considered a middle-income country. However, agriculture remains an important sector of the economy, society, and culture, and of its over 30 million people 22 percent live in rural areas. Poverty is also a feature of these areas, given that they possess over 50 percent of those living on less than 4 USD/day.

Out of the total population employed in agriculture 4.1 million are in primary production, and nearly 80 percent of them possess less than 5 ha. This population practices traditional agriculture and for domestic national consumption. Peru land ownership is highly unequal, with almost 90 percent of the land owned by 5 percent of the population. Agriculture export crops are grown largely along the coast and exert a high demand on water for irrigation.

Responsibilities for addressing climate change and DRR are distributed across several institutions. The Ministry of Agriculture (*Ministerio de Agricultura, MINAGRI*), FAO's main counterpart in Peru, deals with climate change adaptation and DRR in its sector. Its emphasis is on the link between CC adaptation (CCA) and DRR to family farming and food security. FAO has been regarded as an important partner of MINAGRI on family farming and the strategy being developed for it.

The Ministry of Environment (*Ministerio del Medio Ambiente, MINAM*), created only in 2008, is tasked with climate change more broadly, handles mitigation, including through forestry and land-use, and is in charge of NAMA development. The National Service of Meteorology and Hydrology of Peru (*Servicio Nacional de Meteorología e Hidrología de Perú, SENAMHI*) provides climate and environmental data. According to the country's National System for Disaster Risk Management (*Sistema Nacional de Gestión del Riesgo de Desastres, SINAGERD*), two institutions, CENEPRED and INDECI sit above the ministries and have responsibility for disaster risk reduction and rehabilitation.

Associated with Peru's MIC status is its significant technical skills in agriculture, including on climate change, at national level. Yes with the country's highly decentralized political system, the governments at each level are required to create their own plans for addressing CC. The decentralized, participatory

and transparent public decision-making approach came about in the early years of the millennium in response to the country's political and economic crisis at the time. One drawback of the system, however, are the frequent changes in government that occur.

There are several donors and international organizations providing assistance to Peru on CC, and funding for climate change and agriculture projects total more than USD 412 million for activities planned between 2007 and 2015. It comes mostly from 15 institutions, where the largest amounts are from Japan (45%) and the Inter-American Development Bank (20%). Yet with Peru's MIC status, external funding is now beginning to decline. Nevertheless, following the COP in Lima there have been several offers of assistance to the country. And, with its great diversity of agroecosystems, where no one solution will fit all CC challenges, opportunities still exist.

Relevance

FAO's activities in Peru during the period under study have been in nearly each of the areas needed for country-level readiness for adaptation and mitigation; strategy, policy and governance, knowledge and data strengthening, coordination for the implementation of initiatives (in emergency response) and community-level assistance.

In the domain of policy, strategy and governance, the agency between 2011 and 2012 assisted MINAGRI in the development of its *Plan de Gestion de Riesgo y Adaptacion al Cambio Climatico en el Sector Agrario, Periodo 2012-2021*, (Risk Management and Climate Change Adaptation Plan for the Agriculture Sector, PLANGRACC-A).

FAO activities in the area of strengthening member-country knowledge and data on climate change and agriculture consisted of the AMICAF project, which has been to estimate the long-term impacts of CC on the agricultural sector.

At the provincial, local government and community levels, FAO has extended to Peru an inter-regional TCP project, for watershed co-management, and implemented a UN Joint Programme for integrated and adaptive management of environmental resources to minimize the vulnerabilities to climate change in two micro-watersheds.

The evaluation found that FAO's comparative advantage lay primarily in its efforts for developing the enabling environment for addressing climate change in relation to food security and agriculture. This was seen in its assistance for formulating the PLANGRACC-A. The Plan's development was highly relevant for the country, and it remains the main framework for articulating CCA and DRR plans at decentralized levels of government and implementing these throughout the country's agricultural sector. This comparative advantage rested in part on FAO's ability to contribute strategically and with a greater reach with the relatively limited resources FAO has to offer.

But more than this FAO's added-value lay in the role it performed as a facilitating agency with technical expertise that was able to bring various institutions at national and sub-national levels and other partners to formulate and reach agreement on the Plan. The PLANGRACC-A process was highly participatory and involved extensive consultation with all relevant government ministries, twenty-four regional governments, NGOs, universities and producer organizations. FAO was able to play this role given the stakeholders' view of it as neutral convener and its historically close relationship with government.

The PLANGRACC-A also reflected FAO's achievement and comparative advantage in helping to link DRR and CCA in planning for the agricultural sector, and to shift the government's response to climate-related effects from being purely emergency-oriented in nature. It succeeded in doing this while being aligned to various Government DRR, CC and food security policies and regulations. Finally,

it also aided in bringing attention to the impacts of CC on the predominant smallholder agricultural sector and on rural food security.

The highly consultative approach with all stakeholders that is practiced in Peru for policy development purposes seems to have had a strong influence on how FAO facilitated the PLANGRACC-A process, and the experience has given the organization a best practice on strategic planning for CCA and agriculture to offer other member countries.

According to various stakeholders interviewed and involved in the PLANGRACC-A formulation, FAO's strength lay not in its having a specialized expertise in any one particular area, but rather in the combination of skills and knowledge in various spheres that it is seen to possess; in agriculture, food security and related natural resource areas, and in policy. The FAO Representation sees its comparative advantage as lying in this set of abilities and as neutral facilitator.

An important potential role for FAO relating to the PLANGRACC-A remains in the future. The Plan has yet to be fully implemented and its implementation depends in Peru's decentralized system upon the development of plans, based on the PLANGRACC-A model, for DRR/CCA in agriculture at the regional and municipal levels. Both technical and planning capacity at the sub-national levels is reported to be weak, and the FAO Representation has taken some steps towards developing the plans there.

At the national level there is an equally important role for FAO. With Peru's institutional architecture for addressing DRR and CC being quite developed and complex, there are several ministries and bodies involved, each with its own regulations and strategies. The challenge for Peru, according to government and development partner stakeholders, is an institutional one, where the significant number of different and competing policies and strategies regarding CC, agriculture, natural resource and DRR, must be aligned and harmonized. FAO, in part based on its success with PLANGRACC-A, is regarded as perhaps the only organization that could from its neutral, multi-skilled position facilitate the necessary inter-institutional alignment. For example, there are overlapping responsibilities and inconsistent policies between PLANGRACC-A and CENEPRED's emerging DRR strategy. The CENEPRED carries out risk scenarios for the sectors, and evaluates and analyzes risks. It also has normative guidelines for all sectors to assess their risk vulnerability, but does not regard the risks as specifically CC related. It is also involved in reconstruction after disasters. CENEPRED does not sit under MINAM or MINAGRI, but under the *Presidencia del Consejo de Ministros*, an entity above the ministries. The DRR strategy of CENEPRED, supported by other development organizations (USAID), and its alignment to PLANGRACC-A has not yet been addressed. There does not appear to have been much FAO communication with the institution although its role is knowledge development on risks. Given Peru's overall MIC status, resources are not so much needed and influential as new institutional approaches and broader inter-sectoral visions are.

A second area where FAO demonstrated some comparative advantage was in developing the country's knowledge base on CC impacts on the agricultural sector. The Peru component of the inter-regional FAO AMICAF programme is estimating the long-term impacts of CC on the country's crops and food security to 2100. It grew out of and was based on PLANGRACC-A and is the first analysis of its kind in the country. Diverse stakeholders interviewed stated that they view the model as sophisticated and the results as bringing real value. In other activities related to CC as well, for example forest inventory, FAO has brought solid technical knowledge.

However, the suitability of the analytical approach to the country context and government capacity needs were issues in the beginning. The Peru component was initially designed with only the aim of generating the outputs in terms of the data. It was later modified to include capacity development of staff in SENAMHI, the institution under MINAM involved in the project. Additionally, the component came to examine twelve crops as Peru has great diversity in its agroecosystems, rather than only one,

rice, as originally proposed, which the AMICAF component in the Philippines examines. The FAO Representation's stronger knowledge of the country context and needs, and its effort to adapt the project to these appears to have played a role in the project's improvements.

Some shortcomings in the quality of the data reportedly exist, but more importantly questions arise regarding the utility of the information that will be generated and which audience(s) the data is to serve. The very long-term impact projections, while novel, are difficult for decision-makers to use for shorter-term actions to be taken. Another issue is whether the data is only for Government or farmers as well, and if it is also the latter it needs to be communicated to them in an understandable way. Considering that the ministries function independently, FAO should work with a more institutional perspective and ensure that the data is shared among the ministries.

More broadly, FAO is viewed among knowledge organizations in Peru as having a comparative advantage is convening institutions of their kind and bringing their knowledge to Government. For example, this is happening for the Andean countries on mountain ecosystem issues through the Mountain Partnership led by FAO HQ. However, in the design and implementation of FAO projects, FAO is seen as using only its own knowledge when it can potentially benefit from that of national, regional and international research organizations, such as those of the CGIAR and others, based in the country. For example, the *Consortio para el Desarrollo Sostenible de la Ecoregion Andina* (CONDESAN) conducts participatory research and environmental and livelihoods monitoring in the Andean countries, including on agriculture and poverty, is a part of the CGIAR Challenge Program on Water and Food, and coordinates the global Mountain Forum, which addresses sustainable mountain development.

Furthermore, while FAO is claiming to address the impacts of climate change on agriculture and livelihoods it has at times not based its interventions on accurate climate and socio-economic data. For example, regarding its interventions aimed in part to deal with climate change's negative impact on water availability in highland areas, research shows that it is actually urbanization and population increase that will be the main factors causing water shortage, not climate change. Hence while it is seen as having the respected voice for governments to state what current global agricultural, food security and natural resource conditions are, its reputation suffers when the quality of information it uses, or the justification of its projects, for example on climate change grounds, is weak.

However, among the development agencies, FAO is still regarded as the organization possessing the expertise in agriculture and food security, and in the climate issues related to them. As even the large donors and multilateral institutions are not seen as having high knowledge capacity in these areas FAO has the potential to bring them together with the government and explore opportunities where they could support FAO approaches for CC adaptation or mitigation on a wide scale.

FAO's projects at the local or field level have brought less added value, given the agency's strengths and Peru's capacities, than its assistance on the enabling environment or the advanced analytical tools it offers. This is demonstrated in the upcoming Peru component of an FAO inter-regional project on watershed co-management to cope with CC effects (TCP/INT/3405), which aims to reforest denuded upland areas to stabilize water flows for downstream communities, and to introduce sustainable natural resource use. While FAO was once the principal development agency in Peru addressing watersheds and soil conservation and AGRORURAL, an entity under MINAGRI, will be returning to watershed management activities, the project does not offer a new approach to those already being practiced by other institutions in the country, and the agency's comparative advantage lies less in this kind of intervention than in others.

This was also the case for the UNJP, "Gestión integral y adaptativa de recursos ambientales para minimizar vulnerabilidades al cambio climático en microcuencas alto-andinas", which involved four UN

agencies, UNDP, FAO, UNOPS and UNEP and was implemented between 2009-11. The programme focused on nine communities in nine districts within two micro-watersheds, in Cusco and Apurimac, of the Santo Tomas River. It is an area with high levels of poverty and highly vulnerable to the adverse effects of environmental degradation, due to mining and deforestation, and of CC. Water shortage is a particularly serious problem. The programme aimed to strengthen the capacity of the provincial and local governments to plan and implement sustainable resource management (with emphasis on soil, water and forests) and to mainstream CCA into their programmes, and to build the capacity of producer and community organizations to develop and apply sustainable NRM for the services important for their human needs. Under the UNJP and with an allocation of USD 1.1 million, FAO carried out several activities; developing local CCA plans, strengthening community capacities for NRM, supporting small infrastructure and natural resource restoration. However, with the exception of a PES scheme it formulated, other development institutions could have conducted all the activities. In fact FAO contracted three local non-governmental institutions specializing in NRM to do so.

FAO's innovative or state-of-the-art work in Peru has thus been in the AMICAF project's knowledge generation on national-level CC impacts. Though in addition to this initiative, the Country Office has begun to design a new TCP project for capacity-strengthening within MINAGRI for improved management and decision-making to increase CC resilience. The approach, intended to address the institutional barriers to greater ministerial effectiveness on the issue, is a novel one and it could demonstrate, like the PLANGRACC-A's development, that significant contributions could be achieved with the relatively small resources of a TCP project.

From a programmatic perspective, FAO's CC activities in Peru, with the exception of the PLANGRACC-A, have lacked a broader or long-term approach. The initiatives have been multi-sector or -theme, as the realities of CC would require them to be, in that they have bridged DRR, CCA, agriculture, water, forestry, food security and other issues, but have tended to be one-off, specific efforts without a planning of follow-up measures. The different technical departments responsible for them, respectively, have also not been aware of each other's interventions. This in part explains why, as in the case of other countries, there is little relationship of the different projects in the CC portfolio to one another and an overall programmatic coherence. Some of the projects are also inter-regional, and thus originate outside of the Country Office.

Regarding the concept of climate-smart agriculture (CSA) that FAO has used to frame its different climate-related interventions, the various projects in Peru, consisting of policy, knowledge development and local-level efforts, do not reflect CSA and the pursuit of its three pillars, improving food security, adaptation and mitigation, in any explicit way. The approach implicit in the policy and local-level projects has in fact been one of DRR or adaptation through sustainable natural resource use to *maintain* current agricultural production in the face of CC. The full concept of food security with its dimension of market access is not addressed in the initiatives in Peru. The fact that the interventions do not strongly reflect the CSA concept need not be taken as a criticism as it may not be realistic to expect all of FAO's different kinds of activities, policy, knowledge, etc., in a country to do so.

The CSA concept in general is one to which the government is receptive. Moreover, several other organizations and programmes, such as the World Bank, the CGIAR CCAFS, CATIE and CIAT, have been utilizing and operating under it. Though given Peru's high level of vulnerability to CC and climate variability, its large percentage of small farmers, and its increasing export of commercial agricultural goods, the government places much greater priority on adaptation than mitigation. There is also concern in the country that CSA could involve the promotion of GMO's, which the government and much of civil society do not support.

Some private agricultural export companies have also invested in adaptation measures. However, interest in GHG mitigation in agriculture as a goal separate from adaptation does exist. Mitigation is

largely viewed as being achieved through avoided deforestation, though in the agricultural sector, the NAMA components for cocoa, coffee, livestock and palm are being developed (with ICRAF support). FAO has demonstrated that it has further potential to contribute in meaningful ways on CC, agriculture and food security in Peru. Its role will depend not only on being demand-driven and responding to requests from the government, but in utilizing its close relationship with MINAGRI and the growing relationships with other ministries and development organizations to foresee the country's needs and actively propose initiatives to meet them. FAO and external stakeholders interviewed also commented that the agency can and should try to develop a stronger presence on CC and other issues by becoming more proactive because the opportunities exist, particular for a greater facilitating role, and the agency is not using the capabilities it has. More broadly, various stakeholders expressed the view that the agency as a whole (and the government) did not take advantage of the opportunity at the UNFCCC COP in Lima. Major obstacles that the Country Office, like others, face are the limited size of its staff and expertise in CC to discuss with partners current issues and potential new projects. Regular interaction with Government is necessary for playing a larger and meaningful role on CC, and, according to partners, creating some form of stronger FAO presence and dialogue in country would help.

The FAO Representation has taken some of the necessary steps to establish a more relevant and active presence. With its solid relationship with MINAGRI it introduced the novel TCP project idea for institutional capacity development on CC decision-making. It has also proposed engaging with the private sector in agriculture on CC; to explore ways in which it could reduce GHG emissions and introduce adaptation measures for small farmers through its contract farming arrangements. Staff resources have also been limited for developing GEF projects quickly. But a new GEF project on agrobiodiversity has been developed, and despite the entry of UNDP into the areas under FAO's mandate the Representation recognizes that there still exist many GEF opportunities in the country for FAO. Nevertheless, there is scope for sharpening FAO's strategy on CC in the areas under its mandate in Peru, developing a more programmatic approach for it, and mainstreaming CC in the agency's other activities in the country. Although donor funding and multilateral investment loans to Peru are declining, and legislation prevents FAO and other UN agencies from receiving government funds to implement UTF's, FAO's experience in the country and elsewhere has demonstrated that valuable achievements can be made with limited resources.

Effectiveness

Several outcomes or outputs have been or are in the process of being achieved in Peru in the area of CC, agriculture and food security.

The process for developing the PLANGRACC-A, initiated in April 2011 and finalized in July 2012 and involving consultations with regional governments at each stage, consisted of a diagnosis of the context; a gathering, processing and analyzing existing data for all regions and districts regarding various climate change patterns and the vulnerability of the agricultural and livestock sectors at these levels; planning, which consisted of identifying strategic foci for the Plan and linking project proposals and existing programmes to each of them; and formulation and Government approval of the Plan. The Plan consists of a set of strategies, specific objectives, strategic actions, and several project proposals at regional level on DRR and CCA in agriculture and its related sectors. A significant unexpected outcome of this work is Peru's request to FAO to develop a similar plan for fisheries, which is an important sector for both the country and the region.

The AMICAF project is delivering data of the following kind, under two components: 1) an estimation of CC impacts on agriculture (climate modeling, estimation of water availability and of crop yields); and (2) estimation of CC impacts on food security. There are, however, concerns reported about the quality of the data regarding some of the outputs owing to the capacity of the partners involved in generating it.

Under the UNJP, FAO completed all its activities and developed district and micro-watershed CCA plans, identified areas for reforestation and forest management, proposed a PES scheme, developed an investment proposal for a dam, created Farmer Field Schools, developed a training for management and restoration of natural resources, supported irrigation system development, and established basic infrastructure for small farmers and livestock keepers.

Efficiency

Comparing the overall costs of the different CC interventions together with their various benefits, either achieved or expected, and their strategic value, it can be concluded that there has been an efficient use of FAO and extra-budgetary resources.

Sustainability

The PLANGRACC-A as an FAO achievement is likely to remain in place as it receives relatively wide support both within and outside the government. And, although it was developed under the previous administration it has the support of the present one as well. However, its continued relevance and its effectiveness depend upon its implementation, and this in turn rests on the development of sub-national plans for DRR and CCA in agriculture. They also depend on the harmonization of new national plans on DRR and CC with the PLANGRACC-A.

The results of the AMICAF project, while potentially of significant value for Peru, may not see much uptake or further analysis due to concerns reported about the capacity of the partner staff involved and the fact that the project sits across both the agriculture and environment ministries.

Ensuring the sustainability of its outcomes is important for FAO to give weight to, given the frequent political changes in the country and the various different institutions involved in DRR, food security, CC, agriculture and natural resource management.

Emergency and DRR

In Peru, like in Bolivia, FAO has been a front-runner on promoting integrated response to emergency situations, including not only emergency support but elements of disaster risk management and climate resilience as well. FAO has successfully supported planning and implementation of such integrated emergency response projects in Cusco as well as in the Puno area. Likewise, through FAOs support to the Farmer Field School approach in Peru, the awareness of disaster risk management and climate resilience have been increased within a large number of communities.

At the same time, it is noted that the focus of FAOs support to Emergency and DRR in Peru has shifted over the past decade from being mainly field level-oriented to become increasingly focused on the policy/institutional level (based on field level experiences). The facilitation of communication, planning and action between the central government (normative role), the regional governments (execution) and the municipalities is by all stakeholders considered a key challenge in Peru for effective implementation of emergency and disaster risk management interventions. It is the opinion of the Development Partners in Peru that FAO is well positioned to effectively support the implementation of emergency/DRR activities in the country, in particular from the agricultural sector and food security perspective, due to FAOs key strategic position towards the central level (MINAGRI) as well as its experience and connections at decentralized levels. FAO is also considered to be a neutral player in these inter-institutional interventions, something that is emphasized by many as an important factor.

At the same time it is however noted that the linkages between FAO and CENEPRED and INDECI are not that strong and well-developed. Due to CENEPREDs and INDECI's responsibilities for disaster risk reduction and rehabilitation in Peru this presents a potential challenge for obtaining of policy impact from the FAO supported emergency and DRR interventions within the agricultural sector.

Within the UN system in Peru, FAO is by the other agencies seen as an active and important member of the UN Emergency Team. Although only few joint projects have been implemented with e.g. UNDP and WFP on emergency/DRR, a certain level of coordination of activities take place across the agencies. The UN partners, as well as other development partners in the country, have noted an increasing involvement and visibility of FAO in the country over the past few years on emergency and disaster risk management discussions. UNDP is still seen as the lead UN agency on emergency and DRR management in Peru (e.g. support to establishing of early warning systems and inter-institutional coordination). However FAO's lead role in the support to formulation of PLANGRACC combined with its extensive relevant technical/field level is increasingly being recognized as a strong value-added to the emergency and DRR planning and management agenda in Peru.

Partnerships

Over the period under study, FAO engaged with some partners in the course of its climate change-oriented work. However, given the institutional context in Peru and the activities of other organizations, domestic and international, regarding climate change and agriculture, FAO could have engaged with them more to disseminate its knowledge and increase its impact.

In the AMICAF project, FAO is partnering with university staff for its hydrology component. Yet in terms of the dissemination of its results, there is wide interest among development organizations in the project and FAO could better ensure that it shares the data with them.

Its partnership with the other UN agencies in the UNJP, while it resulted in good outcomes, was one where as in other countries the organizations largely worked in their own silos and not in any real collaborative arrangement. Moreover, outside the JP the agencies there are no clear boundaries among the agencies as UNDP as well as UNOPS are undertaking work on CC and agriculture and other areas under FAO's mandate. Government staff interviewed comment on the need to see an improvement in how the UN agencies work together.

There have also been opportunities to partner with NGOs and networks of producer organizations to share FAO's knowledge and best practices related to climate change and agriculture and to learn from the field experiences of these organizations. A number of national and international NGOs interviewed show strong capabilities and express interest in partnering with FAO and implementing improved practices in the communities in which they work. CARE, for example, is helping local and regional governments develop adaptation plans, and is also based in a few sites for long-term lesson-learning on a glacial retreat project. Using participatory methods with the communities, the NGO is promoting crop switching to native ones to cope with water shortages. It is also advocating to the Ministry of Economy the creation of adaptation funds that communities could access. CARE is also working with international and regional university research partners to identify practices to implement and assisting students in receiving their MA's. It has a sizeable staff in country, with ten technical staff in Lima and ten in the field. However, it has had little contact with FAO. While FAO works more closely with Government, it would benefit from relationships with other institutions as well given the political changes that frequently occur and its lack of local partners.

FAO could have also reached out more to the numerous producer organizations with guidance on CCA for their members. The Convencion Nacional del Agro Peruano (CONVEAGRO) is a forum of seventeen producer organizations and seventeen research institutions, is involved in some of the same national dialogues on agriculture and food security that FAO is, and would be interested in greater communication with FAO. Furthermore, as discussed above under Relevance, FAO could also draw more on the knowledge of research partners for its work.

With Peru's substantial technical capacity in agriculture, CC and other related areas at national level, the country's participation in South-South Cooperation also offers FAO an opportunity to leverage its

impact on CC issues in the region. Government institutions and FAO have also expressed an interest in the arrangement.

Regarding financial resources, with the decline in donor and investment funding and the inability of FAO to utilize public funds for UTF's, FAO could explore the possibility of receiving funding from private sector corporate social responsibility funds. However, it would be important for FAO to conduct due diligence on the companies before any partnerships with them can be developed.

Gender Mainstreaming

As in the case of other FAO offices, the gender focal point in FAO-Peru is able to devote only twenty percent of her time to the issue given the various other responsibilities she has. She exhibits a strong understanding of gender and of what quality mainstreaming would consist. And, as she was formerly a professor of the subject, her skills are heavily underutilized.

To promote gender mainstreaming, an internal workshop was conducted for all technical staff in the office, and some gender screening of projects has been done. The support from the Gender Team in HQ is also reported to be very good. However, while other organizations report that FAO mainstreams gender into its field work, there remains a need for all technical staff to take initiative on their own in order for it to be properly mainstreamed in design and M&E.

A greater challenge FAO faces on the issue is that in the broader society and in government rural women are largely invisible, and this makes raising the problems they face socially difficult. And, while MINAGRI once had a gender expert, that person has gone. This is despite the fact that women are often the ones in the household who do the farming, livestock-tending and marketing, are left behind in rural areas while other family members migrate to cities, and are found to be more proactive in solving livelihood and community issues. There are also drawbacks to the approach of family farming, which is popular and promoted at national level, because it can shroud intra-household gender issues. Involving women in projects is therefore critical and the lack of proper consideration of gender can jeopardize project relevance and effectiveness.

Organizational Learning

There has been increasing attention to CC in the FAO Representation as reflected in new and innovative projects being proposed. Climate change is also one of the main areas of focus in the CPF. However, there has not yet emerged among the staff any deliberate process for lesson-learning and adaptation of efforts based on past experiences with projects and any new knowledge available. At the project level as well, in the UNJP, there does not appear to have been a system for participatory community monitoring of the adaptation measures, or a gathering of farmer experiences with them, to assess whether the measures were appropriate given CC's unclear effects.

