

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 Theme Led Activities Theme 1. Adaptation to Progressive Climate Change

Activity No. 280						
Activity title		Multi-site agricultural trial evaluation database for climate change analysis				
CCAFS Objective <i>(select from drop list)</i>		1.1 Adapted farming systems	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>		1.1.1 2012 (1)	
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To increase the overall number of trials in the system.				
	Objective 2	To improve the trial site information, focusing on motivating involvement of people that work in these sites and advance the incorporation of weather data into the system				
	Objective 3	To improve partnerships with CG centers, the private sector, initiatives such as AgMIPS, the CGIAR research programs (CRP's).				
	Objective 4	To support and advance individual research projects utilizing AgTrials data				
	Objective 5	To support the integration of the evaluation data and climate related information resulting from the centers-led CRP7 related activities relevant to Agtrials				
	Objective 6	To raise funds for further development				
Activity status		Completed				
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		The activity reached most of its 2012 objectives. Over the year the AgTrials platform included 2,524 new trials (from 126 new contributing institutions) reaching a total of 4,296 trials (from 186 institutions). The site showed a constant flow of traffic with a total of 6,227 visits registered from 95 different countries around the world. The system for acquiring weather data has finally been outourced to our partners at AgMIP and should be available shortly. In terms of fund raising a proposal was submitted to the RTB program (aiming to get new data for banana, plant cane, potato, sweet potato, cassava and yam).				
Deliverables status <i>(You may add any unexpected deliverable)</i>		Type	Description	Year	Status	Format
		Model tools and software	Agtrials interface linked to the AMKN and CCAFS data portals; Analogue tool incorporated into the Agtrials interface	2012	Partially completed	Other
		Model tools and software	Improvements of the database search functionality ; Results integrated into the database (completed in the first quarter of 2012); System for acquiring weather data to accompany trials data; Resource for identifying publically available soil profile information for crop adaptation analysis	2012	Partially completed	Other
		Data	New trial data incorporated into the system through establishment of new partnerships	2012	Completed	Other
		Model tools and software	Solid integration with Monsanto, AgMIPS and Cal-Riverside	2013	Partially completed	Other
		Capacity	2 or 3 research projects developed and disseminated to support studentships or thesis topics aiming to e.g carry out site similarity and GxE analysis, weather data integration	2013	Partially completed	Select a format
		Other	Proposals submitted to raise funds for further development	2012	Completed	Select a format
		Communication products	Improved blog	2012	Completed	Select a format

Current Partners	Acronym	Name	
		Monsanto	
	PRI - Private Research Institution	Contact Point Full Name	Contact Point Email
		David Gustafson	david.i.gustafson@monsanto.com
	Acronym	Name	
	AgMIPS	Agricultural Model Intercomparison and Improvement Project	
	Research_Network - Research network	Contact Point Full Name	Contact Point Email
		Cheryl Porter	cporter@ufl.edu
	Acronym	Name	
		Wageningen University	
	AI - Academic Institution	Contact Point Full Name	Contact Point Email
		Lotte Klapwijk	lotte.klapwijk@wur.nl
Acronym	Name		
CRP 3.4	CRP 3.4 Roots, Tubers, and Bananas		
CRP - Challenge Research Program	Contact Point Full Name	Contact Point Email	
	Graham Thiele	g.thiele@cgiar.org	

