

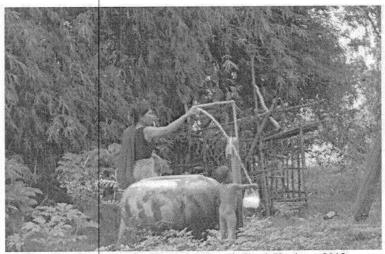
ANNUAL PROJECT REPORT 2012

United Nations Development Programme

Cambodia

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

[01-01-2012 - 31-12-2012]



Woman uses water from solar pump in Preah Konlong, 2012

Project ID:

00069653

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.

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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

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
GTS Global Telecommunication System
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

NAPA FU Promote Climate Resilient Water Management and Agriculture Practice in Rural

Cambodia, in short called NAPA Follow Up.

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

WUG Water User Group

I. Executive summary

The project offers adaptation options to improve farmers' livelihoods that later raise their capacity to cope with climate change impacts.

In 2012, more than a thousand farmers in target areas received knowledge and practices on resilient farming techniques, for example rice seed purification, system of rice intensification and integrated farming systems. The farmers gradually change their behaviour and adopt some of the introduced techniques. For example, seed purification groups reduced five times of seed used and could double their yields by applying purified techniques. In another case, some farmers applied home gardening and water management skills and could earn two to three times higher. Farmers are also supported to get access to water for family use, vegetable gardens and rice fields. More than two thousands of them received water from the project's newly built and renovated canals, spillways, ponds, and wells. Some infrastructures are installed with solar and wind power systems, which could transfer water directly to farmers' homes and fields. All infrastructures are managed by local communities that are formed to systain after the project ends.

Moreover, farmers and local authorities increased their understanding on climate change including its impacts and adaptation measures. Nearly ten thousand farmers and local authorities inside and outside target areas participated in awareness raising campaigns through community fora, workshops, trainings, and educational and informational materials. A post-campaign evaluation done by the Save Cambodia Wildlife (SCW) showed that the majority of beneficiaries understood climate change impacts and adaptations.

In addition, commune councillors, district and provincial officials integrated climate change adaptations into their development plans. A participatory tool known as Vulnerability Reduction Assessment (VRA) was used to gather climate change related concerns from local authorities and farmers. The findings were later used in the formulation of commune planning. Results showed that sixteen commune development plans have reflected adaptions as priorities. Moreover, community networks of 53 villages have been set up and transfer climatic information from national to village levels. The information includes storm, heavy rain, drought and floods. So far, more than eleven thousand households represent 56.5% of the total households have received and used the information. Farmers start preparing themselves to cope with hazards that might affect their livelihoods. Some have already changed, for example, from late mature rice variety to early mature ones.

A GEF mission, composed of two Washington-based staff, undertook a field-learning mission in NAPA FU and SGP projects with the objective to engender GEF projects and identify approaches enabling a better screening and approval of the projects. The mission looked at how the lessons learned could enable to capitalize more at the portfolio level.

The project supported the Gender Climate Change Committee of the Ministry of Women's Affairs (MoWA/GCCC) to develop and test the Gender and Climate Change training manual. It is expected that the manual will be published and launched in early 2013 for wider use. In addition, with the technical assistance from NAPA FU, the GCCC mainstreamed climate change into MoWA strategic plan and Neary Ratanak IV through consultative processes with UNDP consultants and the GIZ Economic Advisor.

Gender action plan (GAP) has been implemented. The project strategic result framework was reviewed taking into account aggregated gender indicators and new identified indicators. At field level, the GAP is jointly implemented by three line-departments. As a result, 43% of Community-Based-Early Warning System village agents are women selected and disseminated climatic information, 59% of women participated in training on

effective use of water and 52% of women are members of water user groups, and more than 50% of women participated and benefited from resilient farming practices.

The NAPA FU actively participated and presented project experiences in the following events aiming at strengthening regional and South-South cooperation: the Mekong River Basin Initiative (MRBI) workshop in Singapore held on 2-3 February 2012, the Second Asia-Pacific Climate Change Adaptation Forum on 12-13 March 2012, Bangkok; the ADAPT Asia-Pacific 1st Annual Forum on March 13-15, 2012 Bangkok. Last but not least, NAPA FU experience in Preah Vihear has been presented by the deputy governor at the workshop on Local Governance and Decentralization for the effective delivery of finance for climate change at the local level in October 2012, Bangkok.

