

2012 Technical Report per Activity

Each Program Participant must provide a small remark against each activity/deliverable to indicate the status of the activity (2-4 sentences required per activity) using the form below. Updated data from the current partners is also required.

CCAFS Center Led Activities WorldFish Center

Activity No. 149																			
Activity title		Evaluation of water resources adequacy to meet demands from aquaculture integrated with small-scale irrigation in drought-prone areas in Malawi, Zambia and Mozambique, under present and future climate change scenarios																	
CCAFS Objective (select from drop list)		1.1 Adapted farming systems	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.1.2 2013 (1)															
Activity objectives (what the activity aims to achieve)	Objective 1	On the one hand, research on multiple water use practices for the sub-Saharan smallholding, focused largely on crop and livestock integration, has shown improvements in farm-level water productivity and the benefits of onfarm water harvesting and storage to cope with uncertain water supplies. So has research on farm-level AA technologies demonstrated benefits to household food security, child nutrition and assured production during drought years. On the other hand, broader catchment- and basin-scale research on water resources allocation and management demonstrate the virtues of integrated water resources management that emphasize benefits sharing so that geographically-dispersed users get an equitable share of water while ensuring that the environmental flows are maintained for sustainable use of the water resources. The project will bridge these research efforts and achievements by focusing work at the catchment level where up-scaling of farm-level practices raises issues of water resources availability and allocation that can benefit from down-scaling of research findings on these issues commonly conducted at the broader basin level. The project will also apply participatory methods to engage stakeholders in adaptive water management in the context of dispersed, formal and informal small-scale irrigation systems.																	
Activity status		Partially completed																	
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The GiZ funded project that supports WF work in this CCAFs Output is finishing at the end of March 2013. There have been some delays created by the replacement of Daniel Jamu by Joseph Nagoli and a no-cost extension to the project will be negotiated. The final report will be certainly be done by end of 2013 and we will append it to the WF 2013 technical report.																	
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Activity No. 299				
Activity title		Gender inequality: A barrier to climate adaptation behavior?		
CCAFS Objective (select from drop list)		1.1 Adapted farming systems	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.1.1 2015 (1)
Activity objectives (what the activity aims to achieve)	Objective 1	To understand how gender inequality influences climate adaptation behavior through shaping perceptions of risk and of adaptive capacities, and to use this knowledge to work with stakeholders to design R4D interventions to both address technical barriers to uptake of adaptation enhancing livelihood activities, and seek to transform the gender norms, attitudes and practices that constrain adaptive capacities and willingness to risk..		
Activity status		Partially completed		

Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>	This activity began in the last quarter of 2012. Partnership contracts have been negotiated and signed, and study sites in Bangladesh have been selected. An initiation meeting was held in late 2012 where the original workplan was slightly renegotiated to include ponds in addition to cages. Fieldwork will start in February 2012.				
Deliverables status <i>(You may add any unexpected deliverable)</i>	Type	Description	Year	Status	Format
	Capacity	Enhanced gender integration capacity among project team and project steering committee	2013	Partially completed	Select a format
	Workshops	To discuss results in communities and assess action points; R4D design workshop with stakeholder s	2013	Partially completed	Select a format
	Reports, publications	Research report; conceptual paper	2013	Uncompleted	Select a format
	Data	qualitative data on gender, risk and adaptive capacity	2013	Uncompleted	Select a format

2012 Technical Report per Activity

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CCAFS Center Led Activities WorldFish Center

Activity No. 150																													
Activity title		Managing climate risks and building resilient livelihoods in tropical aquatic agricultural systems																											
CCAFS Objective (select from drop list)		2.1 Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods		CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	2.1.1 2012																								
Activity objectives (what the activity aims to achieve)	Objective 1	Identification of gender equitable options for managing risks from climate shocks using a Participatory Action Research																											
Activity status		Partially completed																											
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		Most of this activity is ongoing and is enmeshed in the Climate Smart Farming and Cage Aquaculture projects in Bangladesh. A detailed progress report on the Smart-Farm project has been written and is available from Melody Braun (M.Braun@cgiar.org). Diagnostic workshops on the Ecosystem Approach to Fisheries Management have taken place in Indonesia, Philippines, Solomon Islands, and Tanzania where community 'buy-in' has been very encouraging. http://www.worldfishcenter.org/ongoing-projects/taking-ecosystem-approach-small-scale-fishing-tropics .																											
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		Bruce Campbell	B.CAMPBELL@CGIAR.ORG																										

