



Ministry of Agriculture  
Forestry and Fishery



## ANNUAL PROJECT REPORT 2010

**United Nations Development Programme**

**Cambodia**

**Promoting Climate Resilient Water Management and Agricultural  
Practices in Rural Cambodia (NAPA Follow Up)**

**[01-01-2010 – 31-12-2010]**



Farm rice trial in Preah Kunlong, November 2010

**Project ID:** 69653

**Duration:** 4 years

**Total Budget:** US\$3,090,350

**Implementing Partners/Responsible parties:** Ministry of Agriculture,  
Forestry and Fisheries (MAFF) Project Support Unit (PSU)

**Country Programme Outcome:** National and local authorities are better  
able to conserve biodiversity and respond to climate change.

## **Table of Content**

<b>Table of Content</b>	<b>1</b>
<b>ACRONYMS</b>	<b>2</b>
<b>I. EXECUTIVE SUMMARY</b>	<b>3</b>
<b>II. IMPLEMENTATION PROGRESS</b>	<b>4</b>
<b>CAPACITY DEVELOPMENT</b>	<b>12</b>
<b>GENDER</b>	<b>12</b>
<b>LESSON LEARNED</b>	<b>13</b>
<b>III. PROJECT IMPLEMENTATION CHALLENGES</b>	<b>13</b>
<b>a. Updated project risks and actions</b>	<b>13</b>
<b>b. Updated project issues and actions</b>	<b>14</b>
<b>IV. FINANCIAL STATUS AND UTILIZATION</b>	<b>16</b>

## Acronyms

ALM	Adaptation Learning Mechanism
AWPB	Annual Work Plan and Budget
CARDI	Cambodian Agriculture Research Development Institute
CC	Climate Change
CIP	Commune Investment Program
CPAP	Country Program Action Plan
CWA	Climate (Change Adaptation) in Water and Agriculture
D&D	Decentralization and De-concentration
IFAD	International Fund for Agriculture Development
FFS	Farmer Field School
FFD	Farmer Field Day
FWUCs	Farmer Water User Communities
GEF	Global Environment Facility
LDCF	Least Developed Country Fund
MAFF	Ministry of Agriculture, Forestry and Fishery
MOWRAM	Ministry of Water Resource and Meteorology
NAPA	National Adaptation Programme of Actions to Climate Change
NGO	Non Government Organization
NCDD	National Committee for Democratic Development
PDA	Provincial Department of Agriculture
PDOWRAM	Provincial Department of Water Resource and Meteorology
PDOWA	Provincial Department of Women Affairs
POC	Program Operation Cost
PSU	MAFF Project Support Unit
RULIP	Rural Livelihood Improvement Project
SGP	Small Grants Programme
SRI	System of Rice Intensification
SCW	Save Cambodia Wildlife
TSU	Technical Support Unit
UNDP	United Nation Development Programme
VRA	Vulnerability Reduction Assessment

## I. Executive summary

Farmers in the project target communes of Kratie and Preah Vihear are very pleased with the results of rice trials, which the NAPA Follow-up project conducted in collaboration with Cambodian Agriculture Research and Development Institute (CARDI). The project supported Provincial Departments of Agriculture (PDAs) in conducting 30 rice trials on six rice varieties to assess their performance under drought and sub-mergence conditions. Five of the six varieties performed so well that farmers requested that more rice trails be done in 2011. They also demanded that the improved rice seed be made more readily available to farmers. In response, the project will expand the trails to other communes and will also start a smallholder farmer seed multiplication programme for the improved seed 2011. The six varieties tried in the target areas are also among the ten rice varieties endorsed by government in promoting the new Paddy Production and Rice Export Policy launched in August 2010.

Farmers in target communes also benefited from climate change (CC) resilient farming practices and crop varieties through a 20-week farmer field school (FFS). The FFS focused on teaching farmers an Integrated Farming System (IFS), which included theory and demonstration on system of rice intensification (SRI), vegetable gardening, chicken and pig raising and composting. FFS is aimed at improving the CC adaptive capacity of farmers and rural people livelihood through agricultural diversification.

In partnership with UNDP/GEF Small Grant Program, project staff and government counterparts from collaborating line departments in the target area gained new skills in vulnerability reduction assessment (VRA) VRA is a participatory process, which assists development practitioners and communities to gain an in-depth understanding of CC vulnerabilities in a community and the challenges that a community faces in coping with climate change related risks. VRA exercises were conducted in 13 villages in two target communes of Kratie and Preah Vihear where farmers were able to rate their own vulnerability, identify key CC adaptation barriers and propose activities which the project could engage in, in order to respond to their needs. Priority activities identified in the VRA exercise have been integrated in 2011 annual work plan and budget (AWPB).