2.11 Philippines Country Mission Report - Agriculture

Names and Codes of Projects Referred to

GCP /INT/126/JPN Assessments of Climate Change Impacts and Mapping of Vulnerability to Food Insecurity under Climate Change to Strengthen Household Food Security with Livelihoods` Adaptation Approaches

UNJP/PHI/054/SPA Strengthening the Philippines Institutional Capacity to Adapt to Climate Change (MDGF-1656)

Full Names of Normative Products Referred to:

- MOSAICC Modelling System for Agriculture Impacts of Climate Change

- FAO-Adapt document
- FAO/Dept. of Agriculture, A Framework for Monitoring and Evaluation of Good Practice Climate Change Adaptation Options in Agriculture, M&E Design, Methods and Analysis, MDGF 1656 Outcome 3.1, 2012.
- FAO Post Disaster Needs Assessment Tool (PDNA) online
- FAOSTATS

Relevance

- The programme has been fully aligned with and supported by the country priorities and the FAO SO2 and SO5 objectives related to improved agricultural production and climate resilience.
- The FAO contribution has included a range of a) technical support for project concepts, funding, design and implementation, b) data and analysis on climate forecasts and impacts on agriculture, c) technologies dissemination (particularly with IRRI climate resilient seed varieties), and d) knowledge sharing and exchanges through publications and workshops.
- An exceptional feature of the FAO programme in the Philippines is the high level of priority the government has placed on disaster risk reduction which compels all agencies and levels of government to develop and implement plans to prepare for climate-related events and other natural disasters.
- FAO' programme is integrated with government structures (but not fully mainstreamed).
- Recent FAO assistance for development of national, regional, provincial and municipal strategies to prepare the agriculture sector response to policy directives has been timely and central to the evolving climate change programmes within government.
- The FAO climate change programme has gradually established a model of adaptation planning and action that includes four distinct steps: (1) climate change impact assessment, (2) food security vulnerability analysis, (3) livelihood adaptation to climate change and (4) awareness raising and institutional mechanism. Projects have progressively and collectively evolved toward an integrated approach that encompasses climate analysis, forecasting/early warning, Good Practice Options, government capacity building and grassroots engagement.
- The FAO climate change programme in Philippines has met many of the **FAO-Adapt** principles but has lacked some elements: formal mainstreaming into government budgets, promoting adaptation-mitigation synergies, ecosystem/landscape approaches and programmatic delivery approaches. CSA involvement has primarily focused on use of the CSA reference manual in selecting GPOs. However, the AMICAF project can be viewed as CSA type project because it involves an integrated approach (from climate analysis to field measures), if somewhat incomplete due to the extension service limitations and other factors described below.
- The resulting CCA/DDR framework has had a significant impact in defining the national climate change response in agriculture.
- The FAO programme also assisted in defining a recent strategy for Dept of Agriculture to pursue seven systems-wide programs on climate change: Mainstreaming CCA and Mitigation initiatives in Agriculture (AMIA), Climate Information Systems, Philippine Adaptation & Mitigation in Agriculture Knowledge Toolbox, CSA Infrastructure, Financing and Risk Transfer Instruments on Climate Change, CSA & Fisheries Regulations, and CSA Extension System.²⁴

Assessment of Normative & Analytical Work (See Dropbox folder for relevant N&A products)

- MOSAICC Modelling System for Agriculture Impacts of Climate Change had a major delay problem in AMICAF project – took one year to produce model outputs
- FAO *Post Disaster Needs Assessment Tool* (PDNA) online reported major time savings in response plans

²⁴ See Dept. of Agriculture, Regional Plan of Actions for DRR in Agriculture 2014-2018, Bicol Region, Philippines, Annex 6.

- The *Planning for Community Based Adaptation to Climate Change* E-learning Tool has reportedly been successfully tested in Philippines²⁵ but this was not mentioned in the programme that was reviewed.

Effectiveness

- Policy and governance – the model CCA/DDR system that was developed has a high profile and has demonstrated a subnational delivery mechanism that can, over time, become widely established.
- Data and knowledge – the climate analysis support from FAO has greatly assisted PEGASA's capability and the formation of local climate information centers; information on the performance of new rice varieties under various flood/drought conditions has also contributed to the knowledge base for adaptation.
- Financing – FAO has helped to secure funding from several donors although the ongoing support from government will be required, perhaps through the new People's Disaster Fund.
- Institutional coordination – collaboration between FAO, technical institutions, levels of government, farmer organisations has been important but partnerships with other climate change programs has not occurred (e.g., multilateral finance institutions, bilateral donors).
- Household resilience, food security and mitigation – there have been positive impacts on small farmers to reduce climate stress although the vagaries of weather and climate events can override adaptation measures; e.g, flooding on large scale systems with watershed stability.
- Mitigation benefits were not identified in the projects.
- The programme has clearly helped to establish a well-defined approach to climate change adaptation at national and subnational levels and to directly respond to the priorities set by the government to institutionalize and mainstream disaster risk reduction in the agriculture sector. The result to date includes increased resilience associated with new varieties of rice, improved seasonal forecasting and farm weather advisories, introduction of climate smart 'good practice options' and crop and livelihood diversification initiatives, guided by various planning tools and regional, provincial and municipal plans for disaster risk reduction.
- The data on crop yields and resilience performance from new rice varieties have been very promising. Trials were undertaken in conjunction with farmer field schools and the DA National Rice Program, with as many as 15 varieties/lines compared under different conditions at 50 sites in Bicol and Caraga regions. They also included piloting of rice-duck system, SRI system and rice rationing during fallow periods, as well as farmer involvement in rainfall and typhoon monitoring.²⁶
- The available data for Green Super Rice (GSR) indicates a 2.8%-5.6% advantage in yields compared to conventional varieties under various Bicol climate stress conditions (flood, salinity, and drought). Increased banking of reserve seed supply has also reduced vulnerability to disasters.
- The 'DIPECHO' and 'AMICAF' projects have contributed to innovative development of localized weather forecasting procedures involving installation of automated weather stations and rain gauges, training of agricultural technicians to collect and submit data to PAGASA for local forecasting analysis and subsequent dissemination of farming weather advisories and extension advice. Farm weather bulletins have reportedly enhanced agricultural farming results in subsequent cropping seasons.²⁷ This has been a high profile and much appreciated addition to climate change adaptation and risk management.
- There remain however important issues related to the quality and consistency of the data that are provided to PAGASA, the ongoing institutional relationship and cost recovery between

²⁵ http://www.undp-alm.org/sites/default/files/fao_-_cca_tools_for_agriculture_and_food_security.pdf

²⁶ Eulito U. Bautista, AMICAF's Community-based adaptation to climate change in vulnerable communities, FAO, n.d.

²⁷ Arnulfo M. Marscarinas, Strengthening Capacities for Climate Risk Management and Disaster Preparedness in Selected Provinces of the Philippines (Bicol Region) TCP/PHI/3203, Final Report, Philippines, 2012, p. 22.

PAGASA and LGUs, and the farmer use of forecasts and extension advice provided by local agricultural staff. Participants are also interested in the potential to utilize SMS text messages to broadcast the farm weather forecasts. The institutional basis to sustain this innovative system is central to CCA-DRR effectiveness.

- The FAO programme has provided a valuable model for careful identification and testing of Good Practice Options (GPOs) to guide the agricultural extension interventions.²⁸ The interviews and brief field visits indicated that the new lines of flood, salinity and drought resistant rice varieties have proven success with farmers, reportedly providing higher yields and greater resistance to climate stress.
- The other GPOs – intercropping, vegetables, integrated farming, alternative livelihood, etc. have also generated interest but they have not been disseminated and adopted to the extent of the new rice varieties. Farmers and fishers appear reluctant to diversify their livelihoods, which is recognized as a long term challenge.

Key Observation(s) Linking the extension training to the agriculture sector reforms and larger scale *Philippines Rural Development Project* may help to address structural issues in Climate Smart Agriculture extension services. The field visits also highlighted the marketing issues for newly introduced vegetable products as a key concern of farmers

Efficiency

- The programme has evolved through a series of mostly short-term projects rather than a structured outcome-based process, reflecting the intermittent availability of FAO funding.
- Delays in producing results from the MOSAICC modelling were significant. The sub-contracting of components to different partners without longer term commitments also imposed challenges.
- Short-term human resources training without much consideration of the enabling conditions and institutional capacity to deliver ongoing extension support may have also constrained cost-effectiveness and sustainability.
- Operational problems were noted such as: delays in completing annual work plans, continuous poor quality and late reporting to the DA Special Projects Coordination Office regarding FAO projects, and no formal record or systematic tracking of activities completed and outputs verified.
- For the programme as a whole, monitoring responsibilities for the climate change projects were delegated to provincial coordinators who had other duties and an interest in positive reporting of activity progress. The Special Projects Coordination & Management Administration Office of DA also have inadequate reports on FAO projects, much of it described as incomplete and late.

Sustainability

- Concerns were expressed about the mandate and sustainability to continue with refinement of the climate modelling outputs. Other inputs are apparently needed to keep the model active and useful. The continuation of the enhanced weather forecasting/early warning systems by local governments, and related promotion of GPOs by extension agents, although highly appreciated, is uncertain due to a limited approach to both the technologies demonstration/dissemination and institutional capacity development.²⁹

²⁸ Department of Agriculture (Philippines) and FAO, *Compendium of Good Practice Climate Change Adaption Options*, MDGF "Enhanced Climate Change Adaptation Capacity of Communities in Contiguous Fragile Ecosystems in the Cordilleras", June 2012.

²⁹ Despite the design of a broad approach to capacity development beginning with the MDG-F 1656 project (see FAO/Dept. of Agriculture, 2012) the capacity support focused on improved information systems, and extensive human resource on-the-job training but the fundamental capacity of the organisations to sustain the investments is uncertain even though future budget allocation is apparently planned through the new DA ESIA programme.

- The ongoing use and expansion of local 'climate information centers' will depend upon further evidence of cost-effective results and available funding or cost-recovery mechanisms.
- As also noted in the FAO DRR evaluation for Asia (para 115), DRR plans in the Bicol region have assisted in identifying priorities but they are not well known to many stakeholders. The pilot integrated model for CCA/DRR planning has nevertheless become accepted by government even if it has not yet been fully mainstreamed into government operations and budgets.³⁰
- The project management services and advocacy from the FAO country office are still needed to oversee projects but the new Climate Change Office within DA may provide the structure for greater DA programme mainstreaming. The new DIPECHO II project could also assist in this effort.
- No withdrawal plan or strategy is in place for the projects. Sustainability is mostly based on an expectation that farmers will adopt viable adaptation technologies, and DA will securing additional funding for further FAO or government support. The necessary conditions for maintaining project outputs and extension activities by government still need to be addressed within a longer term capacity development programme. DIPECHE II project will pay more attention to sustainability.

Key Observation(s) The limited strengthening of farmer organisations/cooperatives and the need for ongoing extension support reflects the constraints on capacity development activities that are short term and technology-oriented: sustainability will require more organisational development at government and community levels to maintain the momentum in further application of climate smart practices.³¹ Similar institutional observations about the modest depth of capacity development are apparent with the PEGASA forecasting and local climate information centers.

Gender Mainstreaming

- A high level of gender balance in the project implementation teams and the beneficiaries was observed. The gender assessments and marker process required by FAO policy were partially applied in the programme implementation.
- Gender roles were highlighted as a programme focus: "It was observed that women play a key role in the formation of informal safety nets and ensuring food security at the farm household level because they carry out various activities that contribute to adaptation and reduce risks from environmental and economic shocks such as homestead gardening, planting of different crops in abandoned farm lots, and raising of livestock."³²
- A gender assessment was completed in 2009 and training module on 'Gender Integration and Harmonization in Disaster Risk Management' was developed and implemented by the TCP project.

Any Key Observation(s)

Partnerships

- The FAO partnerships with a variety of Philippine implementing institutions were reported as being effective, with some administrative issues associated with FAO and government procurement processes.

³⁰ In contrast, the World Bank is supporting Climate Change Mainstreaming through extensive training of Ministry of Finance staff to tag and target climate-related expenditures in national and subnational development planning.

³¹ The Bicol plan proposes that the Agricultural Technology Institute will lead the development of a national climate smart extension system for the agriculture and fisheries sector (Dept. of Agri., op. cit., 2014, p.51).

³² Dept. of Agriculture, Implementation Process for Community-based Climate Change Adaptation in Agriculture: Experiences from the Cordillera Region in the Philippines, June 2012, p. 19.

- Cross-sectoral partnerships and mutual cooperation within government were highlighted as a key result of the programme.³³ Coordination of national and subnational agencies is a significant contribution to DRR, but the ongoing PAGASA-LGU working relationships and cost recovery have yet to be addressed.
- The participation of Philippine partner organisations with generally high capabilities and readiness to utilize the technical assistance provided by FAO but with only short term training which limited institutional capacity development;

Key Observation(s) The opportunities for joint climate change partnerships with other UN organisations and other donors have been largely overlooked.³⁴ The role of FAO within the national scheme to overcome barriers that impede climate action, and related recommendations of the *Climate Public Expenditure and Institutional Review* has yet to be defined.³⁵ Direct synergies with other climate change projects are possible. For example, the UNDP-supported, "Scaling up Risk Transfer Mechanisms for Climate Vulnerable Farming Communities in Mindanao" and the World Bank-supported SCCP project "Philippines Climate Change Adaptation Project (PhilCCAP)" have potential linkages to the FAO experiences. The latter project has been separately testing related adaptation measures with DA including climate retrofitting of an irrigation system, vulnerability and soil stability analysis and upgrading the MET network.

Organizational Learning

- The climate change projects endeavored to consolidate experiences in workshop presentations and project publications/fact sheets/posters to assist dissemination to other provinces and municipalities. However, this process may have also been constrained by limited multi-year data on the performance of new rice varieties, and reliable data on financial viability and uptake of GPOs by farmers and other beneficiaries.
- Stronger evidence of the effectiveness of farm weather advisories within the extension services and unsubsidized application of GPOs by farmers would be useful.
- The brief field visits confirmed that targeted support will be needed to address the noted recommendations from previous programme reports, namely: further testing of climate information services, dissemination of GPOs through the extension services, and development of a proper M&E system.³⁶

Key Observation(s) Tracking and reporting of project activities and progress is a relatively informal, mostly 'pro-forma' process with implied confidence in the project design and management to achieve results. There was no defined monitoring of outcome indicators and reporting appears to be a summary of activities completed except for the rice variety demonstration trials where performance data were generated. For example, there is no documentation on the current status of the automated weather stations/rain gauges that were provided, or the scale of the enhanced seed reserve banks, extensionist and farmer responses to weather bulletins, etc.

Factors of Performance (As per evaluation TOR, i.e. FAO's strategy, resources, coordination and capacity, as well as any external factors)

- Limitations of the programme relate to the short term capacity development, the small scale and geographic spread of the GPOs, and the modest progress toward grassroots mobilization of farmer and community organisations. The evaluation discussions support previous conclusions on GPO testing and importance of the extension support for production and

³³ FAO, op.cit, 2013, p. 87.

³⁴ Dept. of Agriculture, op. cit., June 2012.

³⁵ See The World Bank, *Getting a Grip on Climate Change in the Philippines*, Executive Summary, June 2013.

³⁶ FAO op.cit, 2013, p. 92.

marketing: "...farmers will not try these adaptation measures [GPOs] unless the benefits and the net returns will accrue to them while applying them in their own farms."³⁷

- The FAO programme has been assisted by DRR normative products and expert advice from headquarters and region.
- Six sets of factors stand out as probable key determinants of programme performance in the Philippines:
 - The high level of policy directives for Disaster Risk Management and government/FAO staff commitment to reducing climate risks across national, regional, provincial and municipal levels;
 - The sequential refinement of several related projects leading to a well-defined approach to climate change adaptation and DRR along with various manuals and tools; this continuity in funding (through extra budgetary support) allowed for a greater level of results from the combined set of projects within the programme;
 - The limited experience to date with climate smart GPOs, insufficient GPO champions and lack of funding for extension support to address local barriers to GPO adoption and dissemination;
 - Continuity of backstopping support at Country Office and headquarters from FAO technical staff during the various projects helped to ensure project learning and alignment with the principles in FAO-Adopt and the DRR Integration in Disaster Responses, albeit without a clear capacity development plan;
 - Operational constraints imposed by complicated, time-consuming procurement and administrative approvals by FAO and government systems, and a generally low interest in project timelines, monitoring and reporting.
 - The programme activities have centered on GPOs and other climate smart agricultural practices to cope with and adapt to climate risks at the farm level. But many of these risks are of such scale that they can overwhelm the site interventions such as the 2012 flooding that was also associated with poor land management practices and a lack of flood management controls in the watershed. In some cases (e.g., Nabua area of Bicol region), a larger landscape approach is needed to complement the farm-based adaptation that is supported by FAO donors. The new *Philippines Rural Development Project* (World Bank) and in Bicol region, the *Bicol Agri-Water Project* (US AID) and the *Strengthening of Flood Forecasting and Warning System for Bicol River Basin* project (Japan 2010-15) may offer opportunities to adopt a larger scale perspective that complements the ongoing FAO farmer-focused programme (e.g., DIPECHO II).

Key Observation(s) The sequence of CC/DDR projects has established a model framework for adaptation and disaster planning that forms the basis for national, regional and local responses to climate risks in the Philippines. The experience with short-term projects aimed at substantive change suggests the need to have a clear technical assistance strategy and a longer term perspective toward a defined set of measurable outcomes that are pursued in conjunction with government, farmer's organisations and private sector. Support has been provided for a broad set of factors at the policy, data, technical and farm levels.

Despite the benefits of a sequence of similar projects that led to the new framework, the approach is mostly confined to DA and PAGASA programmes, with no direct linkage (yet) to national development planning and budgeting or the Climate Change Commission programme and no collaboration with related donor programmes. Coping with climate stress requires a broader and longer term approach beyond agricultural technologies and farm weather bulletins. The FAO experiences in Philippines generally reflect the conclusions from the *Evaluation of FAO DRR Programme in Asia* - that institutional replication, upscaling and wider impact of technical good practises are not evident from short term

³⁷ FAO, Mainstreaming Disaster Risk Reduction into Agriculture, A Case Study from Bicol Region, Philippines, 2012, p. 89.

projects, training alone has a limited impact on institutional change, and that nearly all project log frames lack baselines, adequate outcome indicators and a sound results-based framework for performance assessment.³⁸ 'Awareness and institutional mechanism' – Step 4 of the AMICAF model might be more effective as Step 1 in the integrated planning approach.

The MDGF project developed a conceptual and complex M&E framework³⁹ but we could find no evidence of implementation. An MDGF project evaluation determined that significant outputs were achieved, some of which could have a strategic impact on climate change adaptation in the Philippines although difficulties in establishing an M&E system were encountered.⁴⁰ The other projects had no significant results-oriented M&E process. Assessment against baselines was qualitative.

2.12 Philippines Country Mission Report – CC Mainstreaming in FAO's Emergency Response to Typhoon Haiyan

Focus on the Coconut-Based Farming Systems Programme (CBFS)

Relevance

Meeting the Country Context and Needs

The implementation by FAO of 22 projects in direct response to Typhoon Haiyan, with total funding of USD 39.7 million (FAO Recovery and Rehabilitation Response to Typhoon Haiyan), demonstrates the determination of FAO to address the country actual priorities and urgent needs. Of the total funding, USD 32 million supports the recovery phase activities. The *Coconut-Based Farming Systems Programme (CBFS)* covers 8 projects, funded by 5 donor agencies, between early 2014 until December 2015, with durations ranging from 12 months to 18 months. The Programme aims to reach:

- Approximately 32,500 small-scale farmer and fisher families severely affected by Typhoon Haiyan in 52 municipalities and 10 provinces in Regions IVB, VI and VIII as direct beneficiaries, 40% of whom will be women. The small-scale coconut farmers are assisted to build alternative livelihoods through inter-cropping, crop diversification, value-added production and livestock/poultry-raising.
- An additional 3,000 upland farmers supported with seedlings and technology for fruit trees to build resilience of agroforestry ecosystems and communities.

CBFS has the key following activities:

- The intensification and diversification of coconut areas through intercropping and integration of livestock
- Establishment of home and community seed production and plant nurseries
- Establishment of contour farming and integration of trees in sloping and hilly areas
- Establishment of sustainable livelihoods through community-based processing and value adding enterprises

³⁸ FAO, Evaluation of FAO's role and work in Disaster Risk Reduction in Asia and in Latin America and the Caribbean, Annex 14 – Asia regional report, July 2013.

³⁹ FAO/Dept. of Agriculture, A Framework for Monitoring and Evaluation of Good Practice Climate Change Adaptation Options in Agriculture, M&E Design, Methods and Analysis, MDGF 1656 Outcome 3.1, 2012.

⁴⁰ The report states: the project performed well in the aspects of Relevance, Ownership, and Effectiveness, within expectations for Efficiency; it was too early to conclude about Sustainability. Weakness in operationalizing an M&E System was noted. Source: ILO, *Evaluation Summary, Strengthening the Philippines' institutional capacity to adapt to climate change – Final Joint Evaluation*, Evaluation Unit, May 2012; and Joel Beasca, Final Evaluation Revised Report, May 23, 2012.

- Capacity building and technology transfer to build resilience to future disasters in terms of risk assessment and climate resilience, and integration of soil conservation and improvement strategies
- Rehabilitation of mangroves through community-managed forestry system establishment
- Reduction of post-harvest losses through the provision of post-harvest facilities to farmers'/women's organizations (common service facilities)

CBFS also carries out public awareness campaigns on Integrated Pest Management (IPM), implements pest control strategies, and disseminates information, education and communication programmes to develop community capacity.

Programmatic and Cross-Sectoral Approach

FAO staff describe CBFS as utilising a programmatic and cross-sectoral approach, as summarily described in the Programme Brief Document. The key drafters of the CBFS were key climate change staff from FAO Headquarters in Rome together with staff from the Regional Office in Thailand and the Philippines Country Office. The programmatic approach was developed by the FAO team in-country, in a collaborative process at a time of acute need, immediately following the emergency relief period. This collaborative mode of working was appreciated by staff of all three FAO offices in Rome, Bangkok and Manila. Contributing to the collaborative mode of working, the programme design process was field-driven, reflecting the views and experiences of the staff in the Philippines and the strong uptake of local needs assessments into the programme design. The Programme also ensured the most suitable selection of activities and areas of interventions, relevant to the needs of farmers groups and suited to local context, through use of an intensive post-disaster needs assessments and consultations under the Food Security Cluster, Regional Livelihoods Working Group, and through alignment with government directives. The successful transition from emergency response projects to recovery projects in the affected region included the incorporation of FAO DRR and Climate Change Adaptation (CCA) measures in the recovery phase. The Programme incorporated a useful and effective component on *Accountability towards Affected Populations*, staffed by national staff of the FAO Philippines Office.

However information regarding the formulation of the Programme is not easily accessible by staff or consultants, such as new or specific analysis of the country context, key stakeholder mapping, theory of change, criteria for DRR/CC integration, impact indicators, learning system, partnership strategy, advocacy strategy, and gender mainstreaming strategy. More accessible documentation of vital programme design elements could improve programme implementation.

Engagements in Country Working Groups and Networks

FAO has played active roles in networks at international, national and regional level. FAO is the Co-Coordinator of the Food Security Cluster (based in Rome together with WFP); the Key Coordinator of the Food Security Cluster in the Philippines; and the Coordinator of the Coconuts and Livelihoods Working Groups for affected region. These roles provided FAO with very tangible contributions to the mechanisms for coordination and sharing among government agencies, international development agencies and donor agencies for support to Typhoon Haiyan. FAO was thereby able to have a significant part in shaping the Haiyan Response Plans and the CBFS, and was better able to secure financial support of relevant donor agencies.

Alignment with National CC Action Plan/Strategies/Development Plans

The CBFS has been aligned with the national Climate Change Action Plan, especially in relation to the food security priority of the Action Plan which states, '*The objective of the national strategic priority on food security is to ensure availability, stability, accessibility, and affordability of safe and healthy food amidst climate change*'. The Programme is also aligned to the Philippines Development Plan 2011-2016 in terms of diversification of production and of livelihood options.

However, there are key issues within the Action Plan which are also highly relevant to FAO's agenda and yet which were not specifically taken up within the CBFS:

- Human Security: the objective of the human security agenda is to reduce the risks to women and men
- Knowledge and Capacity Development: the priorities of the NCCAP on knowledge and capacity development are:
 - enhanced knowledge on the science of climate change
 - enhanced capacity for climate change adaptation, mitigation and disaster risk reduction at the local and community level; and
 - established gendered climate change knowledge management accessible to all sectors at national and local levels.
- Actions towards building a food secure society amidst climate change will need to address some underlying drivers such as poverty and sustainable livelihoods, human and institutional capacities, and advancement in scientific knowledge on climate change risks and adaptation technologies in the food production sector.

The Philippine's Climate Change Act of 2009 recognizes that climate change and DRR are closely interrelated and that effective disaster risk reduction will enhance climate change adaptive capacity (UNISDR, 2011a). The Act says "...the State shall integrate disaster risk reduction into climate change programs and initiatives". The Act also establishes a Climate Change Commission attached to the Office of the President and an Advisory Board composed of all relevant line ministries, with the provision that "At least one of the sectoral representatives shall come from the disaster risk reduction community" (Republic of the Philippines, 2009). Among the functions of the Commission is ensuring the "...mainstreaming of climate change, in synergy with disaster risk reduction, into the national, sectoral and local development plans and programs", and "partnership with the National Disaster Coordinating Council in order to increase efficiency and effectiveness..." (Republic of the Philippines, 2009). The National Framework Strategy on Climate Change 2010-2022 recognizes that the Philippines "faces increasing disaster risks with geological/ seismic dangers closely interacting with...meteorological hazards". The Strategy integrates DRR, including the enhancement of monitoring, forecasting and hazard warning systems, and mainstreams DRR and climate change adaptation into development and land-use planning based on disaster risk assessments.

The CBFS was designed to correspond with one of the four core elements of the Philippines National Action Plan for DRRM 2011-2028, that is, Disaster Rehabilitation and Recovery. The other three elements – Disaster Prevention and Mitigation, Preparedness, and Disasters Response – appear not to have been sufficiently incorporated. Given the serious consequences of Typhoon Haiyan to human life, psychology, shelters, assets and livelihoods, any programme focusing on Recovery needs to give sufficient consideration to incorporating these other core elements of the National Action Plans for Climate Change and DRRM, to ensure that Recovery is embedded in the continuum of processes which build climate change resilience for local communities.