Activity No. 151					
Activity title		Participatory Action research at farmer/village level for climate risk management in South-Western Bangladesh.			
CCAFS Objective (select from drop list)		2.1 Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods		CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	2.1.3 2012 (1)
Activity objectives (what the activity aims to achieve)	Objective 1	Overall objective is to create "farms of the future" that implement optimized integrated farming systems that are better able to meet present and future income and food production needs in the face of climate change. By establishing synergies with CRP1.3 (AAS) and the on-going CRPS and CPWF projects and creating partnerships with local researchers and implementation partners, WorldFish Center Bangladesh will work with empowered farmer participants as local researchers to identify their own goals, needs, opportunities and constraints for better climate risks management strategies and test innovations that enable them to build more resilient livelihoods.			
Activity status		Partially completed			

Current Partners

NGO_DO - Non-governmental organization/Development organization

Acronym

NORAD

Name

Norwegian Agency for Development Cooperation

Contact Point Full Name

Contact Point Email

RO - Regional Organization

Acronym

Name

European Union

Contact Point Full Name

Contact Point Email

NGO_DO - Non-governmental organization/Development organization

Acronym

Name

Embassy of Norway

Contact Point Full Name

Contact Point Email

2012 Technical Report per Activity

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CCAFS Center Led Activities WorldFish Center

Activity No. 153						
Activity title		Mitigation strategies for AASs in Bangladesh and Solomon Islands. Mitigation strategies for key rice/fish AASs in Bangladesh identified based on LCA analysis. Tool for decision making around choice of fish/rice systems in selected agro-ecosystems in coastal Bangladesh.				
CCAFS Objective <i>(select from drop list)</i>		3.1 Inform decision makers about the impacts of alternative agricultural development pathways	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>		3.1.2 2012	
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	Improved understanding of pro-poor mitigations strategies and trade-offs in tropical AASs.				
Activity status		Completed				
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		This Activity is considered by me to be complete. It has its origins in work promised by my predecessor, and I have tried to get as much done as possible. The LCA tools were described in a report submitted last year, and the trade-offs are discussed in the Primary Paper and Policy brief deliverables.				
Deliverables status <i>(You may add any unexpected deliverable)</i>		Type	Description	Year	Status	Format
		Reports, publications	Mitigation options identified	2012	Completed	Select a format
		Reports, publications	Devise an appropriate carbon offset program action plan for Solomon Islands villages based on case study research and carbon sequestration results	2012	Completed	Document (*.doc, *.odt, *.pdf)
		Capacity	With Solomon Islands government, determine pathways for integration of rural community and national strategies for carbon credits in Solomon Islands.	2012	Completed	Select a format
		Reports, publications	Primary paper on carbon implications of aquaculture growth pathways in Bangladesh and mitigation options	2013	Completed	Select a format
		Communication products	Policy brief on low carbon aquaculture development options	2013	Completed	Select a format
		Model tools and software	LCA based tool tested and made available for users	2013	Completed	Select a format
Current Partners		Acronym		Name		
		AUSAID		Australian Agency for International Development		
		NGO_DO - Non-governmental organization/Development organization				
		Contact Point Full Name		Contact Point Email		
CG - CGIAR Center		Acronym		Name		
		CCAFS		Climate Change, Agriculture and Food Security		
		Contact Point Full Name		Contact Point Email		

2012 Technical Report per Activity

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CAAFS Center Led Activities WorldFish Center

Activity No. 154					
Activity title	Improve government and community capacity to identify and implement gender sensitive climate change adaptation in the context of ecosystem-based resource management in CTI countries and South-West Bangladesh.				
CAAFS Objective (select from drop list)	4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	CAAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	4.1.4 2012 (1)		
Activity objectives (what the activity aims to achieve)	Objective 1 Will improve community capacity to adapt to climate change in CTI countries and south-west Bangladesh.				
Activity status	Partially completed				
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)	The work on this Activity is proceeding apace. A Worldfish team undertook extensive field activities in Timor Leste (Batugade & Atauro Island) in August 2012 where participatory research techniques were used to explore the adaptive capacities of local farmers and fisheries. A progress report is available and the findings were discussed at the 2nd International Conference on Climate Change and Social Issues in Kuala Lumpur. This work will form the basis for expansion into other Pacific Islands.				
Deliverables status (You may add any unexpected deliverable)	Type	Description	Year	Status	Format
	Reports, publications	Report summarizing a review of climate change adaptation status and needs of rural communities in Timor Leste, PNG, Solomons, Fiji and Vanuatu, and revision of project proposal to address key findings.	2013	Partially completed	Select a format
	Data	Database of past vulnerability and adaptation assessments for the 5 target countries up to December 2012 made publically accessible, together with a critical evaluation of the existing assessments of climate change;	2013	Partially completed	Select a format
	Capacity	Detailed understanding of coastal livelihoods in Timor Leste and their likely vulnerability to climate change.	2013	Partially completed	Select a format
	Model tools and software	Methods manual aimed at guiding stakeholders through the development of a plan for implementing adaptation based on the pathways and decision-focused approach proposed by Wise et al., (in press).	2013	Partially completed	Select a format
	Reports, publications	Undertake reviews of relevant fish cage culture programs in Bangladesh (Gender inequality: A barrier to household climate adaptation behavior).	2013	Uncompleted	Select a format
	Communication products	ADB Policy Briefing aimed at communicating key findings to Pacific regional organisations and stakeholders;	2012	Partially completed	Select a format
	Communication products	Journal paper detailing the efficacy of the pathways and decision-focused approach applied to Timor Leste coast communities;	2013	Partially completed	Select a format
	Reports, publications	Specific review of coastal resource management in Timor Leste, to include the production of a vulnerability map, analysis of climate change adaptation and review of policy coherence and data collection for building a basis scenario	2013	Partially completed	Select a format