Activity No. 281					
Activity title		Development of a method to study farmer's social, cultural and gender specific barriers for enabling behavioral change and improve adaptive capacity, based on farmers' exchanges between climatic analogues locations (Farms of the Future Africa)			
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 2012		
Activity objectives (what the activity aims to achieve)	Objective 1	This project will address the following working hypothesis: by identifying and connecting analogue sites, research can: 1) enable farmers to better envision how their site-specific agricultural future might look, and 2) permit targeted on-the-ground testing of cropping systems'/technologies' climate resilience			
	Objective 2	To devise, test and validate the 'Farms of the future' approach built on farmer-to-farmer exchanges to analogue sites as a valuable option to improve adaptive capacity and support knowledge transfer. This approach would specifically: a) Consist of novel social science approaches to understanding farmers' reactions to experiencing their future climates b) Permit participatory diagnosis of capacities and needs, thus aiding in the design of community-appropriate adaptation strategies. c) Build knowledge about how climate may change and what may be needed to adapt. A crucial piece of this work will also involve how best to communicate uncertainty, given the uncertainty inherent in climate projections.			
	Objective 3	To improve understanding of local practices and available tools for enabling change, as well as cultural, economic, or institutional obstacles to such adaptive change (e.g., no existing market for cultivation of an otherwise promising substitution crop).			
Activity status		Partially completed			
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The two pilots in Tanzania and Ghana were successfully carried out, however the final Synthesis report, draft paper and Policy brief have been delayed and are due by the End of March.			
	Type	Description	Year	Status	Format
	Other	Farms of the Future methodology to facilitate farmer-to-farmer exchanges, which includes social and gender differentiation and innovative participatory approaches that promote knowledge sharing among farmers communities, and which can be applied to different geographical regions with significant cultural/agricultural differences	2012	Completed	Select a format
	Other	Tested methodology in two CCAFS regions	2012	Completed	Select a format
	Reports, publications	Report of any innovative options (tools or institutions) and their scope of application identified by stakeholders during the exchanges and reflections which combine adaptation and mitigation benefits	2012	Completed	Select a format

Deliverables status

(You may add any unexpected deliverable)

Reports, publications	Synthesis report including: a) analysis on the approach and recommendations for further up scaling and implementation, b) documentation of the effects of socio-cultural characteristics on the learning process, use and potential adoption of new mitigation and adaptation practices	2012	Partially completed	Select a format
Communication products	Policy brief targeted to national decision makers on community level adaptive capacity and principle barriers to adapt effectively	2012	Uncompleted	Select a format
Communication products	Visual outputs to be included in the CCAFS Adaptation and Mitigation Knowledge Network online portal	2012	Partially completed	Select a format
Reports, publications	Draft for peer-reviewable journal article on the farms of the future experience and methodologies ready for submission	2012	Partially completed	Select a format

Current Partners

NARES - National agricultural research and extension services	Acronym	SARI	Name		Selian Agricultural Research Institute
	Contact Point Full Name	George Sayula	Contact Point Email	gsayula@hotmail.com	
NARES - National agricultural research and extension services	Acronym	AHI	Name		African Highlands Initiative
	Contact Point Full Name	Juma Wickama	Contact Point Email	wickama@yahoo.com	
NGO_DO - Non-governmental organization/Development organization	Acronym	FNZ	Name		Federation NianZwe (Leo, Burkina)
	Contact Point Full Name	www.fnianzwe.com	Contact Point Email		
NARES - National agricultural research and extension services	Acronym	CSIR	Name		The Council for Scientific and Industrial Research (Ghana)
	Contact Point Full Name	Jesse Naab	Contact Point Email	jessenaab@gmail.com	
NGO_DO - Non-governmental organization/Development organization	Acronym	LACERD	Name		Langmaal Centre for Rural Development
	Contact Point Full Name	Mr. Linus Kabo-Bah	Contact Point Email	bsoya2000@yahoo.com	

Activity No. 282						
Activity title		Intellectual support and mentoring to strengthen capacity in gender analysis and research (UF)				
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 2014 (2)		
Activity objectives (what the activity aims to achieve)	Objective 1	Provide gender expertise to CIAT and CCAFS on an advisory basis and facilitate greater integration of gender research projects and proposals between CIAT and the University of Florida, focused primarily on climate change but also dealing with other areas requiring gender expertise within the context of CGIAR Research Programs.				
Activity status		Completed				
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The specific objective for this period was for Prof. Deere to work with Dr. Twyman in developing a short- and medium-term strategy for gender research related to climate change. The initial activities included a desk review of CIAT/CCFAS materials; a visit by Deere to CIAT headquarters ; a visit by Useche to CIAT; and further review of draft CIAT/CCFAS materials				
Deliverables status (You may add any unexpected deliverable)		Type	Description	Year	Status	Format
		Capacity	Start consolidating a student research network.	2012	Completed	Select a format
		Reports, publications	Jointly develop and/or help in the articulation with the CGIAR Gender Strategy of CIATs CRP 6 and 7 Gender Strategies	2012	Completed	Select a format
		Other	Provide support in bridging the gap between research and the implementation of projects and strategies that effectively address gender issues.	2013	Partially completed	Select a format
		Other	Guide the implementation of the activities of the Gender Strategies of CRP 7 and CRP6, and their articulation with the strategies and related activities of other CRPs	2013	Completed	Select a format
		Reports, publications	Annual report including: Start consolidating a Faculty Research Network .Work with the Capacity Strengthening group to identify how may gender differences influence the innovation strategies to reach intended beneficiary groups. Also, on how large scale research-for development impacts can directly reach and benefit rural women.	2013	Partially completed	Select a format
		Other	Provide support and guidance in the implementation of CIAT's CRP6 and CRP7 Gender Strategies related activities, their articulation with the CGIARs Gender Strategy and in general seeking to create synergies with other CRPs' Gender Strategies.	2014	Partially completed	Select a format
		Reports, publications	Annual report	2014	Uncompleted	Select a format
Current Partners		Acronym		Name		
		Select a partner type.				
			Contact Point Full Name		Contact Point Email	