The project has done well to create general awareness in the provinces and share lessons on climate change (CC) at a technical level. However, its ability to influence national debates and policies remain weak due to its preoccupation with implementing a large number of activities, not all of which generate relevant evidence-base for developing convincing policy messages. The potential impact the project could make has been constrained by how the project has gone about selecting certain activities and beneficiaries in a scattered manner that has militated against a consolidated impact (MTR, August 2012). In response to the issue and MTR's recommendation, target villages for the One Village's approach have been selected. These approach's activities have been integrated in the draft 2013 AWPB.

In conclusion, project has accomplished a remarkable result. However, the project faced few challenges during the implementation. The termination of the POC and the change of the sub-national structure. In an effort of close monitoring and regular dialogue with the senior level of the provinces. As a result, by the end of 2012, the project could deliver 102% of total approved budget.

II. Implementation progress

PROGRESS TOWARDS PROJECT OUTPUTS

Output Indicators	Baseline	Target	Current status
	(September 2009)	(August 2013)	(December 2012)
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, 16 commune development plans incorporate climate risk management and adaptation measures.	Climate risk reduction activities and adaptation measures on agriculture and water resources, identified from VRA and RGA such as setting up community-based early warning system, improving access to water for households, effective water management, rehabilitation and management of irrigation systems, promoting early mature rice varieties, introduction of seed purification program, diversified cropping, CCA awareness raising, etc. have been integrated into 2012-2016

			Commune Development Plan
			(CDP) of the 16 target communes.
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.	This was done in 2011.
Cumulative expenditure:			USD173,220.2
 16 communes in both targ and integrate climate risk Farmers and local authori adaptation measures. Ne participated in awareness educational and informat 	get districts of KRT and reduction solutions in the second	nd PVH provinces. The into the 2012-2016 CE inderstanding on clim mers and local author prough community fo st-campaign evaluations.	ing committee (PBC) members from e exercises were aiming to influence of formulation. ate change including its impacts and rities inside and outside target areas ra, workshops, trainings, and on done by the Save Cambodia d climate change impacts and
adantations			
adaptations. delivery exceeds plan	delivery in line	with plan	delivery below plan
delivery exceeds plan		70 / T	
delivery exceeds plan OUTPUT 1.2: Conflict Poten	tial in areas in areas	70 / T	delivery below plan
delivery exceeds plan OUTPUT 1.2: Conflict Poten prevention measures suppor	tial in areas in areas rted. Βαseline	70 / T	luced water assessed and conflict Current status
delivery exceeds plan OUTPUT 1.2: Conflict Poten prevention measures support Output Indicators	tial in areas in areas rted. Baseline (September 2009)	prone to climate-ind Target (August 2013)	Current status (December 2012)
delivery exceeds plan OUTPUT 1.2: Conflict Poten prevention measures support Output Indicators	tial in areas in areas rted. Βαseline	prone to climate-ind	Current status (December 2012) Two established Farmer Water User Communities (FWUCs) have used as meditative mechanism to manage conflicts related to water uses. Conflict resolution procedures have been specified in FWUC rules and regulations, which will be
delivery exceeds plan OUTPUT 1.2: Conflict Potent prevention measures support Output Indicators Existence of meditative mechanisms to avoid or to manage conflicts resulting from access to	tial in areas in areas rted. Baseline (September 2009) No conflict resolution mechanism exists to deal with conflicts related to water	Target (August 2013) At the end of the second year of project, a meditative mechanism is available to avoid or manage conflicts resulting from access to	Two established Farmer Water User Communities (FWUCs) have used as meditative mechanism to manage conflicts related to water uses. Conflict resolution procedures have been specified in FWUC rules and regulations, which will be recognized by the PDoWRAM and endorsed by the MOWRAM. In 2012, there was no conflict

water user groups (WUGs). management and developm of by-law, rules and regulation FWUCs and WUGs have been	The participants were aware of Circulation (PIMD). They understood the role ons of FWUC and WUGs. en supported also with saving and revo	on trainings to 597 members of FWUCs and ar o1 on participatory irrigation as and responsibilities of FWUC and aware olving funds for the purpose of operation ment of members to cope with climate
delivery exceeds plan	delivery in line with plan	delivery below plan

Output Indicators	Baseline	Target	Current status
	(2009)	(2013)	(December 2012)
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	Community networks of 104 village volunteers (45 women) in 53 villages have been set up. They transfer climatic information from national to village levels. The information includes storm, heavy rain, drought and floods.
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.	So far, more than eleven thousand households represent 56.5% of the total households have received and used the information. Farmers start preparing themselves to cope with hazards that might affect their livelihoods. For example, they have already changed their farming practice from growing late mature rice variety to early mature ones.

