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TERMINAL EVALUATION REPORT

PROMOTING CLIMATE RESILIENT WATER MANAGEMENT AND AGRICULTURE PRACTICE IN RURAL CAMBODIA

Courtesy: Pinreak Suos, 2013

JANUARY 2014
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Acknowledgement

The TE team would like to express its sincere thanks for unlimited feedbacks, comments and availability from the project team, Mr. Hok Kimthourn, the National Project Manager, Mr. Suos Pinreak, the National Project Adviser, Mr. Ung Dara Roth Moni, the Policy Adviser, and Mr. Meas Bunly, the Project Communication Officer at UNDP Country Office, and Ms. Keo Kalyan, the UNDP Programme Analyst who have contributed largely to the terminal evaluation by providing relevant and timely information in a transparent and constructive manner. Their inputs were very useful to the evaluation team to ensure that the TE report fully captures all necessary parts of the whole project implementation.

Related line Ministry officers, MAFF, MoWRAM, MoWA and MoE were very helpful during the TE mission. It geared the understanding of the evaluation team during the mission, regarding the project context, coordination and implementation, about progress made or shortcomings throughout the project lifetime. Their comments for the future directions of any potential project related to climate change were also valuable.

In addition, unforgettable provincial officers in the two provinces including experts from provincial departments of agriculture, water resources and meteorology, and women affairs, provincial project management advisers, provincial administration officers, and project advisers must be mentioned for their friendly sharing of all needed information without hesitation and hidden agenda. Their kind assistance and support during our visits in the field were very appreciated.

A particular gratitude goes to the local leaders, Commune Councils members, village leaders, Community Groups members, and all stakeholders for their warm welcome and time, in sharing their experiences and knowledge about the project.

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Project overview

GEF Project ID	3867
UNDP Project ID	00069653
Total budget	US$ 3,090,350
Project starting date	September 2009
Estimated ending date	November 2013
UNDP contribution	US$ 1,240,350
Global Environmental Facility contribution	US$ 1,850,000
Parallel funding: Royal Government of Cambodia	US$ 180,000
Location	Choam Khsan District (Preah Vihear Province) and Chit Borei District (Kracheh Province)
Focus area	Environment and Energy

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Acronyms and abbreviations

ADB	Asian Development Bank
ALM	Adaptation Learning Mechanism
APR	Annual Project Report
CARDI	Cambodian Agricultural Research and Development Institute
CCBAP	Cambodia Community-Based Adaptation Programme
CCCA	Cambodian Climate Change Alliance
CCCSP	Cambodia Climate Change Strategic Planning
CIDA	Canadian International Development Agency
CPAP	UNDP country programme action plan
CPD	UNDP country programme document
CO	UNDP country office
D&D	Decentralization and De-concentration
DFATD	Department of Foreign Affairs, Trade and Development
EA	Executing Agency
ERC	Evaluation Resource Centre
ET	Evaluation Team
EU	European Union
EWS	Early Warning System
GEF	Global Environment Facility
GEF EO	GEF Evaluation Office
FSP	Full Size Project
FWUC	Farmers Water User Committee
IA	Implementing Agency
IFAD	International Fund for Agricultural Development
IRDM	Integrated Rural Development Module
LFA	Log frame Analysis
LGCC	Local Governments for Climate Change
M&E	Monitoring and Evaluation
MAFF	Ministry of Agriculture, Forestry and Fisheries
MoI	Ministry of Interior
MoWA	Ministry of Women's Affairs
MoWRAM	Ministry of Water Resources and Meteorology
MTR	Mid-Term Review

NAPA	National Adaptation Program of Action
NAPA FU	“Promoting Climate Resilient Water Management and Agriculture Practice in Rural Cambodia”, NAPA Follow Up project
NCCC	National Climate Change Committee
NCDDS	National Committee for Sub-National Democratic Development Secretariat
NGO	Non-Governmental Organization
OFTA	On Farm Adaptive Trials
PADEE	Project for Agriculture Development and Economic Empowerment
PDA	Provincial Department of Agriculture
PDoWA	Provincial Department of Women's Affairs
PDoWRAM	Provincial Department of Water Resources and Meteorology
PIF	Project Identification Form
PIMS	UNDP GEF project information management system
PIR	Project Implementation Report
PPCR	Pilot Program for Climate Resilience
ProDoc	Project Document
PSU	Project Support Unit
PT	Project Team
RBM	Results Based Management
ROAR	Results Oriented Annual Report
SCF	Strategic Climate Fund
SCW	Save Cambodia Wildlife
SIDA	Swedish International Development Agency
TE	Terminal Evaluation
TER	Terminal Evaluation Review
ToR	Terms of Reference
UNDAF	UN development assistance framework
UNDP	United Nations Development Programme
VRA	Vulnerability Reduction Assessment

Executive Summary

This report is the result of the TE mission which took place in October and November 2013. It was conducted according to the 2012 "Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects". The TE team prepared this report based on project documents review and the results of field interviews and meetings with senior Ministry officials. Data analysis was conducted in a systematic manner to ensure that all the findings, conclusions and recommendations are substantiated by evidence and fact-proofing. At the end of the TE mission, the team drafted a first set of initial findings. A draft report was then submitted, including the evaluation scope and method, findings, conclusions and recommendations based on the criteria applied for evaluations of UNDP supported GEF financed projects: relevance, efficiency, effectiveness, impacts and sustainability. The table below entitled "Assessment against GEF criteria" is summarizing the results of the TE mission.

The overall result of the TE mission is very positive: the NAPA FU project has reached most of its initial objectives and outcomes. The TE team considers that the project management enabled substantial achievements at national, provincial and local levels.

In terms of key findings, in relation to the first outcome, provincial development plans in the target provinces have incorporated climatic risks such as annual emergency response action plans, awareness raising activities related to climate change, rehabilitation of irrigation schemes, etc. Commune Councils are more aware of the issues related to the alteration of the climate and the need to tackle it at the local level. This should be followed up in the perspective of any new phase of the NAPA FU project.

11,073 households in 52 villages, representing 55.5% of the target households received timely information on weather forecasts to cope with events such as severe floods. In response, some farmers start changing their farming practices, for instance by replacing late-mature rice varieties by short cycle varieties better fitting with seasonal changes. In addition, 1,470 households corresponding to 75 FWUC and representing 30% of the total target households are benefiting from 62 pump wells, 3 community ponds, 41 rain water harvesting containers and 10 solar pumps. These achievements by the NAPA FU project are not only visible in the field, but also when discussing the impacts of these installations with the beneficiaries.

Both at the national and sub-national levels, the project played a crucial role in supporting climate change priorities in national strategies and policies. From the Ministries to the Commune Councils, adaptation is better understood and taken into account, with lessons learnt from the project that can be disseminated to other areas, among the most vulnerable to climate change in the country.

Notwithstanding these findings and the progress made, many challenges remain and the efforts in promoting climate resilient water management and agriculture practices in rural areas must be continued and scaled-up. This requires increasing resources. This observation goes beyond the sustainability criterion.

The TE team emphasizes the need to ensure the highest sustainability of the project activities. From the assessment against GEF criteria, the evaluators consider that the relevance, efficiency, effectiveness and impacts of the project are satisfactory. The table below summarizes the results for the TE for topics such as M&E, IA & EA Execution, Assessment of Outcomes, and Sustainability.

Assessment against GEF Criteria

1. Monitoring and Evaluation	Rating	Findings
M&E design at entry	3 (Moderately Unsatisfactory)	There is no sophisticated design on M&E to be implemented in the project, but rather a simple though comprehensive M&E system. This limits the assessment of the outcome and impacts of the project.
M&E Plan Implementation	4 (Moderately Satisfactory)	While the M&E design at entry was not very sophisticated, it must be said that at the end, because of various good monitoring procedures being prepared and implemented during the project lifetime, the overall M&E plan implementation is positive.

Overall quality of M&E	4 (Moderately Satisfactory)	Despite limited in-depth study on each activity and its impact, and the limits of the M&E design, the quality of the follow-up and continuing evaluation is acceptable. This is due to the use of various monitoring tools including output log, field visits, spot check, audit, Project Implementation Reports, quarterly and annual progress reports, and the involvement of the experts of the PSU.
2. IA & EA Execution	**Rating**	
Quality of UNDP Implementation	6 (Highly Satisfactory)	The coordination and implementation of UNDP with line ministries and NGOs is visible. The implementation proved to be successful with the use of a technical sharing approach between the key stakeholders involved across the country.
Quality of Execution - Executing Agency	6 (Highly Satisfactory)	The coordination mechanism being assigned to the Ministry is one of the key reasons of the project's positive overall outcome.
Overall quality of Implementation / Execution	6 (Highly Satisfactory)	The implementation from the national to the local level was of high quality. Each level served differently in the progress made, on various technical issues.
3. Assessment of Outcomes	**Rating**	
Relevance	2 (Relevant)	The design for a first-of-its-kind project in relation to the NAPA has enabled to trigger various other climate change projects or actions across the country. The relevance of the project and of the outcomes are noteworthy.
Effectiveness	5 (Satisfactory)	The achievement and mechanism being used by incorporating other projects including IFAD/RULIP and PADEE were effective in the sense that it mainstreamed adaptation and allowed to promote resilient agricultural practices in other projects.
Efficiency	5 (Satisfactory)	The outcomes such as irrigation systems, water tanks, and solar pumps were efficiently reached: the project was able to rely at low costs on the existing national and local structures, despite the limited budget. The quality of the investments (climate proofed infrastructures) to resist to extreme events such as floods is sizeable and recognized as such by stakeholders.
Overall Project Outcome Rating	5 (Satisfactory)	The project has introduced new technologies into the areas which had brought new adaptive practices and positive impacts to the targeted areas. It improved the livelihoods of the farmers, through integrated farming systems and farmer groups. The overall project outcome rating is good.
4. Sustainability	**Rating**	
Financial resources	3 (Moderately Likely)	The continuation of the project into another phase under Canadian support is a sign of short-term financial availability, efficiency and proper financial resources management. Apart from this, there are a range of financial potential supports from other institutions like the ADB (PPCR) and other financial injection from CCCA. In addition, the financial sustainability issue has been addressed by UNDP through special studies, workshops, discussions with other donors, and preparation of another strategy on climate change for the Ministry. 30 PDoWRAM officials and FWUC members have benefited from trainings about fee collection and financial management of the facilities. A sustainable financial support has been designed for solar pumps, but it is still lacking for ensuring the operation and maintenance of the irrigation systems.
Socio-political	4 (Likely)	Promotion of climate change concepts initiated alertness to the Government which brought in the integration of climate change, made obvious with the recently launched CCCSP. Another important reform, the D&D reform strategy, must be pinpointed as it is seen as key to foster local institutions and facilitate the sustainability of the project at the local level.
Institutional framework and governance	4 (Likely)	The Project Support Unit (PSU) at the national level and the project coordination mechanism at the commune level paved the way for a good institutional framework and improved governance practices. The MAFF Climate Change Working Group is a firm establishment for climate change in the ministry in the long run, while the D&D reform is seen as improving local governance and enable institutional sustainability.
Environmental	4	The environmental sustainability of the project is high, given the

	(Likely)	purpose of the project itself.
Overall likelihood of sustainability	3 (Moderately Likely)	Although the quantification of specific impacts at household level is a missing puzzle, changes can be observed across the visited sites to the benefits of the targeted groups, especially irrigation system users, seed purification groups, crop variety and pattern changing.

Table 1. Rating against GEF criteria

1 Introduction

1.1 Purpose of the evaluation

The purpose of the terminal evaluation is to provide the relevant information to make an overall independent assessment about the past performance of the project. A particular attention is given to the impact of the project actions against its objectives, and in identifying key lessons to propose practical recommendations, especially given the fact that the project will benefit from new funding from the Department of Foreign Affairs, Trade and Development (DFATD) of the Government of Canada.

In accordance with the Terms of Reference, the objectives of the evaluation are to assess the achievement of project results, to analyze the quality, strengths and weaknesses of the project, to review how the project team has performed to implement the project activities, and if baseline indicators were appropriate to monitor the project.

The following complementary purposes have also been addressed, such as promoting accountability and transparency, and assessing and disseminating the extent of project accomplishments. Lessons are synthesized in this document to help improve the selection, design and implementation of future climate change adaptation actions by the Royal Government of Cambodia. The evaluation aims also at contributing to the overall assessment of results in achieving GEF strategic objectives towards global environmental benefit. In case of the NAPA Follow Up (NAPA FU) project, the question of *additionality* has been particularly scrutinized.

Finally, the purpose of the evaluation is also to gauge the extent of the convergence of the NAPA FU project i) with other UN and UNDP priorities, including harmonization with other UN Development Assistance Framework (UNDAF) and UNDP Country Programme Action Plan (CPAP) outcomes and outputs and ii) with Government policies and strategies, among others the Decentralization and De-concentration (D&D) reform of the Government and the National Adaptation Program of Action (NAPA).

1.2 Scope and methodology

In order to achieve the above mentioned objectives, at the beginning of the evaluation mission, an evaluation inception report was prepared designing the detailed evaluation scope (including the methods for data collection and analysis) and evaluation questions and detailing the methodology of the final evaluation process of the NAPA FU project.

The adopted approach started by gathering as much information as possible extracted from documentation, field visits and stakeholders interviews. Information extracted was analyzed, based on the following criteria: i) relevance, ii) effectiveness, iii) efficiency, iv) sustainability and v) impact. Site visits, interviews and meetings were organized in Phnom Penh, Preah Vihear Province and Kracheh Province. Interviews with various stakeholders were arranged via face-to-face meetings. The main stakeholders met by the evaluation team (ET) were the beneficiaries of the project, the main partners, donors, the civil society and staff of executing and other relevant agencies.

The sections below explain the agenda of the terminal evaluation of the NAPA FU project and the different steps of the methodology.

1.2.1 *Review of the documentation*

At the beginning of the evaluation process, an inception report was prepared detailing the working

plan, a provisional schedule, and summarizing the scope and the methodology of the evaluation, including such tools as the Results Based Management (RBM) chain and the evaluation criteria matrix.

In parallel, the final evaluation team undertook a full review of the project documentation, by analyzing the literature to identify the preliminary issues of the project and more generally, the major challenges of climate change and adaptation in the country, as well as the 2006 NAPA conclusions. From this preliminary review, the key questions were produced for the interviews, based on the UNDP evaluation criteria and ratings, the Project Logical Framework and the evaluation questions. The list of documents reviewed is annexed at the end of the report.

1.2.2 *Interviews with the projects stakeholders and field visits*

The final evaluation team looked over the performance of each component by assessing the relevance, efficiency, effectiveness, sustainability and impact. In addition, lessons learned in terms of content, quality and coordination were summarized for each component and are presented in this report.