At the beginning of project implementation, project staff and government counterparts from collaborating ministries and line departments did not fully understand the relevance of climate change adaptation in agriculture and water. Through project workshops, VRA trainings, local and international exchange visits, and a specific training provided in collaboration with the Climate Change Department of Ministry of Agriculture, project staff at the national and sub-national level is aware of the impacts of climate change on agriculture and water resources. At the commune and village level, farmers are now aware of climate change and how impact on their lives and livelihoods through community fora with line-departments, NGO partners, local authorities and community people. In an effort to increase public awareness and environmental education on climate risk reduction in the target areas, UNDP and MAFF/PSU has just welcomed on board Save Cambodia's Wildlife (SCW). This NGO has been recruited to design and implement an evidence-based Public Awareness and Outreach Initiative, which is responsive to the project focus areas.

In general, project implementation in the first year concentrated on designing the project institutional arrangements and capacity building of project staff and government staff. The project also focused on laying the foundation for CC adaptation demonstration in 2011. The foundational work included increasing the level of CC awareness among project staff, identifying CC adaptation priorities with the communities, identifying appropriate technologies to be demonstrated in 2011.

The project faced a few challenges during the first year of implementation. The late start of project implementation limited the number of activities that could be done in the first year. As a result some of the project expected results will be realised in 2011. The late start was compounded by suspension by the Royal

Government of Cambodia of salary supplements paid to government staff working on development projects. The suspension delayed the recruitment and appointment of government counterparts to the project resulting in the slow start of project activities.

## II. Implementation progress

### PROGRESS TOWARDS PROJECT OUTPUTS

<b>OUTPUT 1.1: Commune Council Plans and budgets address inherent climate risks in target districts</b>			
<b>Output Indicators</b>	<i>Baseline (September 2009)</i>	<i>Target (August 2013)</i>	<i>Current status (December 2010)</i>
● Number of commune development plans with climate risk safeguards and anticipatory risk reduction activities.	Climate Risk Management is absent from commune development plans.	By the end of the project, 10 commune development plans incorporate climate risk management and adaptation measures.	Project team at provincial and district levels participated and provided support to two target communes in the commune investment program (CIP). As a result, Climate Change Adaption priorities in two target communes have been reflected in draft 2011 CIP.
● Provincial Development plans with explicit CC adaptation measures.	Provincial development plans do not include explicit CC adaptation measures.	By the end of the project, provincial development plans in the target provinces incorporate explicit measures to address CC risks.	Provincial, district line department staff, instrumental in influencing and integrating climate change issues in CIP received training on how CC impact on local development provided by the project.
<b>Cumulative expenditure:</b>	<b>USD61,271.73</b>		
<p>Project Orientation workshop was organized for all project staff and government counterparts from provincial departments of Agriculture, Water Resources, Women Affairs, Environment and local administrative institution. 54 people attended the workshop.</p> <p>Orientation on climate change and its impacts on local development were also provided to Provincial and District Facilitation Teams (P/DFTs), line department staff and NGOs who facilitate the annual formulation of provincial development plans and commune investment program. 93 facilitators attended the workshop.</p> <p>In 2010, the project worked only in two target communes, based on the review of the draft 2011 CIP, CC adaptation issues were clearly reflected in it.</p>			
<input type="checkbox"/> delivery exceeds plan	<input checked="" type="checkbox"/> delivery in line with plan	<input type="checkbox"/> delivery below plan	
<b>OUTPUT 1.2: Conflict Potential in areas in areas prone to climate-induced water assessed and conflict prevention measures supported</b>			
<b>Output Indicators</b>	<i>Baseline (September 2009)</i>	<i>Target (August 2013)</i>	<i>Current status (December 2010)</i>
● Existence of meditative mechanisms to avoid or to manage conflicts resulting	No conflict resolution mechanism exists	At the end of the second year of project,	The project has formed 2 farmer water user committees (FWUCs) in Teuk Kraham, which

from access to water resources.	to deal with conflicts related to water resources.	meditative mechanism is available to avoid or manage conflicts resulting from access to water resources	will be used as a vector for water related conflict management.
<b>Cumulative expenditure:</b>		<b>USD176,008.34</b>	
Provincial and district staff of PDoWRAM conducted community participatory assessment of potential water user related conflicts during which 250 households have been interviewed and 10 conflicts identified. The proposed conflict resolution mechanism will be incorporated in the Rules and Regulation of FWUCs.			
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**OUTPUT 1.3: A community-based climate information system on flooding and drought events established**

<b>Output Indicators</b>	<i>Baseline (2009)</i>	<i>Target (2013)</i>	<i>Current status (December 2010)</i>
Standardized communication structures for climate risk information are established.	No climate forecast and early warning information is communicated in target districts.	By the end of the first year of project implementation, standardized communication structures are in place to collect, analyze and relay climate and hazard warning information to vulnerable community members	In consultation with the villagers, 3 sites for installing flood measuring taps to monitor water level have been identified. 35 families participated in the interview about coping strategy to flood and drought in Kratie.
Number of vulnerable households in pilot districts utilizing climate forecast information on seasonal or shorter timescales.	None of the households in the target areas use climate risk and early warning information to protect livelihood assets.	By the end of the project, 60% (50% women and 50% men) of households in pilot sites have access to timely early warning information about impending drought and flooding hazards.	Early warning information activities will start in 2011
<b>Cumulative expenditure:</b>		<b>USD16,237.65</b>	

Provincial and district staff of PDoWRAM collected climate risks and early warning related information to protect livelihood assets. In view of improving the existing early warning information, review has been initiated and will be fully undertaken, training and materials in Q1, 2011.