104 (45 women) village volunteers were trained on roles and responsibilities and basic concepts and processes of community-based early warning system. In addition, with support from the PDoWRAM, they meet regularly in a monthly basis to discuss the progress and issues related to the dissemination of weather information and work-plans.
 The project team provided support and worked closely with the Department of Meteorology of MoWRAM (DOM) to upgrade Global Telecommunication System in order to improve the capacity and effectiveness of weather forecast and reliable warning information.

delivery below plan

delivery in line with plan

delivery exceeds plan

0	utput Indicators	Baseline (2009)	Target (2013)	Current status (December 2012)
	Number of households harvesting and/or conserving rain water in target villages for household	155 hhs out of 7,976 hhs in Choam Khsan and 447 hhs out of 11,501hhs in Chit 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.	Forty five WUGs formed and trained and they are able to manage their water resources. 1,015 households representing 18.15% of target households benefit from 62 pump wells, 3 community ponds, 41 rainwater harvesting containers and 10 solar pumps. With water, farmers save 70% of their time from fetching water and use it for income generated activities. As a result, they could earn 2 to 3 times higher.
•	Land hectare under irrigation during dry spells	1,486 hectares for irrigation in Bos Leav commune, o hectare in Teuk Krahom commune.	By the end of the project, hectare are under irrigation during the dry season should increase by 30%.	Two irrigation schemes (canals, spillways, dam, and water gates) in Bos Leav and Teuk Krahom constructed. More than two thousand households could access water for rice farming. Farmers could save time and reduce amount of fuel to pump water to their fields. The change of their yield will be assessed in early 2013. Furthermore, canals are also used as drainage system when floods come. The schemes could increase irrigated land during the

				dry season from 693 hectares to 848.35 hectares (22.3%).
С	umulative expenditure:			USD212,419.18
	delivery <i>exceeds</i> plan	delivery in line		delivery below plan
	UTPUT 2.2: Resilient farmi istribution demonstrated	ng methods to clim	ate-induced changes i	n rainfall intensity and
10000000	utput Indicators	Baseline (2009)	Target (2013)	Current status (December 2012)
	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.	Twenty seven FFS successfully organized with participation of 649 farmers, 465 women, in 27 villages. Their knowledge and skills on SRI, vegetable growing and animal-raising increased. The farmers gradually change their behaviour and adopt some of the introduced techniques. E.g. they applied home gardening and water management skills and could earn two to three times higher of income. Twelve seed purification groups with participation of 293 households (189 women) successfully completed their learning program and are able to produce seeds. The result shows that they reduced three to five times of seed used and could double their yield by applying the purified techniques.
9	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	By the end of the project, at least 3 agricultural farming methods (including SRI) are evaluated for their performance and resilience under different climatic	The project hired a national consultant to review the existing FFS curriculum and propose for the inclusion of climate change. In addition, the consultant evaluates also a number of selected agriculture practices that are currently carried out by the project. The report will be

	climatic scenarios.	scenarios.	available in quarter 1, 2013.
Cumulative expenditure:			USD169,877.65
conducted awareness ca	mpaigns on vac	cination and carried or	vincial Department of Agriculture (PDA) ut vaccination campaign (food and mouth nimal of 2,784 households in 47 villages of
delivery exceeds plan	⊠ delivery ii	n line with plan	delivery below plan

0	utput Indicators	Baseline (2009)	Target (2013)	Current status (December 2012)
5	Availability of guidelines for climate resilient irrigation design in Cambodia.	No user- friendly guidelines on climate resilient irrigation design are available in Cambodia.	By the end of the first year of project implementation, guidelines are available for climate resilient irrigation design.	Training manual on resilient irrigation system drafted and tested. The publication is under process.
	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 PDoWRAM engineers in the pilot districts are able to routinely maintain and operate CC resilient irrigation systems.	With provincial structural change in 2011, the Technical Support Unit (TSU) no longer existed. All technical staffs from the PDoWRAM and project counterparts (19 persons) received training on resilient irrigation system and are able to provide follow-up trainings to FWUCs, WUGs and target beneficiaries. There were around 1,420 farmers trained on effective use of water and water management.
	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	By the end of the project, modifications have been made to at least 2 reservoirs, 4 irrigation canals and 4 communal ponds in both target districts	More than two thousand households received water from the project's newly built and renovated dams, canals, spillways and water gates. All infrastructures are managed by local communities that are formed to sustain after the project ends.