Activity No. 309																														
Activity title		Further development and improvement of the Analogue tool and linkage with other CCAFS platforms																												
CCAFS Objective <i>(select from drop list)</i>		1.1 Adapted farming systems	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>		1.1.1 2012 (2)																									
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To carry out a usability analysis and implement the identified/required improvements.																												
	Objective 2	To develop training material and tutorial																												
	Objective 3	To include new climatic data (and with higher resolution)																												
	Objective 4	Improve the online portal and develop a proper platform with new sections																												
Activity status		Completed																												
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		The objectives set for the year were succesfully accomplished. The activity will enter in a new phase in 2013.																												
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CG - CGIAR Center	Bioversity	Jacob Van Etten	J.VANETTEN@CGIAR.ORG																											

Activity No. 310																									
Activity title		Best bets for climate-smart agriculture: The scientific basis																							
CCAFS Objective <i>(select from drop list)</i>		1.1 Adapted farming systems	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>		1.1.2 2013 (1)																				
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To build a library capable of informing decision making at multiple levels.																							
	Objective 2	To carry out an on-line surveys and a formal meta-analysis to compile a database of research results, data, and scientists working in this area.																							
Activity status		Partially completed																							
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		The activity was successfully carried out and the 2012 deliverables were achieved. Publication of the peer-reviewed articles has been agreed for 2013. This work will support further research efforts on CSA, upscaling opportunities and barriers to adoption.																							
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	Reports, publications	A list of CSA practices and technologies that have been identified and assessed for their applicability under specific conditions	2012	Completed	Document (*.doc, *.odt, *.pdf)
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Current Partners	Acronym		Name	
	CG - CGIAR Center	CIAT	Centro Internacional de Agricultura Tropical	
	Contact Point Full Name		Contact Point Email	
	Peter Laderach		p.laderach@cgiar.org	
	Acronym		Name	
	CG - CGIAR Center	ICRAF	World Agroforestry Centre	
Contact Point Full Name		Contact Point Email		
Todd Rosenstock		t.rosenstock@cgiar.org		

Activity No. 311					
Activity title		Managing climate related risks to improve livelihood resilience and adaptive capacity in agricultural ecosystems in Southern Mozambique			
CCAFS Objective <i>(select from drop list)</i>		1.1 Adapted farming systems	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>	1.1.2 2013 (1)	
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To enhanced livelihood resilience and adaptive capacity to climate change related risks in food insecure areas in Southern Mozambique.			
	Objective 2	To improve food security of rural families, in areas prone to the climate change impacts, by promoting the use of "climate-mart" technologies that encourage the balance between improved livelihoods and sustained biological and ecological integrity of the natural resources			
Activity status		Completed			
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		The activity was succesfully launched and the 2012 objectives reached. Partnership with IIAM and IUCN has proved very efficient.			
Deliverables status <i>(You may add any unexpected deliverable)</i>	Type	Description	Year	Status	Format
	Other	House hold Baseline survey carried out in two sites. Site reports to be delivered in 2013.	2012	Completed	Document (*.doc, *.odt, *.pdf)
	Reports, publications	Review long-term climate change adaptation and short-term climate risk in the field of agriculture in studies already implemented	2013	Partially completed	Other
	Reports, publications	Progress technical report	2012	Completed	Document (*.doc, *.odt, *.pdf)
Current Partners	Acronym		Name		
	CG - CGIAR Center	IUCN	International Union for Conservation of Nature		
	Contact Point Full Name		Contact Point Email		
	Regina Cruz		Regina.CRUI@iucn.org		
	Acronym		Name		
	AI - Academic Institution	ISPG	Polytechnic University of Gaza		
Contact Point Full Name		Contact Point Email			
non available		non available			