The logical framework has been used to determine whether the originally planned objectives have been achieved, through the analysis of the outputs and the use of the monitoring and evaluation (M&E) indicators. Interviews with stakeholders have been organized, first with the members of the Project Support Unit (PSU), and also with the execution partners such as the Ministry of Agriculture, Forestry and Fisheries (MAFF), the Ministry of Water Resources and Meteorology (MoWRAM), the Ministry of Women's Affairs (MoWA), the Ministry of Interior, (MoI), the Ministry of Environment, UNDP CO and the regional office representative, members of local governments (province, district and commune), local beneficiaries and users' groups, and representatives of other funding agencies like IFAD, ADB, EU and SIDA. Persons interviewed are listed in appendix.

Interviews have been conducted in a structured or semi-structured manner by face-to-face discussions, telephone or email in order to learn about the perception of the project and its contributions to improved climate-resilient practices.

The ET visited two intervention sites to meet and discuss with key local stakeholders, and assess the benefits of the project. The two communes visited were Teuk Krahorm in the Preah Vihear Province, and Bos Leav in the Kracheh Province. The field mission included not only the interviews but also visits of installations and facilities resulting from the project support, such as solar water pumps and tanks, water ponds and irrigation systems. The interviews with the local beneficiaries consisted in meetings with water users groups, seed purification groups, persons in charge of the revolving funds, and commune councils. The average time spent to visit a commune was one day. The field visits included meetings and one-by-one staff interviews with the departmental authorities (PDA, PDoWRAM, and PDoWA) in Preah Vihear and in Kracheh. These visits took place from October 28 to 31, 2013.

Finally, on November 5, 2013, the evaluation team participated to the 3rd National Forum on Climate Change, with an opening ceremony by Prime Minister Hun Sen.

1.2.3 Evaluation criteria and analysis of the collected information

The preliminary findings from the analysis of the documents and of the interviews were compiled in a presentation which was circulated to the PSU and UNDP CO. Relevance, efficiency and effectiveness have been evaluated by answering a number of questions. In addition to the assessment of relevance, efficiency and effectiveness, the evaluation team has focused on key questions related to the project's contributions to the CPAP 2011-2015.

1.3 Structure of the evaluation report

The ET comprises two members, with complementary expertise in climate change adaptation and monitoring & evaluation. The ET includes Dr. Alexandre Borde, as international expert and Mr. Nimul Chun, as national consultant.

The evaluation report is structured according to the UNDP rules and procedures, especially the previously mentioned “Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-Financed Projects”, Annex F, “Evaluation Report Outline”.

2 Project description and development context

2.1 Context of the project implementation

Cambodia is more and more exposed to climate-induced events such as floods, sea-level rise or droughts, and the population is not prepared to cope with these extreme events. For this reason, Cambodia developed as early as 2006 its first National Adaptation Programme of Action to Climate Change (NAPA). The country is located in mainland Southeast Asia and covers an area of 181,035 km^2 with a total population of almost 15 million in 2012 according to the World Bank. Approximately 80% of this population lives in rural areas. Administratively, the country is divided into 23 provinces and 1 capital. The total of districts is 194 (9 Khan in Phnom Penh, 26 municipalities and 159 districts). The country has 1,633 communes with 227 Sangkat and 1,406 communes (MoI, 2013). The climate is characterized by a dry season from mid November to mid May and a rainy season from mid May to mid November. The annual average temperature is 27°C, and rises to a maximum of 38°C in April or May and falls to a minimum of 14°C in December or January.

In terms of economic growth, Cambodia is a least developed country, with a GDP per capita of USD 946 in 2012 and a significant total GDP growth rate of 5.8% in 2012 (World Bank, 2013). The rapid economic growth creates employment opportunities which contributes to the decline in poverty headcount, from 34.7% in 2004 to 20% in 2011. On average, agriculture has accounted for more than 40% of GDP and rural poverty remains a challenge, with 90% of the poor residing in the countryside. Agricultural production is dependent on the annual flooding and recession of the Tonle Sap Lake and the Mekong River, which brings fertile alluviums to the central plains. In 2006, the NAPA document proposed to build upon existing coping strategies implemented by local communities in order to enhance their adaptation capacity, with the objectives to i) understand the main characteristics of climate hazards in Cambodia (flood, drought, windstorm, high tide, salt water intrusion and malaria); ii) understand coping mechanisms to climate hazards and climate change at the grassroots level; iii) understand existing programmes and institutional arrangements for addressing climate hazards and climate change; iv) identify and prioritize adaptation activities to climate hazards and climate change. The UNDP/GEF project entitled “Promoting Climate-Resilient Water Management and Agricultural Practices” is a follow-up of the 2006 NAPA. The project started in September 2009 for a period of 4 years. It aims at increasing adaptive capacity of key stakeholders in water resource management to address the impacts of climate change, with a particular focus on water resource needs of the agriculture sector. The project identifies, prioritizes and drives policy reforms necessary to overcome constraints to the design, planning and implementation of technically and economically feasible measures on adaptation to climate change in the agricultural sector.

The following figure presents a map of Cambodia with the two targeted provinces.

Figure 1. Map of Cambodia (source: UN)

2.2 Project start and duration

The National Adaptation Programme of Action to Climate Change (NAPA) implemented in 2006 has defined priority projects to tackle the problem of climate change adaptation. The NAPA-FU project is one of the adaptation projects planned in the framework of the NAPA, focusing on agriculture and water resources management. The project started in September 2009 for a 4 years duration. It must be added that several events have caused some delays in the project at the start. The major one was the partnership set up with the 'Rural Livelihood Improvement Project' (RULIP) during the inception phase of the project, leading to the final choice of the two provinces. It aimed at benefiting from synergies between the two projects. Moreover, the Royal Government of Cambodia suppressed the salary supplements paid to governmental staff working on development projects, which led to a lack of investment of the Government into the project during the inception phase. Consequently, some of the actions expected to be carried out in 2010 have been postponed to 2011.

2.3 Problem that the project sought to address

In Cambodia, food security relies on rice cultivation, which is expected to be strongly affected by climate change. Indeed, the precipitation pattern is predicted to change, with more severe and frequent floods and droughts. The threat that climate change poses to food security in Cambodia is not sufficiently taken into account in governmental strategies and decision-making processes. Therefore, there was a critical lack of involvement from the Government to implement strategies in order to adapt agricultural and water resources planning to changing climatic conditions. Development planning processes needed to be considered in the long run while taking into account climate change impacts, which was a necessary criterion to ensure sustainability of the measures taken. Numerous projects attempted rehabilitating reservoirs and irrigation systems

without analyzing the future precipitation pattern. The project intended to set up a framework to encourage the integration of climate change considerations into agricultural and water resources planning and to strengthen institutional capacity to deal with climate change adaptation in the agriculture sector. Moreover, water use for human consumption, irrigation and sanitation is strongly dependent on climatic conditions. There was, and still is, a need to diversify water sources in order to be less vulnerable to climatic extreme events.

2.4 Immediate and development objectives, and expected results

According to the project document, the objective of the project is to "reduce the vulnerability of Cambodia's agricultural sector to climate-induced changes in water resources availability". Three outcomes support the achievement of the project objective:

Outcome 1: Improved capacity of local institutions to manage agricultural water resources in a changing climate

Outcome 2: Locally appropriate adaptation options demonstrated to reduce exposure to climate change-induced risks

Outcome 3: Lessons learned in project pilot sites replicated in other vulnerable areas of Cambodia.

The following table describes the outputs expected to be achieved at the end of the project for each outcome.

Outcomes	Outputs
Outcome 1: Improved capacity of local institutions	1.1. Commune Council plans and budgets address inherent climate risks in target districts.
	1.2. FWUCs and MoWRAM engineers trained in climate-resilient irrigation design
	1.3. Conflict potential in areas prone to climate-induced water shortages assessed and conflict prevention measures supported.
	1.4. A community-based climate information system on flooding and drought events established.
Outcome 2: Locally appropriate adaptation options	2.1. Improved rainwater harvesting facilities demonstrated in 20 villages.
	2.2. Resilient farming methods to climate-induced changes in rainfall intensity and distribution demonstrated.
	2.3. Resilient design and management of reservoirs, irrigation canals, ponds and dykes demonstrated.
Outcome 3: Lessons learned and replication	3.1. Increased public awareness and environmental education programs on climate risk reduction designed and implemented.
	3.2. Learning networks for climate-resilient farming practices established.
	3.3. Media supported (TV, radio) dissemination of project lessons
	3.4. Review of national policies on climate change adaptation based on lessons generated by the project.
	3.5. Experiences generated contribute to adaptation Learning Mechanism

Table 2. Outcomes and outputs of the project

2.5 Baseline indicators

The following table describes the indicators chosen for the monitoring of the project:

Description	Indicators
Objective: To reduce the vulnerability of Cambodia's agricultural sector to climate–induced changes in water resources availability	Reduction of farmer vulnerability to climate variability and climate change
Outcome 1: Improved capacity within local institutions to manage agricultural water resources in a changing climate	Percentage of Commune Councils' Planning and Budgeting Committees utilizing climate information, forecasts and scenarios for decision making and water resource planning Mainstreaming of climate risk reduction in water resource management programmes of MAFF and MoWRAM in the target districts
Output 1.1. Commune Council plans and budgets address inherent climate risks in target districts.	Number of commune development plans with climate risk safeguards and anticipatory risk reduction activities Provincial development plans with explicit climate change adaptation measures
Output 1.2. FWUCs and MoWRAM engineers trained in climate-resilient irrigation design	Availability of guidelines for climate resilient irrigation design in Cambodia Number of FWUCs able to operate and maintain climate resilient irrigation systems
Output 1.3. Conflict potential in areas prone to climate-induced water shortages assessed and conflict prevention measures supported	Existence of meditative mechanisms to avoid or to manage conflicts resulting from access to water resources Number of potential conflicts avoided or resolved
Output 1.4. A community-based climate information system on flooding and drought events established	Standardized communication structures for climate risk information are established Number of vulnerable households in pilot districts utilizing climate forecast information on seasonal or shorter timescales
Outcome 2: Locally appropriate adaptation options demonstrated to reduce exposure to climate -induced risks	Community-based adaptation measures adopted by households in target districts
Output 2.1. Improved rainwater harvesting facilities demonstrated in 20 villages	Number of households harvesting and/or conserving rain water in target villages for household and agricultural uses
Output 2.2. Resilient farming methods to climate-induced changes in rainfall intensity and distribution demonstrated	Area of agricultural land on which climate resilient farming practices and/or crops are actively adopted. Number of agricultural practices evaluated for their performance and resilience under different climatic scenarios
Output 2.3. Resilient design and management of reservoirs, irrigation canals, ponds and dykes demonstrated	Number of reservoirs, irrigation canals ponds and dykes re-designed accommodate longer dry periods and/or increased rainfall intensities
Outcome 3: Lessons learned in project pilot sites replicated in other vulnerable areas of Cambodia	Number of outside programmes, policies or projects incorporating project practices, approaches or methods
Output 3.1. Increased public awareness and environmental education programs on climate risk reduction designed and implemented	Percentage of households in pilot sites aware of precautionary measures to counter climate change risks and minimize material losses Number of awareness raising events Percentage of communal/religious/FWUC leaders and village elders who are able to explain long-term climate projections, scenarios and potential risk reduction options to other communities members.
Output 3.2. Learning networks for climate-resilient farming practices established	No. of farmers incorporated lessons learned with regards to climate risk into their livelihood activities Repository of information established to collect data on lessons learned in climate change risk reduction and make it available to stakeholders
Output 3.3. Media supported (TV, radio) dissemination of project lessons	Number of paper-based, web-based, audio-based and TV-based publications about project-related practices, approaches, methods or results

	Number of workshops at the national and regional levels on lessons learned
Output 3.4. Review of national policies on climate change adaptation based on lessons generated by the project.	Existence of draft modifications to relevant national policies on climate change adaptation
Output 3.5. Experiences generated contribute to adaptation Learning Mechanism	Project-related lessons learned are communicated through ALM and climate change solution exchange

Table 3. Indicators of the project

2.6 Main stakeholders

The main stakeholders of the project are listed below, classified by the level of intervention.

National level	The Ministry of Agriculture, Forestry and Fisheries (MAFF)
	The Ministry of Water, Resources and Meteorology (MoWRAM)
	The Ministry of Environment (MOE)
	The Ministry of Women's Affairs (MoWA)
	Cambodian Agricultural Research and Development Institute (CARDI)
Provincial level	Provincial Administrations
	Provincial Department of Agriculture
	Provincial Department of Water Resources and Meteorology
	Provincial Department of Women Affairs
Local level (districts and communes)	District Administrations
	Districts of Agriculture Offices
	Commune Councils
NGOs (most of the time local level)	Save Cambodia Wildlife (SCW)

Table 4. List of the main stakeholders

3 Findings

3.1 Project design/formulation

3.1.1 Analysis of LFA/Results Framework

The relevance of the objective "to reduce the vulnerability of Cambodia's agricultural sector to climate–induced changes in water resources availability" is unquestionable, given the fact that agriculture is a key economic sector and that it is more and more exposed to climate-induced events.

The three outcomes are complementary since they tackle institutional capacity building, technical solutions to reduce exposure to climate-induced risks and diffusion of good practices. Those three components are often taken into account in UNDP projects on climate change adaptation. Outcomes 1 and 2 focus on the local level, and therefore the local stakeholders and beneficiaries can be directly involved in the project. Thanks to the local approach, activities can be adapted to the local situation and local stakeholders directly have an impact on the implemented activities.

The outputs perfectly support the achievements of the outcomes. For the Outcome 2, two complementary approaches are tackled: adaptation of agricultural practices to changes in rainfall intensity, and improvement of water supply. The outputs for the third outcome imply a top down approach aiming at raising the awareness of the local population (Output 3.1) followed by the development of a network to share information between the farmers and the local stakeholders (Output 3.2). The combination of the two ways to disseminate information is necessary. The Output 3.3 is also crucial since it is the only one tackling the issue at the national level and ensuring that the lessons learnt by the project are spread in the country. However, there is still a step between the existence of draft modifications to relevant national policies on climate change adaptation (Output 3.3) and replication of lessons learnt in the project in other vulnerable areas of Cambodia (Outcome 3). Indeed, the Outcome 3 is quite ambitious and needs to be considered in the long run. Financial aspects are crucial for the scaling-up of the project and they are not directly tackled. However, they can be taken into account in the Output 3.3 (budget allocation for national policies dealing with climate change adaptation).