The National Development Plan identifies three goals for the agriculture sector, one of which is to increase "sector resilience to climate change risks" (Republic of the Philippines National Economic and Development Authority, 2011). The CBFS is well aligned to the sub-lines of this goal which include:

- reducing climate change-related risks and the vulnerability of natural ecosystems and biodiversity;
- increasing the resilience of agriculture communities through the development of climate change-sensitive technologies, climate-resilient agricultural infrastructure and climate-responsive food production systems;
- strengthening the agriculture and fisheries insurance system as an important risk sharing mechanism;

- incorporating natural hazards and climate risk in the agricultural land use plan;
- strengthening the capacity of communities to respond effectively to climate risks and natural hazards; and
- continuing vulnerability and adaptation assessments, especially in food production areas (Source: Republic of the Philippines, 2009)

The scope for addressing DRR and CC through the emergency/recovery programme is clearly reflected and defined

The CBFS Programme Document contains a brief section on climate change and disasters. Main references are the Climate Smart Document from FAO Headquarters and FAO's 'Resilient Livelihoods – DRR in Food and Nutrition Security' document, for staff to utilise in developing their project activities. However, a clear framework or priority-setting for DRR and CC measures has not been operationalised within the CBFS nor in the FAO Country Office. There is a lack of clear, common understanding of DRR and CC and of the term 'resilience', particularly among new programme and project management-level staff.

Up to the time of this review, key DRR and climate-related activities which have been implemented in the Programme are:

- Climate resilient livelihoods with focus on intercropping, diversification of income sources and food sources, community-based processing and value-adding, contour farming, coastal/beach forest ecosystems, sloping land agriculture and mangrove plantation
- Hazard, vulnerability and risk assessment at community level. This has been carried out with the participation of representatives of barangay levels within municipalities.
- Incorporating a Climate Change module into the Farmer Field School (FFS) training programme
- A climate-smart FFS for local government technicians at municipality level

Other DRR and CC related activities planned in the Programme are:

- Improvement of post-harvest activities through provision of post-harvest facilities
- Participatory DRR planning and introduction of climate resilient coconuts-based farming systems to better prepare communities for similar future disasters
- Provision of drying and storage technologies to families and communities, to properly and safely store cereals and pulses

The FAO publication 'Resilient Livelihoods – DRR for Food and Nutrition Security' describes the four Thematic Pillars to be addressed as below:

Pillar 1: Enabling Environment	Pillar 2: Watch to Safeguard	Pillar 3: Apply Prevention and Mitigation Measures	Pillar 4: Prepare to Respond
Institutional Strengthening and good governance of DRR in agricultural sectors: Focus on appropriate legislation, policies and institutional frameworks for Disasters Risks Reduction and strengthen the	Information and early warning systems on food and nutrition security and trans-boundary threats: seeks to strengthen and harmonise food and nutrition security information and early warning systems to better monitor the multiple threats and inform decision making in preparedness,	Promotion and diversification of livelihoods with risks reducing technologies, approaches and practices across all agricultural sectors: Addressing the underlying risks to food and nutrition security and to apply prevention and impact mitigation measures through application of technologies, good practices, and approaches in farming, fisheries, forestry and	Preparedness for effective response and recovery across all agri-cultural sectors: Strengthen capacities at all levels in preparedness to improve response to, and recovery from future threats to food and nutrition security and to reduce their

institutional capacities to implement these.	response, policy, advocacy and programming	natural resources management.	potential negative impacts on livelihoods.
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The CBFS Programme covers primarily Pillar 3 activities with strong promotion and diversification of livelihoods with technologies, approaches and practices across agriculture, livestock and agro-forestry. There have been some activities related to Pillar 1, institutional strengthening, and some related to Pillar 4, strengthening capacities in preparedness to improve response to and recovery and reduce potential impacts on livelihoods.

The Programme also deals to some extent with the cross-cutting priorities of capacity development, knowledge management and communication, strategic partnership and focus on women.

However, some elements are not included in the CBFS: information and early warning systems (Pillar 2), and policies, institutional framework and legislation (Pillar 1).

The emergency/recovery programme addresses relevant CC issues at all institutional levels (central, provincial, local).

The Programme plans to support coordination workshops with national/central level partners including Department of Agriculture, Philippines Coconut Authorities, Department of Natural Resources and Environment, National Commissions on Indigenous Peoples, and the Department of Agrarian Reform. The Programme focuses most of its activities at municipality and barangay level. Many of the activities are also at household and community levels, with farmers' groups, Farmers' Associations and community-based organisations. The programme appears not to directly address issues at the provincial level. However the CBFS staff have strong coordination roles such as co-chairing the regional Livelihoods Working Group, and they participate in the UN coordinating groups in the region (OCHA, UNDP). This can potentially be a channel for addressing CC issues at central, regional and provincial levels.

The emergency/recovery programme design reflects relevant CC experience from global, regional and national levels (eg stock-taking of relevant climate resilient livelihood models which are currently available and tested, including indigenous knowledge and practices, species/crops etc)

The CBFS livelihoods activities have been identified as relevant for the programme areas through FAO's leading role in the Livelihoods Working Group in Tacloban which includes many development agencies from the region. These activities relate to intercropping, local species, livestock, root crops, agro-forestry and ecosystems. They cover measures which are well promoted in the FAO Climate Smart Source Book and from other key CC projects that have been implemented by FAO in the Philippines.

The Programme Summary includes mention of local species and crops as livelihood options, but there is a lack of evidence of these livelihood options being tested with climate information/models in the local areas, notably where indigenous communities are residing. Livelihoods which depend on indigenous knowledge of local crop and livestock species may be susceptible to regional variations in micro-climates. Regulated local pilot schemes or detailed studies combining scientific and indigenous knowledge would normally examine this issue. There is a lack of evidence that the Programme took these types of precautions.

The emergency/recovery programme provides a) particular consideration to climate resilient livelihoods strategies and b) disaster risk reduction strategies to reduce the impact of hazards on vulnerable households (eg adoption of a multi-hazards approach)

- a) The CBFS supports climate resilient livelihoods strategies including inter-cropping coconuts farming systems, diversification of livelihoods with both agriculture and non-agriculture skills training, community and home-based nurseries and processing, and integration of livestock at household level. Value chains and community-based processing are also supported, for households and communities to add value to agriculture products and increase income. Farming practices such as pest management, soil conservation and land restoration are also supported.
- However, there is lack of evidence on the climate resilience or otherwise of the livestock being provided to farmers. And there are no activities supporting climate or seasonal forecasting, either by traditional or scientific knowledge, which could complement the Programme's climate resilient livelihood activities.
- b) At household and barangay levels there are activities relating to DRR preparedness in agriculture, including provision of post-harvest facilities, drying and storage facilities, disaster preparedness planning, and hazard, vulnerability and risks assessments. However the Programme lacks a DRR strategy and some main DRR activities at provincial, municipality and barangay levels.
- There is little evidence to show that the Programme has embraced systematically the key components of a Community-Based Disaster Risk Management (CBDRM) strategy from regional to local level. CBDRM has been institutionalised and mainstreamed in the Philippines, (FAO CSA Sourcebook), and the Philippines has developed national strategic CBDRM plans for legislative and executive approval, which demonstrates that such a system is in place. There is cooperation and information-sharing between FAO project management staff and other partners who are likely to be more familiar with CBDRM in the region. But meetings attended by the evaluation team indicated the collaboration between other DRR/M organisations and FAO was not a strategic element of the CBFS.

CBDRM was developed in the 1980s as a process through which at-risk communities can become actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks, vulnerabilities, and enhance their capacities. Communities, including the most vulnerable, participate in decision-making and implementation. In the CBDRM process, the assessment of hazard exposure and analysis of vulnerabilities and capacities forms the basis for activities, projects and programmes to reduce disaster risks (Asian Disaster Preparedness Center, 2004).

Community-Based Adaptation (CBA) has evolved more recently and has been applied to promote adaptation in the agriculture sector. CBA shares a similar definition and approach with CBDRM. It is understood as "a community-led process, based on communities' priorities, needs, knowledge, and capacities, which should empower people to plan for and cope with the impacts of climate change." (IIED, 2009).

According to FAO Climate Smart Agriculture (CSA) Source book (page 425), the need for an integrated approach is clear at the local community level, where multiple risks converge and threaten the lives and livelihoods of households and farming communities, and where solutions in risk reduction and adaptation in agriculture can be mutually reinforcing. CBDRM and CBA have the same objective of enhancing livelihood resilience at local levels, use the same bottom-up grassroots approach, target the same populations and apply the same participatory methods at the community level. CSA should build on the valuable opportunities found in the short- and long-term measures of CBDRM and CBA.

The Target Groups and Underlying Causes of Poverty

In the CBFS, FAO has worked with small-scale farmers, poor households and household groups, farmers' organisations and community-based organisations, indigenous peoples, and has prioritised

women groups within the communities. FAO also carried out target group needs assessment exercises to identify the most needy and their characteristics. For example one assessment of a local farmers association identified that the poorest households were those who were not association members, so project approaches were adjusted. FAO also tried to support non-farm skills among its target groups, but the links between non-farm skills support and landlessness of beneficiaries are not clearly documented. FAO made intensive efforts to verify the poverty levels of the poor households via government classification and data at the barangay level, which formed the basis of a component for *Accountability Towards the Affected Population*.

Working on climate change, projects and the programme need to address the underlying causes of the poverty for the most affected populations, particularly those of the poorest and most marginalised. These normally include issues such as land tenure, landlessness, inequality between women and men, ethnicity discrimination, small fishermen's issues, and government policies which cause anxiety over settlements. The underlying causes of poverty need to be carefully documented and considered within a climate change programme such as CBFS. Careful identification of the underlying causes of poverty and the identification of the correct beneficiaries, enables valid strategy and programme design to support the adaptation of these groups, including a policy advocacy strategy to the key government agencies involved. In the case of the Philippines this includes careful examination of the kinds of resilient livelihoods support which would best be extended to landless farmers (which comprise nearly 50 % of all farmers according to the National Food Security Network of the Philippines), including the relative advantages of agricultural or non-farm support to these groups. Further investigation on how FAO can target the poorest indigenous groups rather than simply the indigenous areas, is another issue to be addressed in the Programme design.

Effectiveness

The emergency/recovery programme set-up facilitates and encourages multi-stakeholder participation, including CC key stakeholders (multi-donor, cross ministerial and sectoral, national/regional/local levels, CSOs etc).

The programme encourages the working with various ministries at central level, working in the Food Security Cluster in the National Climate Change Action Plan from 2011-2028, including the Department of Agriculture, Department of Natural Resources and Environment and the Department of Agrarian Reform. The other climate change-related agencies including the Climate Change Commission, the Philippines Atmospheric, Geophysical and Astronomical Services Administration (PASAGA), and the National Economic and Development Authority (NEDA), which were not part of the CBFS design.

FAO is in early stages of cooperation with universities to deliver the climate change module of the FFS for local technicians. The Programme also works with local authorities from municipality to barangay level. However, the participation of DRRM/CBDRM and CC agencies with which the Programme would collaborate at regional and provincial levels is insufficiently described in the Programme Document.

NGOs and CBOs (including women's groups and farmers' association) are mentioned as part of the programme, but at the time of the evaluation, there was insufficient evidence to show whether the programme would contribute to developing the capacity of these organisations to provide assistance to local farmers, or whether the programme would be limited to reaching individual farmers/households through these organizations. An interview by the Evaluation Team with a farmers' group in Tacloban showed that no capacity development support had yet been given to the farmers' group as an organisation.

The Programme successfully captured the interests and funding commitment of five key donors for the eight projects. However the level of multi-donor coordination and information sharing is unclear.

The emergency/recovery programme has a logical division of roles and responsibilities between FAO offices and departments to reflect relative comparative advantages (linkages between FAO HQ Rome – FAO RAP – FAO CO in view of relevant comparative advantages on technical, coordination, mainstreaming, implementation, QA/backstopping issues)

Discussions with FAO staff in the three relevant offices showed that the Rome-based climate change staff provide technical guidance, proposal preparation, and backstopping support, whilst country-based staff provide the local experiences and networking information, key government contacts, CC technical expertise based on their existing CC project implementation experience. The roles of regional staff in programme development are less clear, but regional staff are keen to be involved for an extended period in the country to support the response and recovery. There might be a role of informing the criteria of the donors from the regional staff. There are no specific roles and responsibilities of the FAO staff of other country offices, as documented in the Programme Document Brief.

Country office staff in the Philippines need to identify the right Climate Change resource/support staff in Rome and to nurture a cooperation with them, to gain quality technical support. This system is working rather well in the case of the Philippines at present, although the available time of Rome-based staff is limited as they support many countries, and so the system could be restrictive in future.

Monitoring and Evaluation

Although FAO staff mentioned monitoring sessions and reporting within their team on a monthly basis, the evaluation team was unable to access and check the monitoring reports on progress of activities and projects which would show issues emerging during project implementation. Indeed at the time of the evaluation, national-based M&E staff were still working on baseline surveys for emergency phase projects even though those projects were largely completed and the recovery phase had begun. The same staff are responsible for monitoring of both emergency and recovery projects, and their high workload may be a factor constraining their ability to keep quality monitoring systems on track.

According to the MDG-F report 'Implementation process for community-based climate change adaptation in agriculture' (implemented by FAO in the Philippines), *"Implementing CSA cannot be done in a strictly linear way from interventions to results. With rapid changes in the environment and also to continuously address capacity for adaptation (at both the institutional and household level) it is crucial to also measure changes in processes and participation (Villanueva, 2010). For example, understanding why behavioural changes are taking place or not (Villanueva, 2010) is a process that is worthy of monitoring and evaluation."*

However, as the eight projects with multiple activities are already underway, it is unlikely these processes can be sufficiently accommodated.

Quantity versus Quality

The programme aims to reach a large number of beneficiaries within a short period of time. An emphasis on input provision and a large number of training courses to be delivered within a short timeframe, leads to less emphasis on ensuring quality and the value of processes. The number of staff, including only one Coordinator position for the Programme, appears too thin for covering such a large programme with such a wide range of activities. Lessons learned from other FAO implemented programmes such as MDG-F 1656 showed that the key climate change activities required a lot of time for implementation, from participatory action research, seasonal weather forecasts, developing adaptation options, building up monitoring and evaluation capacity for local farmers, and integration of identified livelihood options into the government planning system. The CBFS timeframe of one year to 18 months, including the government approval process, recruitment of staff and procurement of inputs leaves too little time to implement process-oriented CC actions.

Efficiency

Related to the above, the fixed timeframe of the projects of 12 to 18 months resulted in an unwritten programme priority, to complete 'on time'. This priority regularly overshadowed the more valuable programme priorities and objectives and so reduced the potential quality and process benefits from a range of activities within the programme. Government approval processes, and input procurement processes also took time away from implementation schedules. For example, one month prior to the completion deadline of Project 403, livestock inputs for local farmer beneficiaries had not yet been delivered. More flexible timeframes could ensure that valuable programme priorities are not compromised.

High turnover of staff in charge of the Emergency projects at the FAO Philippines Office resulted in disjointing of project activities, and less systematic learning and analysis. It also reduced the potential for complementarity between the eight projects. Relatively late recruitment of FAO programme management and project staff based in Tacloban, (the Coordinator for CBF was recruited in July 2014 and recruitment of other local staff followed), are likely to have reduced the efficiency of the Programme. Minimal staffing and narrow programme delivery strategies were undoubtedly constraining factors on the eight projects, which were diverse in nature, covering a widely differentiated programme area with a large number of activities.

Project proposals were prepared by Rome-based staff and 'redrafted' by the staff in the Philippines. The redrafting was overly time-consuming for staff in the Philippines.

Sustainability

The programme/project include a strategy/plan for ensuring of medium to long term funding/budgets by incorporating into a) government planning system and/or b) multi-donor support etc.

There is not yet a strategy/plan to ensure medium or long term funding by incorporating into the government planning system. Project staff claim to work closely with key government agencies, particularly at municipality and barangay level, and hope that after the project is ended the local authorities will continue the work. However, there is no indication that the activities of the projects have been integrated into the government planning system, even at municipality level. At barangay level, the evidence from the farmers' group visit showed that although the farmers participated in the hazards and risks assessment at barangay level, there was no follow-up to incorporate the assessment findings into the barangay plans.

Most Programme activities are being implemented as 'one-off' events from municipality to barangay level, rather than integral to ongoing capacity development, or part of a local planning process, or a systematic mainstreaming process from upper to lower levels. It is to the programme's credit that grassroots-level actions, appropriate to the context, were agreed within a short timeframe. But the general constraint of the programme timeframe can cause activities to be implemented without sufficient preparation for follow-on events.

The 'one-off' activity of providing CSA training to local technicians will not guarantee the sustainability of CSA within the government extension system. Currently there are only 13 extension staff (7 full-time, 2 casual, and 4 contractors) to support 17,470 households of 67,000 people in one municipality. Extension staff expressed a serious lack of resources for their daily work of monitoring/supporting the large number of farmers. Although they have one FFS for four month per year, they stated the significant difficulty of integrating Climate Smart FFS into their programme due to the limited budgets they receive from government, even if they find significant value and relevance in the FAO training courses. However the Department of Agriculture also provide them with similar training.

Although the local technicians have been trained on climate smart FFS, these were designed as project activities only for the local technicians at municipality level, rather than as a capacity building strategy for government partners within CBFS. At the community level, there is strong engagement of the FAO staff who participated in the Hazard, Vulnerability and Risk Assessments, and less from the local government technicians and barangay members who were trained to take on these roles.

The Hazard, Vulnerability and Risk Assessment activity was implemented as a strong basis for the adaptation options identified, however it was implemented as a single event to facilitate the selection of livelihoods options to be supported by the programme, rather than resulting in iterative or concrete actions for inclusion in the municipality's development plan and/or barangay action plans, with budgets allocated. Follow-up activities to the Hazard, Vulnerability and Risks Assessment activity should consolidate the local capacity-building element of the Assessment processes.

There is no plan to compare and link the programme DRRM/CC activities with government financial resources/funding schemes for DRR/CC at national, regional and local levels.

The programme has not included significant discussion of learnings from external agencies, nor has it included discussion of valuable policy-advocacy to enhance the sustainability and impacts of the Programme in its focal areas. In the context of the Philippines, where there are important government constraints/weaknesses in public services to the most vulnerable, limited implementation at grassroots level, slow finance disbursement and known corruption issues, civil society networks have a role to hold the government to account, voicing the needs of most vulnerable populations, and providing services to local vulnerable groups. Therefore greater efforts should be made to utilize these learnings and to create space for policy-advocacy dialogue among various stakeholders including civil society organisations. If carried out with care, this will enhance the sustainability and impacts of the programme.

Key lessons for ensuring the sustainability and impacts of the programme, from FAO's experience of CC projects in the Philippines and from other agencies, should be systematically addressed, regardless of potential difficulties arising from other factors such as donor funding. CBFS has attracted several donors, so activities will be continuous at least until the end of 2015 when current donor commitment is due to end.

Gender mainstreaming

The programme prioritises working with women and women's groups for management of livelihoods options. The programme aims for 40 % of the beneficiaries to be women. There have been efforts in disaggregating data for women and men, and prioritisation of some non-negotiable target groups: elderly women, lactating women, pregnant women, single women and widowed women. However none of the projects within the CBFS include a gender analysis. There is no gender mainstreaming strategy within the Programme Document. A national staff holds responsibility for accountability and gender, but no information is available on efforts to mainstream gender within projects. The main reason cited for lack of inclusion of gender is the 'rush period' of developing project proposals in the Programme.

Partnerships

The Programme has brought praise to FAO for its active role in networks with other development agencies and Government agencies. FAO leads the Livelihoods Working Group, and taking a lead in Value Chain Analysis among other agencies including INGOs. The roles of FAO in the region have been highly appreciated in terms of both support (rice seeds to other organisations during emergency period), sharing database, and technical assistance. Other development agencies such as Oxfam highly appreciated the willingness to share the database from FAO Programme staff, assisting their

livelihoods programmes and avoiding overlaps. However the FAO staff working on CBFS Programme is not participating in the DRR network based in Tacloban.

FAO has a reputation for facilitating the Civil Society Mechanism to the UN Committee in World Food Security at the Headquarter level annually, *recognizing the roles of civil society in giving a voice to the hungry, representing the diversity that exists in society and being a part of international decision-making processes*⁴¹. The CBFS programme document states that the programme will work with CBOs, indigenous people's organizations and local NGOs. However there is no partnership strategy described in the document, how to work with or build capacity for these partners, nor how the programme might take advantage of academic knowledge, to enhance impact and effectiveness or to promote replication.

A report by a group of British NGOs, *'Missed again: making partnership space in the Typhoon Haiyan response'* looked at the challenges of partnership with national NGOs in the Philippines, identifying important lessons and recommendations to enhance the relevance, effectiveness and impacts of projects and programmes.

Private sector engagement at local levels, particularly related to inputs and credit and material provisions should be carefully considered and planned to ensure that they are contributing to the adaptation of the most vulnerable farmers groups, rather than taking away valuable and limited resources of the Programme.

Organisational Learnings with inward looking and outward looking approaches

Although the programme has enjoyed technical support both from Rome-based staff and Philippine national staff with experience of many CC projects over the years, the programme activities are not as CC-oriented as those in previous projects such as MDG-F and AMICAF.

In discussions on learning about CC projects and programmes in the Philippines, staff were unable to demonstrate a common understanding of the learning mechanisms within FAO, for internal capacity building. An improved understanding would positively impact the quality of project proposals with CC components within CBFS. The extent to which lessons learned in the previous DRR/CC projects have been analysed and considered in developing the projects and the Programme, is not at all clear. Programme development did not include a stakeholder analysis. This might be a reflection of a limited outward-looking perspective of FAO, or it might be a result of the fast-changing and numerous DRR and CC actions taking place in the Philippines.

2.13 St. Lucia Country Mission Report - Agriculture/DRR

Names and Codes of Projects Referred to

TCP/STL/3202 Enhanced capacities for disaster risk mitigation in agriculture, fisheries and forestry, 2009-11

OSRO/STL/101/EC Post Tomas hurricane Emergency agriculture based livelihood assistance in St Lucia, 2011-12

TCP/STL/3402 Emergency assistance for the recovery of vulnerable farmers affected by the December 2013 rains and winds, 2014-15

⁴¹ FAO General Director speech at the Annual Forum of the International Civil Society Mechanism to UN Committee of World Food Security, Rome, dated 11th of October 2014.

Full Names of Normative Products Referred to:

- Fisheries Disaster Risk Management Manual (?)
- FAO Technical Guidelines for Responsible Fisheries 2003
- CSA reference guide (no document; none aware of FAO Climate-Smart Agriculture Sourcebook)
- CropWat water management models

Relevance

- The relevance of the three projects mostly related to a) timely assistance to smallholder farmers affected by major storms (farmers are also under financial strain due to decline of the banana market and spread of Black Sigatoka fungal disease affecting banana production); b) the contribution to demonstrating a systematic and participatory approach to DRR, and c) important awareness and recognition of the need to reduce buildup of woody debris in river beds and the need for stabilization of river banks vulnerable to flooding and erosion.
- The DRR training (2010-11) and draft strategy (project 3202) helped to create awareness but did not lead to any observable action on institutional or policy change. FAO's earlier promotion of FFS approach has been a recognized positive effect on agricultural extension programmes.
- The timely financial assistance through 'cash for work' was a key benefit along with short term inputs that helped marginal farmers get re-established.
- The context for DRR technical support is important in St Lucia: the agricultural sector is in major transition away from bananas and crop diversification has been difficult – inherent low level of climate resilience because of the severe economic situation and growing dependence on imported food. FAO's support for agricultural improvement can reduce the economic vulnerability to climate stress.
- FAO's normative products do not have a high profile in St Lucia
- It was noted by fisheries sector that disasters are viewed as 'stopping at the waters edge' and there is also a time lag in effects on fisheries (habitat damage, etc.), impacts are less quantifiable and damages more diffuse. Farmers get more support than fishers.

Assessment of Normative & Analytical Work (See Dropbox folder for relevant N&A products)

Few of the interviewees were able to identify any of FAO's climate change/DRR normative products, except for a fisheries management manual and general reference to CSA. Some also identified FAO's work to introduce the Farmer Field School approach as the main technical contribution.⁴² Reference was made to statistics and technical reports and research documents that FAO produces, but no other specific references could be identified.

Key Observation(s) on Relevance: It was difficult at times to jog memories about the specific projects associated with FAO. For example, the draft *Strategic Framework for DRR* was not readily recalled until a copy was shown to interviewees. FAO stationed an expert in St Lucia for six weeks to assist preparation of a Draft Plan of Action for DRR in 2010 but only one person could recall this. A brief field visit to one project (3202) site suggested that there is limited capacity within MoA to implement rainwater harvesting and related water management: *Major steel RWH tank (35,000 gal) installed on a hilltop at Laprle to promote irrigated farming on the hillside, with an open-sided shed roof (not storm proof!) capturing rain to feed the tank. Rainfall has not been sufficient to fill the tank and it is*

⁴² FFS St. Lucia, conducted in 2009 (GCP /RLA/179/EC). You-tube video - <https://www.youtube.com/watch?v=QMotaD0yUr0> and newspaper article http://www.thevoiceslu.com/features/2009/october/31_10_09/Farmer_Field_School_a_success_story.htm; Note that 4-5 years after the completion of the first training, Extension and NGOs were still using FFS to train farmers <http://www.stlucianewsonline.com/farmer-field-school-hoped-to-reduce-import-bill/>; <http://www.stlucianewsonline.com/seed-foundation-promoting-sustainable-agricultural-in-st-lucia/>

proposed to pumped water from a spring some distance away. The tank was intended to serve five farms but only one farmer has taken advantage of the tank, yet there was not enough water available in the tank for this season. The farmer has done extremely well due to the high price for sweet peppers and is expanding this crop (after losing his crop of melons last season due to drought and lack of water). The water level is currently very low in the tank and he plans to pump water given the profit he has made so far. Cost of the tank was stated as about \$40,000. The main observation is that there are many other lower cost rainfall collection, vegetated barriers, moisture conservation, soil conservation and drainage management methods that are more suitable on this type of hillside. This is not a model demonstration of replicable RWH..... Extension officer also noted many problems in group irrigation systems (four established, none succeeded), and diversification of crops. The down slope farms are semi-abandoned banana farms, which seem to be prevalent in St Lucia.