Activity No. 209																								
Activity title		Modeling climate impacts on pests and diseases (Banana weevil)																						
CCAFS Objective (select from drop list)		1.2 Breeding strategies	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.2.1 2013 (2)																				
Activity objectives (what the activity aims to achieve)	Objective 1	To initiate and conduct research and development activities in climate change related pest and disease assessments and modeling.																						
	Objective 2	To develop a basic population model for banana weevil and its response to changes in temperature based on values from the literature.																						
	Objective 3	To implement a basic mechanistic crop model in R based on InfoCrop.																						
Activity status		Partially completed																						
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		Two phases of work were completed through the grant. In preparation for testing the ILCYM model on the effects of climate change on insect pests, life cycle parameters for the banana corn weevil were compiled and sensitivity testing was done with the model. This work will continue with the final version of the model which is recently available. In the second phase of work, the INFOCROP model was converted to R software in preparation for crop-pest linked models and for risk assessment and the role of agrobiodiversity. • Complete data compilation for all the immature and mature stages of <i>Cosmopolites sordidus</i> and the effect of temperature on them. Our current student will continue her work for two more months (Until middle March 2013) to complete this task. • Report on model co-validation using literature data as input. This task will be performed by the team located in Cali office by middle of March 2013.																						
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CG - CGIAR Center	International Institute of Tropical Agriculture																							
Contact Point Full Name	Contact Point Email																							
Manuele Tamò	m.tamo@cgiar.org																							

Activity No. 210																			
Activity title		Pest and diseases modelling Workshop and insect pest research project (CIP)																	
CCAFS Objective (select from drop list)		1.2 Breeding strategies	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.2.1 2013 (2)															
Activity objectives (what the activity aims to achieve)	Objective 1	To organize and conduct a scientific review and planning workshop jointly with Kansas State University on pest and disease modeling to assemble and review (i) existing resources related to the main 5 results of the scoping study, and (ii) to plan for the development of new shared resources.																	
	Objective 2	To initiate and conduct research and development activities in climate change related pest and disease assessments and modeling.																	
	Objective 3	CIP has developed Insect Life Cycle Modeling (ILCYM) software which supports the development of process-based temperature-driven and age-stage structured insect phenology models and to apply these models for insect species distribution and risk mapping under different climate change scenarios. ILCYM is an open-source computer aided tool built on R-codes with a user friendly interface in Java computing language. It is linked to an uDig platform, which is a geographic information system (GIS), an application that contains basic tools for managing and mapping geographic information. To improve the software capacity in climate data interpolation and modeling and predicting changes in the regional distribution and abundance of insect pests' new modules have to be integrated.																	
Activity status		Completed																	
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		* The developed sub-module called "Index interpolator" inputs daily min. and max. temperature data and simultaneously calculates the three risk indices (establishment index, ERI, generation index, GI, and activity index, AI) location by location, and applies the thin plate smoothing spline (Tps) algorithm for interpolation of the indices. The analyses of the indices is at high spatial (pixel size of 90 m) and temporal resolution (daily data) that enables capturing the insect population potential establishment, distribution and abundance on small regional scales at an altitude gradient. While the generation and activity indices produced reasonable results validated through field observations, the output of the establishment index is not fully conclusive and not yet satisfactory displaying well the pest potential establishment, which needs more research. * Succesful workshop carried out in Lima from 10-14 December. The workshop successfully linked scientists from CG-Centers (Bioversity, CIAT, CIMMYT, CIP, ICRISAT, IITA, and IRR) and other stakeholders (CABI, FAO, FERA, UC Davis, University of Leeds, University of Kansas, Ohio State University) working in pest and disease management. It focused on challenges and opportunities to synergize expertise towards improving risk assessments of pests and diseases under current and changing climates in order to target surveillance initiatives, as well as to share experiences and develop joint modeling approaches to better understand the effects of climate change on agricultural pests, diseases and crop losses.																	
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Reports, publications	Workshop report including Road map and detailed work plan with main expected products, milestones and outcomes for a three-year period.	2012	Completed	Document (*.doc, *.odt, *.pdf)															