	and projections.	("major" to be determined based on baseline survey; e.g. increase in reservoir capacity from a 20-year event to a 50-year event)"	After the rehabilitation, the number of reservoirs increased from three to five. With this water, number of farmers who practice dry season rice increased from 5% to 35%.
Cumulative expenditure:			USD224,032.98
delivery exceeds plan	delivery	in line with plan	delivery below plan

reduction designed and imp	Baseline (Sept. 2009)	Target	Current status
Output Indicators		(2013)	(December 2012)
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 climatic trends and projections that affect their farming outputs and livelihood security.	By the end of the project, at least 70% of households in the target communes are aware of long-term climatic trends that potentially affect their livelihood security, and of potential small-scale adaptive measures to safeguard livelihoods	An assessment to evaluate effectiveness of a climate change awareness campaign by the project) was carried out. There were 280 households, representing 9% of total 3,000 participated in the campaign, were assessed their knowledge or climate change through focus groups. Results show that the majority of respondents are award of climate change, causes, and impacts on agriculture, water and livelihoods. Such a campaign constituted an opportunity for the recipients to adopt some adaptive measures such as rice varieties, water harvesting, and early warning information shown in educational and media tools used in the campaign. This awareness training is garnering significant success and is wide spreading beyond the NAPA target areas e.g. RULIP and other non-NAPA targets. The public awareness and education programme is likely internalized.

				the implementation of PADEE, an IFAD supported project that started in July 2012.
9	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	Three video clips on project results were produced, broadcast and distributed. They are stories of solar pumping system and awareness raising campaign. They were broadcast on UNDP Cambodia website and distributed to partners as DVDs. In addition, a radio broadcast on project results was aired on FM102. The project was also featured on a national newspaper Reaksmey Kampuchea, and a regional outlet, UN-IRIN on its results.
			At least (10) paper- based and web- based publications in the lifetime of the project.	The project published training materials on farming techniques and CC awareness raising. Leaflets of seed purification, CC training flipcharts, VRA-result posters, and irrigation banners are among them. For web content, there were a feature story on solar pumping system and a photo story on resilient farming techniques improving livelihoods on UNDP Cambodia website.
				Four project best practices are being finalized in Khmer and English and will be done in Q1 2013. They cases of early warning system, seed purification, well and pond benefits.
9	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.	Workshop in Kg Cham on CC mainstreaming in local development plan. A national workshop planned in January 2013 will be hosted by NCDDS with objective to agree on a roadmap for integrating CCA into sub-national planning guidelines. It will bring together a

			wide range of stakeholders (NGOs, SNA's, Ministries and its line department, DPs) with experience of CCA mainstreaming. The NAPA FU project will play an active role in sharing its experience.
Cumulative expenditure:			USD26,722.6
delivery exceeds plan	delivery in lin	ne with plan	delivery below plan
OUTPUT 3.2: Learning netv	works for climate-re	esilient farming practice	es established
Output Indicators	Baseline	Target	Current status
	(Sept. 2009)	(August/2013)	(December 2012)
Number of women receiving extension services on CC resilient farming techniques has increased.	According to MAFF, only .o1% of rural women receive extension services.	By the end of the project, 30% of farmers (50% is women) in the target areas incorporate lessons learned from the project in their practical livelihood activities.	Gender action plan (GAP) has been implemented. The project strategic result framework was reviewed by taking into account aggregated gender indicators and new identified indicators. At field level, the GAP is jointly implemented by three linedepartments. As a result, 43% of Community-Based-Early Warning System village agents as women selected and disseminated climatic information, 59% of women participated in training of effective use of water and 52% of women are members of water user groups, and more than 50% of women participated and benefited from resilient farming practices.
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	Two video clips and four project publications were uploaded to th ALM. They were feature stories, fact sheet, training materials and project reports.