Effectiveness

- Field interventions included the identification of Good Practice Options (GPOs) for Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA), training of farmers and pilot testing of locally identified practices at village and community levels. A wide array of small scale agricultural and land and water management improvement activities were implemented with generally positive benefits for farmers affected by the storms.⁴³ Storm-proofing animal shelters was introduced and has reportedly been widely replicated.⁴⁴
- A Terminal Statement prepared in 2013 by FAO for Project 3202 concluded four key outputs were achieved: improvement in the capacities of forestry, fisheries and agricultural sector officials to review and implement national risk mitigation policies; promotion of risk mitigation approaches at village and community levels and demonstration of activities involving farmers and fisherfolk; improvement in capacities for vulnerability mapping and damage assessment; and development of a public awareness programme targeting farmers and civil society.⁴⁵
- Safety training was provided to 48 fisherfolk. A powered winch was also provided to the fishing community of Soufriere for the safe and quick removal of boats during storms. However, a slipway that had been planned for the community of Dennery did not materialize, partly as a result of conflicts of interest among stakeholders.
- Not all outputs were implemented as planned. Assessment of the Enhanced Capacities for DRR project (3202) stated: The overall rate of delivery for activities proposed under all outputs of the project was just over seventy percent. This was due to the fact that not all activities within each of the outputs were delivered. More than 80% of tasks/activities were executed under output 2 – Community based risk mitigation, compared with an estimated 75% executed under Output 3 – Improved capacity for vulnerability mapping and damage assessment; and 75% of tasks executed under Output 4 – Community Public Awareness programme. With regard to Output 1- Improved capacities to review and update policies, though not all of the activities initially planned under output one were delivered fully, the overall impact of partial delivery of Output 1 activities, in combination with others activities, has led to a successful achievement at output level estimated to be at least 60%.⁴⁶
- It was not apparent from interviews that the “improved service delivery capacities of agriculture, fishery and forestry line departments” from Project 3202 have been put into effect in any substantive way. The field mission did not confirm the 2013 evaluation observation: “*the re-education of persons in the sector for a resurgence in the adoption of DRR practices, hence the project assisted in strengthening the foundation for stimulating a Disaster Risk Reduction programme in the agriculture sector*”, and that “*delivery of the project outputs appeared to have*

⁴³ See Thomas Edmund, Enhanced Capacities for DRM in Agriculture, Fisheries and Forestry Progress Report, July 2011.

⁴⁴ <http://teca.fao.org> Construction of a hurricane-resistant small ruminant shelter, St.Lucia

⁴⁵ FAO, Terminal Statement for Enhanced Capacities for Disaster Risk Mitigation in Agriculture, Fisheries and Forestry, 2013.

⁴⁶ FAO, Ex-Post Assessment of the Project TCP/STL/3202(D) titled Enhanced Capacities for Disaster Risk Mitigation in Agriculture, Fisheries and Forestry in Saint Lucia, Oct. 2013. The report states: *The overall rating of the project is around a rating of “2”: which means that performance met targets.*

given rise to a reasonable degree of resurgence of good practices, which in turn will contribute to socio-economic wellbeing through the provision of appropriate means to implement production and other entrepreneurial activities necessary to sustain the livelihood base." Nevertheless, some experience and orientation to DRR was established including a recognition of a need to address the related recurrent flooding and drought problems.

- While the project introduced DRR best practices, field activities, damage assessment processes and a policy framework, continuation was dependent on funding and government support, both of which appear to be lacking.
- The six follow-up actions proposed in the 3202 Final Report and evaluation report were not implemented as of early 2015, including the *Draft Strategic Framework for DRR*.
- The Post-Tomas project (101) assisted 317 beneficiaries in the form of cash for work for drain clearing, land preparation and clearing of debris from farms. The establishment of buffer zone which also serves as windbreak and river bank and waterway stabilization was also a critical component.⁴⁷ Ten training workshops on drain maintenance were held in all the agricultural regions with good participation and high levels of enthusiasm among beneficiaries. While 269 farmers participated in the drain clearing project, 300 farmers were trained which indicate a high level of interest within the farming community.
- Production capacity of 369.2 acres of bananas has been restored by Post-Tomas project with records indicating a 15% increase in production from these waterlogged farms over a two month.⁴⁸
- FAO funded preparation of a regional fisheries plan⁴⁹ and is providing ongoing technical support to inshore fisheries.
 - In Feb 2011, under Project 3202, FAO sponsored training workshops on "Integrated Baseline, Damage and Needs Assessment for Disaster Risk Management (31 participants) and Farmer Training and Field Demonstration for Disaster Risk Management in Agriculture (33 participants) A reported outcome was use of standard forms for baseline data and information gathering. The workshop were well received and rated highly by participants who committed to using the tools and techniques learnt to enhance the country's and institutional capacity to gather data and information for damage and needs assessment for disaster risk management not just for agriculture but in general.⁵⁰
 - In 2012, CARDI carried out a study on sustainable production practices in Barbados and six countries of the Organization of Eastern Caribbean States (OECS). The FAO-funded study compiled a baseline survey and recommended the promotion of Good Agricultural Practices with a focus on CSA. Action to fully integrate these into extension programmes was not yet apparent during the mission.
 - The Dec 2013 Xmas Rain project (3402) commenced in June 2014 and included: 1. Clearing of Rivers and tributaries, 2. Rehabilitation of Critical Riverbanks, 3. Slope Stabilization, 4. Rehabilitation of Forest Roads, 5. Supplying of Equipment and Materials and 6. Education Programme. 73% of the budget was spent by Dec. 19, 2014.⁵² The work included removal of logs and debris from 12km of river which were used for craft making and charcoal. Twelve km of river banks are being stabilized by the planting of trees, construction of contour drains and planting of vetiver grass barriers and 8 km of forest road rehabilitated by improving drainage, re-grading and filling degraded areas with laterite. A school and

⁴⁷ Anthony Philip, Final Report by Fairtrade Organization (St Lucia) Inc. Sept 2011- Nov 2012, 2012

⁴⁸ Ibid., 2012, p.11

⁴⁹ CRFM Secretariat 2013, CRFM STRATEGIC PLAN (2013 – 2021)

⁵⁰ Thomas Edmund, Enhanced Capacities for DRM in Agriculture, Fisheries and Forestry Progress Report, July 2011, p. 6.

⁵¹ FAO Sub-Regional Office for the Caribbean (SLC), Sustainable Crop Production Intensification (SCPI) / Save and Grow - Regional Consultation in the Caribbean, Barbados, October 2012

⁵² Keryin Stephenson, Representative, Interim Report, Implementation of the Forest Clean-up and Rehabilitation Programme, IICA, Jan 2015.

community awareness campaign on prevention of wildfires is also proposed for early 2015.

Key Observation(s) The project experiences indicated limited ability to substantially affect land use and farming activities (setbacks) along river banks, and a general lack of effective watershed management to reduce stormwater runoff rates and to increase upland water retention and dry season water supply, which were constraints beyond the scope of the projects. The steep gradient streams and high runoff rates from upland slopes and roads are major sources on the water management problems, and minor drainage control measures by the projects provided mostly site benefits.

Efficiency

- In project 3202: "The process of designing structures, costing and submitting open bills from suppliers and the feedback process of procuring materials for delivery to beneficiary farmers was executed smoothly and efficiently. Requests from FAO for additional funds resulting from unforeseen circumstances during implementation were also dealt with swiftly and efficiently."⁵³
- In project 3202: Delays in project implementation were mainly due to few oversights regarding the assumptions of availability of viable seeds, the impact of hurricane Tomas on the farming community and the selection by farmers of contractors who performed project implementation tasks at their leisure.⁵⁴
- The Final Report on livestock activities in Project 3202 stated: The efficiency in implementation of these good practices at the pilot sites was generally found to be very high. Variations were identified among pilot groups at the farm level which are documented and used as lessons learnt. A significantly high impact level was exhibited by the farming community which is indicative of the willingness to adopt the technologies in a sustainable manner.⁵⁵
- In general, project activities appear to have been efficiently delivered, although complaints about FAO's complex or inconsistent procurement and administrative procedures were noted by several interviewees. 97% of the \$387,804 budget of project 3202 was expended.

Sustainability

- The 2013 Ex-Post Assessment of Project 3202 stated that "The sporadic engagement of agencies such as IICA, NEMO, CARDI and the SDED while not able to demonstrate a direct contribution to project sustainability, may have otherwise generated and catalysed the support of these agencies to the process of assimilation of a DRR approach in the agriculture sector. The engagement of NGOs CSOs through a participatory approach has spurred off the development of strategic partnerships among the sub-sector groupings such as the poultry and pig producers towards the formation of cooperatives to manage issues of securing investment in DRR."
- The Assessment also stated: Some degree of replication/up-scaling of project results is evidenced in certain components of the Project such as (i) Good Practice options, where GPOs for the livestock sector have been incorporated into national standards for livestock production and included in the cost of production by , and (ii) in the pursuance of risk mitigation programmes, in particular for credit facilities, by private actors such as the pig producers and egg producers, that are coming together to explore models for cooperatives.
- The Assessment also stated: No clear exit strategy was found articulated in any of the project reports. However, several follow up-actions were recommended [but never implemented] by all the various Consultants key of which were:

⁵³ Vernon A. Valmont, Disaster Risk Mitigation in Agriculture, Final Report on Disaster Risk Mitigation – Livestock, March 2011, p. 33.

⁵⁴ Ibid., March 2011, p. 33.

⁵⁵ Ibid., March 2011, p.3

- Endorsement of the Strategic Framework for DRM in the Agriculture sector by the relevant authorities and the development of Disaster Management Plans for Sector and sub-sectors
- Establishment and regular updating of a readily accessible agriculture data base
- Establishment of mechanisms for effective dissemination of DRR/DRM information
- Establishment of DRM specific Committee or Unit for agriculture for more effective DRM service delivery
- Continued work on the development of a facility/system for agricultural insurance and Disaster Fund, preferably at the sub-regional level
- Many of the small scale activities, including storm-proofing farm structures, planting crops and fruit trees, stabilizing river banks and provision of agricultural inputs to re-establish crops had sustainability elements (although young trees planted following Hurricane Tomas were destroyed in the subsequent Dec 2013 Xmas storm).
- The draft DRR Strategic Framework remains dormant and was never finalized after considerable assistance from FAO. A key concept that has been sustained as a result of the DRR projects is the importance and methods of controlling debris jams in the rivers.

Key Observation(s): Sustainability and replication were not evident in the water harvesting and small scale irrigation scheme that was visited.

Gender Mainstreaming

- In project 3202, "Generally, the beneficiary farmer selection was favourable and the gender based dimension was considered in the selection process. Focus was placed on sustainability of the project activities by selecting farmers who are exemplary and whose farms would continually be used for demonstration purposes."⁵⁶
- In the Post-Tomas project 101 in 2012, it was noted that equal opportunity was a prominent feature in beneficiary selection. Women comprised 25% of the total 279 selected beneficiaries, 30% of the trainees and 46% of the waterway works beneficiaries.⁵⁷

Key Observation(s):

Partnerships

- FAO had implementation partnerships with Ministry of Agriculture, CARDI, Caribbean Disaster and Emergency Management Agency (CDEMA), Inter-American Institute for Cooperation on Agriculture (IICA) and Fairtrade Organization. The partners have had generally good working relationships.
- Partnerships with other related programs appear to be absent. For example, the EU Special Framework Agreement 2006 includes four categories: i) Promotion of domestic agricultural products ii) Agro-enterprise development, iii) Technology adaptation, which is subdivided into a) Improvement of agricultural production and productivity and b) Strengthening of plant health services and iv) Annual agricultural review.⁵⁸ The program in Barbados, Antigua, Dominica, St. Kitts/Nevis, St. Vincent and the Grenadines, Grenada and St. Lucia included various environmental sustainability related to climate change.
- The FAO projects have been in response to storm events that have adversely affected agriculture. There has not been a specific programming strategy to partner with other multi-lateral or bilateral donors involved in climate change adaptation, although such opportunities

⁵⁶ Vernon A. Valmont, op. cit., March 2011, p. 33.

⁵⁷ Anthony Philip, Final Report by Fairtrade Organization (St Lucia) Inc. Sept 2011- Nov 2012, 2012

⁵⁸ Caribbean Agricultural Research and Development Institute, Baseline Study on Existing Sustainable Practices, Models and Technologies used by farmers in Barbados and six countries of the Organization of Eastern Caribbean States (OECS) under LOA/026/2011 GF.SLCDD.RAA02L1100100.5571, Feb. 2012.

could have existed in the climate related EU, GEFSGP and USAID projects and now in the new World Bank project on disaster vulnerability reduction.

- The GEF Small Grants Programme provides a mechanism for testing innovations at a small scale, and opportunities may exist for partnerships with FAO to scale up successful technologies, approaches and products.

Key Observation(s): Some of the FAO partners recognize that they are short term project delivery partners for FAO rather than long term collaborators on joint programmes.

Organizational Learning

- Almost none of the consultant's 16 recommendations in the Final Report for project 3202⁵⁹ were implemented, reflecting a lack of commitment and resources from government.
- "Owing to the Ministry's limited financial and technical resources, the strategic framework prioritized interventions and indicated key areas for future action corresponding to the pillars of the Hyogo Framework for Action. The intervention was proposed over a five-year period between 2012 and 2016 and set out a potential timeline with which to address the issues."⁶⁰ No action has yet to be taken by government, suggesting that short term training and policy documents prepared by FAO are not sufficient to ensure effective capacity development.
- The FAO Terminal Statement for 3202 states: "Despite the establishment of a DRM framework for Saint Lucia, a specific government budget for DRR is currently lacking, with most related projects heavily dependent upon donor support. Significant additional financial resources should be sought in order to facilitate wider outreach and the full implementation of the strategic framework."
- Short term projects limit the scope for program learning and refinement. The FAO M&E systems for assessing performance, results and lessons have been mostly qualitative and with insufficient critical rigor to substantiate success and/or failure, particularly in measuring capacity development progress from some baseline condition. Positive bias dominates the reporting.

Key Observation(s): The FAO projects have assisted awareness in government of the urgent need to discourage farming on marginal lands and conduct flood and drought mapping lands with specific watershed areas, including lands suitable for agriculture within these areas. Windbreaks and other measures in the lower reaches of these rivers are not sufficient to reduce rainfall runoff rates and much larger scale and more elaborate watershed management approaches are needed.

There is no programmatic framework in St Lucia to coordinate climate change and DRR activities of multiple donors across multiple ministries and larger landscapes.

Factors of Performance (As per evaluation TOR, i.e. FAO's strategy, resources, coordination and capacity, as well as any external factors)

- In-country presence and hands-on TA from FAO staff, with longer term follow-up is a key factor that was highlighted in several interviews. Intermittent and contracted activities rather than full time presence were viewed as a detriment to FAO's impact on the ground.
- Coordination amongst government agencies and donors was noted by stakeholders as a key issue and critical factor affecting the effectiveness and efficiency of responses to disasters. The disaster response coordination occurs through NOMA but recovery actions appear to be not so well coordinated according to some of the key stakeholders.

⁵⁹ Martin Gregory Weekes, Final Report, Enhanced capacities for disaster risk mitigation in agriculture, fisheries and forestry, April 2011.

⁶⁰ FAO, Terminal Statement for Enhanced Capacities for Disaster Risk Mitigation in Agriculture, Fisheries and Forestry, 2013, p. 4.

- Coordination reported improved over the three projects, with a joint team established in the most recent project.
- Reliable and accessible data on agricultural assets at risk are essential for disaster management and damages assessment.
- Protocols and capacity to undertake rapid damage assessment needs to be fully institutionalized. Several key government staff who were trained have retired and institutional capacity should encompass the full range of capacity requirements to sustain disaster response and risk reduction functions.
- The commitment of government to lead and maintain DRR and climate change as a priority is a critical factor. The lack of follow-up action after the FAO projects is associated with the weak commitment and resources of government, and the limited role that Ministry of Agriculture plays in national development.

Key Observation(s): FAO's approach to capacity development through short term workshops has distinct limitations that need to be recognized in project design. Institutional change cannot be secured through short term workshops. Reporting on capacity development is also generally qualitative and subjective.

2.14 Vietnam Country Mission Report - Agriculture

Names and Codes of Projects Referred to:

UNJP/VIE/037/UNJ Strengthening Capacities to Enhance Coordinated and Integrated Disaster Risk Reduction Actions and Adaptation to Climate Change in Agriculture in the Northern Mountain Regions of Viet Nam - One Plan II

GCP /INT/139/EC) Climate Smart Agriculture: Capturing the Synergies between Mitigation, Adaptation and Food Security in Malawi, Vietnam and Zambia – Vietnam 2012-15

Full Names of Normative Products Referred to

- MOSAICC GHG modelling methodology;
- FAO Disaster Response tool used by Joint Assessment teams for early livelihoods recovery (mentioned by World Vision)
- CSA reference manual

Relevance

- The FAO programme is aligned with Vietnam's National Climate Change Strategy (2011) and the National Target Program to respond to Climate Change (DEC 2008) which requires that climate change measures be integrated into all development strategies and planning and preparation of climate change impacts assessment and feasible action plans to respond to climate change in the short and long term.
- FAO has played a key role in the climate change and Disaster Reduction component of the UN One Plan where FAO has a lead role. Earlier technical cooperation involved support to assess the impacts of climate change on forests and to introduce mitigation and adaptation options for crop production. Particular focus has been on upland rice crops; impacts on coffee and tea crops have yet to be considered.
- The FAO programme in Vietnam has responded to country priorities for UNFCCC support and for measures to reduce climate risks to food security in the mountainous region. The main areas of climate support services have been associated with UNFCCC preparations (UN-REDD, NAMAs), agricultural development strategies (CSA project) and testing adaptation technologies for upland farmers.

- Interviews with implementing partners suggest that the Northern Mountains project has changed the thinking about traditional rice varieties and the community based approach to addressing food security risks. While these interventions have been timely and relevant to country priorities, the integration into government policies and processes has been less evident.
- The scale and scope of the funding and activities have not had the potential to pursue the full FAO-Adapt strategy, nor to fully engage at a programme level with the major national and international organisations involved in climate change in Vietnam.
- The FAO programme in Vietnam encompassed areas of policy development with REDD and CSA; climate finance (accessing GEF funding through investment proposals); and climate change adaptation at community and household level.
- FAO has achieved notable success in its emergency avian flu programme, contributing to shaping government decisions and institutions, gaining trust within the donor community, and carrying out a successful surveillance survey. But DRR and CC have not been integrated into the programme due to the lack of staff time, lack of funding for piloting the integration of DRR and CC, and lack of awareness of the need for integration.
- FAO has supported the Climate Change staff of the Ministry of Agriculture & Rural Development (MARD) to attend UNFCCC negotiations. This is a good opportunity for MARD staff. UNDP Vietnam provides training to government delegates prior to the international negotiations. FAO can follow-up on this training of MARD staff to ensure new knowledge and skills are put to use.

Assessment of Normative & Analytical Work (See Dropbox folder for relevant N&A products)

- The MOSAICC modelling system was used to develop scenarios for the CSA project. Incorporating climate change considerations into agricultural investment programmes: a guidance document was also likely art of the HQ work on the CSA investment projects.
- 'Disaster response tool' from FAO used by Joint Assessment Teams (World Vision)

Including any Key Observation(s) on Relevance: The wide range of climate change readiness contributions by FAO in Vietnam has been appreciated by the programme partners. The assistance to forest inventory and monitoring, UN-REDD MRV and various climate-related planning processes has assisted in advancing the technical aspects of the climate change responses within government. A prominent feature of the programme has been its technical focus on relatively short term needs but without a full capacity development commitment or strategy.

The lack of CSA project alignment with national development planning and budgeting systems imposes major limitations on 'investment proposals' external to government targets and budgets. Some of the project implementation partners view themselves as activity contractors rather than full partners.

The CSA project appeared to hold great potential in Vietnam, where both government and civil society are committed to food security, agriculture production and climate change adaptation and mitigation. However, the CSA project design process was driven by FAO Rome in cooperation with Vietnamese research institutions, creating challenges due to the limited understanding by Rome-based technical staff of the local context, and due to the internal dynamics of policy-making agencies within MARD and MONRE. Issues in the CSA project could have been avoided. These were: misunderstanding of data collection methods and relevance of economic models for Vietnam; delays in implementation; lack of farmer participation; limited engagement with Vietnamese NGOs and their food security and CC networks; lack of transfer of knowledge and skills from Rome-based staff to the Vietnamese government and research agencies in data analysis and policy-making processes. The Regional FAO office has designed similar CSA projects in other countries in the region. Their choice of activities and

approach were more applicable to the Vietnam country context, however, there is no linkage for learning between these two CSA projects.

Effectiveness

- The Northern Mountains project has clearly expanded rice production, seed supply and incomes in the project communes and beyond to nearby communes. Contributions to enhanced climate resilience is more uncertain at this stage. Rice seed production, harvest, storage, and maintenance were implemented in cooperation with the NOMAFSI which carried out baseline studies, field experiments and research in 6 communes of the 6 pilot districts in the 3 provinces.
- NOMAFSI also assisted with pilot grass plantation models in two types of topography: dry land and sloping land, together with some techniques of grass processing and preserving.
- The Final Evaluation concluded that the project contributed to strengthening the institutional, technical and policy frameworks and coordination, supported (i) the production of rice seed with techniques of harvesting, storing and maintaining the seeds, grass plantation and processing system for livestock raising, and ii) localised early warning systems.⁶¹
- Farmer groups have benefited from skills development in harvesting, storing and selling seeds. Increased seed supply has enhanced climate stress/event preparedness and provided an estimated 20% increase in farm incomes; the initial 15-20 pilot farmers using the seeds has spread to over 90% of all farmers in the commune.
- Farmers stated that input costs are higher but seed replication is better and higher value and the product is better quality and higher price, contributing to household food security and incomes. However, according to farmers, the new seeds are slightly more vulnerable to drought and pests and require greater inputs. Technical advisors differ on this.
- The main issue for local farmers was for more access to reliable markets for the new seed production, and controlling the costs of fertilizer and pesticides.
- Local farmers, men and women enhanced their confidence in their capacity of growing the improved seeds for home consumption and sales in the market.
- Local farmers, men and women are proud of their improved indigenous seeds as provincial speciality and regional fame.
- The National Hydro-meteorological Services and the project's DDR CCA expert assisted in capacity development of the localised early warning systems by provincial and district officials for more timely and accurate weather and disaster information and better access and use of existing early warning, weather/climate information.
- The third Outcome - "improving database management, spatial information products to facilitate local level DRR actions and strengthen resilience", included a database and spatial support tool and training by Politechnic University of Marche, Italia. Use of these outputs is unclear. Capacity development from the risk management training and early warning systems development is not very apparent two years after the project. The implementing partners were not aware of any outputs related to Outcome 3 – database and mapping.
- FAO's UN-REDD collaboration has been generally productive despite the large programme design and various partnership issues and delays. The MRV outputs have been a significant contribution to UN-REDD development. The NAMA readiness assistance has also enhanced Vietnam's capacity and preparation for mitigation-related proposals in the agricultural sector.
- The CSA project has raised awareness of climate change impacts and CSA opportunities and developed a preliminary data set and framework for identifying downstream effects on

⁶¹ PeaPROs Consulting JSC, Final Evaluation of Strengthening Capacities to Enhance Coordinated and Integrated Disaster Risk Reduction Actions and Adaptation to Climate Change in Agriculture in the Northern Mountain Regions of Viet Nam, Hanoi, March 2012.

agricultural crops, household food security and the economy. The reported outcome achievements include:

Output 1: Meta database of household climate risk parameters; key lessons from existing evidence; reviews of CSA practices (adoption, yields, socio-economic impacts); soil sequestration model; a conceptual framework for identifying CSA strategies; model analysing broader sustainable land management practices; and a macroeconomic *general equilibrium* model for climate impact assessment.

Output 2: Programmes, policies and institutional frameworks for adoption of CSA practices. Policy dialogue fostered through the project with a view to integrating climate change and agriculture.

Output 3: Climate Smart investment proposals currently being formulated.

Output 4: Capacity built through facilitating dialogues between government ministries; supporting agriculture ministry officials to attend the UNFCCC meetings with a specialist FAO team member; financial support for MSc and PhD studentships on CSA and training of stakeholders on carbon accounting and scenarios as well as training enumerators in interview techniques.

- The underlying logic of the CSA project is "to build a conceptual and empirical foundation to design policies for and investments in CSA. With these activities in place, policies are more likely to be conceptually and empirically sound." According to the CSA mid-term evaluation, the modelling did not fully address CSA adoption and the macroeconomic effects associated with the policy options.⁶²
- The CSA project implementing partners were unable to explain how the data they have been collecting will be used or what tangible results will be generated to assist responses to climate change. Despite the policy level engagement of key institutions, the potential to influence policy in Vietnam is probably low based on the perceptions conveyed by the key partners during the country mission.

Key Observation(s): Despite the diverse climate change contributions, FAO's efforts have not had a noticeable impact on policy development, policy implementation initiatives, or raising policy implications from the project level to the complex climate change policy platforms at a national level. The FAO capacity to engage in substantive national climate change policy development discussions is not evident in the results to date.