3.1.2 Assumptions and risks

There are various key risks being identified in the project document and in the inception report. All of these risks have been managed properly despite being considered as potentially impacting the project implementation. Among the risks identified are i) the suspension of incentives to civil servants by the Government in 2009, and ii) the difficulty in attributing successes or failures exclusively to the project. The time sharing of the National Project Manager between the NAPA FU project and other projects including IFAD/RULIP, and PADEE, had been identified as one of the risks. Instead, it appeared to be an advantage. It enabled also cost sharing and strengthening the commitment of the National Project Manager. The failures or successes of the project are hard to measure. It relates to the impact of the project. The mitigation measure does not seem to really respond to the risk identified: it is just revising the log-frame of RULIP to mainstream climate change. The overlap areas of the two projects have caused some difficulties in distinguishing among each particular project's impact and outcome. This doubt is for instance due to the use of the same staff members and structure for the two projects. However, both projects have produced inter-related impacts towards climate change adaptation mainstreaming into both national and sub-national levels.

Apart from these two significant risks, the remaining ones are mitigated smoothly with some noticeable accomplishments. For any project, fragmented governance, for instance, is usually one of the major concerns relating to coordination among stakeholders. However, it has not been

the case for this project. The coordination at both national and sub-national levels found to be efficient and all stakeholders were strongly engaged in working together.

In an overall perspective, it could be concluded that most of the risks have been properly tackled even though the mainstreaming of climate change concepts into the existing decentralized system is not always easy to achieve. The efforts from the cooperation among various organizations have shown some first results and produced plans which include climate change concepts. The revision of the sub-national planning guideline and the development of an operational guidance note to mainstream climate change into this revised guideline are currently ongoing with the assistance of the NAPA FU project. At the sub-national level, commune development plans do include climate change concepts but a new risk emerged, related to the availability of finance to support the numerous proposed projects.

The project is also based on the assumption that infrastructures can be used by local communities. Culture and habits are not easily modified, and there was a risk of non-acceptance of the new facilities by the local communities.

This risk is amplified by the weakness of local institutional capacities, even if a decentralization policy has given more power to the provincial level. At the commune level, there was clearly no efficient policy for adaptation measures at the beginning of the project.

There was also a risk of conflict in the use of the facilities. This is the reason why one of the outputs was to manage potential conflicts that may occur for the uptake of facilities. For instance, communes have started to be reinforced by the project, in the sense that some of the investments done have been handed over to the communes, for sustainability purposes and to prevent such conflicts. This means that the new facilities have been accepted by the local communities and the citizens of these communes.

Still, the risk of conflicts for the use of the project facilities is present, as no clear maintenance costs rules are yet in place. To lower this risk, some recommendations are given in this report under the sustainability criterion.

Finally, the involvement of the Government is significant, particularly at the provincial level. Activities under the Provincial Departments of Agriculture, the Provincial Departments of Water Resources and the Meteorology and Provincial Departments of Women's Affairs have been coordinated by the Provincial Administration, ensuring some efficiency. At the local level, the implementation of the activities in the communities is mostly due to the involvement of district authorities and Commune Councils. Beneficiaries of the project have been involved through the constitution of several groups, like FWUC, seed multiplication groups, agricultural improvement groups or animal feed groups. The mid-term review (MTR) considered that the project had succeeded in integrating itself with the government system at both provincial and commune levels, and this was still true during the second phase of the project.

3.1.3 Planned stakeholders participation

The project received a support from the following national governmental agencies:

- The Ministry of Agriculture, Forestry and Fisheries (MAFF) was responsible for the overall management of project activities, implementation, monitoring and evaluation of the activities, supervision of the implementing agents and financial management. Its role wass also crucial in promoting, introducing and piloting resilient agricultural techniques.
- The Ministry of Water, Resources and Meteorology (MoWRAM) was responsible for the construction or rehabilitation of the irrigation systems, the construction of reservoirs and for organizing trainings to the farmers using the irrigation systems.
- The Ministry of Women’s Affairs (MoWA) became a stakeholder of the project in 2011 and was actively involved in coordination and technical support in various project activities

with its line departments, particularly its Climate Change Working Group.

- The Ministry of Environment assisted the project on provision on knowledge on climate change and best practices from successful adaptation experiences.
- The Cambodian Development Research Institute (CARDI) was contracted by the project to conduct “On Farm Adaptive Trials” (OFAT). This consisted in introducing submergent and drought resistant rice varieties along with training to PDA and farmers on OFAT and seed purification.

The project encouraged an integrated approach by having the three provincial departments engaged in the process of social mobilization before each delivery related to its respective mandate of each technical line department. At the provincial level, the Provincial Department of Agriculture (PDA) was responsible for the provision of extension services (increase productivity, promote innovative animal raising practices) and the establishment of farmers groups. PDoWRAM was responsible for building and maintaining irrigation systems and establishing Farmer Water User Committees (FWUC). The Provincial Administration (PA) was the implementing agent at the provincial level and reported directly to the PSU. The Provincial Department of Women's Affairs (PDoWA) was also involved.

At the local level, districts have been strongly supporting the project implementation. At the commune level, communities were responsible for water management in collaboration with the Commune Councils, on local security, conflicts management and communal investments plans. They have also addressed social, environmental and gender related issues.

A local NGO named SCW (Save Cambodia Wildlife) has also played a significant role in presenting climate change concepts through awareness raising, mainstreaming campaigns and educational and information documents dissemination.

3.1.4 Replication approach

The third outcome, entitled “Lessons learned in project pilot sites replicated in other vulnerable areas of Cambodia” focuses on the replicable approach of the project, by encouraging the dissemination of lessons learnt and up-scaling perspectives. It aims at incorporating best practices learnt through the project in outside programmes, policies or projects. For that purpose, several NGOs contributed to the organization of learning campaigns in order to disseminate lessons learnt. The replication approach is clearly part of the project objective.

Two aspects which could be major constraints for replication in other areas of the country have to be mentioned. Firstly, the sustainability of the activities implemented within the pilot sites (sustainable management of reservoirs, irrigation canals, integration of the resilient farming methods in the agricultural practices in the long run, sustainability of the FWUC…); and secondly the replicability of the project activities in other vulnerable areas of the country which might not be appropriately adaptable, for instance EWS. The third outcome needs to tackle these aspects prior to undertake any replication in other areas. In this outcome, there were a number of lessons learnt and sharing events such as workshops, video spots, and web-based news conducted throughout the project’s lifetime. This has attracted a number of organizations and projects to pay attention to the NAPA FU project achievements.

Considering that this project is medium scale, with a budget of about 3 million USD out of which 1.8 million from the GEF, the replication approach can be considered to be well designed.

3.1.5 UNDP comparative advantage

UNDP has already supported several projects dealing with environmental protection and natural resources management in Cambodia in partnership with MAFF. With its Bureau for Crisis Prevention and Recovery, UNDP is involved in capacity building of climate-related risks

management, and the project benefited from UNDP's experiences. Besides, UNDP works with various partners in Cambodia in order to address risks management and climate change adaptation. Its strong connection with other ministries and donor organizations, respectively such as MoE, MoWRAM, and MoWA and such as ADB or the World Bank, is a clear comparative advantage and an asset to the project. UNDP is focusing on the link between climate change adaptation, poverty reduction, governance (taking into account the D&D administrative reform) and gender mainstreaming.

For instance, UNDP in Cambodia has long been involved with MAFF in implementing a number of projects with a special focus on environment and climate change, such as the Tonle Sap Conservation Project. This project was carried out from 2004 to 2011 with the financial support of the GEF, to strengthen the management capacities on biodiversity conservation in the Tonle Sap Biosphere Reserve. In terms of lessons learnt, it has been instructive with regard to project governance, since it showed that shared implementation can be effective. It is a good illustration of UNDP's comparative advantage on climate change issues and in the implementation of Cambodia's NAPA. The experience and commitment of UNDP contributed to promote climate resilient practices in the field of water management and agriculture beyond the boundaries of the NAPA FU project.

3.1.6 Linkage between projects and other interventions within the sector

The NAPA FU project has been implemented in collaboration with an IFAD supported project, the RULIP (Rural Livelihood Improvement Project). Through this partnership, the project has benefited from experts in the fields of agriculture. RULIP is a seven-year project (2007-2014) aiming at improving the livelihoods of farmers in rural areas, based on sustainable agriculture. The two components of the project were i) livelihoods improvement and ii) support for Decentralization and De-concentration in agriculture. The two projects have been carried out very closely and NAPA FU activities have been fully integrated into the RULIP activities and vice-versa. For instance, climate change adaptation aspects have been integrated into some activities of RULIP, such as disseminating climate change awareness and mainstreaming climate change concepts into community development plans and replicating some of the climate resilient educational materials into in RULIP's target areas. Consequently, NAPA FU has offered significant inputs to the third component of RULIP: "Incorporation of climate change into agriculture & water resources".

Another clear link was made with the PADEE project. This was also an advantage in mobilizing existing resources under the MAFF which proved to be very useful as the PSU could share both experiences and resources for implementing the project. For instance, the project has shared technical training being prepared by the PADEE for farmers under NAPA's target areas, and the PADEE has used NAPA FU experiences and built structure in its project implementation.

Local NGOs were active from the beginning of the project in the field of disaster risk prevention and management. For example, the Friends' Association Pioneer (FAP) supports households vulnerable to natural disasters, assisting them with building facilities such as ponds, ring wells, etc. The Human Resource and Rural Economic Development Organization has also a strategy in response to disasters which includes trainings, preparedness and mitigation actions. These NGOs have been keen to work with the NAPA FU project during the duration of the project.

Finally, the Asian Development Bank is at the early stage of implementing the Pilot Program for Climate Resilience (PPCR), a targeted program of the Strategic Climate Fund (SCF). The PPCR funds technical assistance and investments to support Cambodia's efforts to integrate climate risk and resilience into core development planning and implementation. It provides incentives for scaled-up action and initiates transformational change by catalyzing a shift from "business as usual" to broad-based strategies for achieving climate resilience at the country level. There were confirmations from ADB PPCR team that the project has used NAPA FU's experiences and

National Adaptation Programme of Action to Climate Change in the initial and fundamental concepts to develop the PPCR's structure and mechanism.

This program builds on the NAPA and other national development programs and plans. The overall budget is 105 millions USD, split into technical assistance (7 millions USD), infrastructure (42 millions USD), water resources (33 millions) and agriculture (23 millions). Further linkages with the PPCR should be sought by the NAPA FU project.

3.1.7 Management arrangements

The NAPA FU project is an integrative project, especially in terms of management, with the PSU located within the MAFF and with strong linkages with governmental structures, both at national and sub national levels. The overall management includes and involves key institutions and stakeholders. The project shares a management arrangement through the PSU with IFAD at national level. It enabled to facilitate information sharing and to easily incorporate other initiatives when relevant to the NAPA FU project, practical applications and a learning environment. This management arrangement enforced the mainstreaming and impacts of the project in terms of better adaptation practices. At sub-national level, the support of the D&D structure as a coordination agency was adequate. The project provided guidance on implementation with local authorities so that the integration into local development planning could be more visible.

The following figure represents the institutional structure of the NAPA FU project.

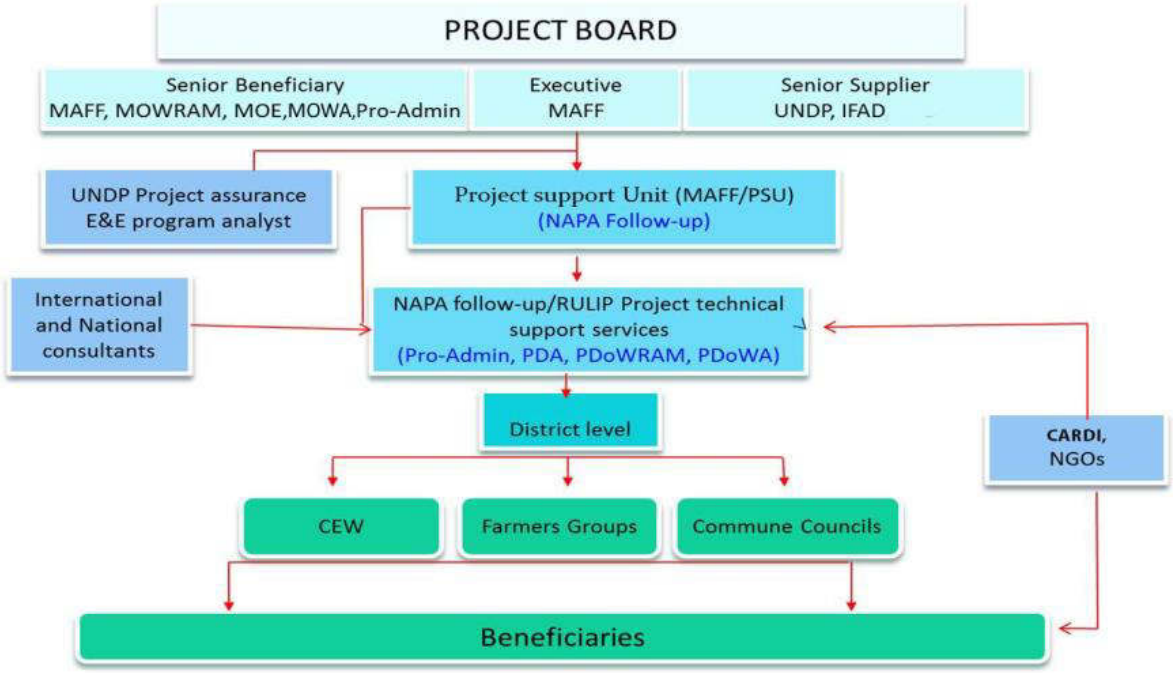


Figure 2. Management structure taken from the presentation made by the PSU on October 24, 2013

The Project Board took its decisions by consensus, taking into account several criteria: money, fairness, integrity, transparency and effective international competition. The Project Board was also responsible for the review of quarterly plans, the endorsement of the annual report, and the Annual Work Plan (AWP) and Budget. It did also check if resources were mobilized as expected and acted in order to avoid conflicts within the project partners. Overall, the Project Board was efficient in its functioning.

The National Project Manager was responsible for quality, timeliness and effectiveness of the activities carried out in the framework of the project. He aimed at ensuring cohesion and communication between the different partners of the NAPA FU project.

The National Project Team supervised technical activities in the two pilot sites, assisting the Provincial Departments of Agriculture, the Provincial Departments of Water Resource and Meteorology and the Provincial Departments of Women's Affairs. The team was also responsible for insuring the monitoring and evaluation of the project and for gathering lessons learnt through the project activities. It also tackled gender issues in the framework of the project. Its role has been successfully achieved, even if the evaluation and monitoring plan seemed to be too sophisticated, which induced some difficulties to understand it.