Current Partners	NGO_DO - Non-governmental organization/Development organization Acronym NEP Name	Contact Point Full Name	Contact Point Email
	NGO_DO - Non-governmental organization/Development organization Acronym Name National Heritage Institute	Contact Point Full Name	Contact Point Email
	NGO_DO - Non-governmental organization/Development organization Acronym ADB Name Asian Development Bank	Contact Point Full Name	Contact Point Email
	NGO_DO - Non-governmental organization/Development organization Acronym DEW Name Department of Sustainability, Environment, Water, Population and Communities	Contact Point Full Name	Contact Point Email
	NGO_DO - Non-governmental organization/Development organization Acronym Name Philippines Bureau of Agricultural Research	Contact Point Full Name	Contact Point Email
	NGO_DO - Non-governmental organization/Development organization Acronym Name University of Queensland	Contact Point Full Name	Contact Point Email
	AI - Academic Institution Acronym Name	Contact Point Full Name	Contact Point Email

Activity No. 155					
Activity title	Refinement of assessment methodology for economics of adaptation of aquaculture to climate change impacts to inform and support policy analysis and formulation based on case studies in the Mekong delta in Vietnam.				
CCAFS Objective <i>(select from drop list)</i>	4.3 Refine frameworks for policy analysis	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>	4.3.1 2012 (1)		
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To contribute to the refinement of methods for economic assessment of climate change impact and adaptation in fisheries and aquaculture; specifically: Systematically document and discuss methods applied in economic analysis of climate change impact and adaptation in fisheries and aquaculture Identify research gaps and recommend research priorities			
Activity status	Partially completed				
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>	The literature review on climate change scenarios will be complete by February 2013 and will be submitted to CCAFS. The working paper on Autonomous adaptation is done (http://www.worldfishcenter.org/resources/publications/autonomous-adaptation-climate-change-shrimp-catfish-farmers-vietnam-mekong-river-delta) and is also appended. It will be 'worked up' to a refereed book (Cabi) chapter in 2013. Communication with Vietnamese NARES was done in 2012 (e.g. publication in Vietnamese language, appended) but we consider this to be a continuous process.				
Deliverables status <i>(You may add any unexpected deliverable)</i>	Type	Description	Year	Status	Format
	Reports, publications	Literature review of climate change scenarios for greater Mekong region and implications for the aquaculture industry;	2012	Partially completed	Document (*.doc, *.odt, *.pdf)
	Reports, publications	Literature review of economic methods for climate change impact and adaptation in the capture fisheries and aquaculture sectors. The review on economic methods is done and appended.	2012	Completed	Presentation (*.ppt, *.odp)

	Model tools and software	Methodology refined for costs and benefits analysis of autonomous and planned adaptation strategies, and applied for analysis of the aquaculture sector in the Mekong River Delta of Vietnam.	2012	Completed	Document (*.doc, *.odt, *.pdf)
	Communication products	Results communicated to Vietnamese NARES and international development organizations through policy briefs, and workshops.	2012	Completed	Document (*.doc, *.odt, *.pdf)
Current Partners					
			Acronym	Name	
			CCAFS	CGIAR Research Program on Climate Change, Agriculture and Food Security	
	CG - CGIAR Center		Contact Point Full Name		Contact Point Email

2012 summary report of activities and deliverables by Output level

Each Program Participant must prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives. Length is dependent on budget size so please refer to the table on the explanatory notes.