beyond

accessible to other countries in Asia and

Cumulative expenditure:				USD3,401.7
delivery exceeds plan	⊠ _{deliver}	y in line wi	<i>th</i> plan	delivery below plan
OUTPUT 2 2. Paview of nation	onal policies	on CC ada	entation based o	on lessons generated by the project
Output Indicators	Baselin		Target	Current status
O tepo timal cators	(2009)		September/2013)	
Existence of draft modifications to relevant national policies on CC adaptation.	National policies and strategies f Agricultura Water Manageme do not contreference to changing climate.	I proof section of section revenue continue cont	the end of the oject, at least 1 stor policy in wat d agriculture vised to includes mate risk asiderations and lect lessons learn ough the project	nt
Cumulative expenditure:	ciimate.			USD112,803.42
delivery exceeds plan	⊠ deliver	y in line wi	<i>th</i> plan	delivery below plan
PROGRESS TOWARDS CO OUTPUT 2.3: A national st cohesive climate change r	trategy, pro	gramme	, and financing	mechanism established for
Output Indicators		Baseline	Targ	et Current status
		(2010)	(201	5) (December 2012)
No. of vulnerable communities in flood an drought prone areas the developed climate resil	at	4	100	27 villages in two target districts of Kratie and Preak Vihear provinces.
No. of climate-sensitive sectors with strengther adaptive capacity.		0	4	2 climate-sensitive sectors: (1) Agriculture: inclusion of cc in FFS curriculum, promotion of resilient rice and crop varieties and farming practices, e.g. SRI, IFS. and (2) Water

Resources: strengthen
FWUC, demonstration of
appropriate water
improvement options and
resilient irrigation system

		etc.
4	15	In 2012, twelve communes: 7 in Choam Ksan and 5 in Chetr Borei in the target provinces are applying resilient farming methods: For example, integrated farming system (IFS) through FFS, system of rice intensification (SRI), seed purification techniques, home gardening, etc.
		N. Committee of the com
adelivery in lin	e with plan	delivery below plan
		delivery in line with plan

Capacity Development

The capacities of relevant government staff and sub-national authorities have been gradually improved through continuous on-the-job learning, trainings, workshops and study visits. The relevant government staff involved in the project implementation has gained better understanding, hand-on experiences and shown confidence in dealing with climate change adaptation. As a result, the project team could actively participate and present project experiences in the following events aiming at strengthening regional and South-South cooperation and capacity building:

- Mekong River Basin Initiative (MRBI) workshop in Singapore held on 2-3 February 2012.
- The Second Asia-Pacific Climate Change Adaptation Forum, on 12-13 March 2012, Bangkok.
- The ADAPT Asia-Pacific 1st Annual Forum on March 13-15, 2012 Bangkok, and
- The NAPA FU experience in Preah Vihear has been presented by a deputy governor at the workshop on Local Governance and Decentralization for the effective delivery of finance for climate change at the local level in October 2012, Bangkok.

In collaboration with AIT Extension, Asian Institute of Technology Extension, the project has organized a "Study Visit on Integrated Approach to Climate Change Adaption in Neighboring Provinces, Thailand" for the project team during 17-22 December 2012. Twenty senior government officials and project team from national and sub-national levels participated in the visit.

At the provincial level, the in-country exchange visits were undertaken for staff to see and learn from experiences of climate change adaptation activities being done in other parts of Cambodia, for example in 2011, a resilient irrigation system in Kampot and an integrated farming system in Takeo provinces; and in 2012, an integrated farming system and water management in Kampong Thom and Battambang provinces.

Awareness-raising on climate change concepts and its impact on agriculture and water resources and climate change adaptation measures were widely discussed through sharing and learning sessions within the RULIP target communes and farmer groups. The awareness training is garnering significant success and is wide

spreading beyond the NAPA target areas e.g. RULIP and other non-NAPA target. The public awareness and education programme will be likely internalized in the implementation of PADEE, an IFAD supported project that starts in July 2012

At the commune level, the project team also supported commune councils and its planning and budgeting committees (PBCs) identifying the impacts of climate change and prioritizing adaptation measures to be integrated into commune development plans.

In collaboration with UNDP/GEF Small Grant Program and UNCDF funded LGCC project, the project team conducted a two-day CC mainstreaming workshop for 90 relevant stakeholders (Community, NGOs, SNA's, Ministries) from national and 15 provinces. Participants discussed an action plan and agreed to test the proposed mainstreaming processed in their respective provinces.

At grass-root level, project beneficiaries such as local authorities, water user groups, village volunteers, farmers, etc. received and gained knowledge on climate change adaptation and hand-on experiences in conflict resolution procedures, the important of early warning system, participatory water management, resilient farming practices including integrated farming system, system of rice intensification, seed purification techniques, etc.