3.2 Project implementation

3.2.1 Adaptative management

A good example of adaptative management was the reassessment of the targeted provinces to implement the NAPA FU project. It was decided at the beginning of the project to shift from the previously identified target areas of Siem Reap and Battambang, to Preah Vihear and Kracheh provinces. This decision of the change in project locations was on the assumption that it would facilitate the implementation of the project in the field, due to existing IFAD experiences in the two provinces. At the same time, the NAPA FU benefited from technical background in agriculture from IFAD and allowed to mainstream climate change practices into RULIP as one of its components. It is important to note that the two target provinces of Preah Vihear and Kracheh have different characteristics which result in different climate change adaptation needs. The former is facing increasing draught episodes, while the latter is prone to significant floods.

More generally, the Project Board proved to have played a crucial role in dealing with institutional and policy-driven issues, in order to reach the current management framework presented in figure 2. The Project Board has visited project sites to assess by itself the on-going activities. This is extremely beneficial to adapt work plans to the on-going situation and make timely corrective actions. The Project Board members took advantage of these visits to formulate recommendations to the project team.

Also, the work-plan has been revised and reviewed by the Project Team because of the national election campaign which has modified a bit the time schedule. As a consequence, the first phase of NAPA FU has been extended to one more month.

In addition, there were genuine efforts made to address some key issues in mainstreaming and bringing the concepts of climate change to other stakeholders through sharing with various line ministries and NGOs. UNDP also endeavored to address the financial sustainability issue through special studies, workshops, discussions with other donors, and preparing another strategy on climate change for the MAFF as well. This is made obvious in dealing with related problems firmly such as solving arsenic concern seriously.

The Project Board has shown a good responsiveness towards recommendations from the Mid-Term Review or PIRs such as the “one village approach” testing and removing the actions related to the installations of biodigesters from the implementation strategy.

As well, the final Vulnerability Reduction Assessment (VRA) carried out by the Project Team in 10 communes has been wisely postponed because of the national election campaign.

3.2.2 Involvement of Governmental partners

At the national level, counterparts from national authorities and governmental institutions have been successfully involved in the NAPA FU project. Regular Project Board meetings have been

organized, at least twice a year. The Governmental partners such as MoWRAM, MoWA, MoE, including the GEF Focal Point, representatives of the Sub-National Administrations, donors such as IFAD and UNDP have had a strong involvement in the project. In addition, the collaboration with NCDD-S, LGCC project of UNCDF, the GEF SGP/CCBAP team, and reporting to the NCCC have enabled the project to influence the integration of climate change into the sub-national planning process under the coordination of NCDDS and other climate change strategies and policies, under the coordination of MoE. However, it must be indicated that improvements are still possible in terms of coordinating, reporting and sharing with the GEF Focal Point. At the sub-national level, to strengthen coordination and ensure an effective implementation, the project recruited provincial coordinators and additional contracted staff. Advisors were recruited at the early stage while the provincial coordinators were recruited later during the course of the project implementation. Monthly meetings, or more often when deemed necessary, have been hold between the Project Team, UNDP and those partners representative to improve coordination of the project and sharing of knowledge for a better understanding of the adopted strategies.

In addition, at the technical level, the PSU organized regular technical meetings involving national and sub-national concerned parties and experts.

3.2.3 Partnership arrangements

At the start of the NAPA FU, UNDP was technically not sufficiently experienced in agricultural projects implementation in Cambodia. This necessitated to coordinate with other technical organizations in implementing the NAPA FU project via several partnership arrangements.

The main partnership arrangement was made with IFAD to cooperate at the national level and share the project team. This proved to be useful to overcome any gaps or issues that might have happened. Sharing the PSU with the IFAD/RULIP project was also an advantage in mobilizing existing resources under MAFF in a cost effective way. It led not only to the inclusion but even to the expansion of the concepts of climate change into the MAFF annual climate change action plan. Another result was the review of the Farmer Field School curriculum with the integration of climate change modules to be implemented in the PADEE five target provinces in the South Eastern part of Cambodia: the best practices promoted by the NAPA FU project will contribute to the scaling up of the upcoming IFAD program called Agriculture Services Program for Innovation Resilience and Extension (ASPIRE). Additionally, the cooperation with the PADEE project has produced a number of shared trainings and workshops to exchange lessons learnt and practical skills and to send farmers to the trainings organized by PADEE or vice versa.

The NAPA FU project has also contributed to the development of a significant network with CSOs (national and international) through national workshops organized by NCDDS. The project played a proactive role in supporting NCDDS on mainstreaming Disaster Risk Reduction (DRR) in the Sub-National Planning, among others by involving two international NGOs (Action Aid and DCA/Christian Aid Cambodia) having experience in DRR. The partnership arrangement consisted in a core group drafting the operational guidelines CCA in Sub-National Planning. Based on the work of this group, the Senior Management of NCDDS agreed to mainstream DRR in the Sub-National Planning.

3.2.4 Responses to mid-term review (MTR) recommendations

The MTR recommended among others a more holistic and integrative approach. UNDP and the Project Team took into consideration the conclusions of the MTR report. All the five recommendations from the MTR have been effectively implemented and the progress made is tangible, particularly the one-village focus approach to create resilient communities (not just at the household level). Some noteworthy achievements under this new approach can be observed. This new approach has attracted interests from various stakeholders including from the Prime Minister of the country at the occasion of an official visit in one of the project area. There was a

series of discussions, follow-ups, monitoring and field visits to ensure that the recommendations were fully taken into account during the second half-period of the NAPA FU project. There are still minor limitations with regards to the forth recommendation made during MTR related to the unclear procedures at the PA level, particularly in Preah Vihear province.

3.2.5 Project finance

The tables below present the project finance and the situation of the time of the evaluation.

Co-financing (type/source)	UNDP own financing (mill. USD)	Government/RGC (mill. USD	GEF/LDCF (mill. USD	Total (mill. USD)
Grants	1.309	0	1.850	3.159
Loans/Concessions	0	0	0	0
In-kind support	0	0.180	0	0.180
Parallel	0	0	0	0
Total	**1.309**	**0.180**	**1.850**	**3.159**

Table 5. Repartition of project co-funding

	2010		2011		2012		2013 (as of Sept)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
PSU	397,296.75	312,795.89	686,977.00	724,006.62	378,016.98	468,044.05	286,592.09	266,939.51
Kracheh	62,661.00	23,764.57	195,646.00	123,115.79	408,038.20	344,807.91	117,196.00	111,884.03
Preah Vihear	49,882.17	28,484.58	265,047.00	243,939.29	365,821.80	363,056.01	113,252.00	112,879.31
Total	**509,839.92**	**365,045.04**	**1,147,670.00**	**1,091,061.70**	**1,151,876.98**	**1,175,907.97**	**517,040.09**	**491,702.85**
Total expenses: (2010+2011+2012+2013) = 3,123,717.56 (98.87%)								

Table 6. Statement of project expenses, as of September 2013

At the beginning of the project, the difference between the planned and actual budget was significant for the functioning of the PSU as well as for the implementation of the activities in the

two provinces: the total delivery rate was around 70% in 2010. The delivery rate increased during the following years: 95% in 2011, 102%[1] in 2012 and 95% in 2013. Financial resources have been particularly well mobilized for the functioning of the PSU in 2011, 2012 and 2013, exceeding the planned budget. Concerning the activities in the two provinces, allocated financial resources correspond quite well to the planned budget in 2012 and 2013, since the delivery rate lies between 84.3% and 99%. Therefore the TE team concludes that the delay in mobilization of funds in 2010 has been satisfactory caught up during the following years.

Outcomes and outputs	Total budget	Cumulative expenditure	Balance	Delivery
Outcome 1. Improved Capacity within Local Institutions to Manage Agricultural Water Resources in a Changing Climate	804,781.8	808,713.4	-3,931.55	100.49
Output 1.1: Commune plans & budget address inherent climate risks in target districts	506,747.73	511,411.91	-4,664.18	100.92%
Output 1.2: FWUCs and MoWRAM engineers trained in climate-resilient irrigation design	na	na	na	na
Output 1.3: Establishment of conflict prevention measures	191,929.96	191,929.94	0.02	100.00%
Output 1.4: A community based climate information system on flooding and droughts	106,104.11	105,371.50	732.61	99.31%
Outcome 2: Locally Appropriate Adaptation Options demonstrated to Reduce Exposure to Climate Change Induced Risks	1265,022.6	1 256,668.81	8,353.79	99.33
Output 2.1 Improved access to water for household and agricultural use demonstrated in 11 target villages	494,846.81	494,215.51	631.30	99.87%
Output 2.2: Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	452,170.67	445,414.11	6,756.56	98.51%
Output 2.3: Resilient design and management of irrigation systems promoted and demonstrated	318,005.12	317,039.19	965.93	99.70%
Outcome 3: Lessons learned in project Pilot sites replicated in other vulnerable areas of cambodia	1 109,545.6	1 056,789.66	52,755,94	95.25
Output 3.1: Public awareness and environmental education programmes on climate risk reduction designed and implementation	200,811.58	175,652.04	25,159.54	87.47%
Output 3.2: Learning networks for climate resilient farming practices established	22,107.62	27,367.12	-5,259.50	123.79%
Output 3.3. Media supported (TV, radio) dissemination of project lessons	na	na	na	na
Output 3.4: Review of national policy on climate change adaptation based on lessons generated by the project	379,739.49	364,412.13	15,327.36	95.96%
Output 3.5: Programme Support Services(Country office)	486,886.91	489,358.20	-2,471.29	100.51%
TOTAL	3,159,350.00	3,122,171.65	37,178.35	98.82%

[1] This means that the real expenditures were superior than the planned ones.

Table 7 Cumulative expenditure (USD) by project activity (01/07/2009 – 30/09/2013) Source: fourth quarterly report.

There were some delays in the mobilization of funds, since the amount delivered by the project at the moment of the first quarter was USD 53.125.92, which is around 65% of the planned budget. In order to provide a realistic budget and to adapt it to the progress of the project, tools have been designed to evaluate budget expenditure. The monitoring has been carried out by the National Project Manager and by the financial officers. The PSU and MAFF organized quarterly meetings to discuss about a budget revision if needed. Among project revisions, the amount allocated to operation costs has been higher than expected (fuel and maintenance, transportation, communication costs).

There was some delay in financial transfers from national to provincial level via the provincial administration (former ExCom) which was reported, especially at the beginning of the year.

In terms of financial procedures, the project was following the UNDP implementation guidelines while some other procedures at provincial levels had to follow the NCDDS procedures. This made things sometimes complicated and time consuming. The graph below presents the flow of funds.

In conclusion, a total delivery rate of 98.82% has been reached on September 30, 2013, which is highly satisfactory. The lowest delivery rate is obtained for the output 3 (87.47%), which shows that the awareness programmes have not been completely implemented. Except for this one, delivery rates of all the outputs are above 95%.

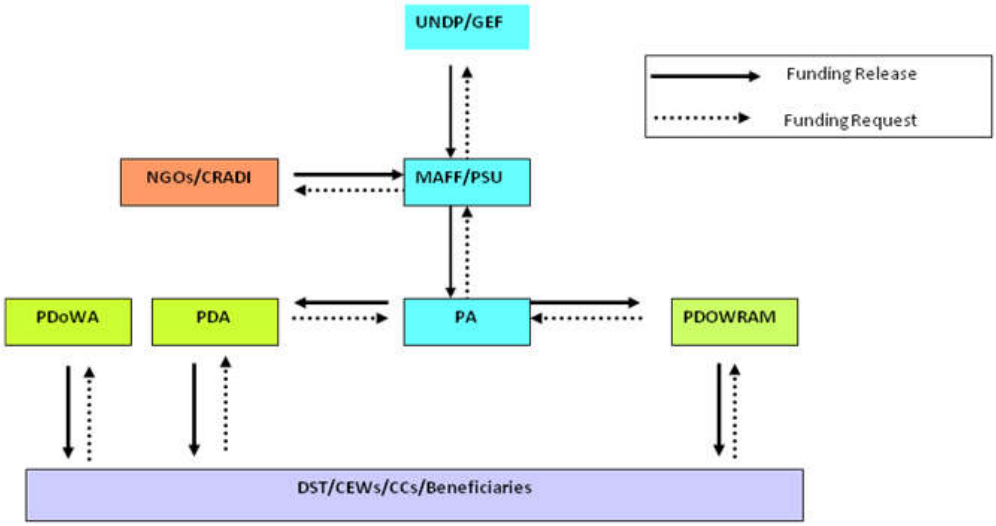


Figure 3. Flow of funds taken from the presentation made by the PSU on October 24, 2013

3.2.6 UNDP and implementing partner coordination and operational issues

UNDP CO has been strongly involved in the project, cooperating with the Project Team regularly. For instance, UNDP CO and the PSU have worked together not only during the preparation of the AWP, but also for the quarterly progress and the financial review. UNDP CO has organized trainings for the Project Team on Results Based Management (RBM) and M&E systems.

It has also evaluated the project budget and the accordance of the effective budget with the initial budget. The complementarities between the Project Team and UNDP CO have been exploited properly.

The TE decided to rate the quality of UNDP implementation as highly satisfactory (6). The coordination and implementation of UNDP with line ministries and NGOs is visible. The

implementation proved to be successful for the all implementers across the country and there is a good sharing approach with the RULIP project. The same rating applies for the quality of the execution of the MAFF/PSU as the executing agency. The coordination mechanism being assigned to the Ministry is one of the key reasons of the project's positive overall outcome. In conclusion, the overall quality of the project implementation and execution is highly satisfactory. The implementation from the national to local levels was of high quality. Each level served differently in the progress made, on various technical issues.

3.3 Monitoring and Evaluation, and Reporting

A tangible monitoring and evaluation system or design is not existing in the project. This does not mean that they are no M&E activities and no close follow-up, but it relies more on persons than on a system. This leads for instance to the lack of analysis for an an impact assessment at field level. It is thus difficult to present any empirical evidence for policy persuasion and modality in project implementation. Fragmented evidence as it is now, might not be scientifically the best way to attract a wider level of audience and enable significant impacts. In addition, the revision of the logframe was found to be too flexible. The inception report had made a significant reduction of outcome indicators and later on had been changed to the original plan. This indicates an improper judgment over the implementation options and it can be due to proper risk mitigation as indicated earlier.

Also, the monitoring indicators are relevant and reflect effectiveness of the actions undertaken but various aspects could be improved, on the data collection process, especially to monitor and evaluate the impacts of the project.