Efficiency

- Delays in administrative procedures for procurement and headquarters approvals were probably the main effect on efficiency. Slow progress has been a characteristic of the UN-REDD programme. Insufficient communication on reporting requirements within the government has also contributed to inefficiencies.

Sustainability

- Many of the FAO activities, despite efforts at mainstreaming within government programmes, have not explicitly considered sustainability except in the hope that technologies may be sufficiently viable to be utilized by farmers and that training will lead to capacity development.
- Farmers' acceptance of new rice and grain varieties provided support for sustainability. But capacity gaps within agricultural extension systems to support food security DRR measures in the Northern Mountains project were an example of sustainability limitations.
- The project CSA partner NOMASI staff highlighted the lesson that developing the relationship with local authorities and stakeholders is required for sustainability. This has not been the case with the CSA Project. Capacity development for the key government extension staff on the project, was not considered a priority, and government plans were not synchronised with the CSA project, so as to sustain activities after the project came to an end.

⁶² FAO Office of Evaluation, Mid Term Evaluation of Climate Smart Agriculture: Capturing the Synergies between Mitigation, Adaptation and Food Security in Malawi, Vietnam and Zambia, April 2013, p. 40.

- The interviews with CSA participants also reflected a general concern often mentioned about FAO programmes: technical bias over institutional focus and uncertain prospects for scalability and policy influence.
- FAO Vietnam has not developed its communications with other UN agencies nor with NGOs regarding working in the same geographic areas. Areas under REDD+ or CSA are typically areas inhabited by the poorest ethnic minority groups, and where many development agencies are supporting development initiatives. The lack of a strategy to work together in these geographic areas is a missed opportunity to promote sustainable achievements.

Gender Mainstreaming

- No information was available about FAO gender policy implementation in the climate change programme although high participation rates of women in the Northern Mountains project were apparent.
- FAO has a gender focal point, but gender mainstreaming is not highlighted in projects or programmes. Gender requirements were not mentioned by local partners in projects supported by FAO. At one stage FAO staff joined activities of UN Women, but this stopped when the staff left. The development community in Vietnam is very familiar with gender mainstreaming:
 - UN Women is a key agency facilitating gender mainstreaming and climate change in Vietnam. They have cooperated with NGOs such as CARE International to conduct DRR and CC research and to facilitate policy development with Vietnamese government agencies.
 - Gender mainstreaming has been an important theme among development agencies in Vietnam since at least the year 2000, the lead being taken by UNDP and Oxfam GB. Research on gender and climate change has been carried out at policy level and grassroots level. Oxfam has cooperated with other NGOs and with the Vietnam Women's Union to establish a training curriculum on DRR, climate change and gender.
 - The NGO Climate Change Working Group in Vietnam is in the process of introducing Gender Mainstreaming Guidelines for climate change adaptation projects. Vietnam's legal framework for gender equality provides a strong basis for action in areas or situations where equality remains a challenge.

Therefore FAO has an ongoing opportunity to take advantage of existing experience and networks, to plan and include additional gender mainstreaming activities in its programmes and projects, especially CSA and REDD+.

- Key challenges of gender mainstreaming in Vietnam are:
 - Although women and men have equal status in terms of access to land according to law, it is still common practice for men to have their names alone on title deeds. This creates difficulties for women to access productive resources including loans, and to have equal decision-making in the household. This is especially true for ethnic minority women in mountainous areas, where FAO is active.
 - Limited understanding and skills in gender, of key government staff and government research institutions, remains a challenge. Without understanding the importance of gender mainstreaming and without necessary skills and budgets, gender mainstreaming is difficult to achieve, even with support from FAO.
 - In many of the ethnic minorities areas of Vietnam, local culture and customs within the homes and community sphere are prevailing. It is important to have an in-depth knowledge of these cultures and customs in succeeding gender mainstreaming efforts at grassroots level. Due to the high number of ethnic groups in Vietnam, cultural understanding of all various ethnic groups particularly the most disadvantaged ones requires time and resources for development workers and agencies.

Partnerships

- Climate change partnership projects have included UN-REDD, CSA and various small scale TCI collaboration with World Bank and IFAD.⁶³
- The comments on partnership arrangements with FAO mimic those provided to earlier evaluation missions on forestry work – “FAO prefers working mainly with government organizations although there is an increasing need to work with the civil society and private sector; other prospective partners have more available technical expertise and resources, and are more implementation-oriented, with relevant national level experience and local presence.”⁶⁴
- The CSA project and others have established working partnerships with key institutions and prospects for greater collaboration on climate change have been reported.⁶⁵ This has not always been the case.
- The evaluation of Phase I of UN-REDD also found that government partners, civil society and other key stakeholders were not much involved in programme design. Civil society's role in programme implementation was confined to participation in networks and working groups. Subcontracting NGOs as service providers was efficient but engendered weaker ownership of resulting processes and products than if they had been more equal partners in the readiness process.⁶⁶
- A similar message to the forestry mission was heard in the climate change mission. Many of FAO's partners complained about FAO being too bureaucratic and inflexible. There was also a view that FAO should work more with civil society organisations.
- Other organisations (World Bank, UNDP, MRC, ADB) are also working on frameworks to guide adaptation investments based on downscaled climate modelling, climate impact assessment on agricultural practices, household surveys of risk variables and responses, and planning aimed at climate-sensitive provincial, district and commune development plans.⁶⁷ There are no external linkages with the CSA project. The use of mathematical modelling to determine climate change impacts, costs and investment strategies can add an element of theory that is not always understood or relevant to some stakeholders.
- Partnership relationships have had a few some problems according to interviewees: Phase I UN-REDD experiences⁶⁸, and FAO-UNEP POPs coordination and administrative problems⁶⁹ were suggested as examples of partnership implementation issues.
- Project partners generally had a very confined role in project design and implementation which limited their engagements and commitment to a specific set of deliverables. Implementing partners' ownership in the FAO climate change and DRR programme activities is not always evident.

⁶³ Includes Central Highlands Poverty Reduction Project; Managing Natural Hazards Project, Adaptation in the Mekong Delta (AMD) Project in BenTre and TraNam Vinh provinces, and Sustainable Rural Development (SRD) for the Poor Project in Ha Thin and Quang Binh Provinces.

⁶⁴ FAO, Strategic Evaluation of FAO'S Role and Work in Forestry, Final Report, OED, June 2012, p.95

⁶⁵ FAO, *Evaluation of FAO Cooperation in Viet Nam, 2006-2012*, Follow-up report to the management response, OED, August, 2014, p.6.

⁶⁶ Howard Macdonald Stewart and Steven Swan, Final evaluation of the UN-REDD Viet Nam Programme *UN-REDD Programme*, Geneva, April 2013, p.8

⁶⁷ For example: The World Bank, *Climate Change Public Expenditure and Institutional Review Sourcebook (CCPEIR)*, 2014; The World Bank, *Getting a Grip on Climate Change in the Philippines*, June 2013; ADB, *Climate change and rural communities in the Greater Mekong Subregion: A framework for assessing vulnerability and adaptation options*, 2014; Mekong River Commission, *Climate Change Adaptation Initiative 2011-2015 Programme Document*, July 2011.

⁶⁹ Carlo Lupi and Dam Quoc Tru, *Building capacity to eliminate POPs pesticides stockpiles in Vietnam Mid Term Evaluation Report*, March 25, 2013

- Although FAO has their Strategy for Partnership with Civil Society, the implementation of this strategy has not happened at country level in Vietnam. International and national NGOs and their networks have been active in the climate change agenda in Vietnam since 2008: in REDD+ with a strong focus on benefit-sharing and land ownership by ethnic minorities; adaptation and mitigation actions; gender mainstreaming in DRR and CC activities; mainstreaming DRR and CC into socio-economic development planning at all levels; food security and livelihood adaptation for small-scale farmers; indigenous knowledge and climate change research with focus on indigenous plants, crops, trees and farming practices, local breeds of animals and cattle, adapting to climate change, and community-based disaster risk management. Many FAO activities fall within the working areas of these NGOs and networks, in all geographic areas of the country. For example, in the northern mountainous region there has been a network of ethnic minority-led NGOs working on climate change and policies, supported by CARE International. The NGOs, donors, UN agencies' DRR network has been operating for many years, working in all areas of Vietnam. UNDP, UNICEF, UNHABITAT, WHO are among the many multilateral agencies which participate. The Climate Change Working Group of NGOs works on policy and implementation, sharing both adaptation and mitigation activities among its participants, which include UNDP and UN Women. There is also a climate change network for the Mekong River Delta based in the south of Vietnam, facilitated by CARE International, with participation of national scientists, practitioners and government agencies working on climate change in the Mekong Delta of Vietnam. FAO can support these institutions and networks to develop their capacity, particularly for policy advocacy. NGO staff have stated the view that FAO is an important UN agency, expected to play a stronger role in food security and nutrition, including by facilitating policy discussions between government agencies and civil society at national level, and by influencing the implementation of government DRR and CC policies.

Key Observation(s): FAO is not a partner in any of the major CC programmes except UNREDD; centralized administrative system in FAO are often noted as a constraint in using FAO expertise.

Organizational Learning

- Some institutional knowledge development benefits have accrued to partners where FAO had a longer term commitment such as in forest management. For example, the CSA project aided in development of scenarios and assessment of how socio-economic drivers interact with climate change.
- The Northern Mountains project also assisted in developing Guidelines for Integrating Disaster Risk Reduction and Climate Change Adaptation into Agriculture Development Planning Plans in the Phu Tho, Yen Bai and Lao Cai Provinces.⁷⁰
- One staff in charge of the emergency avian flu programme was assigned to become the DRR focal point (not CC) within FAO, shortly before the evaluation. The staff has not had much DRR capacity building opportunity, nor sufficient time to be engaged in DRR activities or networks outside FAO. A DRR and CC learning mechanism is not yet present or activated in the FAO office.
- FAO Vietnam has had some key evaluations of its programme, including REDD+, CSA projects and the past programme over 6 years. These evaluations provide valuable findings and recommendations on DRR and climate change. The extent to which these recommendations have been acted upon is difficult to see.
- Although FAO has activated workshops to promote CSA as a concept within the Ministry of Agriculture and Rural Development, the understanding and application of the CSA concept among government staff is still limited and varied due to their irregular attendance. The

⁷⁰ Bui Cong Quang, Luong Quang Huy, Tran Thuy Hai, Guidelines for Integrating Disaster Risk Reduction and Climate Change Adaptation into Agriculture Development Planning Plans in the Phu Tho, Yen Bai and Lao Cai Provinces, May 2012.

introduction of PhD scholarships for students under the CSA project is useful, but it is not a capacity building strategy which has wide impact. Some NGO network members were present in the CSA workshops, but engagement methods were not deployed within the CSA project. The mid-term evaluation of the CSA project identified a strong need for further training of CSA among NGOs in Vietnam, and that FAO can play a role in facilitating this, with eventual impact on a large number of beneficiaries.

Key Observation(s): It is difficult to assess how much knowledge exchange and development that occurred through training and workshops has led to organisational learning in the partner institutions. Most of the short term activities provided skills development for government staff and farmers (including almost 500 participants in farmer field schools).

Factors of Performance (As per evaluation TOR, i.e. FAO's strategy, resources, coordination and capacity, as well as any external factors)

- The quality technical inputs from FAO experts have contributed to selective aspects of national capacity. However, limited in-country staff presence and weak implementation oversight were noted as issues for the FAO climate change programme.
- Several examples were provided by interviewees where FAO had not provided effective follow-up to commitments (e.g., POPs project, ADB-FAO TA contracts) or administrative delays due to centralized procurement rules which reduced efficiency of project delivery. Lack of senior technical expertise on-the-ground appears to be a limiting factor in the view of other donor agencies' staff.

The key performance factors included the following:

- Evidence of short-term results that drive interest and adoption of CSA technologies;
- Collaboration with well-qualified and skilled national partner institutions is important in Vietnam;
- Narrow, often technical project and technical assistance designs that constrain the role and niche for FAO involvement and contributions to national climate change issues;
- Lack of clear strategies and processes for influencing policy level actions including policy implementation aimed at stimulating adaptation and mitigation measures in the agricultural sector;
- The lack of measurable baselines, outcomes, indicators of achievement and monitoring systems in FAO projects;
- High transaction costs with FAO involvement due to centralised and slow administrative processes;
- Insufficient FAO senior staff at the country office to have a major presence in climate change deliberations within the country; and
- Too often FAO partners are viewed as sub-contractors to deliver discrete technical components rather than as long term capacity development collaborators.

2.15 Zambia Country Mission Report - Agriculture

Names and Codes of Projects Referred to:

GCP /ZAM/074/EC Conservation Agriculture Scaling Up (CASU) in Zambia

GCP /INT/139/EC Climate Smart Agriculture: Capturing the Synergies between Mitigation, adaptation and food security - (DCI-ENV/2011/282019)

OSRO/RAF/307/COM FAO Technical Support to the COMESA-EAC-SADC Programme on Climate Change Adaptation and Mitigation in the Eastern and Southern Africa Region

Relevance

- Overall, the FAO intervention on CC adaptation/mitigation in Zambia is relevant to the following needs that have been listed by interviewees:
 - Despite the background of interventions in CA and its inclusion in agriculture policies, there is a lack of evidence on CA achievements related to CC. The CSA project intended to build evidence on CSA in order to influence policies and agriculture investment plans. In Zambia, the CSA work focused quite a lot on CA.
 - The introduction of CC issues in the country is recent and the institutionalization process is slow. There is a need of supporting it and mainstreaming of CC in policies.
 - There is a lack of knowledge and national capacities on CSA (e.g. no CC expert in the Ministry of Agriculture). The CSA project, through a scholarship programme, intends to support knowledge building. This is also relevant to the fact that most students lack resources to afford high level university studies, which is a limitation factor for knowledge building.
 - There is a lack of coordination of field interventions on CA (good coordination among donors). FAO has been supporting coordination on several projects and continues to do it on the CASU and on-going regional project (supported by COMESA).
 - The CASU project intends to support the scaling-up of CA through innovative approaches build on lessons learnt from passed project (see chapter on sustainability).
- FAO's has developed activities in the following areas:
 - Convening stakeholders: FAO has been supporting coordination of stakeholders involved in CA for many years.
 - Assisting on country enabling environment: FAO has mainly supported policy dialogue in the process of revision of the draft CC and Agriculture national policies. This has led to a higher integration of CC issues in the agriculture policy and a higher integration of agriculture in the CC policy. FAO is now in the process of supporting CSA investment frameworks, with the objective to accessing climate finance (GEF) for the government.
 - Strengthening MV₂C data and knowledge: Through the CSA project, FAO is carrying out several analysis in order to build an evidence base on CSA, which should support the elaboration of the CSA investment framework.
 - Technologies and practices: FAO has brought technologies for minimum tillage with animal traction, and has introduced e-vouchers for inputs distribution.
 - Field implementation: FAO has implemented several CA projects, always with the objective of scaling up CA. The ongoing project (CASU) builds on the experience of previous projects with a more sustainable approach.
- According to interviewees, FAO's comparative advantages are:
 - FAO's adopts an approach on facilitation of processes for technical assistance (does not come with closed solutions), which is appreciated by national stakeholders.
 - FAO is considered a very reliable technical agency. Technical competence and support is considered the main comparative advantage of FAO (other agencies don't have the technical competencies and hire consultants without providing a technical backstopping).
 - FAO is more aligned with government priorities than other agencies.

- FAO has good relations and is well accepted by both government and civil society organizations. This provides FAO with credibility and legitimacy for putting actors together and promoting coordination.
- FAO has the capacity to link experiences and competences from international and national levels. Global and national views feed each other.
- Expertise in investment planning (FAO investment center), a competency which difficult to find.
- The CSA pillar of food security is not much present in FAO CSA activities. The CSA project takes in account the vulnerability in some of the analysis carried out: 3 types of farmers are taken in account in cluster analysis: small, emerging, commercial farmers. There are no specific measures for reducing the food insecurity of the poorest in the CASU project. It may be implicit, or not, but there are some indications that CA require a certain capital to be adopted by farmers.
- FAO's activities in agriculture are focused on adaptation. Very few has been done on mitigation: the CSA project carried out on the Exact tool, and tested it. It was found that there is a need for domestication of some variables. This is addressed in FAO HQ.
- The extent to which the FAO's intervention can be considered country driven vary from projects. The CSA project has been designed at FAO's HQ and proposed then to Zambia. There is a certain level of appropriation of the project by the Ministry of Agriculture, but FAO remains the main promoter of the project. The CASU project has been designed in Zambia, and a higher participation and appropriation from stakeholders can be observed.
- Several stakeholders consider that most efforts on CSA in agriculture have been focused on CA. This has been also the case of FAO. There is a need for a more holistic approach (including irrigation, livestock, water management,...), already developed by other stakeholders such as the WB, ADB and UNDP. FAO has however contributed to the adoption of a more holistic approach through the policy dialogue promoted in the process of revision of the National Agriculture Policy.
- CC adaptation and mitigation is not enough mainstreamed in FAO's activities in Zambia. There is a lack of a more programmatic approach, and coordination within the FAO country office in Zambia. Each ongoing project related to CSA (CSA, CSAU, COMESA) has been designed at different levels (HQ, country, region) and separately without enough dialogue between the three levels. As a consequence, these three projects don't clearly explicitly contribute to the same more global objective. The three projects have clear common areas of work, and offer a potential to contribute to each other. For example, the findings of the CSA project analysis could contribute to improve the approach and activities of the CSAU project. However, this is not happening, each project is managed separately, in different processes, without coordination. The CASU team is among the stakeholders which criticize and question the methodology and findings of several studies carried out by the CSA project.
- CC is expected to increase the frequency and/or intensity of climates related disasters such as droughts and floods. Resilience to droughts is addressed through CSA and CA activities. Risk of floods are not enough addressed in the agriculture sector. It seems to be mainly addressed in the construction of infrastructures.
- Early warning including weather information has been described as an issue that needs to be strengthened in Zambia. UNDP and the World Bank are involved. It is not the case of FAO.

Effectiveness

- FAO has contributed significantly to the awareness on CC issues in the agricultural sector. It is described as the main actor who allowed a certain extent of CC mainstreaming in the sector. This has been through regional projects, and the CSA recent activities of promotion of policy dialogue in the frame of the revision of both National agriculture and CC policies. CC policy review is described as an inclusive process, where the civil society had the opportunity to provide a lot of inputs. The draft policy reflects critical issues raised by the civil society but still

lack more emphasis on capacities for implementation. The agriculture policy review was not so inclusive and some gaps are still reported (still too much emphasis on CA, capacity building at extension level, information, awareness of population, weather forecasting). However, the adoption of a more holistic approach has been achieved, with more importance for CC adaptation of solutions such as irrigation, livestock breeds, research on crop varieties, crop and farming system diversification, land use planning.

- Agriculture sector is considered by some interviewees to go ahead in the mainstreaming of CC as compared to other sectors. Inside agriculture, crops go ahead.
- Since its introduction in the country, FAO has contributed significantly to the scaling up of CA by bringing the Ministry of Agriculture on board, which has resulted in the institutionalization of CA, and its promotion through the extension services. CA is present since 1999 in agriculture policy documents, and in 2015 a significant budget will be allocated to CA on the budget of the Ministry.
- FAO has supported CA national coordination platforms on several projects. However, it seems that it has not resulted in an improved coordination. Some interviewees reported a low participation to the platforms, which work has been dependent on external funding on FAO projects. As a consequence, activities have been interrupted between projects. The CASU and COMESA projects have recently reactivated the national platform, and will implement an improved approach based on a more user oriented work (more useful and interesting for participants) and an assessment of capacities for coordination of participants. This may increase the effectiveness and sustainability of the coordination mechanism.
- FAO has also supported coordination of CA and CSA at regional level, through the COMESA project and a past project.
- The CSA project has built evidence on the following topics:
 - Conservation agriculture adoption and disadoption
 - Performance of conservation agriculture practices (on productivity, not mitigation)
 - Cost-benefit of conservation agriculture
 - Institutional analysis on the role played by institutions in risk management
 - Policy processes analysis
 - Review of current CSA practices
 - Analysis of the potential impact of CSA practices on food security
- However, on some topics (in particular adoption, disadoption, performance of CA practices), findings are not well accepted by stakeholders and have created controversy. The methodology adopted is criticized. This may be due to the fact that these findings question some of the work carried out for a long time by field projects and institutions, including FAO. The CSA project did not consult and adopt an inclusive approach with these projects/institutions. The findings and the evidence built will serve FAO and the Ministry of agriculture to develop an investment plan, under preparation. The plan is to submit projects from this investment plan to CC finances (GEF).
- In addition to this, another fact suggests that the CSA project findings and its contribution are not fully useful to the needs of stakeholders involved in CSA: UNDP has recruited the consultant who made the CSA project cost-benefit analysis of CA, because this analysis did not cover enough UNDP's areas of intervention.
- There are no evidence available on the performances and achievement of the past projects that have supported CA (in particular, the three projects funded by the EU Food Facility). The M&E systems of these projects may not have been entirely effective as there is limited data on what has been done and achieved.
- The CSA project supports capacity and knowledge building on CSA, through scholarship programme benefiting to 5 students in master and 1 student in Phd. The programme is still ongoing. Still on capacity building, FAO supports the Ministry of Agriculture for participating to the COP, through the sponsoring and coaching of participants.
- The CSA project has produced a manual for extensionist on CSA. It has been tested recently.

- ON mitigation, the main contribution of FAO is its participation to the REDD+. In addition to this, the CSA project intends to introduce the tool "EXACT" in the country. It has been tested, and needs for the domestication of some variables have been identified. According to the CSA coordinator in Zambia, this is being addressed on FAO HQ.

Efficiency

- Lessons learnt from passed initiatives, and available material produced by other stakeholders is not sufficiently valorized. The CSA project has not approached the Zambian Agriculture Researched Institute (ZARI), which has carried out a lot of research on CSA and/or CA related issues, with the support of USAID (18 million USD in 5 years). Interviews showed that, in addition to the loss of potential useful secondary data for the purpose of the CSA project, there might be some overlapping (CSA has made some modelling of CC while ZARI carried out an extensive study on the expected effects of CC). Despite the valorization of lessons learnt in past projects was intention for the CASU project, this was only partially achieved due to a too short time dedicated to the design of the project.
- The CSA project topics for the evidence building have been chosen both on the base of discussions carried out with Ministries of Agriculture, and on opportunities in term of availability of secondary data. This allowed to limit the cost of the project, as compare to a research project mainly based on primary data.
- The CSA project topics for the evidence building have been chosen both on the base of discussions carried out with Ministries of Agriculture, and on opportunities in term of availability of secondary data. This allowed to limit the cost of the project, as compare to a research project mainly based on primary data.
- There was a serious problem of management and monitoring of the past Food Facility CA projects, between FAO and the Ministry of Agriculture. This has created a lack of confidence between the two institutions for a while, which has affected the initiation of the CSA project, with a 6 months delay at the beginning. As a result, the CSA team had to rush in order to produce the expected outputs, which may have affected the process (e.g. inclusive approach with stakeholders).

Sustainability

- According to several interviewees, despite the progress made in the mainstreaming of CC in the agriculture sector, there are still challenges which may affect the outcomes and sustainability of the work carried out by FAO. Capacities in the Ministry are still limited, and there may be some conflictive or contradictory agendas that affect the transition from policies to practice. The agriculture policy has been very much focused on inputs subsidies (in particular fertilizers), which may be contradictory with the approach of CA and CSA. There is no full time CC focal point in the Ministry (the focal point dedicates about 40% of his time on CC issues).
- The coordination work of platforms supported by FAO in several projects in the past has not been sustainable. Coordination activities were interrupted when projects ended and stopped providing resources and incentive for coordination. The CSAU project team has intended to define an improved approach in order to make coordination more sustainable.
- There is a great controversy on the sustainability of the achievements of CA projects (FAO and others): two recent analysis (carried out by the CSA project and IAPRA on the same data) showed that national wise, adoption of CA is low, and disadoption is high. The following would be the reasons:
 - Labor intensive technologies
 - Benefits return (productivity) occur several years after investment; not appropriate for poor small scale farmers
 - Promotion of conservation agriculture has been done through short term projects
 - Lack of intensity of extension services
 - Government policy on subsidies on fertilizers affect adoption

- The CASU project intends to address some of the issues that affect adoption and sustainability:
 - Addresses the question of sustainable access to agriculture inputs (herbicides) and input quality
 - Creates marketing opportunities for legumes (through a WFP agreement for school feeding)
 - Generates (not through direct incentive from the project) an incentive for lead farmers to diffuse CA among follow-up farmers (incentive on the legume production supplied to school feeding programme produced through CA agriculture)
 - Builds a comprehensive database which should allow evidence base building on CA (objective of evidence on the adaptation potential of CA)
- Agro-forestry efforts have been very little sustainable. A lot of trees have been planted as part of a CA approach and the majority have not survived because of a lack of attention given by farmers. This is due to two factors: the very late benefit of tree planting on agriculture productivity, while an attention is required during the first years, and land tenure issues affect long term investment on land. The first issue is going to be addressed by the CASU project through the establishment of a reward mechanism for farmers who have maintained trees properly during 3 years.

Gender Mainstreaming

- More attention is given to gender mainstreaming and approach in FAO's activities in Zambia since the arrival of a gender focal point at mid-2013.
- About a year ago, a stock taking exercise was organized, and revealed that the only CC related project in implementation (CSA project) was not giving much attention to gender.
- This has been corrected after, with measures such as the revision of some products of the project (e.g. the manual for extensionists) by the gender focal point who allowed a better approach of gender.
- The CASU project has benefited from this improved attention on gender since its initiation. Gender has been mainstreamed in all activities, in particular, a baseline study in phase of finalization (related to crops, land ownership, decision making, access/control to inputs), the production of sex disaggregated data, and training material that integrate gender issues. A specific women empowerment strategy will be designed for the project, based on the findings of the baseline.
- The country office plans to carry out in the future a national gender assessment and a training for FAO staff on basic gender related issues.