The early warning information system is not yet being implemented because, due to change of project target areas, the project team needed to first collect more information on the needs of the new target areas with regard to climate early warning systems. In Kratie province there are some early warning systems for floods but currently not funded. The project is looking at the modalities of making this system working sustainably. For both Kratie and Preah Vihear, information will also be needed for droughts

delivery exceeds plan     
 delivery in line with plan     
 delivery below plan

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

Output Indicators	Baseline (2009)	Target (2013)	Current status (December 2010)
● Number of households harvesting and/or conserving rain water in target villages for household	0 hhs (out of 826 hh) in Choam Khsan And 3 hhs (out of 1,488 hhs) in Chhet Borey districts are harvesting rainwater for household use.	By the end of the project, at least 30% of all households in the target districts are actively harvesting rainwater to conserve and safeguard water resources for household use.	Water-related problems were identified through Vulnerability Reduction Assessment (VRA) exercises. Appropriate technologies to improving access to water such as drilling wells, community ponds, wind power and solar energy to pump water, rain water harvesting tanks were identified and integrated into 2011 AWPB.
● Land hectare under irrigation during dry spells	0 hectares in toeuk kraham are under irrigation during dry spells and 699 hectares in Bos leuv	By the end of the project, hectare are under irrigation during the dry season should increase by 30%.	Two medium scale irrigation systems have been identified with the communities to provide irrigation during dry spells. The project is currently recruiting an irrigation specialist to support the project in climate-resilient irrigation designs.

**Cumulative expenditure:** **USD41,101.41**

During the VRA exercises, rehabilitation of existing dams and canals and establishing functioning water management communities were identified as a priority for Preah Vihear and Kratie Provinces.

Rather than just focusing on rainwater harvesting, the project is looking at other appropriate options which could increase access to water for household use at a community level. These include community ponds, piping water from mountains, wind power and solar energy to pump water for target farmer groups.

delivery exceeds plan     
 delivery in line with plan     
 delivery below plan

**OUTPUT 2.2: Resilient farming methods to climate-induced changes in rainfall intensity and**

<b>distribution demonstrated</b>			
<b>Output Indicators</b>	<i>Baseline (2009)</i>	<i>Target (2013)</i>	<i>Current status (December 2010)</i>
● Number of women who have benefited from climate resilient farming practices and crop varieties.	No climate resilient farming practices and crop varieties are available.	At least 30% of the women have adopted climate resilient farming practices and crops by the end of the project.	Two FSI groups were established in Bos Leav with 55 members (out of whom 23 were women). They successfully completed 20-week farmer field school and 8 families carried out climate resilient demos on integrated farming system including System of Rice Intensification (SRI), vegetable gardening, pig and chicken raising.
● Number of agricultural practices evaluated for their performance and resilience under different climatic scenarios.	Agricultural techniques and prescriptions are not systematically analyzed for climate resilience and cost/benefit under different climatic scenarios.	By the end of the project, at least 3 agricultural farming methods (including SRI) are evaluated for their performance and resilience under different climatic scenarios.	A partial study on the performance of rice varieties under different climatic conditions has been initiated and will be completed in 2012. Climate-resilient farming practices study will be done in 2011.
<b>Cumulative expenditure:</b>	<b>USD15,245.74</b>		
<p>There are 30 rice variety trials in the two target provinces; 15 for flood and 15 for drought tolerance. However, the provincial departments took an initiative by expanding 15 sites of rice trial activities in 3 villages in Kratie and 8 sites in 8 villages in Preah Vihea, which is outside the project targeted areas. Four farmer field days were organized, which allowed farmers to observe and assess the performance of tested rice varieties. Five of the six varieties performed well under the tested conditions and farmers requested for further testing and expansion in 2011. These six varieties are part of the rice seeds being promoted by the Royal Government of Cambodia under the Paddy Production and Rice Export Policy.</p> <p>The project is also being implemented in partnership with the IFAD/UNDP-funded Rural Livelihood Improvement Project (RULIP) project, which is assisting the NAPA Follow-up project in farmer field schools and agriculture extension. As part of the implementation partnership, the project team participated in the annual IFAD supervision mission in order to assess the progress made on RULIP. The mission also enabled the two projects to find common grounds in order to have a better linked workplan for 2011.</p>			
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<b>OUTPUT 2.3: Resilient design and management of reservoirs, irrigation canals, ponds and dykes promoted and demonstrated</b>			
<b>Output Indicators</b>	<i>Baseline (2009)</i>	<i>Target (2013)</i>	<i>Current status (December 2010)</i>
● Availability of guidelines for	No easy-to-use	By the end of the	The recruitment of a Climate