Deliverables status (You may add any unexpected deliverable)	Model tools and software	Available R-codes for climate data interpolation from CIAT adapted to ILCYM platform	2012	Completed	Other
	Model tools and software	Module created for the analysis of regional climate change patterns on pest establishment and abundance with daily min. and max. temperatures	2012	Completed	Other
	Other	regional risk maps	2012	Partially completed	GIS raster (ESRI Grids, GeoTiff, etc)
	Reports, publications	Technical report on the new module created and outputs produced including regional risk maps and life table parameters in an altitude gradient	2012	Completed	Document (*.doc, *.odt, *.pdf)

Current Partners					
	AI - Academic Institution	Acronym	Name		
		KSU	Kansas State University		
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		Karen Garret		kgarrett@k-state.edu	
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	CG - CGIAR Center	Acronym	Name		
		IITA	International Institute of Tropical Agriculture		
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		Manuele Tamo		m.tamo@cgiar.org	
	CG - CGIAR Center	Acronym	Name		
		CIMMYT	International Maize and Wheat Improvement Center		
		Contact Point Full Name		Contact Point Email	
		Likhayo Paddy		unavailable	
	CG - CGIAR Center	Acronym	Name		
		CIAT	International Cener for Tropical Agriculture		
		Contact Point Full Name		Contact Point Email	
		Soroush Parsa		s.parsa@cgiar.org	
	CG - CGIAR Center	Acronym	Name		
		IRRI	International Rice Research Institute		
		Contact Point Full Name		Contact Point Email	
		Adam Sparks		a.sparks@irri.org	
	CG - CGIAR Center	Acronym	Name		
		ICRISAT	International Crops Research Institute for the Semi-Arid Tropics		
Contact Point Full Name		Contact Point Email			
	Suresh Pande		s.pande@cgiar.org		
NGO_DO - Non-governmental organization/Development organization	Acronym	Name			
	CABI	CABI			
	Contact Point Full Name		Contact Point Email		
	Timothy Holmes		t.holmes@cabi.org		
AI - Academic Institution	Acronym	Name			
		University of Missouri			
	Contact Point Full Name		Contact Point Email		
	Corinne Valdivia		valdiviac@missouri.edu		
CRP - Challenge Research Program	Acronym	Name			
	RTB	Roots, Tubers and Bananas			
	Contact Point Full Name		Contact Point Email		
	Graham Thiele		g.thiele@cgiar.org		

Activity No. 211						
Activity title		Phenology modeling and climate change risk assessments for the larger grain borer (<i>Prostephanus truncatus</i>) and the maize weevil (<i>Sitophilus zeamais</i>)				
CCAFS Objective (select from drop list)		1.2 Breeding strategies	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.2.1 2013 (2)		
Activity objectives (what the activity aims to achieve)	Objective 1	To assess the effect of climate change on distribution, crop damage and loss in maize due to the larger grain borer (<i>Prostephanus truncatus</i>) and the maize weevil (<i>Sitophilus zeamais</i>)				
	Objective 2	To participate in CCAFS scientific review and planning workshop on pest and disease modeling				
Activity status		Completed				
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The research work started with identifying available phenology data from publically available sources and identifying data gaps that need to be generated. The newly generated data would be used in phenology modeling and risk mapping using ILCYM				
Deliverables status (You may add any unexpected deliverable)		Type	Description	Year	Status	Format
		Model tools and software	Review existing life table data of the larger grain borer (<i>Prostephanus truncatus</i>); fill data gaps and conduct phenology modeling and risk mapping using ILCYM	2012	Completed	Other
		Model tools and software	Review existing life table data of the maize weevil (<i>Sitophilus zeamais</i>); fill data gaps and conduct phenology modeling and risk mapping using ILCYM	2012	Completed	Other
		Capacity	Train a PhD student in phenology modeling and risk mapping using ILCYM	2012	Completed	Select a format
Current Partners		Acronym KARI		Name Kenya Agricultural Research Center		
		NARES - National agricultural research and extension services		Contact Point Full Name Paddy Likhayo	Contact Point Email plikhayo@yahoo.com	