Partnerships

- FAO is a privileged partner of the Ministry of Agriculture on CSA. FAO has been a main contributor to awareness on CSA, integration of CSA in policies and institutionalization of CA. However, this partnership is seen by some interviewees as too exclusive, while a more inclusive approach with all stakeholders involved in CSA and CA is required. Nevertheless, efforts have been made to establish partnerships with relevant actors for the CSA project activities: IAPRI, Ministry, University, regional food and agriculture policy networks, producers (unions). Very good willingness of all partners.
- FAO is part of a joint UN project that includes the REDD+.
- FAO is little visible in the CC Secretariat and technical committee, at the difference of UNDP which is very active. The secretariat has the mandate to mobilize resources for CC. It expects UN agencies to work in the same framework, in order to coordinate better actions and resource mobilization and monitoring.

Organizational Learning

- The CSA project (ongoing) is the first project implemented in Zambia with an explicit objective on CSA. One of the first objectives of the project is to build an evidence base on CSA, and several reports and papers have been produced recently. Linked to the lack of programmatic

and coordinated approach, it does not seem that these products are capitalized and used at the level of FAO in Zambia.

- The lack of a monitoring and evaluation system of the past FISRI projects have not allowed to contribute to an organizational learning on CA. This should be corrected in the ongoing CASU, which plans to create a data base aimed at carrying out a wide range of analysis on CA performances.
- This project, on the initiative of its coordinator, also documents all the processes of the project's implementation. However, there are no systems in place for valorizing this information within FAO.

Factors of Performance (As per evaluation TOR, i.e. FAO's strategy, resources, coordination and capacity, as well as any external factors)

- There is a lack of a more programmatic approach, and coordination within the FAO country office in Zambia. Each ongoing project related to CSA (CSA, CSAU, COMESA) has been designed at different levels (HQ, country, region) and separately without enough dialogue between the three levels. As a consequence, these three projects don't clearly explicitly contribute to the same more global objective. The three project have clear common areas of work, and offer a potential to contribute to each other. For example, the findings of the CSA project analysis could contribute to improve the approach and activities of the CSAU project. However, this is not happening, each project is managed separately, in different processes, without coordination. The CASU team is among the stakeholders which criticize and question the methodology and findings of several studies carried out by the CSA project.
- Delays (6 months) in the inception and implementation of the CSA project (see above), has affected quality aspects of the implementation (need to rush to achieve outputs):
 - Selection of student beneficiaries of scholarship: it was open to all students, while a better approach would have been to open it only to candidates already working in fields where they are expected to apply CSA.
 - 6 months extension planned to finish the evidence base and investment plan.
- There is a lack of technical knowledge on mitigation in the country. Need for more technical assistance (University of Lusaka)

Gender:

- No gender focal point in FAO until mid-2013
- The gender focal point has received an inception in Rome and been trained in Oct 2014
- Presence of a regional gender focal point in the sub-regional office available to support country offices. Support provided by the gender team in Rome
- Lack of knowledge on FAO gender policy among FAO staff; knowledge and capacities on gender issues vary a lot among staff
- Good commitment of FAO staff
- Lack of knowledge and commitment from partners
- The country has not been affected by serious climatic variation in the last years: this may reduce the interest of some stakeholders on CC issues, and the feeling of a need of changing agriculture systems.
- There are limited capacities in the government: resources (FAO needs to fund all initiatives in the established partnership); Lack of technical knowledge; lack of a full time CC focal point in the Ministry of agriculture.
- The government is the main institutional partner of FAO, but should not be always the implementing partner (not always the more capable). However, there is an expectation from the ministry to access resources through projects.
- CSA project intend to cover the 3 agro-ecological areas of the country. However, region 1 and 2 are better covered, as there are more secondary data available in these regions, mainly because conservation agriculture has been much more promoted in these regions. This is a

limitation considering the need to provide evidence on region 3. Also, all the work done focuses on droughts and decrease of rainfalls, while there is a need to integrate floods as a result of an increased intensity of rainfalls.

- There was no representative of FAO during 2 years, which has affected internal coherence and visibility of FAO.

Annex 3. Project Reviews and Ratings

The following Project Reviews represent the observations and findings of evaluation field trips across the ten focus countries of the evaluation: Bangladesh, Bolivia, Kenya, Malawi, Morocco, Peru, Philippines, St. Lucia, Vietnam, and Zambia. The reviews rate the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). Where the criterion is not applicable or where insufficient information was available, "NA" has been given. It should be noted that these findings and ratings are indicative only, as they are based on observations from brief visits to project sites and brief consultations with beneficiaries and/or other stakeholders during the evaluation country missions. Due to time, logistical and other limitations, the investigations for each project review were not as in-depth as a project evaluation and the findings and ratings should not therefore be considered conclusive or equivalent to a full-scale project evaluation.

3.1 Bangladesh Project Reviews and Ratings⁷¹

BGD/01/004/01/99: Comprehensive Disaster Management Programme (CDMP): FAO Component: Sustainable Livelihood Adaptation to Climate Change (LACC Project)

Relevance (incl. Design) Rating: HS

CDMP fully in line with the intention of the Government of Bangladesh to strengthen the capacities of the Ministry of Disaster Management and Relief (MoDMR) as the ministry responsible for coordination, implementation and mainstreaming in relation to DRR policies and management in the country, including research, capacity building, and awareness raising on DRR related activities. The design of the CDMP has been flagged, also internationally, as a successful joint Government/DP effort to formulate a comprehensive national programmatic approach to DRR planning and management, including linkages to CCA, jointly led by the UN System (UNDP) and supported by both multilaterals and bilaterals. The LACC project interventions were highly demand driven, where activities were prepared in close collaboration with both central level and field officials from the Department of Agriculture Extension (DAE), through participative community level workshops as well as with suggestions and comments from other agencies. At the time of implementing the LACC project, the integrated DRR-CCA focus applied by the project, emphasizing demand driven, interactive CC research based on mutual learning through farmers' field schools, was seen as an innovative approach in Bangladesh.

Effectiveness Rating: S

The majority of the technological options introduced and developed through the LACC Project were well received and applied by the beneficiary farmers within the targeted communities. The LACC Project produced very useful pilot field level experiences for potential further upscaling and replication. These experiences have been widely documented in materials and presentations. The LACC Project successfully introduced participatory working modalities in the field through which farmers, researchers and extension officers came together for identification, validation, implementation and evaluation of the tests of suitable technologies for adaptation. The LACC project made large efforts to enhance data and knowledge linkages on DRR and CCA. DAE and FAO cooperated closely with the On-Farm Research Division (OFRD) at the Bangladesh Agricultural Research Institute (BARI) on enhanced climate resilience and livelihood security of farmers in two

⁷¹ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

extreme environments: drought (Northwestern part) and saline areas (the Coastal zone). The LAAC Project had a particular focus on communication and advocacy issues in relation to the lessons learned from the project and a Communication Assessment and Action Plan (CAAP) was developed for the Project. The Terminal Evaluation of the CDMP Phase 1 concluded that "LACC is a successful project under DAE/FAO, which has developed a range of climate change impact evaluation schemes, especially in saline and drought prone area..." On the downside, the potential synergies and linkages between LAAC and other interventions within the CDMP were not effectively utilized during CDMP Phase 1.

Efficiency Rating: S

The support and services provided by the FAO Office in Bangladesh in relation to the LACC project was delivered satisfactory in terms of timing and quality. Although the implementation of CDMP Phase 1 was delayed by more than 2 years (due to cumbersome approval procedures by the Government of Bangladesh, outside the control of FAO) the DAE and FAO managed to catch-up and implement most of the planned activities in the LACC projects within the approved budget and timeframe. The LACC Project benefitted from targeted and highly qualified technical expert support from FAO HQ in Rome by staff with extensive knowledge of Bangladesh context/conditions as well as of the DRR/CCA intervention area. Given that this support was provided by a small core team from FAO HQ, this also provided a strong element of continuity.

Sustainability Rating: MS

According to anecdotal evidence (no documentation available), the majority of the farmers are still applying practices/technologies introduced through the LACC Project. It has been possible through the DAE/FAO supported FFS interventions to follow and support the continuation of some of the activities implemented through the LAAC Project. Through the LACC project, FAO assisted the DEA to prepare a "Guide on good practices for climate change adaptation for extension workers" (2009). This guide is still being used within DAE and it is still widely available within DAE field offices. There is limited indication of direct promotion and replication of the technologies introduced to farmers through the LAAC Project to neighbouring households and communities. This was explained by the financial inability of the farmers, which often become a significant barrier due to the involvement of initial and regular operational cost, even in case of low-cost technologies. Knowledge and lessons learned from the LAAC Project during CDMP Phase 1 have not been systematically and effectively integrated and followed-up upon in CDMP Phase 2 (outside the control of FAO).

Gender Mainstreaming Rating: S

The "Situation Assessment" reports prepared for the two regions in Bangladesh where the LACC Project was implemented had particular focus on identification of gender specific vulnerability. It was found that women were more vulnerable to disaster and climate risk due to gender inequalities in various social, economic and political institutions and this was taken into consideration when the project interventions were designed.

3.2 *Bolivia Project Reviews and Ratings*⁷²

OSRO/BOL/104/EC (Phase I): Increasing local resilience to drought in the Bolivian Chaco building on successful strategies

OSRO/BOL/302/EC (Phase II): Geñoï - Consolidating local resilience to drought, on the basis of successful strategies to protect and strengthen traditional livelihoods and food security conditions of vulnerable families in the Bolivian Chaco.

Relevance (incl. Design) Rating: S

The project is well-aligned to the “Marco de Programación de País FAO-Bolivia (2013/2017)” which has “Climate Change and Sustainability” as one of the four prioritized intervention areas. The project was formulated on request by the Bolivian government and funded by ECHO. FAO was selected as the implementer due to its experience and good reputation from implementation of similar emergency projects in Bolivia. The initial formulation of the project was done mainly by FAO staff building on their own knowledge of the affected areas and previous experiences with similar types of interventions. One reason for the limited involvement of project beneficiaries in the formulation process is that the project had to be prepared within a relatively short timeframe. After project approval, there has been more involvement of local stakeholders e.g. in relation to the selection of participating communities (see below). The selection of communities for the project interventions was decided by the Local Chief, who selected some of the most vulnerable and challenging communities to work with in the region. The project is being implemented in an area that had previously only received support from development projects to a very limited extent. The project design reflects FAO's comparative strength on integrating emergency support with elements of disaster risk management and climate resilience, including elements requiring high technical capacity (e.g. in terms of eco-systems nationwide, good institutional relationships, lobbying and facilitation skills; broad experience from other countries in the region and for different regions within Bolivia).

Effectiveness Rating: MS

The project approach has to a large extent been supply-driven, offering different alternative cultivation practices and seed varieties to the farmers but without any particular strong involvement of the beneficiaries in the discussion/decision on what type of new practices to implement. When it became clear to the community members that the new practices would require a significantly higher work load, combined with the uncertainty related to any new practices, the large majority of the community members were not interested in participating in the project. Only a smaller group of women decided to participate, because they did not like to disappoint FAO! As a consequence of the above, the effectiveness of the adaption measures directed towards the beneficiaries at community level has been less than expected. Although the newly introduced cultivation practices and seed varieties seem to have increased production and made it more resistant to periods with drought or heavy rain for those groups of women that have participated in the project, the uptake of these practices by other community members was not high at the time of the visit of the evaluation. Within 5 of the 7 municipalities involved in the project in the Chaco Region, a “mesa técnica” has been established. The main purpose of these “mesas” is to serve as coordination mechanisms and for discussion of technical issues in relation to the development projects in the municipalities, to avoid overlap and ensure a certain coherence in the approaches applied. The mesas meet every quarter and procedures for the functioning of the mesas have been established. The project provides an example where FAOs role/work tends to compete/overlap with community work that could often be more effectively done by NGOs, which often have a better local knowledge and a more permanent

⁷² The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, “NA” may be given.

stay in local areas. Although publications on best practices have been prepared and distributed through FAO and the group of women has presented their experiences in different events, there is still little evidence on replication of practices across communities within the region.

Efficiency Rating: S

Compared to the relatively low budget of the project, the achievements have been satisfactory. The project has included realistic and concrete deliverables within a limited timeframe. The project moved slowly in the beginning which caused some but not significant delays in the implementation plan.

Sustainability Rating: MU

The supported groups of women visited by the evaluation in Salinas and Camiri had started with more than 20 members and were now down to 5 members each, which was considered an absolute minimum for the sustaining of the groups. According to the women, the main reasons for the high drop-out rate from the groups were the additional heavy work load and only small increases in income. The "mesas técnicas" will need further support to become sustainable and to be replicated to more municipalities. It is hoped that some of the NGOs working in the region will be able to provide a continued follow-up to the mesas within those municipalities, where they have a more permanent presence.

Gender Mainstreaming Rating: MU

The project was not designed with any particular gender perspective. Gender issues have only been implicitly considered through the project's strong focus on vulnerability within affected communities. In practice, and as things have turned out, the project has ended up supporting groups of women within some communities (e.g. in Salinas and Camiri), however this was not originally the intention of the project.

OSRO/RLA/101/EC - Preparedness and risk reduction in response to extreme climate events and water supply problems in vulnerable communities of the Peruvian - Bolivian highlands.

Relevance (including design) Rating: HS

This 18 month project was targeted to 6000 households in 60 communities in 3 provinces (El Collao, Yunguyo and Chucito) in the Puno region of Peru and 6200 households in 78 communities in 6 provinces (Pacajes, Bautista SAVEDRA, Carangas, Sur Carangas, Nor Carangas, Sajama) in the La Paz and Oruro regions in Bolivia. The target areas were selected on the basis of government vulnerability indexes, the recurrence of severe weather events, declaration of government emergency areas, proximity to current areas of FAO intervention and awareness of the unsustainable use of natural resources including water from the Desaguadero River basin, the tributaries to Lake Titicaca. This hydrological system includes a large part of southern Peru, western Bolivia and northern Chile and constitutes an area with major productive potential if local communities were better supported through preventative strategies to reduce the negative impacts of climate extremes on their livelihoods.

In 2010, a large expanse (80%) of natural grasslands in the study region were severely damaged by drought and severe frosts impacting on forage (oats, barley, alfalfa) planted at lower altitudes for hay making. The cold temperatures and lack of grazing and forage resulted in unusually high levels of sickness and mortality in camelids. The extremes in weather also led to higher than normal levels of pest infestation (weevils) affecting crop production with impacts on potato seed availability and yield. A project needs assessment found that the ability of these highland communities to cope with climate-related disasters was weak, due to a combination of poor budget management under emergency conditions coupled with a lack of access to local weather reports, infrastructure and knowledge which hindered their capacity to take preventive actions.

The project objective was thus to strengthen the capacity and resilience of the identified communities and local municipalities to adverse climate events. The broad range of project activities implemented in the regions (see below) were pertinent to FAO strategic priorities in CSA and CCAM helping vulnerable communities to build household and community resilience to climate extremes, introducing new techniques to diversify their agricultural practices and helping to build local capacity and knowledge of climate risks on agriculture.

The rationale and design using a mixed methods approach for implementation were well conceived and relevant to the local context. The project was also relevant to national (government) priority intervention areas (e.g. Marco de Programación de País FAO-Bolivia (2013/2017) and linked in well with national counterparts (Ministry of Rural Development and Transport, National Meteorological and Hydrological Service (SENAMHI) and the Civil Defense).

Effectiveness Rating: HS

The project was effective in delivering support to over 12000 beneficiaries (households) in Bolivia and Peru with a focus on three key sectors (i) food assistance, short term food security and livelihood support, (ii) disaster preparedness and (iii) water/sanitation and hygiene promotion. Their vulnerability towards climate related disasters was reduced through a combination of activities designed to re-establish the productive capacity of herders and subsistence farmers. A raft of activities were implemented including improving access and distribution of water resources; establishing community seed banks and seed storage facilities, community trial plots and household greenhouses; improving animal husbandry and veterinarian services (community veterinary kits); the establishment of forage seed banks and improved pasture management practices; and the implementation of community led Disaster Risk Management (DRM) action plans. Some actions were linked to and built on previous work (DIPECHO VI) to validate agricultural trials through pilot demonstrations and experimental trial plots to assess the impacts of staggered sowing dates in different agro climatic regions to determine the most favourable times of production. This provided new evidence to help farmers shift their agricultural calendars and reduce risks associated with unpredictable rainfall during planting.

The project was also effective in promoting a longer term process of bi-national institutional learning with good practices being actively shared between the two countries helped by training visits from Bolivian agricultural extension advisors to Peru to build local knowledge. There was also effective engagement with local actors and strong support from municipalities, although the short term nature of the project meant there was high demand from them for longer term infrastructural support rather than short term disaster response type interventions. The FAO has also provided effective support to local communities notably in Toledo to understand local norms, rights and legislation regarding land tenure playing a useful advocacy role (although not explicitly linked to CCAM).

Efficiency Rating: S

Evidence from the field visit to Oruro confirmed that project implementation in that region had been efficient. However, whether success was replicated elsewhere in other provinces was impossible to assess. In Oruro, FAO field staff were well embedded in the community, and had clearly developed close supportive relationships with local farmer groups, stakeholders and the municipalities. Given the short project time frame the major challenge for FAO (or others) will be in up-scaling the successful implementation measures in the selected communities to a much wider larger group of beneficiaries. However, adoption by those not involved in the project will of course depend on their willingness to engage and any financial support that might be offered.

The project was considered effective in meeting its target to improve access and distribution of adequate water resources (50 households), providing access to community seed banks, seed storage facilities, and establishment of community trial plots (9000 households), improved livestock animal

husbandry (veterinarian services, community veterinary kits, vaccination campaigns) and establishment of forage seed banks and improved pasture management (5000 households) and community Disaster Risk Management (DRM) action plans supported by municipal DRM committees and early warning systems (12000 households). But further support is needed to integrate local and regional level implementation of the EWS, and to find ways to disseminate the information coming from the EMS to other communities. For example, in Toledo, it was not clear who the direct beneficiaries of the EMS system were and who was taking responsibility for local level implementation.

Sustainability Rating: S

The short time frame for the project (18 months) was a constraint to developing long term sustainability. For the Early Warning System (EWS) in Toledo, its sustainability will depend on continued support for its use by the existing municipalities, promoting its benefits to other communities to encourage adoption and integrating the service into regional level plans on CCAM and DRR. Without active use and continued support the service will lose momentum and uptake. A key factor will also be political will at national level to acknowledge the threat of climate change, and support ongoing interventions and technical assistance at regional and local level. Given the short project time scale, sustainability will be dependent on follow-on projects to maintain momentum. Much of FAO's contribution to CCAM in Bolivia is currently being driven by its strong interest in DRR/emergency assistance; its activities in the agricultural and water sectors are thus fairly limited in terms of explicitly dealing with the longer-term challenges of CCAM. This was highlighted in Oruro where key informants stressed that DRR assistance does not resolve their long term fundamental challenges of CCAM – it's a responsive mode action to a problem that needs more structural assistance and FAO should be looking more at ways to focus on prevention rather than disaster reduction.

Gender Mainstreaming Rating: S

Many of the activities implemented in the project were relevant to women (acting as individuals and in farmer groups) and there was evidence of good engagement. Women were actively involved in initiatives relating to improving access to water resources, community seed banks and trial plots and animal husbandry (veterinarian services, community veterinary kits, vaccination campaigns). There was less obvious involvement by women in the use of the EWS.

OSRO/BOL/902/ITA: Promoting climate risk management and reducing vulnerability to strengthen sustainable agriculture production in selected regions of Bolivia.

Relevance (including design) Rating: HS

The rationale for this short project was to provide emergency assistance to support the rehabilitation of agriculture damaged by recurrent climate extreme events (cold waves and high altitude drought). The project had a specific focus on subsistence farming communities in Cochabamba, La Paz, Potosí, Chuquisaca and Tarija (agriculture) and Santa Cruz and Beni (livestock) building on previous DRR projects in Beni and Potosi with funding from ECHO and the Italian Cooperation. The specific objectives were to reduce the vulnerability of local communities through supporting agricultural production, mitigating environmental risks and establishing an operational early warning system. The project provided a valuable contribution to combating the impacts of climate extremes on vulnerable farming communities with good interventions at local and regional level. The project was very relevant to FAO strategic priorities including building climate resilience in smallholder agriculture (CSA).

Effectiveness Rating: HS

The project was effective in helping to increase levels of food security and agricultural production with over 7000 beneficiaries (families). Their vulnerability towards climate related disasters was reduced through a combination of activities including (i) new infrastructure (llama corals for

sheltering livestock, seed stores and micro-irrigation schemes), (ii) new risk management decision support systems (early warning system), (iii) training (in crop production, forage storage and in animal health), (iv) establishment of producer associations, and (v) the re-introduction of ancestral farming practices carefully integrated with modern farming techniques. Expansion of quinoa was also being actively supported as a cash crop.

Whilst the implementation of a diverse range of activities has certainly helped local communities to cope with future climate extremes, it is not clear which measures have had the greatest direct impact and contribution to CCAM and hence where future work needs to be focused. The role of the post-harvest silos, seed banks and bio digesters was not assessed as these were not visited.

Efficiency Rating: HS

Evidence from the field visit confirmed that implementation has been efficient. FAO field staff had developed very good working relationships with local communities and strong working and institutional links with key stakeholders in the municipalities. There was good evidence of integrating measures into existing farming communities to provide new sources of food and greater resilience to climate extremes, through for example, combining water harvesting techniques to create new fisheries and then using the pond runoff to irrigate vegetable gardens in the farmstead, and installing new infrastructure (drip irrigation) to promote multiple cropping practices and foster farmer group collective action. FAO has also worked hard to implement new techniques complementary to existing practices, by combining ancestral knowledge with new science (e.g. Villa Mercedes scheme). This has helped to create 'captive buy-in' from farming communities, particularly women's groups who view FAO as a key partner in supporting and developing their local familiar farming methods.

Sustainability Rating: S

There was strong evidence of community ownership and good engagement with FAO with local municipalities in the area visited which helps to build long-term project sustainability. The project had a sustainability strategy which is helping to build capacity and strengthen local technical knowledge in the region visited (Toledo). The new infrastructure (drip irrigation, seed storage and corrals) all have a long life span (>10 years) which helps build resilience and sustainability. The extension and training services provided by FAO should also benefit local farming communities to develop their own improved methods of farming to cope with future climate shocks.

However, FAOs focus is driven by its strong interest in DRR/emergency assistance; so its activities also need to deal with some of the longer-term challenges of CCAM, not just short term assistance. This was highlighted in Oruro where key informants stressed that providing DRR type assistance does not resolve the longer term fundamental challenges of CCAM in the area – it needs a greater focus and support for structural assistance to address CCAM more directly. This will help underpin longer-term sustainability.

Gender Mainstreaming Rating: S

The field visits demonstrated a strong component of gender mainstreaming and engagement, although this was not by design, but rather by circumstance. For example, the women's farmer group based in Camiri (part of OSRO/BOL/902/ITA) demonstrated gender empowerment with FAO playing an important role in supporting the women to change farming practices and adopt normative tools to improve crop establishment. The combination of using rainfall recording and a simple soil moisture balance methods had helped the women to reduce risks of crop failure from excessive drought during planting. FAO were using the lessons and experiences from this group (and four others) to promote wider uptake and adoption to 60 other families in the municipality. The activities of the Gender Focal Point in Bolivia were not entirely obvious.

3.3 Kenya Project Reviews and Ratings⁷³

UNJP/KEN/202/ITA: Addressing Gender inequity in Disaster Risk Reduction (DRR) and Resilience Building in the Arid and Semi-Arid Lands (ASALs) of Kenya

Relevance (including design) Rating: HS

The project aims to enhance women's participation and capacity in decision-making bodies, and to increase the use of nutritious drought-tolerant indigenous crops and the use of energy-saving technologies in the Arid and Semi-Arid areas of Kenya (the ARALs). These aims are considered to be highly relevant to the food insecure and poor who are mostly women, youth and the disadvantaged, as men migrate to the cities. This is also in line with the country needs, as reflected in the National Action Plan to respond to Climate Change, the Kenyan Agricultural Sector Development Strategy 2010-2020, and the Country Programme Paper on Ending Drought Emergency. Due to the historic build-up of local dependency on external food aid which consists of new varieties, the project was relevant by returning to traditional crops which are more resistant to drought, which is becoming more intense as a result of climate change. As men increasingly migrate from rural to urban areas, women increasingly shoulder all work in the family and community. Meanwhile, corruption is often present in newly established county structures. Women have limited understanding or capacity to engage with local decision-making agencies to raise their needs, including those on climate change and related disasters. The project is relevant in that it aims to address these critical issues from local to national levels. The project is also in line with the Intergovernmental Authority on Development's Drought Disasters Resilience and Sustainable Initiative Strategy (2013-2027) which addresses the regional priorities of food security. The project also contributes to the UN Millennium Development Goals and the Convention on the Elimination of All Forms of Discrimination Against Women.

Effectiveness Rating: S

The project has almost achieved its targeted objectives of input provision, consumption of highly nutritious crops and use of the energy saving stoves, and enhanced participation and decision making power of women into the government's organs, by the end of the project in June 2014, with the completion of most of its activities by the time of evaluation.

Efficiency Rating: MS

The Joint Partnership between FAO and ActionAid enabled the comparative advantages of both partners to complement each other, thereby achieving the expected project results with limited resources. There was, however, some delay in activities due to constraints from both organisations. The delay to the Letter of Agreement signed by FAO resulted in difficulties for input purchases by ActionAid, for distribution to farmers' households. This in turn caused some difficulties for careful preparation with farmers before the planting season.