climate resilient irrigation design in Cambodia.	guidelines on climate resilient irrigation design is available in Cambodia.	first year of project implementation, guidelines are available for climate resilient irrigation design.	Change and Irrigation Specialist is under process. The specialist will work with MoWRAM to develop guidelines for climate resilient irrigation design. The specialist will assist also PDoWRAM to review and design climate resilient irrigation system in the two target communes. It is expected that the assignment will start in Q1, 2011.
● Number of Farmer Water User Committees (FWUCs) able to operate and maintain climate resilient irrigation systems.	FWUCs are not able to systematically operate and maintain CC resilient irrigation system.	By the end of the project, 70% of FWUC, Technical Support Unit (TSU) and MOWRAM engineers in the pilot districts are able to routinely maintain and operate CC resilient irrigation systems.	Assessment of existence performance of FWUCs was done. Kratie has FWUCs but not trained in CC resilience. Preah Vihear doesn't have FWUCs. Formation of FWUCs has been initiated and training on water resource management for FWUCs will start in Q1, 2011.
● Number of reservoirs, irrigation canals ponds and dykes re-designed accommodate longer dry periods and/or increased rainfall intensities.	No modification of irrigation systems that actively incorporates changing climatic trends and projections.	By the end of the project, modifications have been made to at least 1 small or medium-scale irrigation system in each of the target districts.	Design modification will be done by PDOWRAM with support from Irrigation Specialist in 2011.
<b>Cumulative expenditure:</b>	<b>USD9,666.44</b>		
Study on water resources has not started yet due to delays in finding a suitable candidate to conduct the study. The position has been re-advertised. It is expected that the study will be finalized mid 2011.			
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<b>OUTPUT 3.1: Increased public awareness and environmental education programmes on climate risk reduction designed and implemented</b>			
<b>Output Indicators</b>	<i>Baseline (September/2009)</i>	<i>Target (2013)</i>	<i>Current status (December 2010)</i>
● Percentage of households in pilot sites aware of precautionary measures to counter CC risks and minimize material losses.	Virtually no households in pilot districts are aware of long-term	By the end of the project, at least 60% of households in the target communes are aware of long-	Save Cambodia's Wildlife (SCW), a local NGO, has been sub-contracted to implement this programme, which will be finished mid 2012.

	climatic trends and projections that affect their farming outputs and livelihood security.	term climatic trends that potentially affect their livelihood security, and of potential small-scale adaptive measures to safeguard livelihoods.	
● Number of paper-based, web-based, audio-based and TV-based publications about project-related practices, approaches, methods or results.	No project-related publications	From year 2 of project implementation onwards, at least 5 TV and radio broadcasts per year  At least (5) paper-based and web-based publications in the lifetime of the project	Project contributed the IFAD quarterly newsletter <a href="http://www.ifad.org/newsletter/pi/32.htm#3">http://www.ifad.org/newsletter/pi/32.htm#3</a> and also submits period report to the UNDP Cambodia weekly updates.  A success story on climate resilient rice variety from one of the target areas was posted in UNDP Cambodia webpage <a href="http://www.un.org.kh/undp/pressroom/stories/facing-climate-change-cambodian-farmers-experiment-with-new-rice-seeds">http://www.un.org.kh/undp/pressroom/stories/facing-climate-change-cambodian-farmers-experiment-with-new-rice-seeds</a>
● Number of workshops at the national and regional levels on lessons learned.	None	At least 1 national workshop per year During the lifetime of the project, at least 1 regional workshop.	Not applicable for 2010.
<b>Cumulative expenditure:</b>			<b>USD884</b>
In collaboration with UNDP/GEF Small Grant Program, vulnerability reduction assessment (VRA) was conducted in the two target provinces (Kratie and Preah Vihear) to identify climate change vulnerabilities and measure the level of vulnerabilities in the two communes in each province. The objective of the VRA was to identify key challenges that farmers are facing in adapting to a changing climate and how the project can respond in addressing these challenges.			
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<b>OUTPUT 3.2: Learning networks for climate-resilient farming practices established</b>			
<b>Output Indicators</b>	<i>Baseline (September 2009)</i>	<i>Target (August/2013)</i>	<i>Current status (December 2010)</i>
● Number of women receiving extension services on CC resilient farming techniques has increased.	According to MAFF, only .01% of rural women receive extension services.	Percentage of women receiving extension services on climate change resilient farming methods have	23 women from a total of 55 farmers from two villages in Bosleav commune took part in farmer field school (FFS). The women were trained in integrated farming systems and