Around 3,000 people participated in the CC awareness campaign. Their knowledge was assessed on climate change through focus groups. Results show that the majority of respondents are aware of climate change, causes, and impacts on agriculture, water and livelihoods.

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. In 2012, the project continues to address the issue of gender and climate change through:

- With the technical assistance of NAPA FU, MOWA Gender Climate Change Committee developed curriculum and training materials on gender and climate change. After having tested in the two target provinces in 2011, the materials were introduced and extended to district government officials, commune council and various farmer groups formed by the projects. Around 3,000 (1,627 women) actively participated and able to explain the linkage between gender and climate change impacts.
- A GEF mission, composed of NAPA FU and SGP projects with the objective to engender GEF projects and identify approaches enabling a better screening and approval of the projects. The mission looked at how the lessons learned could enable to capitalize more at the portfolio level.
- With the technical assistance of NAPA FU, the GCCC mainstreamed climate change into MoWA strategic plan and Neary Ratamak IV through consultative processes with UNDP consultants and the GIZ Economic Advisor.
- Gender action plan (GAP) has been implemented. The project strategic result framework was
 reviewed taking into account aggregated gender indicators and new identified indicators. At field
 level, the GAP is jointly implemented by three line-departments. As a result, 43% of CommunityBased-Early Warning System village agents as women selected and disseminated climatic
 information, 59% of women participated in training on effective use of water and 52% of women are

members of water user groups, and more than 50% of women participated and benefited from resilient farming practices.

However, a number of challenges remain to be addressed:

- Limited financing facilities in responding to activities included in the local planning process.
- Require a long term support from MoWA to sustain the current gender responsive approach.

Lesson Learned

Cross cutting issues and requires coordination efforts:

Climate Change has been recently introduced. Its nature of cross cutting issue requires and implies cross sector coordination. 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), Cambodia Climate Change Alliance (CCCA), Climate Change Department of MoE, CARDI, SCW, UNDP/GEF Small Grants Programme, UNCDF, etc., which the project has benefited from their expertise as well as to share experiences with them. With the developed outcome roadmap, the project is making sure the project outcomes are realized.

Pioneering Mainstreaming climate change into the local planning process, the NAPA FU in collaboration with UNDP/SGP and LGCC of UNCDF, is in the process of capitalizing the experiences into a national agenda with the National Committee for Democratic Development at Sub-National level (NCDDS), an inter-ministerial committee implementing the government policies on Decentralization and Deconcentration and the Ministry of Planning (MoP).

The Gender and Climate Change manual, initiated under NAPA FU, had been reviewed and tested by GCCC of MoWA. The document will be likely become a training manual of MoWA in 2013.

III. Follow-up actions:

a. MTR's recommendations:

Recommendation 1: UNDP needs to support the implementing agencies at provincial and district level in participatory processes and social mobilisation, especially with regard to understanding of local vulnerability, community power dynamics, household economy and participation of poor in development activities.

• UNDP CO will conduct regular monitoring visits to the project at the provincial and district levels to ensure that recommendation are fully implemented.

Action taken:

• The action was initiated through the 1st Integrated Assurance Mission (IAM) conducted in Preah Vihear and Kratie in August 2012.

Recommendation 2: In the remaining duration of the project, the project needs to review and re-design how activities such as income generation, household water supply, communal irrigation structures are planned and

with whom, , clear analysis of who benefits and how these generate adaptation solutions, and how these are implemented.

• The project will review and redesign the income generation activities based on this recommendation in consultation with UNDP Cambodia focal point and the UNDP Regional Technical Advisor and will submit to the Project Board for endorsement. The agreed upon income generation approach will be implemented under the One Village's approach.

Action taken:

• The recommendation has been discussed and action to be taken has been included in 2013 Annual Work Plan and Budget (AWPB).

Recommendation 3: In order to generate evidence-based advocacy and communicate messages, the project needs to reorient some of its activities toward producing credible data to show how communities are generating adaptation solutions and increasing their resilience to climate change. One approach would be to take an entire village community – albeit small – as a unit of intervention. Through the latter approach, the project could enable a community to undertake a total village analysis – of their livelihood needs, resource requirements, bio-mass requirements, production and withdrawals from natural resources, vulnerability to climate changes, and development and adaptation needs. This would also help generate bottom-up adaptation solutions taking into account a community's multi-faceted needs.