In conclusion, the overall quality of the M&E is moderately satisfactory and there are ways to improve it. Despite limited in-depth study on each activity and its impact, and the limits of the M&E design, the quality of the follow-up and continuing evaluation remains acceptable. This is due to the use of various monitoring tools including output log, field visits, spot check, audit, Project Implementation Reports, quarterly and annual progress reports, and above all to the fact that the Project Team is the same from the beginning.

In details, the M&E design at entry is rated 3, i.e. moderately unsatisfactory. There is no sophisticated design on M&E to be implemented in the project, but rather a simple although comprehensive M&E system. This limits the assessment of the outcomes and impacts of the project. As far as M&E plan implementation is concerned, it is moderately satisfactory. While the M&E design at entry was not very sophisticated, it must be said that at the end, because of various good monitoring procedures being prepared and implemented during the project lifetime, the overall M&E plan implementation is positive.

3.4 Project results

3.4.1 Overall results

Major progress towards development objective is the achievements of the project in creating a learning platform in order to improve the resilience of the agricultural sector to climate change in a short and midterm perspective. This concerns for example the irregular availability of water for agriculture. Enhanced adaptive capacities of the national and local institutions were made possible because of awareness raising and the building-up of appropriate information systems, and appropriate actions to tackle climate change risks. The integration of these actions into their development plans not only at commune, district, province but also national levels is the most

significant progress made in reaching the project overall objective. The final VRA results showed that the average vulnerability index decreased from 4 to 3.1 (decrease by 22.5%)[2].

The establishment of community based organizations such as seed purification groups, FWUC, and revolving funds enabled to mobilize and manage existing resources. This is very important when vulnerable communities need to access climate related information through a rapid and effective early warning system. A number of new advanced and appropriate technologies were introduced, such as crop resilient varieties, farmer field schools, SRI, and climate-proofed irrigation systems to adapt to global warming. Finally, a number of lessons have been gathered so that it can be used for other climate change initiatives across the country.

In addition to these achievements, the planned indicators in all of the three outcomes were effectively implemented and attained at the target level, except one indicator of outcome 2 which is slightly below the target (65% out of 70%). Though, the target indicators have not been fully verified since there is lack of empirical data. The revision of the project logframe and the target indicators indicate the flexibility and effort which has been put to maximize the impact of the project. In conclusion, the ET considers this as satisfactory since the project has delivered good outcomes.

3.4.2 UNDP and GEF programmes achievements

The project is consistent with UNDP Strategic Plan 2014-2017's Area of Work 1 entitled "Sustainable development pathways on i) analysis and advocacy, ii) development planning and policy reforms, iii) scalable initiatives on sustainable productive capacities, iv) effective risk management, and Area of Work 3 entitled Resilience-building on Disaster risk reduction (DRR), preparedness, response and recovery. In relation to the former Area of Work, the project has developed convincing evidence based policy recommendations. It led to their integration into the planning process at the sub-national level and into strategies and policies at the national level with a focus on risk reduction of the most vulnerable groups. The latter area is directly related to the effort in disseminating and replicating such policies and actions in the country. The project has enabled in some ways to address the UNDP Strategic Plan 2014-2017, particularly Outcome 1 and Outcome 5 i.e. Outcome 1 - Growth and development are more inclusive and sustainable, by incorporating productive capacities that create employment and improve the livelihood for the poorest and Outcome 5, the country is more able to reduce the conflict risks and natural disasters risks, including from climate change.

In the GEF-5 Programming document (for the period of July 1, 2010 to June 30, 2014), the "Strategic Goal 4" is to build national and regional capacities and enable conditions for global environmental protection and sustainable development. The NAPA FU project is fully in line with the programming document and contributed to achieve its objectives.

3.4.3 Results by outcomes

The following information are extracted from various sources such as the PIRs, quarterly progress reports, and the interviews conducted during the TE mission. Hence, it corresponds administratively speaking to the situation at the end of September 2013, and practically speaking, at the time of the TE.

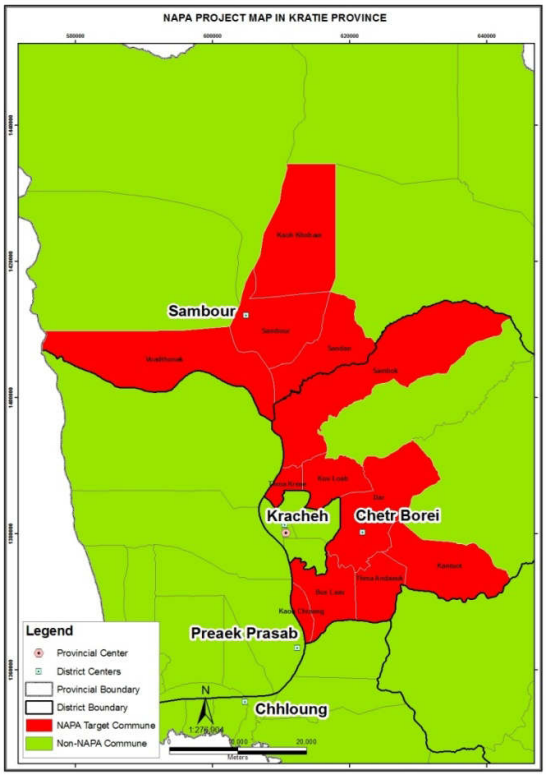
[2] UNDP (2013). 2013 Annual Project Review (APR).

Outcome 1: Improved capacity of local institutions to manage agricultural water resources in a changing climate

The progress toward this outcome was reported to achieve the target with 16 communes which continue to receive and use climatic information and being used for Commune Investment Program formulation even beyond the project target area. At the same time, all of water resource management programmes of MAFF and MoWRAM in the target districts have reported incorporating measures to reduce the impacts of climate risks. Though, it is unclear on the level of which the implication being included since the financial constraints might prevent such climate resilient integration, particularly the systems which are not supported by the project. Additionally, the assessment of the impact of the four supported irrigation programmes on enhanced productivity is yet to be conducted. This does not enable to make any conclusion at this stage.

Output 1.1: Commune Council Plans and budgets address inherent climate risks in target districts

Commune development plans with climate risk consideration and anticipatory climate change risk reduction activities have remarkably been implemented by 29 villages in the 16 target communes.



Key technical adaptation measures such as changes in rice varieties, improved access to water resources for irrigation and drinking, climate change awareness raising, dissemination of weather information and building and rehabilitation of irrigation schemes have been incorporated into the investment programs of 16 communes. In the sites visited during the terminal evaluation, it was clear from the interviews with the stakeholders that such adaptive measures are important to strengthen the livelihoods of the population.

Since 2011, provincial development plans of the target provinces incorporate explicit measures to address climatic risks such as annual emergency response action plans, awareness raising activities related to climate change, rehabilitation of river banks to prevent soil erosion and landslides, rehabilitation of irrigation schemes and establishment of FWUCs in other communes in the target districts, and implementation of resilient livelihood activities by local NGOs have been reported. Commune Councils are more aware of the issues related to the alteration of the climate and the need to tackle it at the local level. This should be continued in the perspective of any new phase of the NAPA FU project. Apart from this, there is an emerging concern over the financial resources that can be mobilized to respond to the plans under development, which in general discourage them from proposing new activities.

There is an emerging concern over the financial resources that can be mobilized to respond to the plans under development, which in general discourage them from proposing new activities. The second phase of the NAPA FU will ensure the continuation of those measures, but a way to maintain budgets for climate resilient planning after this second phase has already to be thought of. The awareness that those measures have strong benefits is necessary but not sufficient to guarantee the local institutional capacities to manage agricultural water resources in a changing climate in the long run.

Climate change concepts have become more apparent in community investment programs and community people. The last five years changing environment have contributed to the change in perception of the people at community toward risk reduction.

Output 1.2: Conflict Potential in areas prone to climate-induced water assessed and conflict prevention measures supported.

The evaluators took note of the original approach adopted to reach this output, namely "mediative mechanisms". These mechanisms, not necessarily easy to understand, enable to avoid or to manage conflicts resulting from access to water resources. They appeared to be efficient.

For instance, at the national level, the project has brought together the MAFF, MoWRAM and MoWA to work in a collaborative relationship involving joint planning and support to their respective provincial departments. Used to set ways of working within the confines of individual ministries, key informant interviews during the terminal evaluation indicated that it has not been an easy task as the working culture and relationship of individual Ministries with their provincial counterparts vary a great deal. The evaluation comes to the conclusion that mediation is a permanent process.

This has been compounded by the ongoing decentralization and deconcentration process which is bringing about devolution of power and authority to provinces and districts. Besides regular meetings at the operational level, the project board which meets twice a year has enabled various stakeholders to work together.

Officials interviewed during the review suggest that until recently, the understanding of climate change as a transversal and integrated issue to all governmental programs was low and there was a mistaken belief that climate change should only be addressed by the Ministry of Environment (MoE).

This has changed now due to the engagement of the NAPA FU project which facilitated the integration of climate change in different Ministries strategies and actions, and the work of other initiatives which followed: the Cambodia Climate Change Alliance (CCCA), Cambodia Community-Based Adaptation Programme (CCBAP), Pilot Programme for Climate Resilience (PPCR), LGCC, to name a few.

Similar collaborative approaches were obvious in the two provinces visited during the evaluation: there is a good interaction between PDoWRAM and PDA which undertake joint planning and implementation of the activities like construction of water tanks, ponds and irrigation structures under this project. However, outside of this project, this collaborative culture and joined up approach is yet to permeate in the day-to-day business of the departments.

In specific terms, the project has contributed to the following key outputs in relation to capacity of the provincial and local authorities to take into account adaptation agenda at local level.

Output 1.3: A community-based climate information system on flooding and drought events established

104 volunteers in 52 villages are receiving technical and logistic supports from the project. They typically participate in meetings and they receive pieces of information on weather events. They have the responsibility to disseminate it to the villages.

11,073 households in 52 villages, representing 55.5% of the target households received timely information on weather forecasts and extreme events. With the information received, farmers are able to prepare themselves to cope with expected hazards. They store water, seeds or they prepare the soil. Some have already changed their farming practices (they replace late-mature rice varieties to early-mature ones to fit with seasonal changes).

Despite the response of local people and leaders about the importance of Early Warning System on sharing with them the related weather changing events, the usage potential happened to be limited to only areas that are more exposed to extreme climate events, particularly in Bos Leav commune Kracheh province.

Similar information seems to be less used and useful in Preah Vihear which is not directly exposed to climate change. And there were some unclear viewpoints on early warning (regarding floods) and information dissemination, but overall, the results for this outcome are satisfactory. The impacts of the EWS remain unknown and the planned impact assessment activity should provide a better idea on the matter. For instance, if and how the information is utilized for livelihood activities is difficult to assess in such a short period. The results from the field interviews during the TE mission on how the information is used and if it is contributing to prevent from extreme climatic events were contradictory, some respondents saying it was useful, other saying that they were not confident in the information provided. In general, the early warning systems have been proved as a useful and an important tool for helping villagers in adapting to climate change, particularly for extreme climatic events, for instance in Bos Leav commune. To the contrary, similar information seems to be less useful in Preah Vihear because there is not direct exposure to short term climatic events, and the intensity of the climate hazard impacts is not visibly found in the area or the local related forecasting events were not reported.

This means that geographical characteristics are attributable to success of the well-established organization. Moreover, precise weather forecast for each specific area is not yet available and difficult to confirm based on the current technological capacity and structure of the Government, which has given little interest to the end users. To add, financial availability to support the broadcast of meteorological information is yet to be confirmed from other sources rather than from the project. The possibility to see the Government continuing to finance EWS is in doubt.

Outcome 2: Locally appropriate adaptation options demonstrated to reduce exposure to climate change-induced risks

The achievement of this outcome is significant and could be scaled up in any other area of the country. One village approach is one of the major achievements which have produced a convincing option for climate change related projects. Dripping system, plastic mulching, solar and wind pumps have been added to the existing portfolio of adaptation measures and the project emphasizes on group mobilization to optimize the use the introduced technologies. However, the indicator number two of this outcome is slightly below the target i.e. the 3,679 households (56%) in 44 villages continued to implement at least one additional measure to reduce livelihood exposure to climate change and 30% out of these households have implemented at least 3 different adaptation measures.

Output 2.1: Improved access to water for household use and agriculture demonstrated in 11 target villages

1,470 households corresponding to 75 Water Users Groups and representing 30% of the total target households benefit from 62 pump wells, 3 community ponds, 41 rain water harvesting containers and 10 solar pumps. After the MTR, dripping system, plastic mulching, solar and wind pumps have been added to the existing portfolio of adaptation measures which have been attached to the mobilization of groups to optimise the use the introduced technologies. Those facilities enabled already to increase the crop production and income. Some families also started to grow vegetables and fruit trees in their land.

733 hectares of dry season rice have increased up to 355 ha of rice land in Bos Leav and Teuk Krahom communes and have benefited from newly rehabilitated irrigation schemes during the rain-delayed period in July-August. This has provided benefits to more than 2,000 households.

They have access to water for rice farming, home gardening and animal raising, and farmers are able to save time and reduce their amount of fuel to pump water to their fields.

These achievements by the project are not only visible in the field, but also when discussing the impacts of these installations to the population. The irrigation systems, together with short cycle rice species, led to harvest twice a year and hence increase the incomes of the farmers involved in rice cultivation. Also, farmers are now eager to grow vegetables in addition to rice, and hence diversify their exposure to climatic events such as floods or drought.

Output 2.2: Resilient farming methods to climate-induced changes in rainfall intensity and distribution demonstrated

The project continues to support 689 beneficiaries (496 women) from 27 villages. They participated in farmer exchange visits and received technical training.

467 group leaders and members (264 women) from seed purification and integrated farming system groups received trainings on seed purification techniques, animal vaccination, book keeping and group revolving fund management, and development of farmer field school curriculum introducing SRI technique, although it is not something new.

The 3,679 households (56%) in 44 villages were reported to continue implementing at least one additional measure to reduce their exposure to climate change and 30% out of these households have implemented at least 3 different adaptation measures (common combination of these measures are integrated farming system, seed purification and access to water) as part of the one-village approach recommended by the MTR and on average. On average, each member of a seed purification group has assisted 6 other farmers in adopting the measure, which meant that it reached out to 1,758 beneficiaries indirectly, through 293 direct beneficiaries of the project.

The project has fully reached this output by introducing resilient rice varieties to both flood and drought episodes, which are the most common climatic events in Cambodia. It has provided great benefits to the farmers. Additionally, it was reported to the TE team that adapting such technologies in other areas of the country by other climate change development initiatives is occurring.