		increased by 30%.	diversified agriculture  53 women, out of 120 farmers participated in two farmer-field days organized to provide opportunities for farmers to reflect, discuss and share experiences on new farming methods learned.
● Project-related lessons learned are communicated through Adaptation Learning Mechanism (ALM) and CC Solution Exchange	No lessons learned are available	By the end of the project, the ALM and Solution Exchange include lessons learned from this project and makes these lessons accessible to other countries in Asia and beyond	Lessons learned from the VRA exercise has been reflected on the ALM. <a href="http://www.adaptationlearning.net/cambodia-case-study-2010">http://www.adaptationlearning.net/cambodia-case-study-2010</a>
<b>Cumulative expenditure:</b>	<b>USD253.00</b>		
<p>120 FSI group members and neighbouring farmers, of which 53 were women, participated in the field days after completing farmer field schools. Government line departments and local authorities including PDA, PDoWRAM, PDoWA, district governor and commune chief also participated and supported these field days. It was observed that farmers learnt many improved techniques including integrated farmer system (IFS) through theory and practical demonstrations and they could articulate well the concepts when asked.</p>			
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**OUTPUT 3.3: Review of national policies on CC adaptation based on lessons generated by the project**

Output Indicators	Baseline (2009)	Target (September/2013)	Current status (December 2010)
● Existence of draft modifications to relevant national policies on CC adaptation.	National policies and strategies for Agricultural Water Management do not contain reference to a changing climate.	By the end of the project, at least 1 sector policy in water and agriculture revised to includes climate risk considerations and reflect lessons learnt through the project	The project participates in the Technical Working Group of Water and Agriculture, a body responsible for the formulation of the current 2010-2013 water and agriculture strategy, which contains a specific mention of the threat of CC to water and agriculture.

**Cumulative expenditure:** **USD42,158.97**

In addition to technical working groups, the project has also been actively engaged in supporting and influencing other partners in climate change related work. In 2010, the project provided training on the impact of CC on local development to provincial government staff through UNCDF. It also collaborated with UNDP/GEF SGP on CC vulnerability Reduction assessment. The project also trained all staff working under the IFAD/UNDP funded project, Rural Livelihood Improvement Project (RULIP), a partner project.

The project is also making inroads into MAFF's senior management and decision makers where the Secretary

of State of the MAFF, with support from the project, briefed staff from all the line departments of the ministry on the causes of CC, impact of CC on agriculture and other sectors and how Cambodia is planning to cope with CC in its CC strategy.

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### PROGRESS TOWARDS COUNTRY PROGRAMME (CPAP) OUTPUT

#### OUTPUT 3.2: Capacities of government and local communities enhanced to respond to climate change

Output Indicators	Baseline (2008-2009)	Target (2010)	Current status (June/2010)
● No. of reports on sectoral analysis of the impact of climate change.	1 (2008)	4 (2010)	No contribution as the project just started. The project will probably contribute better to the next CPAP (2011- 2015)
● Assessment of climate change vulnerability reduction in the targeted areas	No	completed (2010)	VRA report for the two target districts in Kratie and Preah Vihear completed and the findings of the study have been incorporated into project activities for the remaining project life.
● Climate change mainstreaming guidelines drafted	No	drafted (2010)	Not yet initiated due to the slow start of the project which only started in Q2 2010. The guidelines will be drafted in 2012 after CC mainstreaming into sub-national plans has been piloted in 2010
● Development of the awareness raising strategy on climate risk reduction	No	Yes(2010)	Save Cambodia Wildlife (SWC) a local NGO, has been sub-contracted implement the initiative. Draft work plan to conduct the assessment has been completed. It is expected that the assessment will start in Q1 2011
● Number of studies on climate resilient agricultural practices and water resources management	0	2 (2010)	A partial study on the performance of rice varieties under different climatic conditions has been initiated and will be completed in 2012. Study on water resources has not started yet. The terms of references have been drafted and the advertisement for a consultant to conduct this study has been done. It is expected that the study will be finalized mid 2011.

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## Capacity Development

Building the capacity of relevant government staff is one of the project’s key strategies in strengthening Cambodia’s institutions in climate change resilience.