Action taken:

• In the recent 4th technical meeting, the project team agreed to pilot the One Village's approach within the existing target areas in 2013. Beside the spatial unit of intervention, the project is committed to ensure that integrated approach capitalizing the experience of the three line departments will prevail and thus in a participatory manner.

 The concept of One Village's approach was discussed. Four existing villages in two communes in Bosleav and Toeuk Krahom have been selected. Some of the field activities have already started such

as solar pump, home garden etc.

Recommendation 4: In order to address the delays caused by complex array of unclear procedures at PA level, the project needs to have regular dialogue with the office of the provincial Governors at senior level and resolve bottlenecks that arise.

Action taken:

• A dialogue was made during the Integrated Assurance Mission to PVH and KRTMAFF PSU with the project management team, but not with the provincial governors due to time constraint. MAFF/PSU and UNDP CO will dialogue with NCDDS and provincial governors in Q4, 2012 to address the bottlenecks.

Recommendation 5: Implementing staff would require greater orientation to outcome-oriented planning, monitoring and implementation. The project staffs need to use cost-benefit and effectiveness measures in planning and implementing all activities.

Action taken:

- The preparation of training on result-based management is initiated. UNDP CO and MAFF/PSU will
 organize the training for the project team at both national and sub-national levels in November 2012.
- UNDP will work closely with the project team to provide guidance to ensure cost effectiveness in planning and implementation.

b. IAM's recommendations:

Recommendation 1: MAFF/PSU with the two provincial teams reviewed AWPB for the remaining period and readjusted budget lines to reflect actual expenditure and more accurate planned budget. Some budget lines could be increased and some could be decreased. Additional budget lines such as learning activities or study tours can be added as per discussion based on the needs from the project staff members.

Action taken:

• MAFF/PSU conducted 4th technical meeting to discuss MTR's and IAM's recommendations. The meeting revised the 2012 annual workplan and budget to reflect feasible implementation with remaining timeframe of 2012. The revised workplan and budget has been submitted to project board for approval.

Recommendation 2: MAFF/PSU conducts more frequent visit to support the provincial team. A clear schedule of mission to the provinces should be developed (i.e. Project Assistant should travel to support the Finance Officer in Preah Vihear on a Quarterly basis rather than twice per year, and the same case applied for technical support) staff members.

Action taken:

• MAFF/PSU conducted the coaching/mentoring sessions every month for IP3 Financial Advisors and Officers. In addition, the national team will conduct quarterly visit to the provinces to provide technical backstopping and guidance support to the provincial teams.

IV. Project implementation challenges

a. Risks and actions

Project Risk 1:

Termination of the POC came in 01 July 2012 without a proposed alternative has a negative impact on the project implementation particularly on staff motivation and delivery performance.

Actions Taken:

MAFF/PSU discussed with UNDP CO to find out an alternative or solution to mitigate the risk. So far, there is no solution proposed and requested to align with IFAD projects that were approved by MEF.

b. Updated project issues and actions

<u>Project Issue 1:</u> Rainfall interrupts the construction work; the contractors could not manage to complete the work by the end of this year.

Actions taken:

• The issue was discussed with IAM team and MAFF/PSU in the 4th technical meeting. It was agreed that the project amend the contract with the construction contractor to ensure that the 2nd payment of USD 82,500 is divided into two more installments.

Project Issue 2:

The procurement of Automatic Weather Stations was not accomplished due to the administrative complications from the company side.

Actions taken:

 In replacement of the automatic weather stations, agreement was reached between UNDP, MAFF PSU and the Department of Meteorology of MoWRAM to rehabilitate the MoWRAM based GTS which is able to provide climatic information country-wide.

IV. Financial status and utilization

Table 1: Contribution overview [start date of the project – end date of project] [01/07/2009 - 31/08/2013]

DONOD WATE	CONTRI	CONTRIBUTIONS		
DONOR NAME	Committed	Received	BALANCE	
UNDP	1,240,350.00	711,290.29	529,059.71	
GEF	1,850,000.00	1,837,188.63	12,811.37	
TOTAL	3,090,350.00	2,548,478.92	541,871.08	

Table 2: Quarterly expenditure by project output or Activity (in Atlas format)
[01/10/2012 - 31/12/2012]

ACTIVITY	BUDGET PLAN [Q4]	EXPENDITURE [Q4]	BALANCE	DELIVERY (%)
Activity 1: Commune plans & budget address inherent climate risks in target districts	28,967.00	44,890.80	(15,923.80)	154.97%
Activity 2: Establishment of conflict prevention measures	496.00	422.20	73.80	85.12%
Activity 3: A community based climate information system on flooding and droughts	57,797.00	50,804.43	6,992.57	87.90%
Activity 4: Improved access to water for household and agricultural use demonstrated in 11 target villages	99,133.00	117,872.82	(18,739.82)	118.90%