Activity No. 212						
Activity title		Pests and diseases research: interaction between soil beneficial microorganisms, mediating defense reactions to the attack of pod borers in cowpea, as influenced by a range of water supply regimes from flooding to drought.				
CCAFS Objective (select from drop list)		1.2 Breeding strategies	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.2.1 2013 (2)		
Activity objectives (what the activity aims to achieve)	Objective 1	To investigate the interaction between soil beneficial microorganisms, mediating defense reactions to the attack of pod borers in cowpea, as influence by a range of water supply regimes from flooding to drought.				
	Objective 2	Specific objective is to quantify pod borer attack (damage and cowpea yield) as a function of the application of soil beneficial microorganisms influenced by varying water availability				
Activity status		Partially completed				
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The stat of this activity was delayed and the sub-contract could only be signed by December 2012 (ITA's freezing period). A new date was approved. The final deliverables will be submitted by March 2013.				
Deliverables status (You may add any unexpected deliverable)		Type	Description	Year	Status	Format
		Reports, publications	Technical report including: New knowledge about complex interactions between 1) two different and interacting beneficial soil microorganisms; 2) the cowpea plant; and 3) the legume pod borer, a cowpea pest, with regard to changing and erratic rainfall pattern	2012	Partially completed	Document (*.doc, *.odt, *.pdf)
Current Partners		Acronym UAC		Name University of Abomey Calavi		
		AI - Academic Institution		Contact Point Full Name not available at the moment	Contact Point Email not available at the moment	

Activity No. 213																				
Activity title		Pest and diseases modelling Workshop and insect pest research project (KSU)																		
CCAFS Objective (select from drop list)		1.2 Breeding strategies	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)		1.2.1 2013 (2)															
Activity objectives (what the activity aims to achieve)	Objective 1	To co-organize and conduct a scientific review and planning workshop on pest and disease modeling to assemble and review (i) existing resources related to the main 5 results of the scoping study, and (ii) to plan for the development of new shared resources.																		
	Objective 2	To initiate and conduct research and development activities in climate change related pest and disease assessments and modeling.																		
	Objective 3	Build the concepts for use of core models of losses to pests/disease in understanding how farmers are likely to make decisions under climate change, and in evaluation of the potential for index insurance programs for pests/disease.																		
Activity status		Completed																		
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The basic frameworks for the project were developed and presented in the workshop held in December in Lima. Fruitful discussions on how best to integrate them with CGIAR research took place. There is ongoing work aiming to publish three manuscripts from the work, with complete simulations, in peer-reviewed journals (by May 2013).																		
Deliverables status (You may add any unexpected deliverable)		<table border="1"> <thead> <tr> <th>Type</th> <th>Description</th> <th>Year</th> <th>Status</th> <th>Format</th> </tr> </thead> <tbody> <tr> <td>Reports, publications</td> <td>Report describing current understanding of how farmers are likely to make decisions about pest/disease management under climate change</td> <td>2012</td> <td>Partially completed</td> <td>Document (*.doc, *.odt, *.pdf)</td> </tr> <tr> <td>Reports, publications</td> <td>Report describing the evaluation of the potential of index insurance for pests/diseases</td> <td>2012</td> <td>Partially completed</td> <td>Document (*.doc, *.odt, *.pdf)</td> </tr> </tbody> </table>				Type	Description	Year	Status	Format	Reports, publications	Report describing current understanding of how farmers are likely to make decisions about pest/disease management under climate change	2012	Partially completed	Document (*.doc, *.odt, *.pdf)	Reports, publications	Report describing the evaluation of the potential of index insurance for pests/diseases	2012	Partially completed	Document (*.doc, *.odt, *.pdf)
Type	Description	Year	Status	Format																
Reports, publications	Report describing current understanding of how farmers are likely to make decisions about pest/disease management under climate change	2012	Partially completed	Document (*.doc, *.odt, *.pdf)																
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Acronym	Name																			
Select a partner type.	Contact Point Full Name																			
	Contact Point Email																			