- Project staff and government counterparts have received training on climate change concepts and its impact on agriculture and water resources through project inception workshop, specific training provided by the Ministry of Environment and also refresher training by the project. During these events staff also received training on UNDP/GEF procedures on monitoring and evaluation.
- Through collaboration with regional UNDP office, six project and government staff at the national level had the opportunity to learn and share experiences in climate change adaptation in agriculture with other South and South East Asian countries.
- At the provincial level, exchange visits were done for staff to see and learn from experiences of climate change adaptation activities being done in other parts of Cambodia.
- Awareness-raising on climate change concepts and its impact on local development was also done through sharing session in the CIP refresher training at provincial level for provincial and district facilitation team, NGOs and relevant line departments.
- In order to match UNDP financial management procedures with the systems adopted by the decentralization and de-concentration programme, which the project adopted, 31 provincial staff also received training on financial management of project funds, synthesizing of UNDP and D&D budget codes and Peachtree accounting.
- At the commune level, the project also supported CC community by bringing line-departments, NGO partners, local authorities and the local communities to meet and discuss CC and its impact on agriculture and water resources.
- In collaboration with UNDP/GEF Small Grant Program, trainings on vulnerability reduction assessment (VRA) were conducted for provincial and district government staff to equip them with assessment methodology and tools to enable them to facilitate field exercises, understand the CC vulnerability and to address climatic risks in the target communes.

## Gender

In Cambodia women make up 51% of farmers and they directly contribute and impact on food security, national agricultural output, and play an important role in water management and environment. The impact of climate change has not only hindered development but it also affected men and women differently due to gender differences and inequalities. To address the issue:

- The project developed the gender strategy which can be used as a reference document to assist government counterparts and project staff in mainstreaming gender within the context of climate resilient water management and agricultural practices.
- As a result of the gender strategy, the project incorporated gender indicators in the project log-frame in order for the project to monitor and keep track of the progress.
- At provincial and commune levels, in order to improve understanding and raise awareness on gender concepts among project staff and project beneficiaries, PDoWA conducted learning-needs assessment and facilitated training workshop on gender concept, gender and climate change, gender and agriculture, gender and water resources.

- Based on field reports and the outputs reported above, 40 to 60% of women actively participated in all project activities at commune and village levels.
- In collaboration UNDP regional office, the project is currently being supported by a Gender Specialist in developing a gender mainstreaming action plan to ensure the project staff and government counterparts are able to properly implement gender mainstreaming strategy effectively in the project.

## **Lesson Learned**

### **Coordinate efforts and cooperate with similar initiatives to ensure success and cost effectiveness:**

Climate change is a global issue. Consequently, synergy and partnership building are vital for bringing forward greater impact and also crucial in ensuring that there is no duplication on what has already been tried by others. The project has aligned itself with other partners and initiatives engaged in supporting improved management of water resources in the agricultural sector in Cambodia. The project has developed strategic alliances with a number of partners including IFAD Technical Working Group for Agriculture and Water (TWGAW), Climate Change Department of MoE, CARDI, SCW, UNDP/GEF Small Grants Programme etc where the project has benefited from the expertise of these organisations as well share experiences.

### **Develop Incentives for Adaptation:**

There is a lack of awareness and technical capacity in identifying and implementing practical adaptation options. As local stakeholders remain largely unaware of the potential impacts of climate change, there are no incentives to explore or develop appropriate solutions. The project will aim to improve the levels of awareness of climate change through SCW, a local NGO, with expertise in community education.

### **Emphasis on No-Regret Approach:**

As climate change information and projections for Cambodia are still uncertain due to limitation in climate change information, technical expertise and the fact the current levels of climate change knowledge are unable to predict how climate change will play out in the future, a, 'no-regret' approach is being emphasised in the project, meaning that project actions should aim to generate net social benefits under all future scenarios of climate change and impacts.

### **Integration and combined approach:**

Project activities, though under the same project, sometime fragmented and less link or complement each other; as a result the project produced little impact. Thus, an "integrated and combined approach" would ideally bring bigger impacts to the project. For example, a combined approach may include: technical skills, seeds and water supply.

### **Lessons from the VRA Exercise**

Show that in an ideal situation, VRA should be conducted before the formulation of a project document in order to reflect the views and the needs of the targeted communities. In this case the VRA was conducted after project design; however findings show that the project can still respond within the scope of the project framework, by modifying project work plan activities to meet the needs of the farmers.

## **III. Project implementation challenges**

- a. *Updated project risks and actions*

### **Project Risk 1:**

The suspension of salary supplements paid to government staff working on the project remain an issue and to certain extent, it has had a negative impact in the implementation in 2010. Priority Operating Costs (POC), an alternative to salary supplements being proposed by the government, preparation is under progress.

**Actions taken:**

An interim DSA arrangement was being provided at sub-national level while waiting for the finalisation of the POC.

**Project Risk 2:**

The project supports the decentralisation and de-concentration (D&D) systems, which is expected to change at the end of the year. Institutional changes at the sub-national level, has the potential to disrupt project activities as it is not certain how the new structure will function.

**Actions taken:**

The project was working in close collaboration with the UNDP Governance Unit and National Committee for Democratic Development (NCDD) in charge of the decentralisation and de-concentration and would see their advice on how to proceed as the issue unfolds.