TOTAL	553,635.30	556,301.20	(2,665.90)	100.48%
UNDP GMS (based on donor agreements)				
Activity 10: Programme Support Services(Country office)	46,314.80	55,024.90	(8,710.10)	118.81%
Activity 9: Review of national policy on climate change adaptation based on lessons generated by the project	52,870.53	44,226.71	8,643.82	83.65%
Activity 8: Learning networks for climate resilient farming practices established	2,000.00	2,400.00	(400.00)	120.00%
Activity 7: Public awareness and environmental education programmes on climate risk reduction designed and implementation	16,007.70	3,425.00	12,582.70	21.40%
Activity 6: Resilient design and management of irrigation systems promoted and demonstrated	142,721.17	138,219.54	4,501.63	96.85%
Activity 5: Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	107,328.10	99,014.80	8,313.30	92.25%

Table 3: Annual expenditure by project output or Activity (in Atlas format) [1/01/2012 - 31/12/2012]

ACTIVITY	BUDGET PLAN 2012	CUMULATIVE EXPENDITURE 2012	BALANCE	DELIVERY (%)
Activity 1: Commune plans & budget address inherent climate risks in target districts	118,285.63	173,220.21	(54,934.58)	146.44%

TOTAL	1,151,876.98	1,177,115.98	(25,239.00)	102.19%
UNDP GMS (based on donor agreements)		10.00		
Activity 10: Programme Support Services(Country office)	173,926.83	194,548.95	(20,622.12)	111.86%
Activity 9: Review of national policy on climate change adaptation based on lessons generated by the project	140,784.18	112,803.42	27,980.76	80.13%
Activity 8: Learning networks for climate resilient farming practices established	5,934.14	3,401.75	2,532.39	57.33%
Activity 7: Public awareness and environmental education programmes on climate risk reduction designed and implementation	39,114.08	26,722.64	12,391.44	68.32%
Activity 6: Resilient design and management of irrigation systems promoted and demonstrated	253,799.16	224,032.98	29,766.18	88.27%
Activity 5: Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	175,938.85	169,877.65	6,061.20	96.55%
Activity 4: Improved access to water for household and agricultural use demonstrated in 11 target villages	176,126.94	212,419.18	(36,292.24)	120.61%
Activity 3: A community based climate information system on flooding and droughts	67,063.95	56,096.92	10,967.03	83.65%
Activity 2: Establishment of conflict prevention measures	903.22	3,992.28	(3,089.06)	442.01%

Table 4: Cumulative expenditure by project output or Activity (in Atlas format) [1/07/2009 – 31/12/2012]

ACTIVITY	TOTAL BUDGET	CUMULATIVE EXPENDITURE	BALANCE	DELIVERY (%)
Activity 1: Commune plans & budget address inherent climate risks in target districts	723,726.87	405,263.30	318,463.57	56.00%
Activity 2: Establishment of conflict prevention measures	189,706.48	191,534.76	(1,828.28)	100.96%
Activity 3: A community based climate information system on flooding and droughts	88,319.39	91,682.11	(3,362.72)	103.81%
Activity 4: Improved access to water for household and agricultural use demonstrated in 11 target villages	371,172.06	460,638.24	(89,466.18)	124.10%
Activity 5: Resilient farming methods to climate induced changes in rainfall intensity and distribution demonstrated	347,571.70	385,356.27	(37,784.57)	110.87%
Activity 6: Resilient design and management of irrigation systems promoted and demonstrated	347,571.84	276,587.12	70,984.72	79.58%
Activity 7: Public awareness and environmental education programmes on climate risk reduction designed and implementation	181,650.48	170,051.40	11,599.08	93.61%
Activity 8: Learning networks for climate resilient farming practices established	7,650.00	3,654.75	3,995.25	47.77%
Activity 9: Review of national policy on climate change adaptation based on lessons generated by the	373,912.23	298,684.70	75,227.53	79.88%

project				
Activity 10: Programme Support Services(Country office)	459,068.95	356,065.27	103,003.68	77.56%
UNDP GMS (based on donor agreements)				
TOTAL	3,090,350.00	2,639,517.92	450,832.08	85.41%