CCAFS Center Led Activities

WorldFish Center

Theme 1. Adaptation to Progressive Climate Change	
Objective 1.1 Analyze and design processes to support adaptation of farming systems in the face of future uncertainties of climate in space and time	
Outcome 1.1: Agricultural and food security strategies that are adapted towards predicted conditions of climate change promoted and communicated by the key development and funding agencies (national and international), civil society organizations and private sector in at least 20 countries	
Output 1.1.2 Building of regional and national capacities to produce and communicate socially inclusive adaptation and mitigation strategies for progressive climate change at the national level (e.g. through NAPAs)	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	WF activities around this CCAFS Output involve two projects: (1) a GiZ funded project set in Malawi Zambia, and Mozambique; and (2) a CCAFS funded project set around evaluating gender inequality among aquaculturists in Bangladesh. The project in Africa will finish this year but there have been some delays caused by a leadership change. A water budgeting model at sub-basin level has been tested out with project partners and stakeholders to familiarize them, and provide insights on the use of the model to support decisions about managing water resources within and across sub-basins for agricultural and aquaculture use. Consultation sessions were conducted with farmers in the study sites in Malawi, Zambia and Mozambique to elicit their decisions on seasonal farming activities for four main production systems – rainfed, irrigated and dimba cropping and integrated agriculture-aquaculture – in response to scenarios of adequate and deficit water availability. The decision rules of farming activities thus constructed are being used to revise the preliminary agent-based models developed earlier for depicting scenarios of farm production systems under different conditions of water resources availability. [see conference paper <http://www.iemss.org/iemss2012/proceedings/E2_0787_Krywkw_et_al.pdf> for a more detailed description of the farmer participatory process]. The activities are ongoing and the deliverables are partially completed. The CCAFS project on gender inequality only began late in 2012 and will be completed at the end of 2013. Progress is good and we look forward to working on synergies with other CCAFS initiatives in south-west Bangladesh.
Theme 2. Adaptation through Managing Climate Risk	
Objective 2.1 Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods	
Outcome 2.1: Systematic technical and policy support by development agencies for farm- to community-level agricultural risk management strategies and actions that buffer against climate shocks and enhance livelihood resilience in at least 20 countries	
Output 2.1.1 Synthesized knowledge and evidence on innovative risk management strategies that foster resilient rural livelihoods and sustain a food secure environment	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	The first two of the WF Deliverables for this Activity are only really partially completed. The full 'assessment framework for understanding gendered differences in climate risk perception' will emerge as part of the 'Smart Farm' and 'Cage Aquaculture' projects in Bangladesh, together with information and expertise from the Norwegian funded project to develop climate change adaptations around Lake Chilwa in Malawi. All these projects are making satisfactory progress although outputs from the Lake Chilwa project have been delayed due to a leadership change. An interim report summarising progress on the 'Smart Farm' project is appended to this report which contributes to these deliverables. As you will note from the report, the 'Smart Farm' Team already has much success to report; viz strong community buy-in to the 'Fish Ring/Sanctuary' component of the project. There is also strong evidence of women's involvement in these projects and we are hopeful that they will be scaled up in future. For the deliverable on how 'adaptation strategies influence risk transfer products', a report entitled, 'Assessment of Capabilities, Needs of Communities, Opportunities and Limitations of Weather Forecasting for Coastal Regions of Bangladesh' was commissioned. It concludes by questioning the utility of CCAFS involvement in weather forecasting, which is often adequately done by national meteorological offices and other NGOs with much bigger budgets. This report is also appended, and will be developed by our Comms Team into a full WF Working Document. Melody Braun and Afrina Choudhury also delivered a related presentation (Impacts of climate smart integrated farming systems on women's nutrition and health in Bangladesh) at a conference on Climate Change and Social Issues in Kuala Lumpur in December which was well received. It was also uploaded to SlideShare, and then added to the homepage by the Editorial Board; chosen from the thousands uploaded to SlideShare everyday from across the world. The Deliverable (part of an EU funded Action) relating to the organisation of meetings, and training in relation to implementing the Ecosystems Approach to Fisheries Management is complete. The meetings were done in Indonesia, Philippines, Solomon Islands, and Tanzania. Significant buy-in from communities has already occurred which we hope will lead to improved natural resource management in key locations; and that scaling up of the implementation strategies will take place during 2013 and 2014. The first Interim Report is appended. The Lake Chilwa project has an exhaustive list of Deliverables and milestones which are difficult to summarise succinctly. In addition the drying out of Lake Chilwa has compromised certain planned activities. Recently, nine female processing groups have been organized, trained and self-selected in three landing sites. All the groups were trained in solar fish drying, improved fish smoking using energy saving stoves and in fish brining. A value chain analysis of rice from the project is appended.
Output 2.1.3 Development; and demonstration of the feasibility, acceptability and impacts; of innovative risk management strategies and actions for socially-differentiated rural communities	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	The analysis of main adaptation options pursued in the past' is really covered in the Braun and Saroar (2011) report which was substantially improved, and revised during 2012. This work and report provided vital background information and network for the instigation of the Smart Farm and Cage Aquaculture projects. The latest version was released as an official WorldFish Working Document in 2012, and is appended. Deliverables relating to 'Analyses of opportunities for low-carbon aquaculture' and 'Analyses of the capacity of local institutions to benefit from climate-smart agriculture' are embedded in the Smart Farm project and thus may only be considered partially complete. Both deliverables are discussed in the Smart Farm progress report, 'Climate smart management of aquatic farm ecosystems in coastal regions of Bangladesh (Smart Farm)', which is appended to the CCAFS sharepoint. The report has been divided into 4 sections based on specific objectives that relate to the original Smart Farm proposal. The first section relates to, 'climate smart interventions (eg. vertical gardens, pond polyculture, crop integration strategies) piloted at homestead level, analyzes the results and makes some important recommendations. In the second section the authors deal with, 'the development of integrated aquatic agricultural farming systems that enhance both the productivity, food and diversity of fish within the farming systems and that are responsive and adapt to water and salinity management challenges'. Methods for equitable (gender-responsive) promotion, adoption and scaling-up of climate-smart farming methods in AAS are developed and implemented in the third section, while the last describes, 'current weather prediction and forecasting systems and opportunities for improvements'.