**Project Risk 3:**

The project is facing a challenge in mainstreaming CC into sub-national planning process on two main reasons: Firstly, MAFF is the not the focal institution for decentralisation and de-concentration and so this is a new territory for the institution. Secondly, the NAPA Follow Up project is only focused on CC in agriculture and water. However in order to bring a holistic approach to CC mainstreaming into sub-national planning process, the project would have to widen its scope to other sectors like CC and health; CC and gender and children; CC and NRM. Neither the project nor MAFF have a mandate or the expertise in these disciplines.

**Actions Taken:**

The project will pilot CC mainstreaming in alignment with the on-going sub-national planning procedures being developed by the Ministry of Interiors and Ministry of Planning in a holistic manner.

*b. Updated project issues and actions*

**Project Issue 1:**

The project is working with two main ministries (Ministry of Agriculture, Forestry and Fisheries (MAFF) and Ministry of Water Resources and Meteorology (MOWRAM) at the national level; four line departments at the sub-national level; several NGOs and institutions; and is being implemented in partnership with an IFAD/UNDP funded project. There is therefore potential problem of coordinating the activities of all these partners.

**Actions taken:**

The project is recruiting provincial coordinators adviser to coordinate the project activities at the sub-national level. The new staff are expected to be on board in Q1, 2011.

**Project Issue 2:**

Delays by UNDP country office in processing the procurement of project equipment (car, motorcycles, printers etc) have created difficulties for both national and field staff in the implementation of project activities.

**Actions taken:**

The issue is in the process of being resolved.

<b>Risk</b>	<b>Date identified</b>	<b>Risk Rating</b>	<b>Mitigation Strategies</b>	<b>Status</b>
1. Fragmented governance	2009	Low	Partnership with IFAD and other players; location of the project within the MAFF PSU which already acts as a coordination arm for IFAD development projects	On-going
2. Lack of uptake of infrastructure modifications	2009	Medium	Partnership with several experienced national NGOs working in the rural areas and is able to relate to the views and culture of the target communities.	Potential risk
3. Conflict in water use	2009	Medium	This risk is explicitly recognized in the project design in the form of Output 1.2, and will be addressed in project activities.	Mitigated
4. The suspension of salary supplements	2010	High	Government has developed a new priority operating cost (POC) for remunerating government staff working on development projects; POC arrangement is under progress, but still slow.	On-going
5. Difficulty in attributing success/failures exclusively to the project	2010	High	Specific indicators stated in the SRF should guide and keep the project activities on track. In addition, IFAD, MAFF and UNDP agreed to revise the RULIP log-frame in order to incorporate climate change indicators. In this regards both projects will have a focus on climate change mainstreaming.	Potential
6. Institutional changes at the sub-national level	2009	Medium	The project is working in close collaboration with the UNDP Governance Unit and National Committee for Democratic Development (NCDD) in charge of the decentralisation and de-concentration and will see their advice on how to proceed as the issue unfolds.	Potential
7. Border dispute between Thailand and Cambodia in Preah Vihear Province	2009	Medium	<ul style="list-style-type: none"> <li>• The project takes confidence from the on-going UNDP/GEF funded CALM project and RULIP, which have been able to carry on normal activities despite the stalemate.</li> <li>• CWA project will consult the provincial authorities in assessing the situation at the border.</li> <li>• Project staff will advise their supervisors and provincial police on their movements, depending on the gravity of the tension.</li> </ul>	Mitigated
8. New Partnerships	2009	Low	<ul style="list-style-type: none"> <li>• New partnerships will be reviewed within the context of the Strategic Results Framework. If the objectives of new partnership do not promote the achievement of project objectives then such partnerships should be avoided.</li> </ul>	Potential



## IV. Financial status and utilization

**Table 1: Contribution overview [start date of the project – end date of project] [01/07/2009 - 30/06/2013]**

DONOR NAME	CONTRIBUTIONS		CONTRIBUTION
	Committed	Received	Balance
UNDP	1,240,350.00	223,632.00	1,016,718.00
GEF	1,850,000.00	462,339.20	1,387,660.80
<b>TOTAL</b>	<b>3,090,350.00</b>	<b>685,971.20</b>	<b>2,404,378.80</b>