Activity No. 214																														
Activity title		Further development of CCAFS-climate portal																												
CCAFS Objective (select from drop list)		1.2 Breeding strategies	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)		1.2.1 2013 (2)																									
Activity objectives (what the activity aims to achieve)	Objective 1	Upgrade the portal to make the data-download more user friendly																												
	Objective 2	Further download and downscale the CMIP5 climate change runs, and provide them online																												
	Objective 3	Perform analyses of bias-correction/downscaling, and sensitivities of crop models to these issues																												
Activity status		Completed																												
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		Various changes to the portal have been implemented; Over the year the portal was fully updated including: new graphic design, improved functionality, php-oriented webpage structure, a form to capture and store user information, licensing, and detailed descriptions of all available datasets; The MarkSim downscaling tool and its related datasets were all added to the portal; After an upgrade in the storage system at CIAT/DAPA, all data from DreamHost were migrated back to CIAT. During the next two years, IPCC 5AR data (i.e. CMIP5) will be downscaled and made available. Data for all RCPs and for as many models and ensemble members as possible will be processed and made available.																												
Deliverables status (You may add any unexpected deliverable)		<table border="1"> <thead> <tr> <th>Type</th> <th>Description</th> <th>Year</th> <th>Status</th> <th>Format</th> </tr> </thead> <tbody> <tr> <td>Data</td> <td>CMIP3 climate data fully available</td> <td>2013</td> <td>Partially completed</td> <td>Select a format</td> </tr> <tr> <td>Data</td> <td>CMIP5 RCP4.5 data downscaled and provided online</td> <td>2014</td> <td>Partially completed</td> <td>Select a format</td> </tr> <tr> <td>Reports, publications</td> <td>Journal paper on CMIP5 climate model skill</td> <td>2013</td> <td>Partially completed</td> <td>Select a format</td> </tr> <tr> <td>Reports, publications</td> <td>Journal paper on downscaling / bias-correction / perfect sibling</td> <td>2013</td> <td>Partially completed</td> <td>Select a format</td> </tr> </tbody> </table>				Type	Description	Year	Status	Format	Data	CMIP3 climate data fully available	2013	Partially completed	Select a format	Data	CMIP5 RCP4.5 data downscaled and provided online	2014	Partially completed	Select a format	Reports, publications	Journal paper on CMIP5 climate model skill	2013	Partially completed	Select a format	Reports, publications	Journal paper on downscaling / bias-correction / perfect sibling	2013	Partially completed	Select a format
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Reports, publications	Journal paper on downscaling / bias-correction / perfect sibling	2013	Partially completed	Select a format																										

Current Partners		Acronym	Name
	CG - CGIAR Center	ILRI	International Livestock Research Institute
		Contact Point Full Name	Contact Point Email
		Jawoo Koo	j.koo@cgiar.org
		Acronym	Name
	CG - CGIAR Center	CIP	Centro Internacional de la Papa
		Contact Point Full Name	Contact Point Email
		Roberto Quiroz	r.quiroz@cgiar.org
		Acronym	Name
AI - Academic Institution			
	Contact Point Full Name	Contact Point Email	

Activity No. 215					
Activity title	Collaborative project on vulnerability analysis with the Trust				
CCAFS Objective <i>(select from drop list)</i>	1.2 Breeding strategies	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>	1.2.1 2013 (2)		
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	Parameterise EcoCrop using observations, and further evaluate results with experts			
	Objective 2	Extensively assess predictive skill and future prediction uncertainty, including comparisons with other studies			
	Objective 3	Analyse climate change impacts and future likely climate constraints and genotypic adaptation of these 26 food crops			
Activity status	Partially completed				
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>	Analysis (and reports) performed for 20 of the 31 crops. Final deliverables expeted in 2013 and 2014.				
Deliverables status <i>(You may add any unexpected deliverable)</i>	Type	Description	Year	Status	Format
	Data	Crop vulnerability analyses plugged into AMKN	2013	Partially completed	Select a format
	Reports, publications	CCAFS working paper with results of vulnerability analysis	2014	Partially completed	Select a format
	Reports, publications	Journal article with main results and impact assessment	2013	Partially completed	Select a format
	Reports, publications	Journal article for research investment targeting	2013	Partially completed	Select a format
Current Partners		Acronym	Name		
	Donors - Donors		Global Crop Diversity Trust		
		Contact Point Full Name	Contact Point Email		
		Hannes Dempewolf	hannes.dempewolf@croptrust.org		