Theme 3. Pro-Poor Climate Change Mitigation	
Objective 3.1 Inform decision makers about the impacts of alternative agricultural development pathways	
Outcome 3.1: Enhanced knowledge and tools about agricultural development pathways that lead to better decisions for climate mitigation, poverty alleviation, food security and environmental health, used by national agencies in at least 20 countries	
Output 3.1.2 Enhanced tools, data and analytic capacity in regional and national policy and research organizations to analyze mitigation sectors and agricultural development options	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	
Theme 4. Integration for Decision Making	
Objective 4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	
Outcome 4.1: Appropriate adaptation and mitigation strategies mainstreamed into national policies in at least 20 countries, in the development plans of at least five economic areas (e.g. ECOWAS, EAC, South Asia) covering each of the target regions, and in the key global processes related to food security and climate change	
Output 4.1.4 Strengthening capacities to effectively engage in global policy processes and mainstreaming risk, adaptation and mitigation strategies into national policies, agricultural development plans, and key regional and global processes related to agriculture and rural development, food security and climate change	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	Most of the outputs for this Activity should still be considered 'partially complete' mainly because the work began Timor-Leste and will be extended to other island nations in 2013. The outputs promised under this Activity are all part of an ADB funded project that is taking place in Timor-Leste, Papua New Guinea, Solomon Islands, Fiji, and Vanuatu. A report describing the extensive fieldwork and an associated methodology that took place in Timor-Leste has recently been published, and is appended to the current report. It considers climate change adaptation from economic, social and environmental perspectives, laying the foundations for our future researches in the Pacific. The work involved the government of Timor-Leste, the FAO, and Seeds for Life and we hope, therefore, that it will influence climate change policy in Timor-Leste. Similarly, the 'lessons learned' from this approach will enable us to enhance the capacity for climate change adaption among the governments of other Pacific Island nations.
Objective 4.3 Refine frameworks for policy analysis	
Outcome 4.3 New knowledge on how alternate policy and program options impact agriculture and food security under climate change incorporated into strategy development by national agencies in at least 20 countries and by at least 10 key international and regional agenciesat least 10 key international and regional agencies	
Output 4.3.1 Climate change impacts assessed at global and regional levels on agricultural systems (socially and gender differentiated producers and consumers, and their natural resources), national/regional economies, and international transactions and potential of international and regional policy changes to enhance adaption and support agricultural greenhouse gas emissions mitigation	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	This work is centered on a project being coordinated by Nhuong Tran among the aquaculturists of the Mekong Delta in Vietnam. We see the project as 'long-term' and are committed to the people and the place. Fieldwork involves interviews, dialogues and participatory discussions with all stakeholders and decision-makers, including the producers themselves. The idea is to find ways for WF researches to influence the future planning and economic development of aquaculture in the Mekong Delta under a future climate. Not much work on gender has yet taken place on the project, but this aspect will recieve greater attention in the coming years. The networks developed between stakeholders, WF, and National Partners, and government NGOs in Vietnam are valuable, and will provide leverage for future positive development and poverty-related outcomes. In 2013 household surveys will begin but the budget is limited. We hope that the new Regional Director for SE Asia may like to become involved in this project. The project has already contributed substantially to the outputs listed in Theme 4, and include the publication of a formal Working Document and an interesting Blog article published on CCAFs website.