Sustainability Rating: S

The project has achieved high levels of sustainability – environmentally, financially and socially. FFS continues its activities with support to microfinance, traditional crops, vegetables and breeds and composting. Support is also provided for income generation, cook-stove production and sale, and access to government extension services. The FFS groups have strong social benefits. Other donor agencies remain active in the region in support of FFS.

Gender Mainstreaming Rating: HS

The objectives and activities of the project embrace gender concerns. Gender analysis has been incorporated into Vulnerability and Capacity Assessments. The project focuses most of its activities

⁷³ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

with women's groups (due to the high percentage of working women in the project areas), from awareness raising, capacity development to empowering women to take active decisions and advocate for their needs and rights to local authorities and project partners.

UNJP /KEN/075/WFP: Joint Initiative between the Government of Kenya and Rome-based UN Agencies on Disaster Risk Reduction (DRR) on Resilience Building in the Arid and Semi-Arid Lands (ASALs) of Kenya

Relevance (including design) Rating: HS

The project aims to build sustainable food security for communities, through building resilience against climatic hazards and through enhancing livelihood strategies in the ASALs of Kenya. This is considered highly relevant to the needs of the beneficiaries, who are food insecure and poor (mostly women, youth, disadvantaged) people in the ASALs. The project works in the sectors of livelihoods, finance, disaster preparedness and markets. The objectives are also relevant to the national and local contexts. Nationally, the project is linked to the ASALs Disaster Management component of the EU-funded Kenya Rural Development Programme. The ASALs are highly vulnerable to droughts and other extreme climate events. Harvest failures are the norm, once per year. The local market is dominated by 'middlemen' who tend to exploit local farmers and fail to create stable market demand for farmers' products. Disaster management systems and staffing in the newly-established counties are not yet strong. This is in line with the country needs, as reflected in the National Action Plan to Respond to Climate Change, the Kenyan Agricultural Sector Development Strategy 2010-2020, and the Country Programme Paper on Ending Drought Emergency. The project is also in line with the Intergovernmental Authority on Development's Drought Disasters Resilience and Sustainable Initiative Strategy (2013-2027) which addresses the regional priorities of food security. The project also meets the organizational objectives of FAO, IFAD and WFP.

Effectiveness Rating: NA

The project was stopped after a year of operation, so it is not possible to evaluate the results.

Efficiency Rating: HU

The project was stopped due to lack of committed resources from FAO and budget cuts from WFP. The process of starting and stopping the project has undoubtedly caused wastage in resources, and disruption of plans among stakeholders. The cost of stopping is therefore high, and the circumstances leading to the stoppage should be examined to ensure similar wastage is avoided in future.

Sustainability Rating: NA

The project focused on capacity building activities through FFS and PFFs models, in resilient livelihoods, financing and disaster preparedness. The Project was designed to complement other Government of Kenya projects and other donor projects such as the Joint ASALs Programme.

Gender Mainstreaming Rating: S

The project design was based on gender checklists and criteria of three agencies: IFAD, FAO and WFP. It had a strong focus of women, as most women remain in the project areas while men migrate for work. However the project lacked the gender equality focused objectives.

GCP /GLO/270/MUL: Making agriculture part of the solution to climate change – Building capacities for Agriculture Mitigation

Relevance (incl. Design) Rating: S

The design of the project focuses on mitigation, which is not a priority for the country, even if the government is interested by mitigation co-benefits. However, the project is very relevant to the need to create knowledge and produce information on mitigation. In addition to this, while the first objective of the project is mitigation, it paid attention to match with institution and beneficiary priorities on adaptation and productivity.

Effectiveness Rating: S

The project is still on process. Measurements of GHG emissions of 3 agriculture/livestock breeding practices have been undertaken but findings are not available yet. Support to farmers for the adoption of CSA livestock breeding has been undertaken as planned and produced already some outcomes reported by beneficiaries.

Efficiency Rating MS/MU

The project has a limited budget and duration in Kenya. In order to improve the efficiency of the implementation and the opportunities to create impact, it was decided to add to an existing regional dairy production project. On the one hand, this is relevant in order to profit from existing structures and synergies. On the other hand, on the direct support to farmers for adoption of CSA practices, the contribution of the project is insignificant as compared to the scope of the regional project.

Sustainability Rating: MU

Field visits showed that only part of the proposed practices is being adopted by beneficiaries, who face challenges that are not addressed by the project: value chain (marketing opportunities), cost of the innovations. In addition to this, the production system that is proposed is far different from the traditional livestock production system in the region, and adoption requires a long term support.

Gender Mainstreaming Rating: MU

Gender relevant information was gathered at the pilot sites through baseline assessments, workshops, trainings, etc. in the planning stages of the project. However, an integrated gender approach was not evident in the project implementation in Kenya, while there are issues on gender equity and task sharing in the livestock production which were not addressed.

GCP /KEN/078/USA: Enhanced National Capacity to promote climate smart natural resource management in Kenya

Relevance (incl. Design) Rating: HS

While it is considered that in Kenya, there is a good level of awareness and mainstreaming of CC issues in the government institutions at national level, it is not the case at county and farmers level. The country has engaged in a devolution process, which includes a process of transfer of competencies to counties and raising awareness and capacities on CC at sub-national level is a critical issue.

The project objective to build capacities on climate change adaptation and mitigation technologies through the development of training materials and information dissemination, including at sub-national level, is very relevant to this context and need.

Effectiveness Rating: S

A manual on CSA for extensionists has been produced. Other outputs are still on process (organization of trainings on CSA in 16 counties). No outcomes registered yet.

Efficiency Rating: NA

No evidence available on the efficiency of the implementation of the project.

Sustainability Rating: NA

No evidence available on the factors affecting the sustainability of the expected outcomes.

Gender Mainstreaming Rating: U

Trainings that will be organized on CSA in 16 counties target 50% of women. However, there is no specific approach on what is the gender issues related to the promotion of CSA.

3.4 Malawi Project Reviews and Ratings⁷⁴

OSRO/MLW/202/CHA Emergency assistance to support food insecure populations affected by climatic shocks in six districts of the southern region of Malawi

Relevance (incl. Design) Rating: S

The project was relevant insofar that, as a response to extreme droughts and erratic rainfall in 2012, it provided agricultural inputs (drought resistant crop seeds and cuttings, fertilizer) accompanied by technical support such as training in conservation agriculture techniques, crop diversification and small-scale irrigation. The project did not include training in agroforestry techniques, although this technique is arguably needed for the area which has suffered heavy deforestation and is now prone to flooding as a result. Nonetheless, given the short time frame of the project (6 months), the provision of inputs and the trainings in Conservation Agriculture were relevant enough. The project did not explicitly address climate change although beneficiaries reported that they would appreciate knowledge training on CC issues. The project used existing social and institutional structures such as Community Based Organizations (CBOs) and Lead farmers.

Effectiveness Rating: MS

By using existing social and institutional structures, such as CBOs and lead farmers, the beneficiaries felt a sense of ownership of the project. In Thyolo, the CBO used the inputs to support a revolving fund whereby farmers contributed some grain in return for the inputs. The grain was then either stored in a grain bank, or sold for cash which went into the revolving fund. In this sense, the community took over the distribution of the inputs and the project implementers were happy to allow the CBO take ownership. Despite the stated objective of training of crop-diversification, beneficiaries felt this issue was not adequately addressed through the project. Beneficiaries reported improvements in plots where conservation agriculture had been adopted.

Efficiency Rating: MU

The project was delayed in the initial stages such that farmers did not receive the inputs in time for the 2012/2013 rainy season. To compensate for the delay, the project targeted winter production instead. Despite the targeting of winter production, positive results were observed and feedback from farmers suggests that the implementation was efficient from this point onwards.

Sustainability Rating: S

Ownership of the project was ensured by engaging with CBOs and existing lead farmer arrangements in the focus communities. As such, the CBO members, lead farmers as well as extension workers all expressed willingness to continue in extending trainings on conservation agriculture techniques. The seed varieties used were hybrids and the project did not use open pollinated varieties (OPVs) despite requests from extension agents. This might jeopardise the sustainability of the project as farmers might not be in a position to purchase hybrid seeds every year.

Gender Mainstreaming Rating: MS

Although more women than men were targeted by the project, most beneficiaries interviewed felt that there were not enough women lead farmers. Beneficiaries would like to see women trained in leadership skills so they can assume the role of lead farmer.

GCP /INT/139/EC: Climate Smart Agriculture: capturing the synergies between mitigation, adaptation and food security

⁷⁴ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

Relevance (incl. Design) Rating: HS

The project is very relevant to several needs of the country and expressed by stakeholders: increase the mainstreaming of CC issues and CSA in the agriculture sector, in particular considering the opportunity of the elaboration of a new agriculture policy; build knowledge and capacities on CC and CSA. The project is also very relevant to the new strategic orientation that the FAO office in Malawi wants to adopt and to the needs that the office has for this purpose: influence policy and develop knowledge and data.

Effectiveness Rating: S

The project has produced the expected outputs, or is in process of producing them, on the three components (evidence based, policy and capacity development), with the exception of the planned CSA investment framework, which has been substituted by a CSA strategic framework. This change is motivated by the low level of mainstreaming of CC and CSA in the agriculture sector, and the need to increase it before supporting an investment framework. This change is found relevant. The project has not produced outcomes or impact yet. One of the main challenges will be to succeed in influencing the new agriculture policy achieving a good level of integration of CC issues, while the first draft almost does not mention CC and the agriculture policy is almost exclusively focused on input subsidies and short term objectives of production increase.

Efficiency Rating: S

In general it is believed that FAO can have a higher cost-benefit and create a higher impact with projects such as the CSA project and in particular the evidence base and knowledge components, than with field interventions that are by nature limited in scope and have a limited impact. The project was appropriately managed by high quality staff with appropriate resources.

Sustainability Rating: U

For the evidence base component, data has usually been collected in partnership with national institutions, but the EPIC team in Rome has carried out the analysis and drafting. This approach has limited the ownership and capacity building opportunity for national partners, and in consequence eventually their capacity to replicate this type of activities and analysis. The project has no clear plan for further funding while it has initiated a longer term process than the initial duration of the project. An interruption of the project could affect the continuation of the process.

Gender Mainstreaming Rating: MU

The project does not integrate a gender approach in its design. However, gender has been increasingly integrated in the analysis carried out by the project.

OSRO/RAF/220/EC: Supporting smallholder farmers in southern Africa to better manage climate-related risks to crop production and post-harvest handling

Relevance (incl. Design) Rating: S/MS

The project is relevant to the need of building knowledge on CSA in the country. It mixes both participatory and controlled conditions research in order to assess the technical value of different traditional and imported practices and technologies for adaptation and risk management. It includes research on crop production and post-harvest technologies, which is relevant to the high level of losses registered after harvest. At least one participating partner in Malawi did not participate to the project design phase.

Effectiveness Rating: S/MS

Outputs and outcomes are in process. There is no visible achievement yet. Some delays in providing funds to a partner (the finance set up is very complex, with the money going from South Africa to Zimbabwe and then Malawi) may affect the monitoring of participatory research on the field.

Efficiency Rating: NA

No information has been collected on this criteria.

Sustainability Rating: S

Sustainability and replication of the practices and technologies that are being assessed in the project will depend on the quality of the dissemination of the results, and the national processes for scaling up the appropriate practices. Dissemination of results is a full part of the project design and it can be expected that a great attention will be given to it. However, the scaling up of the appropriate practices is not under the control of the project.

Gender Mainstreaming Rating: S

Half of the farmers involved in the field experimentations are women.

UNJP/MLW/049/UNJ: National Programme for Managing Climate Change in Malawi

Relevance (incl. Design) Rating: S

This project is one of the first initiatives of the Government of Malawi to tackle CC issues, with the support of the UN. FAO's contribution to the project is therefore relevant to government priorities. FAO's contribution is found relevant: the update of the land cover mapping is essential for planning CC adaptation measures and the work carried out for the implementation of a more reliable approach for production forecast seems to match with a real need.

Effectiveness Rating: U

Expected outputs and outcomes have not been fully achieved. The AQUACROP model for production estimations has not been validated with the support of FAO as it was planned, mainly because the project duration did not allow implementing three testing seasons as the validation requires. Another activity, the establishment of a crop weather calendar, has not been carried out. In addition to this, the land cover update has not been disseminated at county level, while it is at this level that it might be used for planning.

Efficiency Rating: NA

No information collected on this criterion.

Sustainability Rating: MU

The land cover study was finalized in Rome, which did not allow for a full ownership and capacity building process with national stakeholders. This could affect their capacity to replicate the same type of studies in the future.

Gender Mainstreaming Rating: NA

The process of validation of the AQUACROP model included the identification of reference farmers, which included both male and female farmers. There are no other elements of a gender approach in the project, however, the nature of the project does not offer opportunities for including a gender approach.

3.5 Morocco Project Reviews and Ratings

GCP /INT/130/EC: EU/FAO Improved global governance for hunger reduction: modelling system for agricultural impacts of climate change (MOSAICC)

Relevance (incl. design) Rating: HS

The rationale for this project was to develop a user-friendly interactive climate change (CC) impact assessment webtool, building on a previous World Bank study to assess CC impacts on agriculture. The MOSAICC tool provides significant functionality for different users (government, researchers, stakeholders), integrating a GCM downscaling tool, biophysical (crop) and hydrological models and

an economic (general equilibrium) model. This allows the user to simulate the impacts from a wide range of CC socio-economic scenario on water resources and agricultural productivity. The tool constitutes a valuable resource for evaluating CC impacts at a national level and for supporting capacity development and knowledge aggregation in Morocco and elsewhere. The project is highly relevant, and aligns well with FAO strategic priorities in combating climate change and understanding adaptation options (FAO-Adapt, CSA).

Effectiveness Rating: S

Published evidence (workshop reports, online reports, articles) suggests the MOSAICC project objectives have been effectively achieved, and clearly adopted a participatory approach with active engagement of end users in Morocco via local training/development activities. Interviews with key informants in Morocco confirmed awareness of MOSAICC but not widespread use. Maybe given the relatively high level of technical understanding needed for its use, uptake has been limited more to researchers rather than other beneficiaries in ministries and other stakeholders.

Efficiency Rating: S

A large proportion of project resources were used for model integration, testing and validation, to ensure it provides a robust, stable and intuitive platform and interface for user application. However, good uptake and support for the in-country training courses and feedback from participants attending confirmed that the webtool was well conceived.

Sustainability Rating: S

The webtool offers good scope for much wider uptake and sustainability beyond Morocco; it is currently operational in the Philippines and Morocco, with plans to promote its use in Niger, Peru and Guatemala. However, software tools have notoriously short life-spans unless there is active and ongoing provision of training and dissemination. Given that users need a relatively high degree of prior knowledge, its voluntary uptake by other stakeholders is likely to be very limited. Interviews in Morocco confirmed that the MOSAICC webtool is being used to a limited extent for decision support in various focal points (research institutes (INRA), ministry of environment and river basin agencies) but there is potential to extend this and ensure its sustainability.

Gender Mainstreaming Rating: S

The webtool is equally suited for application by male and female users. The training workshops also attracted a good gender mix. Gender mainstreaming was not a key issue in this project.

TCP/INT/3405: Appui à la phase intermédiaire du projet interrégional de lutte contre la pauvreté et la désertification et d'adaptation aux variations climatiques à travers la cogestion des bassins versants; and

GCP /INT/093/SPA: "Inter-Regional Program for Poverty Alleviation and Combating Desertification through Collaborative Watershed Management."

Relevance Rating: S

The aims of the two sequenced projects for watershed co-management have been relevant in light of the importance of watersheds for water provision, the state of forest degradation and desertification, the low income levels in Morocco's mountain areas, and the effects of CC on communities there. Community co-management and institutional strengthening at local sub-national government levels, although not a new approach globally, has been needed in the country given the command-and-control approach the government has taken and is seeking to move away from. The TCP project's aim was to continue the activities of a Spanish-funded interregional project, which included small investments for livelihoods, and to develop a model of integrated watershed co-management for a second phase of four years. However, the two projects are rather limited, and their relevance diminished, in the context of Morocco's similar and much larger government programme for participatory forest conservation and watershed management from 2005-2014 and amounting to 8

billion Dirham, which emphasized the multi-functionality of forest ecosystems and social and community development in forest areas, and was implemented at decentralized levels.

Effectiveness Rating: MS

The projects together appear to have been successful in generating improved livelihoods, delivering fruit trees to some households and livestock to others, including to women, and building small infrastructure to prevent flooding from rivers and large-scale water run-off from deforested hills that destroyed homes. As a result, the departure of households from the area has largely ceased. The Spanish-funded project also re-planted trees in denuded areas and established an experimental plot to test different indigenous species for their ability to grow at the site. However, after four years of project implementation in total, there has been little if any co-responsibility and community-governed practices for the sustainable use of natural resources, such as of forests for forest-product collection or for grazing, which is a major driver of deforestation. Whatever producer associations that exist were established before the project and they have their own rules about harvesting resources. The main change in the approach has been that while in past the government acted on its own, there is now consultation with the communities on what livelihood schemes should be implemented. It is unclear what lessons on co-management can be gathered, communicated and applied for larger-scale implementation.

Efficiency Rating: MS

The projects together have been less than cost-effective in that given their combined duration of four years there has as yet been no real introduction of co-management to the beneficiary communities.

Sustainability Rating: MS

The watershed co-management efforts will soon receive Swiss funding to continue for another three years. However, considering that they have been underway for four years and community participation in watershed resource management has hardly emerged, the prospects that any co-management gains will be sustained is not seen as likely.

Gender Mainstreaming Rating: S

A number of women were recipients of the livelihood schemes, but it is not known to what extent their situation in relation to CC impacts or the barriers they face in adapting to them were taken into account during the project's design. Specifically, the women received livestock and have benefited from them. They have reported increased revenues and been pleased with the veterinary assistance provided to them. The livestock scheme has in this sense helped the women to cope with flooding disaster and longer-term CC. However, as suggested earlier the project does not appear to have raised the awareness of the women and of the communities more generally concerning watershed co-management or led to any shared responsibilities for it. While the project provided the women with ownership of the livestock as resources, they had already organized themselves and have been active in associations to aid them in marketing and on other issues.

3.6 Peru Project Reviews and Ratings⁷⁵

TCP/PER/3404: "Asistencia de emergencia para la recuperación y rehabilitación de los medios de vida de comunidades productoras de camélidos sudamericanos de la provincia de Carabaya, Puno afectadas por el frío"

⁷⁵ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

Relevance (incl. Design) Rating: HS

The project is well-aligned under priority 4 (management of risks and disasters and CCA) of the “Marco de Programación de País 2013-2016”, the Country Programming Framework 2013-2016 signed between the Government of Peru and FAO. The project is also well-aligned to PLANGRACC which include activities planned for disaster prevention, vulnerability reduction, impact assessment and development of adaptation measures to climate change within the agricultural sector. The project came as a request to FAO from the Government of Peru for emergency assistance and build on previous FAO experience from Cusco. Due to the urgency, the initial project formulation was done fast and did mainly involve FAO staff. Afterwards, the project design and content was modified to better fit the concrete needs and circumstances in the project area and to increase the “value for money” (see below). The design of the shelters took place through a participatory process, involving representatives from the supported communities. The project design reflects FAO's comparative strength on integrating emergency support with elements of disaster risk management and climate resilience.

Effectiveness Rating: HS

The project is being implemented in an area that had previously only received support from development projects to a very limited extent. The project has successfully integrated elements of emergency assistance, disaster risk management, capacitation, organisation and commercialisation in the support to the alpaca producers, all elements of high importance for the alpaca communities to reduce disaster risks and vulnerability to climate change in the future. To this should be added a high degree of community participation. The project has introduced an innovative concept of construction of “multi-use shelters” for the alpacas, which was mentioned as a “preferred future model” by the key stakeholders and with clear scope for replication. Although not all of the shelter constructions had been officially inaugurated at the time of the visits by the Consultant, those shelters that were already in use provided good indications of their usefulness. According to the alpaca producers, the new shelters had resulted in higher survival rate among newborn alpacas due to the protection of the shelter from strong wind, cold and heavy rain. Likewise, the Consultant was able to evidence the good functionality of the shelters for different purposes, including vaccinations, and the alpacas were keen to be inside the fence of the shelters. Disaster Risk Management committees and cooperatives have been established within the supported communities and operational linkages have been established and activated to relevant institutions (central, regional and local governmental institutions, Servicio Nacional de Sanidad Agraria (SENASA) in Peru, credit institutions, commercial partners etc.). Disaster risk maps have been developed through participatory processes within the communities with facilitation from the project. The community members showed a good understanding of the use of the maps. SENASA has develop a plan for veterinary care for the communities and training has been provided to local promoters within the communities in identifying the most common diseases that occur as a result of climatic events, diagnosis and decision to cure and to prevent future diseases. The promoters are now successfully practicing within the communities.

Efficiency Rating: S

The project has delivered significantly above the expectations: Instead of benefitting 6 communities within 1 district (which was the expected result in the project document) the project has managed to benefit 18 communities within 4 districts without compromising the quality of the deliveries. This remarkable increase in beneficiary numbers has been possible through a very cost-effective project implementation, which has dramatically reduced the cost per shelter. This significant cost reduction has occurred through active participation of the community members in the construction of the shelters, instead of hiring labor from outside. Likewise, students from the local university have been added as additional manpower (technical assistance) to the project at a very low cost. The project was affected by some initial delays due to contracting procedures and climate conditions which has

required a project extension. However, despite the increased project coverage in terms of communities and shelter constructions the project has avoided additional delays.

Sustainability Rating: S

It has not been possible to make any comprehensive assessment of the sustainability of the project interventions since not all activities were completed at the time of the visit of the consultant. However, some indicative findings were:

- The project implementation has had strong focus on sustainability issues. E.g. the project has supported establishing and registration of cooperatives among alpaca producer within the communities, which is seen as a very important step to ensure sustainability of the project interventions. Through FAOs strong relationship with MINAGRI, it has through the project been possible to link the cooperatives to credit schemes and export markets, something that was not available to the producers previously (Agrobanco is now in close contact with the producers and a large Italian importer of alpaca fibers is currently assessing the potential for improved value chain development in the area). These strategic alliances with the commercial and financial sector are not only providing opportunities for sustaining of the project investments, they are also creating opportunities for further development within the area.
- The interest and motivation by the communities to participate in the project appears to be high. This was documented through the visit of the Consultants to some of the benefitting communities. The community participation has been very important for the success of the project and only 2 out of the 18 communities have had challenges in mobilization of the local people.
- From the interviews carried out by the Consultant, it became very clear that the most important single contribution from FAO through the project has been the facilitation of dialogue and collaboration between different stakeholders linked to the alpaca production. Previously, there were very limited or none interaction between the various stakeholders in the area and no NGOs are working there. However, the project has very successfully managed to bring the different parties together and has now provided the platform for continued interaction and support in the future. As an example, the regional government is now planning to include targeted future support to the alpaca production area into their development plans and the cooperatives are in the process of signing an agreement of a vaccination program with SANASA.
- New local governments (municipalities) will be elected in 2015. In order to mitigate any possible discontinuity in the support to the alpaca producers, the project has made sure to keep the main candidates in the loop of information on the project and invited them to attend various meetings and ceremonies.

Gender Mainstreaming Rating: U

Although the women are highly involved with the alpaca production, in particular in those periods when the men are looking for work opportunities in the nearby mining companies, the project design does not include any particular gender focus neither has the project implementation made any larger efforts to address gender concerns. As a consequence of this, the number of women that were trained as local promoters and selected for the local disaster risk management committees through the project interventions within the communities have been very few (in a few committees, a minimum quote for women participation had been established). It was admitted by the local FAO project coordinator, that due to the limited timeframe of project implementation (9 months) and the other key concerns, the gender aspects had to a large extent been neglected.

TCP/PER/3301: Plan Nacional de Gestión del Riesgo y Adaptación a los Efectos Adversos del Cambio Climático del sector Agrario para el período 2012-2021

Relevance Rating: HS

The plan was formulated under the framework of MINAGRI's Plan Estrategico Sectorial Multianual 2012-2016 (PESEM) to articulate strategies, policy guidelines, proposals and actions based on consensus among the three levels of government for risk and vulnerability reduction, and reduce the effects of CC on the agricultural sector. The PLANGRACC-A also reflected FAO's achievement and comparative advantage in helping to link DRR and CCA in planning for the agricultural sector, and according to the country's Sistema Nacional de Gestion del Riesgo de Desastres (SINAGERD). Also reflects national attention to impacts of CC on agricultural sector and food security, and not only on effects on urban areas.

Effectiveness Rating: HS

The process, initiated in April 2011 and finalized in July 2012 and involving consultations with regional governments at each stage, consisted of a diagnosis of the context; a gathering, processing and analyzing existing data for all regions and districts regarding various climate change patterns and the vulnerability of the agricultural and livestock sectors at these levels; planning, which consisted of identifying strategic foci for the Plan and linking project proposals and existing programmes to each of them; and formulation and Government approval of the Plan. The Plan consists of a set of strategies, specific objectives, strategic actions, and several project proposals at regional level.

Efficiency Rating: HS

Considering the relatively low cost of the project, its short duration, the significance of the Plan and its projected wide influence on the sector, FAO's regular programme resources were used efficiently.

Sustainability Rating: S

The Plan is likely to remain in place as it receives wide support both by government and the development community. However, its continued relevance and its effectiveness depend upon its implementation, which relies on the formulation of plans for DRR and CCA in agriculture at the regional and municipal levels. Harmonization between the Plan and new national plans for DRR and CC will also need to be achieved.