Seed purification groups have indicated the fact that they are continuing to produce resilient seeds for their future usage and selling them to their neighbors. However, there are some constraints in terms of too many incidents of floods which cause them difficulties in developing an appropriate plan. The access to the market of these seeds is not evident. This can cause some discouragement to the group members in continuing producing such seeds.

Revolving funds have proven to lead to continuous saving activities and financial management capability within the group. Though, the connection between this group and other groups such as FWUCs and seed purification groups is fragile. This deters the full benefits of a capitalization of the groups' knowledge.

Output 2.3: Resilient design and management of reservoirs, irrigation canals, ponds and dykes promoted and demonstrated

2 reservoirs, 4 irrigation canals and 4 communal ponds have been re-designed in order to be more resilient to long dry periods and increased precipitation intensity. This result has been achieved in 2012. From the field observation, the irrigation structures in Bos Leav commune appeared to be climate-proofed. This statement is made after three floods in the year 2011 and 2012. It is a great advantage and output from the NAPA FU project, for the promotion of similar structures in the future.

The irrigation system has been extended in order to increase the irrigated surface during the dry season (355 ha of rice field land have been newly irrigated). An extended 150-meter canal in Boeuk Kak (Bos Leav commune) has been constructed. It links the existing concrete canal to rice fields and it enables farmers to extend their dry season rice in an area of 35 hectares. In Toeuk Krahom too, the canal system has been rehabilitated, leading to the extension of irrigated paddy fields during the dry season from 0 ha to 13 ha. The project set up 41 rain-water harvesting tanks, 3 community ponds, 62 pumping wells, 12 solar and 2 wind-powered pumps. Several ponds have been constructed (for example in Toek Kraham village), most often with an earthen structure. Those ponds can be used for growing seasonal vegetables during dry seasons, and they constitute a good solution to cope with climate stress.

While the MTR considered that little had been done during the first half of the project, those technical solutions have been achieved during the second half as expected. Moreover, farmers have been successfully trained to use those facilities in a sustainable manner. Therefore this result can be considered as achieved.

In order to disseminate the good practices concerning management of irrigation systems, a guideline entitled “The resilient irrigation training manual” is being printed. The manual is still not approved by the MoWRAM which may delay the wide spreading of such structures in the country, although there is an interest and positive appreciation from related line department officers and ministry officials who participated in the trainings. The draft manual is reported to be utilized in some other areas and the potential to be developed or at least used as a reference manual is high. The capacity to maintain and use climate change resilient irrigation systems is significant In order to strengthen the capacity to maintain and use climate change resilient irrigation systems, 30 PDoWRAM officials and FWUC members have benefited from trainings about fee collection and financial management of the facilities, the possibility in broadening the irrigation utilization is at high potential, and the resilient irrigation system is being appealed across the country. Fee collection is a major parameter in the viability of the project and it is still in-doubt at the time of the evaluation. Despite the willingness of the FWUC, the full implementation of a fee collection mechanism for the irrigation systems is not apparently arranged and applied. This mechanism relies on benefit sharing and utilization, financial management, and transparency and should be further supported

Another minor limitation is the utilization of ponds for irrigation purposes of vegetable production or home gardening. It seems to be limited and not of great interest for farmers due to the fact that the systems are not easily used by those who are far from the systems. They can be used only for household consumption during the dry-out spell of closer open wells. Furthermore, the mechanism to ensure the sustainability of these small scale irrigation systems/water points is unclear and not strong enough to enable their viability. Additionally, the arsenic concerns have hindered a full confidence of beneficiaries in using solar systems without negative long term impacts.

Outcome 3: Lessons learned in project pilot sites replicated in other vulnerable areas of Cambodia.

Educational materials on climate change such as resilient irrigation manuals, gender and climate change, farmer field school curriculums and information on best practices of the project have been reported being used by a number of other initiatives including the integration into IFAD/RULIP, UNCDF/NCDD-S, CCCA programme, IFAD/ASPIRE, LDCF-CCCA project of UNEP, PADEE, and the establishment of the MAFF CC Working Group with members from the project team. Under the new initiatives, the best practices and materials are expected to be utilized in such a way that can mainstream the concept of climate change into those implementing projects in other parts of the country including the target areas of IFAD/RULIP, Takeo and Battambang provinces of UNCDF/NCDD-S project, another project of LDCF-CCCA of UNEP, target area of PADEE project, and MAFF, Department of Agricultural Extension.

Output 3.1: Increased public awareness and environmental education programs on climate risk reduction designed and implemented

The Provincial Department of Women's Affairs (PDoWA) has been facilitating community trainings to raise the awareness of households on climate change concepts in pilot sites. In the target communes, it seems from the feedbacks of the interviewed persons, that 2,352 local community members, including 1,771 women, have better understanding about precautionary measures to adapt to CC as it was reported that climate change has become one of the major concerned and known points among villagers to be aware and ready. A training guideline of gender and climate change has been published and given to the Gender and Climate Change Committee of the Ministry of Women's Affairs. A regional knowledge dissemination workshop was organized in November 2013. Therefore, one can say that good efforts have been made to raise the public awareness to climate change risks thanks to education programs.

The project has supported awareness campaigns, reaching out 11,073 households representing 56.5% of the total households in the targeted areas. The materials and approaches used for the awareness campaigns are being adopted and replicated by a number of other donors or domestic-funded programmes and projects. There have been 13 local TV news coverage, 4 local radio clip broadcasts, and 10 local newspaper articles reporting about the project. There are also 9 web-based news coverage in national media, 5 featured stories on UNDP websites, 5 paper-based publications and 6 more are planned. One national/regional workshop has been organized, for experiences and best practices sharing purposes in September 2013.

Throughout the field visits, there were signs of climate change concepts understanding among stakeholders, albeit limitations on the connection between preparedness, adaptation measures and solutions to each specific intervention. Concerns over the financial resources limitation to tackle the issues were raised. This could be seen at the national level with all related stakeholders seeing climate change as important in the agenda of their agency or institution.

Output 3.2: Learning networks for climate-resilient farming practices established

2,625 women representing 65% out of 4,037 farmers have received extension services on climate change resilient farming methods and effective water management. They have deepened their knowledge about fund management and resilient farming techniques (seed purification, SRI, home gardening and animal raising). The project has shared experience and knowledge through the ALM such as project factsheet, photo stories, posters, training manuals, VRA reports, video clips, and success stories. This contributes significantly to the learning platform initiated with other UN supported projects under Outcome 3.

Output 3.3: Review of national policies on climate change adaptation based on lessons generated by the project

The project played a critical role in providing inputs for the development of various climate change strategies and policies at the national level, starting with the key ministries involved in the NAPA FU project. The list below presents a few strategies and policies which benefited from the output 3.3 of the project:

- Operational guidelines in mainstreaming climate change in sub-national planning: The NAPA FU project can be considered at the origin of these guidelines with a good cooperation with UNCDF/LGCC of NCDD-S to establish a roadmap for developing operational guideline for integrating climate change into sub-national planning. This is producing a long lasting impact in the country.
- Sectoral climate change strategy for Agriculture, Forestry, and Fisheries: it is another initiation with the support of the NAPA-FU project that brings in the climate change action plan for MAFF. The work on producing the strategy is co-financed by the project. This Action Plan is elaborated by the MAFF Climate Change Working Group in reference to

the MAFF Sectoral Strategic Planning and the Cambodia Climate Change Strategic Planning.

- Climate change and gender into one of the key pillars of MoWA's next five-year Neary Ratanak IV: it should lead to an agenda for climate change, considering women as one of the most vulnerable groups to global warming.

These are significant successes for the NAPA-FU project, but the road is still long to go. Learning lessons from adaptation to climate change is a systematic and continuous process since this issue is new. Hence, there is no guarantee that such process will continue to improve any future national strategy or policy.

It must also be added that the lessons learnt from the EWS need to be documented properly to avoid a misuse of financial resources in investing into such systems in the future in other areas.

The overall result has been rated as satisfactory, which corresponds to a rating of 5. The project has introduced new technologies into the areas bringing new adaptive practices and kleading to positive impacts in the targeted areas. It improved the livelihoods of the farmers, through integrated farming system and farmer groups organizations.

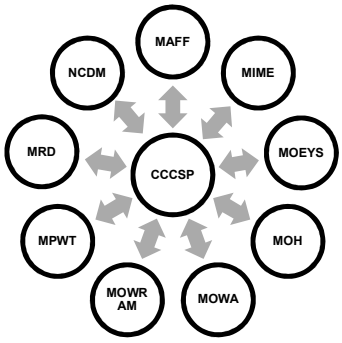
3.4.4 Relevance

Relevance regarding the targeted groups

Regarding the targeted groups, the project is considered as relevant. Indeed, the impacts of climate change are predicted to affect rice cultivation, and therefore constitute a threat for food security in rural Cambodia. The lack of knowledge of local populations about climate change reported in the project document shows that there was a need to raise awareness about climate change induced risks. The targeted groups also needed facilities such as pump wells, larger irrigation systems or rainwater containers. The activities of the project were relevant with regards to the needs, for example small scale irrigation systems, increasing food security, safe water drinking source provision, and DRR. Indeed, advanced and appropriate technologies have been provided and put on trial in the areas. Geographically, the locations of the target groups in the two provinces are perfectly selected: one is prone to flood, the other to draught. For example, 1,470 households benefit from the implemented facilities (62 pump wells, 3 community ponds, 41 rain water harvesting containers and 10 solar pumps). Consequences are already observable, since some of the farmers say that it leads to a gain in time and an increase in yields. The field visits in all villages has been confirming this statement.

Coherence between NAPA FU and national policies and strategies and the national context

Climate related extreme events are occurring more frequently: for instance, one week before the terminal evaluation mission, a significant flood impacted in Kracheh Province. This shows how important it is to promote climate resilient water management and agriculture practices in rural Cambodia.



On the institutional side, the relevance to the national context was also striking during the terminal evaluation mission: the third National Forum on climate Change was held from the 5th to the 7th of November 2013, with an Opening Ceremony in presence of the Prime Minister, Mr. Hun Sen.

The coherence between the NAPA FU and national policies and strategies is hence significant. The third National Forum on Climate

Change was the occasion to launch the Cambodia Climate Change Strategic Planning (CCCSP) for the period 2014-2024, which underlines that the strategies are going in the same direction.

This CCCSP sets among its main objectives to promote climate resilience through improving food, water and energy security. MAFF is one of the key line ministries under the CCCSP.

Coherence with the policies and strategies of financial partners

The project is coherent with policies and strategies of financial partners (UNDP and GEF). Indeed, the main problems tackled by the project are the ones the GEF is addressing, i.e. global environmental issues, in this case, climate change related problems. The activities of the project and the co-financing approach is coherent with the expected national and global environmental benefits of the NAPA FU project, the GEF being there to pay for the incremental costs.

The project is also relevant with UNDP's actions in Cambodia. It is in line with the implementation of the Cambodia Climate Change Alliance elaborated by UNDP with other financial partners (SIDA and the EU), and with the National Climate Change Committee (NCCC). The NCCC aims at coordinating national policy making, capacity development, and to monitor the implementation of national climate change strategy, policy and plans.

Finally, it matches not only the objectives of the prior UNDP Strategic Plan, but also those for the period 2014 to 2017.

The TE team confirms that the project is relevant. It is obvious from the TE mission, whatever the level, globally with the publication in 2013/2014 of the IPCC 5th assessment report (AR5), nationally with the publication of the CCCSP 2014-2024, and locally with the severe climatic-related events that occurred a few weeks before the TE mission. This explains the decision to rate the project as relevant.

In conclusion, the design for a first-of-its-kind project in relation to the NAPA has enabled to trigger various other climate change projects or actions across the country. Again, the TE Team considers the project as relevant (rating 2).

3.4.5 Effectiveness and efficiency

To guarantee the effectiveness of the project, the choice in selecting the members of the PSU has been essential. The team was set-up and co-financed by the IFAD, and NAPA FU benefited from this prior institutional arrangement. Overall, the support of the PSU is especially effective and efficient give the economies of scale enabled by the former.

Section 3.3 shows the extent to which objectives have been achieved. The evaluators consider that it is satisfactory. The effectiveness of the decisions process during the life-time of the project led to an optimal delivery of the expected outcomes. Consequently, most of the planned activities are implemented and achieved in an effective way. The geographical coverage of the project at the beginning was found to be minimal comparing to the allocated budget. However, the prominent achievement in terms of policy documents, outputs and applicable technological options for adopting and building resilient to climate change in the country at the end of the project is considerably worth invested. As for any project, some activities faced some minor delays because of the need to solve some institutional misunderstanding with some partners. For example, it was not planned to involve the MoWA at the beginning of the project, but only PDoWA. This rendered the legitimacy of the provincial departments difficult vis-à-vis the national level, hence the need to integrate the MoWA. At the end, the postponement of the project is extremely limited. A delay of 3 months has been observed for the project start, inception workshop and mid-term review and there was a delay of 2 months for the terminal evaluation. The project duration has been extended by 3 months.

It must also be emphasized that the support provided by the PSU in the field has been covering all essential steps to achieve the results and prepare a scaling up of the project.

Because of the difficulties to carry out the monitoring of the project, there is a lack of statistical data to ensure reliable economic analysis and measure the impacts on the beneficiaries per village /commune at this stage. This was discussed with the PSU and decisions have already been made to improve the M&E, especially with regards to impacts assessment. A call for tenders will be launched to have a dedicated consultancy on the matter in the next phase financed by Canada.

Finally, capacity building of final beneficiaries is confirmed from the interviews, resulting in improved knowledge on climate resilient practices. Water use facilities constructed and/or rehabilitated for the farmers have been properly implemented, especially after MTR review, such as irrigation systems, solar and wind water pumps and tanks. The new and appropriate irrigation systems are better than just building simple ponds which had been introduced before the MTR and created doubtfulness for achieving the purposes. Capacities in using short-cycle seeds, agricultural materials and equipment have also significantly been strengthened.

According to the field visits and to the budget analysis (see section 3.2.4), results have been delivered with the least costly resources possible. A good cooperation between stakeholders and the implementation of activities in partnership with RULIP has increased the efficiency of the project.

In conclusion, in terms of assessment against GEF criteria, the achievement and mechanism being used by incorporating other projects including IFAD/RULIP and PADEE was effective in the sense that it mainstreamed adaptation and allowed to promote resilient agricultural practices in other projects. The outcomes such as irrigation systems, water tanks, and solar pumps were efficiently reached: the project was able to rely at low costs on the existing national and local structures, despite the limited budget. The quality of the investments (climate proofed infrastructures) to resist to extreme events such as floods is sizeable and recognized as such by stakeholders. The TE Team gives a rating of 5 to both the efficiency and the effectiveness of the NAPA-FU project.