**Table 2: Quarterly expenditure by project output or Activity (in Atlas format) [1/10/2010 – 31/12/2010]**

ACTIVITY	BUDGET PLAN [Q4]	EXPENDITURE [Q4]	BALANCE	DELIVERY (%)
<b>Activity 1:</b> Commune plans & budget address inherent climate risks in target districts	50,723.00	17,603.79	33,119.21	34.71%
<b>Activity 2 :</b> Establishment of conflict prevention measures	3,255.00	83,989.58	(80,734.58)	2580.33%
<b>Activity 3:</b> A community based climate information system on flooding and droughts	12,880.00	1,122.01	11,757.99	8.71%
<b>Activity 4 :</b> Improved access to water for household and agricultural use demonstrated in 11 target villages	24,382.00	(13,703.23)	38,085.23	-56.20%
<b>Activity 5 :</b> Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	56,644.00	2,010.64	54,633.36	3.55%
<b>Activity 6:</b> Resilient design and management of irrigation systems promoted and demonstrated	4,580.00	7,360.10	(2,780.10)	160.70%
<b>Activity 7:</b> Public awareness and environmental education programmes on climate risk reduction designed and implementation	25,000.00	616.00	24,384.00	2.46%
<b>Activity 8:</b> Learning networks for climate resilient farming practices established	2,550.00	253.00	2,297.00	9.92%
<b>Activity 9:</b> Review of national policy on climate change adaptation based on lessons generated by the project	16,966.17	17,105.48	(139.31)	100.82%

<b>Activity 10:</b> Programme Support Services(Country office)	10,000.00	-	10,000.00	0.00%
UNDP GMS (based on donor agreements)				
<b>TOTAL</b>	<b>206,980.17</b>	<b>116,357.37</b>	<b>90,622.80</b>	<b>56.22%</b>

**Table 3: Annually expenditure by project output or Activity (in Atlas format) [01/01/2010 – 31/12/2010]**

ACTIVITY	BUDGET PLAN 2010	CUMULATIVE EXPENDITURE 2010	BALANCE	DELIVERY (%)
<b>Activity 1:</b> Commune plans & budget address inherent climate risks in target districts	77,112.49	61,271.73	15,840.76	79.46%
<b>Activity 2 :</b> Establishment of conflict prevention measures	164,466.00	176,008.34	(11,542.34)	107.02%
<b>Activity 3:</b> A community based climate information system on flooding and droughts	11,420.00	16,237.65	(4,817.65)	142.19%
<b>Activity 4 :</b> Improved access to water for household and agricultural use demonstrated in 11 target villages	10,684.00	43,101.41	(32,417.41)	403.42%
<b>Activity 5 :</b> Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	84,847.00	15,245.74	69,601.26	17.97%
<b>Activity 6:</b> Resilient design and management of irrigation systems promoted and demonstrated	19,609.00	9,666.44	9,942.56	49.30%
<b>Activity 7:</b> Public awareness and environmental education programme on climate risk reduction designed and implementation	27,000.00	884.00	26,116.00	3.27%
<b>Activity 8:</b> Learning networks for climate resilient farming practices established	5,683.43	253.00	5,430.43	4.45%
<b>Activity 9:</b> Review of national policy on climate change adaptation based on lessons generated by the project	79,018.00	42,158.97	36,859.03	53.35%
<b>Activity 10:</b> Programme Support Services(Country office)	30,000.00	33.50	29,966.50	0.11%
UNDP GMS (based on donor agreements)			-	
<b>TOTAL</b>	<b>509,839.92</b>	<b>364,860.78</b>	<b>144,979.14</b>	<b>71.56%</b>

**Table 4: Cumulative expenditure by project output or Activity (in Atlas format) [1/07/2009 – 31/12/2010]**

ACTIVITY	TOTAL BUDGET	CUMULATIVE EXPENDITURE	BALANCE	DELIVERY (%)
<b>Activity 1:</b> Commune plans & budget address inherent climate risks in target districts	1,120,350.00	61,271.73	1,059,078.27	5.47%
<b>Activity 2:</b> Establishment of conflict prevention measures	200,466.00	180,900.92	19,565.08	90.24%
<b>Activity 3:</b> A community based climate information system on flooding and droughts	22,920.00	16,237.65	6,682.35	70.84%
<b>Activity 4:</b> Improved access to water for household and agricultural use demonstrated in 11 target villages	235,684.00	43,101.41	192,582.59	18.29%
<b>Activity 5:</b> Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	294,347.00	20,648.36	273,698.64	7.01%
<b>Activity 6:</b> Resilient design and management of irrigation systems promoted and demonstrated	534,251.00	9,666.44	524,584.56	1.81%
<b>Activity 7:</b> Public awareness and environmental education programme on climate risk reduction designed and implementation	231,000.00	884.00	230,116.00	0.38%
<b>Activity 8:</b> Learning networks for climate resilient farming practices established	110,000.00	253.00	109,747.00	0.23%
<b>Activity 9:</b> Review of national policy on climate change adaptation based on lessons generated by the project	221,332.00	42,158.97	179,173.03	19.05%
<b>Activity 10:</b> Programme Support Services (Country office)	120,000.00	33.50	119,966.50	0.03%
UNDP GMS (based on donor agreements)				
<b>TOTAL</b>	<b>3,090,350.00</b>	<b>375,155.98</b>	<b>2,715,194.02</b>	<b>12.14%</b>