Gender Mainstreaming Rating: N/A

3.7 Philippines Project Reviews and Ratings⁷⁶

OSRO/PHI/403/UK: Emergency support to promote household food security and early recovery of sustainable livelihoods of small-scale coconut farmers severely affected by Typhoon Haiyan

Relevance Rating: HS

Project meets the acute needs of local people to recover their daily livelihoods in geographic areas severely impacted by Typhoon Haiyan. The relevant livelihoods options are primarily those which have been supported by FAO in other locations nationally and globally, therefore FAO has appropriate expertise to provide technical support. FAO's leadership of related livelihoods-themed networks at national and regional levels is highly appreciated by other development agencies.

Effectiveness and Impact Rating: NA

Inconclusive due to insufficient observation. When the evaluation team visited, the only activity available to visit was the CC module training for FFS for local technicians. This was successful and highly appreciated by the local technicians at municipality level.

⁷⁶ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

Efficiency Rating: U

Unsatisfactory due primarily but not solely to delays in purchasing of inputs. Inputs had still not been delivered to farmers one month prior to the scheduled completion date for the project.

Sustainability Rating: MS

Moderate likely. The significant training activities of the project are leading to greater capacity of local people and technicians. However the project lacks an overall sustainability strategy, and has a short duration. Continued funding from the donor agency is not guaranteed.

Gender Rating: MS

Women participation indicator is set at 40% of the beneficiaries, focusing on disadvantaged women and women's groups. However, there was/is no gender analysis before or within the project, and therefore gender cannot be mainstreamed.

Performance Factors

Performance is restricted by time pressure to complete the project on time, and by the limited number of staff who were recruited late. Delays in assessments, purchasing of inputs, and training courses, mean the project is unable to follow the best path for a satisfactory process-oriented approach, hindering overall performance.

General Conclusion

The project: Emergency support to promote household food security and early recovery of sustainable livelihoods of small-scale coconut farmers severely affected by Typhoon Haiyan aimed to cover a wide range of the activities needed by the poor and most affected groups in one of the poorest regions in the Philippines. The design process to reach the most needy target groups was appropriate and carefully executed, contributing to FAO's accountability to affected populations. The project includes a high quantity of capacity building activities in a diverse range of geographic areas. There has been delay in purchasing project inputs, facilities and livestock. This is partly caused by the necessary local application of detailed FAO and government procurement processes and quality controls. Another cause of procurement delays was the late recruitment of staff. The project now needs to enhance its implementation of Community-Based Disaster Risk Management practices with relevant local partners and government agencies from regional to barangay level, to thereby increase security of lives and assets, and to secure the agricultural and non-farm livelihoods which the project has been promoting in the longer term. Gender analysis should be carried out as soon as possible, and gender should be mainstreamed in all aspects of the project. The project is part of the Coconut-Based Farming System Programme, so its results should continue to feed into the performance of other projects within the CBFS which will continue to be implemented in the coming year.

GCP /INT/126/JPN: Assessments of Climate Change Impacts and Mapping of Vulnerability to Food Insecurity under Climate Change to Strengthen Household Food Security with Livelihoods' Adaptation Approaches, AMICAF

Relevance (Incl. Design) Rating: HS

Very High due to the national/regional/provincial/local scope and the integration of localized weather forecasting into climate-smart farmer field schools and extension activities. The project has been fully aligned with and supported by the country priorities and the FAO SO2 and SO5 objectives related to improved agricultural production and climate resilience. FAO contribution has included a) technical support for project concepts, funding, design and implementation, b) data and analysis on climate forecasts and impacts on agriculture, c) technologies dissemination (particularly with IRRRI seed varieties), and d) knowledge sharing and exchanges through publications and workshops. The primary contribution of the project has been to establish an innovative, nationally significant model of CCA/DDR planning and implementation.

Effectiveness Rating: S

High level of results due to the enhanced yield and resilience associated with new varieties and lines of rice under different climate stress conditions, the participation in and effect of climate-smart farmer field schools, and the improvements in extension advice from local weather forecasting. 'Innovations' in the local context included municipal climate information centers (sustainability concerns however) and climate smart farmer field schools approach for rice, corn and now being extended to other crops. No real performance data on the uptake of other diversification Good Practices Options – vegetables, fruit, livestock, etc., where marketing problems were encountered.

Efficiency Rating: MU

Low due to long delays in the application of MOSAIC climate modelling system and poor record of administrative reporting to government. Value for money affected by sustainability concerns.

Sustainability Rating: MU

Uncertain due to the primary focus on site activities/trials and farmer training rather than institutional capacity and resources to maintain the integrated approach and facilities developed in the project areas (although farmer acceptance of new rice varieties ensures sustainability of these GPOs). No clear sustainability or exit strategy. Sustainability approach based mostly on securing more donor funding.

Partnerships

Key aspect and strength of the project was to develop the DA-PAGASA-local government collaboration along with NGO involvement and mobilization of farmer cooperative and government extension support. FAO regional office and HQ had an active role in all aspects of the project. No collaboration with other related donor programmes especially in regard to larger scale watershed processes that affect FAO-funded site interventions.

Gender Rating: S

High participation of women in the project and the beneficiaries (although gender marking not undertaken).

Organizational Learning

The project showcases an integrated approach involving multidimensional mathematical modelling, household level vulnerability assessment, enhanced weather forecasting/early warning systems, testing of GPOs, and institutional planning and tools for CCA/DDR. Project outputs provide prototypes for further development in other regions and countries; an innovative, nationally significant model of CCA/DDR planning and implementation.

Performance Factors

Weak efficacy of the MOSSAIC modelling process that led to delays, short-term training with limited institutional development; availability of effective new rice seed varieties, various barriers to crop diversification, and regular and ongoing involvement of FAO technical staff were key factors affecting performance.

UNJP/PHI/054/SPA: Strengthening the Philippines Institutional Capacity to Adapt to Climate Change (MDGF-1656) Outcome 3.1 Enhanced Climate Change Adaptation Capacity of Communities in Contiguous Fragile Ecosystems in the Cordilleras⁷⁷

Relevance (Incl. Design) Rating:HS

Project completed in 2012. Fully aligned with country and FAO priorities, including UN *Delivering as One*. Evaluation stated MDG-F 1656 responded to the new Climate Change Law. Discussions suggest

⁷⁷ The ratings for this review are based on: Joel Beasca, *Final Evaluation Revised Report*, May 23, 2012.

that it laid the groundwork for a more integrated national-regional-provincial-municipal approach to CCA-DRR. Final evaluation states that the project performed well in the aspects of Relevance and Ownership.⁷⁸ The project provided preparation for the FAO-supported *Regional Plan of Action for Bicol Region* aimed at a “paradigm shift from reactive to proactive DRRM”.⁷⁹

Effectiveness Rating: S

Final evaluation states project performed well for Effectiveness. It concluded significant outputs achieved, some of which could have a strategic impact on climate change adaptation in the Philippines. *Climate Change Vulnerability and Assessment Tools* for the Health, Water Resources, Coastal Resources, and Agriculture/Forestry/ Biodiversity Sectors were completed. Evaluation stated results were confirmed by the end users. Five *Mainstreaming Guidelines* and *Capacity Assessments* were carried out among 13 NGAs and 10 Provincial LGUs. An underreported output - *Climate Projections for 2020/2050*, was also found to “show potentials of impact” but no data presented.

Efficiency Rating: MS

Planning and management constraints were faced reportedly due to the newness of the joint programming modality applied for the intervention, and gaps in applying RBM approaches. There were weaknesses in the programme, in terms of delayed staff hiring, later procurements and fund transfers, nonfunctioning of the M&E System, and the lack of a gender strategy.

Sustainability Rating: S

Final evaluation: “some indications of sustainability of the intervention, although in general, it concluded that it was too early to determine if the JP results had indeed become sustainable.” No apparent sustainability strategy. Reported that around 837 farmers have benefitted from the *Innovative Financing Scheme* in Agusan del Norte, but sustainability data not available.

Partnerships

“Adeptness in working with NGOs and other private sector groups” was noted as a key strength of the project. The partnerships with local municipalities were key delivery strategies.

Gender Rating: S

“Strong participation of women in the project areas” was reported. No gender strategy.

Organizational Learning

Project developed a M&E framework⁸⁰ but no evidence of implementation. Experiences reflect the conclusions from *Evaluation of FAO DRR Programme in Asia* - that institutional replication, upscaling and wider impact of technical good practices are not evident from short term projects, training alone has a limited impact on institutional change, and that nearly all project log frames lacked baselines, adequate outcome indicators and a sound results-based framework.⁸¹

Performance Factors

Engagement of local partners and councils was central to project results, provincial coordinators delegated for oversight had other duties.

⁷⁸ ILO, Evaluation Summary, Strengthening the Philippines' institutional capacity to adapt to climate change – Final Joint Evaluation, Evaluation Unit, May 2012; Joel Beasca, Final Evaluation Revised Report, May 23, 2012.

⁷⁹ Dept. of Agriculture, Regional Plan of Action for Disaster Risk Reduction in Agriculture 2014-2018, Bicol Region, Philippines, Feb. 2014, p. v.

⁸⁰ FAO/Dept. of Agriculture, A Framework for Monitoring and Evaluation of Good Practice Climate Change Adaptation Options in Agriculture, M&E Design, Methods and Analysis, MDGF 1656 Outcome 3.1, 2012.

⁸¹ FAO, Evaluation of FAO's role and work in Disaster Risk Reduction in Asia and in Latin America and the Caribbean, Annex 14 – Asia regional report, July 2013.

3.8 St. Lucia Project Reviews and Ratings⁸²

TCP/STL/3202: Enhanced capacities for disaster risk mitigation in agriculture, fisheries and forestry

Relevance (incl. Design) Rating: S

High relevance due to the vulnerable state of smallholder farmers and the lack of assets and income to recover from major storms. The project provided policy and capacity development support for disaster response and risk reduction, and targeted assistance to promote best practices and agricultural diversification and safety for fishermen. The project also established a new awareness of the need to control build-up of woody debris in the steep gradient streams, the source of much flooding damage. The project complemented government efforts to strengthen and diversify the agricultural sector that has declined rapidly after the loss of preferential trade protection with European countries.

Effectiveness Rating: MS

The project established a draft strategic framework for DRR and trained government staff in damage assessment and other aspects of DRR. It contributed to policy, data and knowledge, and household/farm level adaptation methods. The ex-post assessment determined that just over 70% of the planned outputs were delivered and that the project established DRR best practices. Procedures and formats for damage assessments were introduced and methods to reduce vulnerabilities were demonstrated, such as improved shelters for livestock and disease control measures, rainwater harvesting technologies, etc. Site visit to one RWH/small scale hillside irrigation project indicated limitations in the scope of soil and water conservation methods.

Efficiency Rating: MS

Some of the participants complained of delays and communication problems due to FAO procurement procedures. Not all of the small contractors selected by farmers were able to meet the expected timelines. Costs of some of the facilities (e.g., steel RWH tank) seem to be excessive given the level of results. The many small scale, diverse interventions and many locations tended to dilute the cost-effectiveness.

Sustainability Rating: MU

Some of the small scale risk reduction methods – hurricane clips, foot baths, backyard gardens have been sustained and replicated but larger scale methods such as irrigation systems and in particular the draft strategic framework for DRR have not been sustained. Most of the recommendations for follow-up actions to fully establish DRR systems and practices have not been implemented.

Gender Mainstreaming Rating: S

Identification of beneficiaries was based on transparent criteria associated with storm impacts. About one-third of the trainees in project workshops were female.

TCP/STL/3402: Emergency assistance for the recovery of vulnerable farmers affected by the December 2013 rains and winds

Relevance (incl. Design) Rating: S

The December 2013 'Xmas Trough' rains were a major unexpected event that caused significant damage. The project provided St Lucia and St Vincent & Grenadines with timely agricultural inputs and desilting and riverbed rehabilitation activities that helped to re-establish the agricultural

⁸² The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

production that was damaged by storms. The FAO support (\$320,000) complemented government emergency funding and involved a multi-agency task force - including IICA, FAO, CARDI and The Ministry of Agriculture, Rural Transformation, Industry, Forestry and Fisheries in a joint effort.

Effectiveness Rating: S

The project provided for 1. Clearing of Rivers and tributaries, 2. Rehabilitation of Critical Riverbanks, 3. Slope Stabilization, 4. Rehabilitation of Forest Roads, 5. Supplying of Equipment and Materials and 6. Education Programme, with one-quarter of the remaining funds to be spent in 2015. The work included removal of logs and debris from 12km of river which were used for craft making and charcoal. Twelve km of river banks were stabilized by the planting of trees, construction of contour drains and planting of vetiver grass barriers and 8 km of forest road rehabilitated by improving drainage, re-grading and filling degraded areas with laterite. (Effects on the flow regime are not assessed) A school and community awareness campaign on prevention of wildfires is underway.

Efficiency Rating: S

No efficiency issues were identified. The joint approach with IICA, CARDI and Ministry of Agriculture assisted project delivery. Upland erosion control would be a better long term alternative to de-silting agricultural lands/fish ponds.

Sustainability Rating: S

The project has consciously focused on long term risk reduction activities which have sustainability attributes especially in upgrading infrastructure. The replacement of riverbank trees that had been planted after hurricane Tomas could also be subject to future storms due to the vulnerability of immature trees. The long term sustainability depends upon long term, ridge to valley catchment area treatments.

Gender Mainstreaming Rating: S

Beneficiary identification was transparent and gender neutral, focused on vulnerability and damage attributes.

OSRO/STL/101/EC: Post Tomas hurricane Emergency agriculture based livelihood assistance in St Lucia

Relevance (incl. Design) Rating: S

The rapid response and the priority of the government to restore productive agricultural capacity made this \$600,000 project highly relevant to St Lucia. Direct financial assistance was provided to farmers for cleaning of drains on several hundred acres, building model banana packing sheds and use of backyard gardening kits. The project implementation was adjusted to meet the realities on the ground.

Effectiveness Rating: S

The project appears to have met most of its objectives - to restore productive capacity, rehabilitate affected farms, de-silt drains in banana farms, waterway and riverbank stabilization and clearing of debris. The project assisted 317 beneficiaries in the form of cash for work for drain clearing, land preparation and clearing of debris from farms and establishment of stream buffer zones. Ten training workshops on drain maintenance were held in all the agricultural regions with good participation and high levels of enthusiasm among beneficiaries. Production capacity of 369.2 acres of bananas has been restored with 15% increase in production from these waterlogged farms over two months.

Efficiency Rating: S

Sustainability Rating: S

Training workshops were provided to 300 farmers on drain maintenance and buffer zones along streams, in addition to the support for drain cleaning. Training was also provided on waterway and riverbank stabilization. These enhanced skills contributed to awareness and sustainability of DRR.

Gender Mainstreaming Rating: S

Beneficiary identification was transparent and gender neutral, focused on vulnerability and damage attributes.

3.9 Vietnam Project Reviews and Ratings⁸³

UNJP/VIE/037/UNJ: Coordinated and Integrated Disaster Risk Reduction Actions and Adaptation in the Northern Mountain Regions

Relevance (incl. Design) Rating: HS

Very high relevance given the vulnerabilities identified in the region and the climate change adaptation priorities established by the government. But limited stakeholder involvement occurred in the project design and caused significant changes during implementation to reflect the priorities of farmers. A database and spatial support tool and training by Politechnic University of Marche, Italia did not seem to have much relevance or subsequent use.

Effectiveness Rating: S

Good-moderate results since many farmers have adopted the new rice and grain varieties that were introduced but with resilience questions, unresolved marketing problems and limitations on climate change capacity building and mainstreaming results. The Final Evaluation⁸⁴ concluded that the project

⁸³ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

⁸⁴ PeaPROs Consulting JSC, Final Evaluation of Strengthening Capacities to Enhance Coordinated and Integrated Disaster Risk Reduction Actions and Adaptation to Climate Change in Agriculture in the Northern Mountain Regions of Viet Nam Hanoi, March 2012.

contributed to strengthening the institutional, technical and policy frameworks and coordination; (i) the production of rice seed with new techniques for harvesting, storing and maintaining the seeds, grass plantation and processing system for livestock raising, and ii) localised early warning systems. Enhanced capacity of the provincial and district officials for more timely and accurate weather and disaster information. MARD staff suggested that the project has changed the thinking about traditional rice varieties and the community based approach to addressing food security risks.

Efficiency Rating: S

Not very efficient due to field adjustment time and delay problems of some of the activities.

Sustainability Rating: MU

Adoption of new rice varieties was the main element of sustainability. But the project was stand alone and not a central aspect of the government programmes (limited mainstreaming) and the lack of direct connection to/capacity development with ongoing extension support was apparent.

Gender Mainstreaming Rating: S

Partnerships

Extensive partnerships occurred between FAO, their implementing partners – Disaster Mgmt. Centre, MARD, Dept. of Agriculture at provinces and NOMASI. But the district and commune stakeholders did not feel part of project decision making and were not fully informed. NOMASI stated this was a learning – more participatory are needed in future projects; there was also no obvious collaboration with other climate change programmes undertaking similar CSA projects in the country.

Organizational Learning

Increased learning about climate change due to new awareness created about climate smart seeds and trainings provided by NOMASI staff.

Performance Factors

A range of factors: availability of new rice and grass seeds that provide better yield and incomes, the role of short-term results that drive interest and adoption of CSA technologies, lack of availability of processes to influence policy discussions and limited technical expertise in climate change at the country office. The limitation of the new seeds are also a factor – they cannot be relied upon to withstand major cold or wet spells and alternative coping mechanisms are also needed.

GCP /INT/139/EC: Climate Smart Agriculture: Capturing the Synergies between Mitigation, Adaptation and Food Security in Malawi, Vietnam and Zambia – Vietnam

Relevance (incl. Design) Rating: MS

CSA is highly relevant to the national climate change strategy and the impact of CC on agriculture is a priority government concern. But the context for data collection by country partners separated by the analysis by FAO experts reduced the relevance of the project. The main purpose was to test FAO's theory and method for CC impact assessment. The extent to which the resulting proposals are integrated with Vietnam's GEF priority-setting or the national CC priorities and target programme is not explicit; i.e. mainstreaming was not a major aspect of the study (as distinct from other donor approaches). However, the project is highly relevant for FAO because it strives to define and test the general approach and modelling parameters and methods that FAO may use globally to advance CSA.

Effectiveness Rating: MS

Moderate-low results due to theoretical nature of the outputs and uncertainties of partners about how to use the results. Furthermore, the 'investment proposals' are not integral to the national development planning, budgeting and targeting but merely GEF-6 concept proposals in competition with many other proposals for Vietnam's GEF funding. The policy advocacy element – using the modelling results to influence policy level, faced particular constraints in Vietnam. According to the CSA mid-term evaluation, the modelling did not fully address CSA adoption and the macroeconomic effects associated with the policy options.⁸⁵ The potential to influence policy in Vietnam is probably low and this was also confirmed in the country mission discussion with the key partners who were unable to explain how their technical inputs would be utilized for enhanced decision support for climate change planning.

Efficiency Rating: MS

Low due to high costs of the project relative to outputs and outcomes achieved.

Sustainability Rating: HU

Uncertain due to lack of data The technical outputs of the project are intended to lead to creation of a climate smart agricultural investment strategy approach but the pathway toward this end result was not yet clear to many of the Vietnam participants. There is limited understanding of how the discussions and data compilation that stakeholders have been involved in will generate the anticipated methods, decision support tools and policy influence for CSA in Vietnam.

Partnerships

FAO engaged several NGO partners in implementation but not the overall design of the project. Vietnam had trouble generating the quality of data that the modelling required. The partners also considered themselves 'subcomponent contractors' to supply information or analysis to FAO HQ team and not responsible for the overall approach and results from the project. Low national ownership.

Gender Rating: NA

Uncertain due to lack of data

Organizational Learning

Training and engagement of national partners in CSA concepts was provided.

A research process (evidence base with policy simulation models, CSA technique adoption analysis) and policy process (institutional analysis, coupled with fostering dialogue with national government ministries).

Performance Factors

(i) Extent to which project strategy is understood and participatory design, (ii) efficacy and quality of inputs for the economic impact models, (iii) usability of the outputs, and (iv) need for evidence of short-term results that drive interest and adoption of CSA technologies.

3.10 Zambia Project Review and Ratings⁸⁶

GCP /ZAM/074/EC: Climate Smart Agriculture: Conservation Agriculture Scaling Up (CASU)

⁸⁵ FAO Office of Evaluation, Mid Term Evaluation of Climate Smart Agriculture: Capturing the Synergies between Mitigation, Adaptation and Food Security in Malawi, Vietnam and Zambia, April 2013, p. 40.

⁸⁶ The review rates the success of the project according to the GEF six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU). If the criterion is not applicable, "NA" may be given.

Relevance (incl. Design) Rating: S

Conservation agriculture is at the center of the agriculture policy for CC change adaptation. The CASU projects follows several projects implemented by FAO and intends to support CA scaling up valorizing lessons learnt from previous projects (sustainable access to inputs, market oriented solutions, improvement of the extension approach based on lead farmers) The project includes a strong M&E system in order to build evidence on the adaptation potential of CA. This is relevant to the need for having more evidence on CSA. CA may not be appropriate for the most vulnerable households to food insecurity, which would be a weakness regarding the CSA concept.

Effectiveness Rating: NA

The project started one year ago for a 4 years period. It is too early to assess the effectiveness. CA is considered as effective to maintain and/or increase productivity in a context of climate variability resulting in droughts.

Efficiency Rating: NA

Not enough information

Sustainability Rating: S

Lessons learnt in the past precisely intent to improve the sustainability of the CA adoption by farmers. It includes specific approaches for improving the sustainability of the access to inputs, tree planting maintenance, and marketing option of legumes.

Gender Mainstreaming Rating: HS

The project initiation benefited from the arrival of a gender focal point in the FAO country office. Gender is mainstreamed in all the activities of the project, in particular in a baseline. It is planned to design a proper women empowerment strategy based on the finding of the baseline.

GCP /INT/139/EC: Climate Smart Agriculture: capturing the synergies between mitigation, adaptation and food security

Relevance (incl. Design) Rating: HS

The project is very relevant to the need perceived by actors involved in CSA and CA to build evidence on the effects of CSA and CA. The project is very relevant to the need to continue efforts to mainstream CC and CSA into agriculture policies. The project is very relevant to the need increasing knowledge and capacities on CC and CSA in the country.

Effectiveness Rating: S / MS

Policy dialogue supported by the project allowed to increase the CC mainstreaming and integration of CSA into the National agriculture policy. An investment plan is in process of formulation as planned. The project has carried out the studies and produced evidence on the topics that were planned. However, some findings have created controversy and are not accepted by field practitioners who have a long experience in CA. This may due to a lack of inclusive approach in the planning and conduct of the research activities.

Efficiency Rating: MU

The research work is mainly based on secondary data, which reduces costs. However, some stakeholders argue that the use of some secondary data collected gathered for other purpose affects the reliability of findings. The research work did not use other works carried out by other stakeholders (mainly ZARI), which may reduce efficiency and create overlapping. The project started with a delay of 6 months due to past management problems between the Ministry of Agriculture and FAO. This resulted in a rush to finalize the research work on time, which may have affected the quality of the processes. The project is managed from FAO HQ, which affects its coherence and coordination with other FAO projects in the country, in particular the CASU project.

Sustainability Rating: MU

The lack of consensus on some findings of the research work may undermine its use by stakeholders, a part from the Ministry of agriculture. Some important activities, such as the formulation of the investment plan, are carried out in Rome. This may affect the ownership by national stakeholders and the Ministry of agriculture.

Gender Mainstreaming Rating: MS

The project initially did not mainstream gender in activities. Thanks to the creation of a gender focal point position in the FAO country office, gender has been better integrated in activities, such as the preparation of a manual on CSA for extensionists.

OSRO/RAF/307/COM: FAO Technical Support to the COMESA-EAC-SADC Programme on Climate Change Adaptation and Mitigation in the Eastern and Southern Africa Region

Relevance (incl. Design) Rating: HS

- The project is relevant to the need of increasing the mainstreaming and investment of CSA in the agriculture sector in Africa. This can be clearly seen in two of the three countries visited during the evaluation (Zambia and Malawi), where climate change issues are not yet enough mainstreamed in agriculture policies.
- The support provided to coordination at regional and national level is also very relevant due to the lack of coordination and low efficiency of existing coordination bodies.

Effectiveness Rating: MS

- In the three countries, the main outputs observed are the reactivation of national coordination taskforces for conservation agriculture and the implementation of screenings of CSA mainstreaming in agriculture policies.
- However, project outputs are difficult to differentiate from other projects that contribute to the same objectives (E.g. the "CSA project" – GCP_INT_139_EC that supports the elaboration of CSA investment frameworks; the "CASU project" in Zambia - GCP_ZAM_074_EC – that supports the scaling up of Conservation Agriculture including coordination at national level).
- At regional level, the project has supported the creation of two regional coordination task forces in Southern and East Africa. These structures have been recently created and there are no outcomes visible yet.

Efficiency Rating: NA

- No evidence has been collected on the efficiency of the project implementation. However, the management technical coordination structure seems to be confusing, with a split of responsibilities between Accra, Johannesburg and Addis Ababa.
- There is a low ownership by country offices in the project that have been proposed from the regional level.

Sustainability Rating: MU

- National conservation agriculture coordination structures have existed for years in at least two of the three countries visited, and have not been sustainable. In Malawi, an approach has been designed by the project to propose a new approach which would be more oriented on demands and needs from participants. This is expected to improve the interest of participants, and therefore the sustainability of the structure. In Kenya, there is no evidence that lessons from the past have been learnt in order to increase the sustainability of the coordination structure.
- The regional task forces are hosted by FAO, and rely fully on FAO for the provision of meeting-spaces and resources for organizing the missions.

Gender Mainstreaming Rating: NA

- No evidence has been collected on the gender mainstreaming in the project.