3.4.6 Country ownership

The country ownership is satisfactory, since a significant number of governmental agencies have been involved (MAFF, MoWRAM, MoE, etc.). Because of a good organizational structure, the country has addressed the issue of climate change to different levels: national, provincial, district and commune.

The fact that the country is involved at each administrative level is a strength. Each level has its responsibilities and it is encouraging to observe that the country's focus only the national level.

The output 3.3 directly reflects the country ownership, since it indicates the inclusion of lessons learnt by the project in national policies on CC adaptation. The project, in partnership with MoE and MAFF Climate Change Working Group has enabled to prepare the MAFF Action Plan. Moreover, the coordination with MAFF Climate Change Working Group has been done in view of using the project sites as learning sites.

3.4.7 Sustainability

Sustainability of the project is favored by a good institutional framework: the project implementation is provided by the PSU, facilitating capacity building for sustainability of adaptation measures developed. The strong commitment of communes and user groups to implement a fees collection system to maintain equipment such as irrigation systems in the long

run is also encouraging, although further efforts are needed. Sustainability is also strengthened by capacity building of project stakeholders in the field of climate change adaptation. By claiming that the project is “sustainable” it essentially means that the Government can reach out to these non-targeted farmers who wish to receive similar support. Are communes, districts, or provinces ready to budget the similar activities promoted in the project with domestic resources? (Financial sustainability). Are institutions that provided support during the project implementation (e.g. those that worked on VRA; those that worked on resilient farming techniques; those that worked on resilient irrigation design, etc) ready to expand into new geographical areas and replicate what NAPA project did?

In general terms, the third outcome of the project is essential to guarantee sustainability. Indeed, raising awareness of the populations and of the different stakeholders is necessary to root the good practices learnt thanks to the project deeply in the mentalities.

From the third outcome, which relies on an information and replication approach, the project demonstrates its development dimension. However, awareness of the benefits of the project and willingness to increase them could be reinforced.

Some technical problems have still to be solved. In the case of the NAPA FU, the most urgent one is to find a solution regarding the presence of arsenic in some dwellings, which could affect the durability of the project. Moreover, a financial support for ensuring the operation and maintenance of the irrigation systems is to be found, whereas it is already well designed for solar pumps, and revolving funds.

Additionally, the sustainability of the established groups including seed purification groups, integrating farming system and home gardening are generally focusing on production sides which is appropriate for household consumption. To foster the sustainability of these actions, an improved access to market-based resources would be useful.

To conclude, the continuation of the project into another phase under Canadian support is a sign of financial availability, efficiency and proper financial resources management. Apart from this, there are a range of financial potential supports from other institutions like the ADB (PPCR) and other financial injection from CCCA. But ensuring marked-based sustainability has not enough been taken into consideration, explaining the rating from to TE team at a level of 3.

3.4.8 Impact

Impact on beneficiaries

In the communes, the support of NAPA FU consisted the establishment of crops diversification (vegetables) and investments in water resources management (irrigation systems, ponds, water tanks, etc.), which proved to have positive impacts on the livelihoods of the people.

According to the beneficiaries, one of the first impacts of those measures is the introduction of short-cycle and resilient crops (rice). In all the villages visited during the final evaluation mission, the beneficiaries have recognized during the interviews the benefits from the new seeds and accompaniments (equipment and advice) provided by the project.

These measures have generated a significant additional income, but should be substantiated by an in-depth impact study. Villagers mentioned during the interviews led by the evaluators that they benefit from additional nutritional source or food source with lower risks and expenses, by adopting integrated farming systems and practicing home gardening. Furthermore, irrigation systems have led to a substantial gain in time accompanied by an increase in rice yields according to some farmers.

Impact on non-target groups

Non-targeted groups have been hearing about the benefits of the NAPA FU project. Some farmers from these no-targeted groups are already requesting to benefit from the project in the future. It shows that the project is well accepted not only in the targeted communes but also beyond.

Because of the difficulties encountered for the implementation of the sophisticated M&E system, there are missing data regarding early warning system, rice improvement, water filters and impact of the project resulted from the activities. Therefore, some of the project impacts are difficult to quantify, but qualitative observations tend to show that these impacts are substantial.

Impact at national and provincial level

Building on the current coordinating efforts and learning platform with other climate change initiatives, the NAPA FU project, UNDP/GEF SGP and UNCDF had succeeded in advocating and institutionalizing climate-sensitive planning in the country. This has resulted in the establishment of a road map and a core working group within NCDDS, which oversees sub-national development planning processes.

The sub-national planning guideline and the development of an operational guidance note to mainstream climate change into this revised guideline are reported to be currently on-going with the assistance from the NAPA FU project which is expected to be finalized by the end of 2013 for an endorsement by the Government of Cambodia.

The overall impact of the project is considered by the TE team as significant, with a rating of 3. The impact of the project on the livelihoods of the rural population is important, and the farmers are better off since the project start.

3.5 Issues and Challenges

Early warning systems have been proved as a useful and important tool for helping villagers in adapting to climate change, especially from extreme climatic events. The challenge is now to take advantage of this experience for the whole country.

In relation to the sustainability criterion, some further steps about the transferring of tasks to designated departments and Commune Councils after the project end are needed.

The sophisticated M&E system was not adopted in the project which caused missing quantitative information regarding EWS, rice improvement, water filters and impact of the project resulted from the activities. It can be considered as one of the weak points of the project, preventing to quantify all the expected impacts of the project, but it is believed for the interviews during the terminal evaluation, that instead of spending too much time on M&E, resources were put wisely in activities in the field to optimize the project activities and increase the impacts on the livelihoods of the beneficiaries. As far as M&E is concerned, the caveat has to be qualified since indicators have successfully been monitored. The lack of data mainly concerns the quantification of the project impacts, and the consequences of changes in agricultural practices and implementation of facilities like irrigation systems (is there really an increase in yields? an increase in incomes for the farmers?). Hence, the evaluation concludes that the balance regarding M&E and other activities is moderately satisfactory.

One technical challenge is the problem of high level concentration of arsenic in two of the tanks in Kracheh Province. There is an urgent need to overcome the presence of arsenic: as the related organizations are not specialized in drinking water, there is a risk of frustration in some villages where the water is not used yet because of the presence of arsenic and unknown consequences if used improperly. Solutions do exist. A clear message and more monitoring should be done to orient the demand for water towards non drinking uses.

The main challenge for the future will be the maintenance of the constructed infrastructure. Two components are essential: knowledge to use the infrastructures adequately and funding to renovate it when necessary. Concerning the funding, the collection of fees is a good mechanism to ensure the maintenance of some investments done by the project. The mechanism seems to be not fully operated although the willingness and political will is there. This is especially true for the irrigation systems. Indeed, expressing a willingness to pay is not sufficient: the evaluation recommends concentrating on ensuring that the fees collection mechanisms are implemented in the short-term.

Seed purification, agricultural improved group, and FWUC seem to lack of an accounting system. The sustainability of these groups is at stake if not strongly and fully supported in a long term perspective. Moreover, the future expansion/scaling-up of the project may face some challenges if not properly staffed or extended. The PSU is aware of the weakness and intends to take action in the short to enable these groups to become fully autonomous.

It was indicated to the evaluation team that the Governmental counterparts involved in the project work without any allowance incentives, and that UNDP CO should think about such incentives (in a similar way as ADB and IFAD). This situation may lead to difference of treatment between staff recruited by UNDP under the project and Governmental experts working together.

4 Lessons learnt and recommendations

This section presents the lessons learned and recommendations for eventual corrective actions, for instance to reinforce the benefits from the project, for future directions and new adaptation projects, and for capitalizing best practices in addressing issues relating to relevance, performance and success.

Indeed, lessons learned can also contribute in helping to sharpen the actions in the years to come, by addressing issues such as what is the rationale for the second phase or how have expectations from users, stakeholders, beneficiaries and donors evolved against the PSU capacity.

4.1 Lessons learnt

From both the TE mission and the documents produced by the project, a number of lessons learnt have identified that could be taken into account for any similar initiatives. The key lessons learnt are described hereafter.

4.1.1 Responses to significant needs

In general terms, NAPA FU has addressed a crucial need to cope with climate change. The support brought by the project corresponded to the needs of the beneficiaries. For instance, positive impacts of technical solutions have been observed (gain in time, increase of productivity). Concerning the third outcome, most of the stakeholders of the project at the national and sub-national level had not really known about climate change before the commencement of the project. The third outcome responded to this need, since most of the concerned parties, provincial decision makers, farmers, commune councils members, are now aware of the climatic risks and trends. The need to adapt and to become resilient to phenomena that will worsen is better understood by the beneficiaries, and solutions or options to cope with it as well. The project mainly concentrated on the local level, as shown in the logical framework (the two firsts outcomes are dealt locally and only the third outcome have a national reach). The project showed that this way to proceed is relevant to address the needs of local populations, even if two approaches at local and global level are complementary and crucial to ensure the sustainability of the project. Finally, the three outcomes interacted properly to contribute to the overall project objective.

It must be added that there are still some differences between communes. For instance, the early warning system is more successful in Bos Leav, Kracheh Province, than in other places according to the interviews with the different commune councils. It may be due to the fact that the need was greater in Bos Leav, which has led to a higher involvement of the local stakeholders.

4.1.2 Project interactions

Working with various projects (e.g. RULIP) at the same time can help the operation of the project to be more effective than a standalone project. Synergies can be developed between projects with sharing knowledge and experience. In the cooperation between NAPA FU and RULIP, MAFF PSU, UNDP and IFAD have mutually benefited from shared technical expertise in agriculture and climate change

However, this may lead to some kind of competition between projects, a situation found in many countries, leading to a risk of disengagement of some stakeholders. If this was particularly true at the beginning of the project, the situation enhanced afterwards. At the end of the project, the situation has significantly improved with a good complementary in funding activities between the

two donors.

Project interactions should also be sought with the PPCR and the Asian Development Bank. This requires most probably to be dealt at a high level given the difficulties on the ground to cooperate effectively with ADB's activities. It may appear frustrating in some cases to see that earlier or current activities implemented by the NAPA FU or other projects are not sufficiently taken into account in the PPCR.

Another important interaction should be with the project entitled "Strengthening the resilience of Cambodian rural livelihoods and sub-national government system to climate risks and variability". This UNDP/GEF project is at the identification phase and it could benefit from the inputs and lessons from NAPA FU.

4.1.3 Cross cutting issues and coordination efforts

Due to the introduction of climate change concepts, some continuing coordination efforts are required to adequately capitalize the past, present and future efforts in order to produce an increasing visible integration of climate change issues into national and local strategies and policies within various institutions. From this perspective, partnering institutions such as UNDP/SGP, LGCC of UNCDF, Asian Development Bank, NGOs and Governmental institutions such as MoWA, MoWRAM, MoE, CCCA, NCCC, NCDDS, have been engaged and have created noticeable achievements over the past years.

4.1.4 Monitoring, follow up and investment needs for mainstreaming activities

Key factors to the success of the mainstreaming activities are to follow up continuously with tangible investment support, a strong focus on community participation and hand-holding support from local authorities. Without investment support, it can demotivate the mainstreaming efforts of the stakeholders especially at provincial, district and commune level.

Additionally, the investment might be interpreted poorly unless an appropriate assessment of the impacts has been measured effectively and empirically. This will lead to various challenges in terms of generating and managing data for evidence-based result reporting.

4.2 Recommendations

4.2.1 Users' groups sustainability

Making the users groups sustainable is a must. For example a transparent and accountable management needs to be followed up and supported strictly by formalizing group accounting systems. Those measures suppose that everybody has a clear vision of the stakes of a group management. Therefore, efforts have to be continued in the same direction to raise awareness and enable these groups to become autonomous and no more dependent from the project.

4.2.2 Set-up fee collection mechanisms

Given the positive impacts of the project, it is urgent to focus on the maintenance of the investments. The best way to maintain the tanks, ponds, and above all irrigation systems is via fees collection mechanisms. While some preliminary ideas have been elaborated by the NAPA FU project to consider introducing such fees, this should be enforced.

This has been discussed at length during the evaluation with many stakeholders. The willingness is there to implement such a payment mechanism, but it is not clear when this will be implemented. The PSU, with the support of UNDP, MoWRAM and MAFF, should work at two different levels to push for the implementation: at the communal one, to set up a fee collection

regime under the responsibility of the communes, and at national level with some clarifications in the legislative documents and existing laws.

While fee collection is mentioned in the law, the legal and institutional conditions at the national level remain weak. It is recommended not to wait for a national framework but work with the commune councils and water users' groups in the two sites, before considering a scaling up of such mechanisms.

4.2.3 Market linkages

The link between farmers, local traders, suppliers, technicians, etc. should be further promoted. It seems that communication between the different stakeholders of the rice sector can be improved. A better knowledge of the impacts of climate variability on rice sector by the local traders or suppliers would indeed be beneficial.

The sector needs also to improve the level of coordination between different stakeholders in order to be more efficient and more organized. With the development of measures to forecast and disseminate data about weather and climate, it should be easier to organize the supply chain for food products taking into account climatic events (drought, flood). Not only farmers, but also food commodities traders do take into account weather forecasts to optimize food storage capacities and uses.

4.2.4 Continue to indirectly enforce the communes

The project is enforcing the communes by supporting them in having responsibilities, when some investments are handed over to them for example. This is especially important in the context of the D&D and the NCDD (National Committee for Democratic Development).

This goes together with further networking with communities to share best practices, building partnerships and finally scale up the project activities to the whole country. It is therefore highly recommended to continue such cooperation with the commune councils in the future, in line with the D&D reform.

4.2.5 Improve the monitoring and evaluation process

There is a low amount of quantitative data from the M&E, and while the positive results are visible qualitatively speaking. The quarterly reports are very relevant and this should be continued.

Still, it is difficult to assess them and impact assessment should be more emphasized. The PSU is currently working on this topic, in order to benefit from a technical assistance on impacts assessment. It is expected that an operational M&E system is expected to be implemented in the second phase of the project starting with this Impact assessment study.

The next phase of the project will foster the M&E system, starting with the impacts assessment study. It is recommended to focus on a result-based and impact-based M&E system.

4.2.6 Prepare linkages with new climate adaptation and resilience projects

At least three new projects on climate change adaptation and resilience are expected in the coming months. The first one is the second phase of the CCCA, and given the existing strong interactions between both the first phase of the CCCA and NAPA FU, there is a high level of confidence that the second phase of CCCA will rely on the outputs of the NAFA FU.