List of publications that acknowledge CCAFS support

(a) Each Program Participant must list all publications that acknowledge CCAFS support. Only include publications that came out in final version in the calendar year. Please do not include journal papers under review (submitted etc) or out in electronic format ahead of print, except of course for electronic-only journals.

(b) Please try to format references in the Harvard style. A clear guide can be found here:

<http://libweb.anglia.ac.uk/referencing/harvard.htm>

(c) For journal articles, please indicate all of the references that are "green open access" with a single asterisk and those that are "gold open access" with a double asterisk. This is now a requirement from CGIAR donors. Green open access means that the authors have made a free copy available on a website. Gold open access means that the journal allows free download (either as standard practice or because the authors paid for it).

(d) For all publications that are up online, please provide a web link if possible. This will help us to advertise your work more widely.

CCAFS Center Led Activities WorldFish Center

Publication 1	Type Journal papers	Citation identifier http://icesjms.oxfordjournals.org/content/69/
	Citation Beam trawlermen take feet off gas in response to oil price hikes. Doug Beare and Marcel Machiels, ICES Journal of Marine Science, 69: 1064-1068.	
Publication 2	Type Working papers	Citation identifier http://www.worldfishcenter.org/resources/pu
	Citation Autonomous adaptation to climate change by shrimp and catfish farmers in Vietnam's Mekong River Delta. Kam, S.P. ; Badjeck, M.C. ; Teh, L. ; Teh, L. ; Tran, N. 2012. Working paper 2012-24. WorldFish. Penang, Malaysia	
Publication 3	Type Journal papers	Citation identifier http://www.sciencedirect.com/science/article/
	Citation Can marine fisheries and aquaculture meet fish demand from a growing human population in a changing climate? Gorka Merinoa, Corresponding author contact information, E-mail the corresponding author, Manuel Barange ,Julia L. Blanchard, James Harle,Robert Holmes,Icarus Allen,Edward H. Allison,Marie Caroline Badjeck,Nicholas K. Dulvye,Jason Holt,Simon Jennings,Christian Mullon,Lynda D. Rodwell.	

2012 Case studies

Number of case studies to be submitted is dependent on budget size so please refer to the table on the explanatory notes. Each case study should be about half a page, and Program Participants are expected to build a portfolio of case studies over the years that demonstrate all different types.

CCAFS Center Led Activities WorldFish Center

CASE STUDY 1	Title	Range Adaptation: Strengthening Coastal and Marine Resources Management in the Coral triangle of		Author	Sarah Park	
	Type	Capacity enhancement	Date (DD/MM/YYYY)	21/10/2011	Countries	Timor-Leste, Solomon Islands, Papua New Guinea, Vanuatu, Fiji
	Keywords	adaptation climate change, decision-focused approach		Photo URL		
	Introduction/Objectives (400 characters)					
	This study aims to work in participation with coastal communities and all levels of governance to strengthen capacity to assess risks to livelihoods from a changing climate, and develop, pla					
	Description of the project, procedures etc. (1100 characters)					
	The framework developed to guide stakeholders through decisions relating to adaptation, contains participatory research in development activities relating to: (a) scoping the socio-econ					
CASE STUDY 2	Title	Implementing an ecosystem approach to fisheries (EAF) in small scale tropical marine fisheries.		Author	Doug Beare	
	Type	Capacity enhancement	Date (DD/MM/YYYY)	31/12/2011	Countries	Indonesia, Philippines, Solomon Islands, Tanzania
	Keywords	Ecosystems, Fisheries management, small-scale fisheries		Photo URL	http://www.worldfishcenter.org/ongoing-projects/taking-ecosystem-approach-small-scale	
	Introduction/Objectives (400 characters)					
	The objective of this project is to improve SSF management and reduce poverty by developing fisheries management strategies, based on the ecosystem approach, that are appropriate for developing country contexts. The project will then pilot these in selected focal sites.					
	Description of the project,, procedures etc. (1100 characters)					
	Three sequential objectives frame the project. These are: i) to assess existing institutional arrangements and understand how an the Ecosystem Approach to Fisheries Management (EAF) i					
	Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)					
	The results of the project so far are described in the Interim Report which is appended. We have already seen significant buy-in from stakeholders; particularly in the Philippines where loca					
	Partners involved and their role (250 characters)					
	There are many partners involved in each of the four countries, and these are listed in detail, together with their roles in the project, in the Interim report appended					
	Links/Sources for further information					
	A sharepoint has been set up for the project where all pertinent information is stored. Access can be granted by contacting S.L.Tan@CGIAR.ORG. The link is here, http://eafm.worldfishcen					
	Title	Integrating climate change adaptation into aquaculture development planning in Vietnam		Author	Nhuong Tran	
	Type	Policy advocacy	Date (DD/MM/YYYY)		Countries	Vietnam
	Keywords	climate change, agriculture development planning, The Mekong Delta		Photo URL		