The two other projects to be started are the PPCR and the UNDP/GEF project "Strengthening the resilience of Cambodian rural livelihoods and sub-national government system to climate risks

and variability" at the identification stage. The PSU should work on strengthening the linkages with the key institutions involved in the PPCR, especially the Asian Development Bank, and be kept informed about the formulation of the new UNDP/GEF project on resilience.

4.2.7 Tackle the problem of arsenic

Measurement of arsenic concentration has to be done to determine the level of contamination over time, using various labs. The level and the trend should then be compared with national and international guidelines on the matter. Before those compulsory measurements, it is necessary to communicate to the villagers near the affected tanks and adapt water management to the presence of arsenic (orient the water demand towards non drinking uses when possible).

5 Annexes

5.1 Terms of Reference

An overall approach and method for conducting project terminal evaluations of UNDP supported GEF financed projects have developed over time. The evaluator is expected to frame the evaluation effort using the criteria of relevance, effectiveness, efficiency, sustainability, and impact, as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included. The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report in consultations with UNDP Country Office, the project team and the UNDP Regional Technical Advisor, and shall include it as an annex to the final report.

The evaluation must provide evidence based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP Regional Technical Adviser based in Bangkok and key stakeholders. The evaluator is expected to conduct a field mission to the two target provinces namely Kracheh and Preah Vihear. The detailed schedule of the field mission will be developed during the inception stage when the evaluator designs the evaluation methodology and approach. Interviews will be held with the following organizations and individuals at a minimum:

- the Project Board members;
- the GEF Focal Point;
- the core project team based at the MAFF's Project support Unit;
- Representatives of UNDP Country Office and the UNDP Regional Technical Advisor
- Representatives of IFAD and the Rural Livelihood Improvement Project team
- Representatives from the provincial councils, district/commune councils from the target provinces and communes supported by the project
- Local authorities and beneficiaries

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in the Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see Annex A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: relevance, effectiveness, efficiency, sustainability and impact. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included.

Evaluation Ratings:			
1. Monitoring and Evaluation	***rating***	**2. IA& EA Execution**	***rating***
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	**rating**	**4. Sustainability**	**rating**
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

PROJECT FINANCE / COFINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US$)		Government (mill. US$)		IFAD (mill. US$)		Total (mill. US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants	1.309	1.309	0	0	0	0	1.309	1.309
Loans/Concessions	0	0	0	0	0	0	0	0
In-kind support	0	0	0.180	0.180	0	0	0.180	0.180
Parallel	0	0	0	0	9.443	9.443	9.443	9.443
Totals	1.309	1.309	0.180	0.180	9.443	9.443	10.932	10.932

MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of conclusions, recommendations and lessons.

5.2 List of persons interviewed

Name	Position	Contact
Kalyan Keo	UNDP, Programme Analyst	+885 23 216 167 Kalian.keo@undp.org
Julien Chevillard	UNDP, Trust Fund Administrator Cambodia Climate Change Alliance	855 23 6403 833 Julien.chevillard@undp.org
Sophat Chun	UNDP, Programme Officer (M&E) Management Support Unit	+855 23 216 167 Sophat.chun@undp.org
Navirak Ngin	UNDP National Coordinator	+855 23 216 167 Ngin.navirak@undp.org
Suos Pinreak	National Advisor, UNDP/NAPA FU	
Ngin Navirak and Hou Serey Vathana	UNDP/SGP	+855 12 844 083
Chanthou Hem	ADB, Senior Project Officer, Cambodia Resident Mission	+855 23 215 805 chem.@adb.org
Kob Math	ADB, Climate Change Specialist, Cambodia Resident Mission	+855 23 218 805 Mkob.consultant@adb.org
Soma Dor	Embassy of Sweden, Programme Officer	+855 23 861 700 Soma.dor@foreign.ministry.se
Hok Kimthourn	National Project Manager, MAFF/PSU	
Ung Dara Rat Moni	Policy Advisor, MAFF/PSU	
Meng Sakphouseth	MAFF/PSU	+855 12 928 093
OukVuthirith	MAFF/PSU	
Prak Thaveak Amida	MAFF Technical Team on Climate Change	
Mak Soeun	Director, MAFF/DAE	
Chutleang Vanny, Chhun Hak and Cheng Chinneth	MoWA working group on Climate Change	+855 11 769 476

Table 8. List of persons interviewed

5.3 Schedule and summary of field visits

Date	Time	Meetings	Location	Who
24 Oct.	8:00–8:45	Meeting with UNDP Country Office Topic(s): Overview of the mission schedule and general introduction	UNDP Fishbowl, B.5	▪ Kalyan Keo, Programme Analyst, UNDP ▪ Sophat Chun, M&E Officer, UNDP
	09:15–11:00	Meeting with MAFF/PSU and project team Topic(s): Presentation on evaluation methodology, expected results and work-plan.	MAFF/PSU	▪ Hok Kimthourn National Project Manager, MAFF/PSU ▪ Ung Dara Rat Moni Policy Advisor ▪ Suos Pinreak National Advisor UNDP/NAPA FU
	11:00-11:30	Meeting with IFAD (CPO) and RULIP project manager Topic(s): Partnership and mainstreaming synergy building, CCA in mainstreaming of good practices into the upcoming IFAD supported projects.	MAFF/PSU	Mr. Meng Sakphouseth 012 928 093 Mr. OukVuthirith
	15:00-16:00	Meeting with MAFF Technical Team on Climate Change. Topic(s): MAFF Strategy on climate change. and linkages with others MAFF Strategic Papers	MAFF	MR. Prak Thaveak Amida
	16:00-17:00	Meeting with ADB/PPCR on partnership and opportunity for scaling up Climate Resilient Initiatives.	ADB	Mr. Chanthou Hem, Senior Programme Officer, ADB Cambodia Contact: 012 262 265
25 Oct.	09:00-09:45	Meeting with MAFF Agriculture Extension Department. Topic: Experiences of MAFF Agri. Extension in implementing climate change project.	MAFF	Mr. Mak Soeun, Director, MAFF/DAE 012
	10:00-11:00	Meeting with MoWA working group on Climate Change Topic(s): Gender and Climate Change Adaptation, experience generated from the project and their contribution to the ministry strategic papers	MoWA	Mrs. Chutleang Vanny, Mr. Chhun Hak Mrs. Cheng Chinneth 011 769 476
	14:00-15:30	Meeting with UNDP/SGP and CCBAP Topic(s): VRA and mainstreaming CCA in local planning processes.	UNDP	Ms. Ngin Navirak 012 844 083 Mr. Hou Serey Vathana
	16:00-17:00	Meeting with NCDDS/LGCC Partnership, scaling up and mainstreaming climate change in local planning processes.	NCDDS	Mr. Sar Kosal 012 915 363
		Desk review of existing documents	UNDP	
Project Field Visits				
27 Oct.	12:00-17:30	Travel to PreahVihear province		TE Team
28 Oct.	8:30 – 12:00	Meeting with provincial administration and departments Topic(s): Project implementation and achievement - Separate meetings with concerned provincial departments (PDA, PDoWRAM, PDoWA)	Provincial Administration	PoengTryda, Vong Lo, Or Sokhom, Prum Vimean, Luk Kimlean and provincial project team
	14:00-17:00	Meeting with project beneficiaries	Teuk Krahorm commune	farmers (water user, farming system improvement, and seed purification groups)
29 Oct.	8:00-12:00	Meeting with project beneficiaries	Teuk Krahorm commune	commune chief, district staff, irrigation system, and water

				tank
	13:00-18:00	Travel to Kracheh province		TE Team
30 Oct.	7:30 – 12:00	Meeting with project beneficiaries	BosLeav commune	farmers (FWUC, water user and seed purification groups)
	14:00-17:00	Meeting with project beneficiaries	BosLeav commune	commune chief, district staff and
31 Oct.	8:30– 12:00	Meeting with provincial administration and departments Topic(s): Project implementation and achievement	Provincial Administration	Pen Lynath, Heng Monida, Eang Phalkun, Kuy Huot, Leang Seng, Bun Sithot, LoeungSina, Chin Bunrith, and provincial project team
	14:00 – 17:30	Travel to Phnom Penh		
01 Nov.	9:00-10:30	Meeting with MoWRAM Topic(s): Water Resource Management Policy and Climate Change Adaptation.	MoWRAM	Mr. Keo Sovathapheap, Tel:012889959
	11:00-12:30	Telephone interview with UNDP Regional Office	UNDP	Mr. Yusuke Taishi, Regional Technical Specialist
	16:00-17:00	Informal debriefing with project team at MAFF/PSU	MAFF/PSU	Project Manager, Advisors and team
04 Nov.	10:00 – 11:00	Meeting with CCD/CCCA Topic(s):status of CCCSP and their implication on the current and future climate change projects/programs	MoE	Mr. Julien Chevillard, Trust Fund Advisor, UNDP
	11:30 - 12:00	Meeting with Swedish Embassy	Swedish Embassy	Soma Dor, Programme Officer, Swedish Embassy
	16:00-17:30	Debriefing with UNDP	UNDP	Kalyan Keo, Programme Analyst, UNDP
5-7 Nov.	7:30-20:00	Participating in the 3rd national climate change forum	Venue of National Climate Change Forum	
18 Nov.		First draft of TE report share with UNDP and MAFF/PSU for comments		TE team
30 Nov.		Submission of the final TE report		TE team

5.4 List of documents reviewed

- Annual project reports : 2010, 2011, 2012, 2013
- Inception Report, Mid-Term Review – NAPA Follow up Project
- Perception survey on "Level of knowledge and awareness on climate change and its impact on agriculture and water resources". 2011
- Cambodian Agricultural Research and Development Institute (CARDI). Final Report. Terms of References for Promoting_Resilient Farming System and Reducing of Climate Change by Planting Rice Varieties Tolerance to Drought and Submergence Conditions. 2011.
- Cambodian Agricultural Research and Development Institute (CARDI). Final Report. Promoting_Resilient Farming System and Reducing of Climate Change by Planting Rice Varieties Tolerance to Drought and Submergence Conditions. 2010. March 2012.
- Factsheet. Promoting Climate Resilient Water Management and Agricultural Practices in Rural Cambodia. September 2011
- Institutional and Farmer Group Assessment Report. NAPA Follow up Project. 25 September 2013.
- Gender Action Plan. NAPA Follow up Project. August 2011.
- Brief update on Gender Action Plan implementation. 2011
- Gender Mainstreaming Strategy for Promoting Climate Resilient Water
- Management and Agricultural Practices in Rural Cambodia. 13 November 2009.
- Log frame amendment. July 2011.
- Strategic Results Framework. July 2011.
- Minutes of the Second Project Board Meeting. Promote Climate Resilient Water Management and Agriculture Practices in Rural Cambodia. 21 September 2011.
- Minutes of the Third Project Board Meeting. Promote Climate Resilient Water Management and Agriculture Practices in Rural Cambodia. 21 September 2011.
- Minutes of the Fourth Project Board Meeting. Promote Climate Resilient Water Management and Agriculture Practices in Rural Cambodia. 21 September 2011.
- NAPA Follow-up Inception Report. March 2010
- UNDP-Project. NAPA Follow-up Program Assessment.
- NAPA Follow-up Project Document. 2010
- Climate Resilience Through Water Management Capacity. Promoting Climate Change Resilience in Farm Water use. September 2011.
- Project Fact Sheet. February 2010
- Mid-Term Review, final Report. NAPA Follow-up Project. August 2012
- Evaluation od Climate Change Resilient Farming Practices and Review of FFS Curriculum. NAPA Follow-up Project. March 2013.
- Guidance Note for Reporting Evidence-Based Impacts from CCA projects. May 2013.

- NAPA Follow-up project, Househhold Survey. Template.
- Project Document, Promoting Climate-Resilient Water Management and Agricultural Practices in Rural Cambodia (NAPAFU Phase2). Janvier 2013.
- Step-by-Step Guidance Note for Beneficiary Selection. July 2013.
- Quarterly Progress report, quarter 1, NAPA Follow up project. 2013.
- Quarterly Progress report, quarter 2, NAPA Follow up project. 2013.
- Quarterly Progress report, quarter 3, NAPA Follow up project. 2013.
- Management Response (DRAFT). Mid Term Review. June 2012

5.5 Evaluation Question Matrix

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels,			
To which extent the contribute to the RGC major policy papers	Number of lessons learned, practices introduced	RGC Policy papers Reports	Desk review, reports
Contribution to sectors of agriculture and water?	Resilient techniques and best practices	RGC policy and strategic papers. Reports	Desk review and reports
Contribution to regional initiatives e.g. Financing CC at the local level?		Reports	
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
Improved capacity of SNAs and local institutions involved in the project in target and non target areas?		Reports M&E campaign	
Number (gender disaggregated) of direct and indirect beneficiaries?			
Adoption of resilient technologies introduced by the project in the target and non target areas?			
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
Performance of the National Execution approach in the project at national and sub-national levels?			
Factors that should have improved the project delivery?			
Experience of the multi-sector approach?			
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
Ownership and leadership of the SNAs in maintaining the project achievement?	Inclusion in the local planning process	CIP documents	
Commitment of public service providers to provide technical support?	Action Plan or Exit Strategy	Letter of Agreement?	
Fund raising campaign to sustain and develop the project achievements?			
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
How do the project activities contribute to the decrease of vulnerability?	Vulnerability index	VRA reports	Reports
How do the project activities contribute to the Food security			

Table 9. Evaluation questions

5.6 Pictures taken from the terminal evaluation mission

Courtesy, from Pinreak Suos

Field visit, solar water pump and tank at NAPA FU beneficiary place in Teuk Krahorm Commune, Preah Vihear Province, 28 October 2013

Meeting with the FWUG and the Commune Council, Teuk Krahorm Commune, Preah Vihear Province, 29 October 2013

Field visit, irrigation system, Teuk Krahorm Commune, Preah Vihear Province, 29 October 2013

Field visit, wind water pump, tank and pond, Teuk Krahorm Commune, Preah Vihear Province, 29 October 2013

Meeting with villagers, Bos Leav Commune, Kracheh Province, 30 October 2013

Solar water pomp and tanks, Bos Leav Commune, Kracheh Province, 30 October 2013

Meeting with the FWUG and the Bos Leav Commune Council, Kracheh Province, 30 October 2013

Field visit, irrigation system, Bos Leav Commune, Kracheh Province, 30 October 2013

Field visit, farmer using equipement provided by the project, Bos Leav Commune, Kracheh Province, 30 October 2013

Meeting with the Provincial departments, Kracheh Province, 31 October 2013

Participation to the 3rd National Forum on Climate Change, 5 November 2013