CASE STUDY 3	Introduction/Objectives (400 characters)			
	In 2012, the WorldFish Center collaborated with the Vietnamese Institute for Fisheries Economics and Planning to incept the research project “integrating climate change adaptation into a			
	Description of the project,, procedures etc. (1100 characters)			
	The project applies both qualitative and quantitative approaches. In 2012, the project conducted fieldwork in Ben Tre, Ca Mau and Kien Giang provinces of the Mekong Delta which were id			
	Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)			
	The findings show that climate change poses significant threats to coastal aquaculture systems in the Mekong Delta. Sea level rise is the most felt and serious threat to coastal aquaculture			
CASE STUDY 4	Partners involved and their role (250 characters)			
	the Southern Sub-Institute for Fisheries Planning (SIFIP) of the Vietnamese Institute for Fisheries Economics and Planning (VIFEP). The partner is responsible for conducting research and int			
	Links/Sources for further information			
	Chau, L. V., Giang, T. H., Tran, N., Tam, B. L., Anh, H. K., Chi, V. T.X., and An, N. T.X. 2013. Initial assessment of the resilience, adaptability and transformability of coastal aquaculture in the Mekong Delta Vietnam to climate change. Project technical report, the Southern Sub-Institute for Fisheries Planning (SIFIP), Ho Chi Minh city, Vietnam and the WorldFish Center, Penang, Malaysia.			
	For more information contact Nhuong Tran (n.tran@cgiar.org)			
CASE STUDY 4	Title		Author	
	Type	Date (DD/MM/YYYY)	Countries	
	Capacity enhancement	29/12/2011		
	Keywords	Photo URL		
	Ecosystems, Fisheries management, small-scale fisheries			
	Introduction/Objectives (400 characters)			
	Description of the project,, procedures etc. (1100 characters)			
Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)				
Partners involved and their role (250 characters)				
Links/Sources for further information				

2012 Outcome report

Frequency of reporting outcomes is dependent on budget size so please refer to the table on the explanatory notes. (max 1 page)

CCAFS Center Led Activities WorldFish Center

OUTCOME 1

What is the outcome of the research (use of research results by non-research partners)?

WorldFish Center is co-ordinating an EU funded project to work on, 'Implementing an ecosystem approach to fisheries (EAF) in small-scale tropical marine fisheries

What outputs produced in the three preceding years resulted in that outcome?

The Stakeholders' Forum Workshop (and reports) on Iligan Bay Alliance: Where to from now?" in Philippines in June 2012. In October 2012 and Orientation-Work

What partners helped in producing the outcome?

Official partners in the work are: Mr. Lope B. Santos III

Southeast Asian Regional Center for Graduate Study (SEARCA)

UPLB Campus, College, Los Baños, Laguna

PHILIPPINES

Who used the output?

Local government Units

How was the output used?

The outputs were used to improve the understanding of the ecological, governance and political problems faced by the people dependent on Iligan Bay for their li

What is the evidence for this outcome: Specifically, what kind of study was conducted to show the connection between the research and the outcome? Who conducted it? Please provide a reference or source.

The evidence for the Outcome are the signed MoUs, the partnerships, and the pledges of cash.

Gender and Social Differentiation related activities summary report - 2012

CRPs that have presented their Gender Strategy to the Consortium in 2012 should show progress in 2013 in relation to implementing the Strategy. Therefore it is expected from Program Participants that findings of gender and social differentiation activities and their significance to be referred in this summary report. It is essential to relate progress towards outcomes to the baseline gender-differentiated conditions being used to measure change. This report should also refer specifically to what is being learnt about gender and how this knowledge is being used to inform research priority-setting and approach. If none or few of your activities integrate gender please explain why it is not relevant to your research portfolio.

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CCAFS Center Led Activities

WorldFish Center

Consideration of gender and social differentiation are absolutely central to WorldFish's research portfolio. We are considered to be the lead CGIAR Center in applying gender transformative approaches to research in development efforts in the CRP AAS (Aquatic Agricultural Systems) which we lead.

As a basis for integrating gender into our ongoing CCAFs work we have consulted the two recently published reports: (1) The Training Guide on Gender and Climate Change Research in Agriculture and Food Security for Rural Development published jointly by FAO and CCAFs; and (2) Mainstreaming Gender into Project Cycle Management in the Fisheries Sector published by FAO, AECID, and the Ministerio De Asuntos Exteriores y De Cooperacion. CCAFs promotes the messages that: (1) Food production can be increased greatly if women had the same access to resources as men; (2) agriculture (and fisheries and aquaculture) must become 'climate-smart' to meet increasing demands for food; (3) agricultural interventions must take gender issues into account; (4) little research has been undertaken to understand how men and women are adapting to a changing climate, mitigating emissions, and maintain food security. Within the CCAFs programs gender-sensitive research is being promoted under 3 carefully selected research themes which are likely to lead to the most impact in terms of 'development outcomes'. The first revolves around 'climate analogues and how you might see your future today'; the second around 'equitable access to weather forecasting products', and the third around how to, 'understand and catalyse gender-sensitive, climate smart agricultural initiatives'.

All WorldFish CCAFs funded activities have integrated gender to some extent. However, at what stage in the project cycle gender integration has occurred, the gender integration approach used and how well gender integration plans have been realized in practice vary considerably across projects. The variation reflects in part WorldFish gender capacity gaps which have been filled progressively during 2012. Strengthened gender capacity in WorldFish means that the consistency of gender integration approaches in new projects should increase in 2013. Examples of the gender integration efforts made in 2012 follow.

The project on water resources in Malawi, Zambia, and Mozambique (Theme 1, Activity 149) is using participatory methods with stakeholders to manage shares of water more equitably.

Our Norwegian-funded project on climate change adaptation in Lake Chilwa (Theme 2, Activity 151) is adopting a gender-sensitive approach to disseminate and train users about fish post-harvest technologies.

The ADB funded project which undertook extensive participatory fieldwork in Timor-Leste this year focused on climate change, and engaged with both male and female farmers and fishers in coastal communities to consider gender specific impacts and adaptation options. The gender-sensitive approach adopted in this project enabled the participating groups of female farmers to highlight their specific needs in relation to the agricultural activities they undertake, and explore opportunities for extending

marketing options for their produce. One recommendation the WorldFish project team will submit to the National Government as a result of these participatory activities, relates to supporting training courses in sustainable agriculture that are tailored to the range of fruit and vegetables identified by the women as having potential for sale by them locally. The request by the participating women for these courses to be female-only will be included in this recommendation. Men and women have highly differentiated occupations and effective levels of power within families and communities in Timor-Leste. Therefore, in order to understand the potential of the female farmers to plan and implement adaptation options (such as sustainable agriculture practices), the project team assessed the specific social networks relevant to the adaptation options identified by the different men and women groups. The social network produced by the female farmers highlighted the informal and formal governance that influences their capacity to plan, implement and sustain adaptation actions.

The EU Funded project on the Ecosystem Approach to Fisheries Management in Small-Scale Tropical Fisheries stresses full community involvement. At each stage of the project, we are working in close collaboration with fisheries stakeholders to meet the needs, regulatory context and capacity of the individual fisheries involved. These stakeholders include men and women members of coastal communities in Indonesia, Philippines, Solomon Islands, and Tanzania, and representatives from non-governmental organizations, and local and national government organizations (<http://www.worldfishcenter.org/ongoing-projects/taking-ecosystem-approach-small-scale-fishing-tropics>).

CCAFs is directly funding two projects which more directly address gender issues; The Smart Farm (Activity 151) and Cage and Pond Aquaculture (Activity 299) projects in Bangladesh. A progress report on the Smart Farm project is appended, and a blog on progress, written by the Project Leader, Melody Braun can be found here (<http://www.worldfishcenter.org/news-events/smartfarm-project-helps-communities-produce-more-fish>).

The Cage and Pond Aquaculture project is designed to investigate how gender inequality influences adaptation decisions in poor households in Bangladesh, through shaping women's and men's uptake and sustained usage of 'climate-smart' fish technologies (fish cages and pond polyculture). The research will explore how gender norms, attitudes and practices influence the way women and men assess the opportunities related to these technologies, and whether and how these gendered assessments create barriers to households being able or willing to sustain the activity. The resulting understanding of the role of gender norms and practices in the sustained use of 'climate-smart' technologies can be used to design technology dissemination approaches that explicitly address gender-based constraints operating within households and the wider society in order to support more lasting improvements in livelihood security.

Going forward, and if funding and staff availability allow, WorldFish aims to have all of its CCAFs-related research apply gender transformative approaches (GTAs) in ways appropriate to the specific contexts and projects. In this way the research will contribute to the CG Gender Network's cross-CRP research theme on GTAs through contributing evidence on under what conditions different gender transformative approaches do and do not lead to more lasting development outcomes than standard gender integration models.