Activity No. 312					
Activity title		A methodological development of an online tool for the identification of Target Population Environments: improving the predictions of agricultural production using crop models			
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)	1.2.1 2013 (2)	
Activity objectives (what the activity aims to achieve)	Objective 1	To review approaches to target population environment identification and mapping and identify the most appropriate TPE approaches for defining breeding priorities under a changing climate.			
	Objective 2	To lead the development of models and scripts for defining TPEs, preferably using the R package of statistics to facilitate open access of methodologies			
	Objective 3	To carry out a Crop models analysis - Calibration and validation of models for improving rice and bean yield prediction (Latin America varieties); testing under different environmental conditions considering abiotic stresses (drought, heat) and different CO2 concentrations; Sensitivity analysis.			
	Objective 4	To lead the development of models and scripts for defining TPEs, preferably using the R package of statistics to facilitate open access of methodologies			
	Objective 5	Apply the new TPE approach to rice and beans in Latin America as an initial trial			
	Objective 6	Development of an online tool that will facilitate their identification.			
	Objective 7	Together with CCAFS and CIAT team members, support the application of the TPE approach globally for additional crop of importance, adjusting the methodology accordingly			
Activity status		Completed			
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		Long term partnership established with Embrapa. All the activitites planned in this initial pahse were carried out succesfully thought a tight colaboration with the CIAT/CCAFS team.			
Deliverables status (You may add any unexpected deliverable)	Type	Description	Year	Status	Format
	Data	Operational databases in AgTrials & DSSAT of trial and multi-trial data for both crops, including some descriptive statistics for both yields and climate data.	2012	Completed	Other
	Other	Protocol and script in R to estimate the effect of climatic variables on rice and calculate the crop models parameters for the crops. The script will have details on calibration runs, accuracy assessment results and improved parameter files.	2013	Partially completed	Other
	Workshops	Meeting end of year 2012 – December (In Brazil).	2012	Completed	Blogpost
	Reports, publications	Workshopof “Global TPEs Application	2013	Partially completed	Other
	Reports, publications	Review of the methodologies to identify TPEs and evaluation of their strengths and weaknesses. Review of multiples case studies and identification of possible partners	2013	Partially completed	Other
	Reports, publications	Initial methodological description for the TPEs approach to be implemented (proof of concept).	2013	Partially completed	Other
Current Partners	Acronym		Name		
	CG - CGIAR Center	CIAT	Centro Internacional de Agricultura Tropical		
	Contact Point Full Name		Contact Point Email		
Andy Jarvis		a.jarvis@cgira.org			

Activity No. 313						
Activity title		Adaptation strategies for crops to climate change (CIRAD)				
CCAFS Objective <i>(select from drop list)</i>		1.2 Breeding strategies	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 – 2015 LOGFRAME sheet)</i>	1.2.1 2013 (2)		
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To develop adaptation strategies for crops to climate change on the basis of a model-assisted analysis of climate change impacts on the performance of current and hypothetical varieties (ideotypes).				
Activity status		Completed				
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		- Research infrastructure in place (personnel, PhD student, partnerships for collaboration) - Model RIDEV operational for CC scenarios (Model SAMARA not yet fully ready) (not yet achieved: Downscaled GCM scenarios evaluated "thru eyes of the crop" = crop models)				
Deliverables status <i>(You may add any unexpected deliverable)</i>		Type	Description	Year	Status	Format
		Workshops	Implementation of a modeling training course (SAMARA model, CIRAD) at Montpellier for project collaborators and personnel (12 persons)	2012	Completed	Select a format
		Model tools and software	Adaptation of the newly development model RIDEV for bulk simulations (multi-scenario) of rice crop phenology and incidence of thermal stresses.	2012	Completed	Other
		Other	Recruitment of a PhD student (Mr. Uttam Kumar) for research on modeling of crop adaptation to climate change; Recruitment on project basis of a programmer (Mr. Richard Pasco) for crop model improvement, data management and model applications.	2012	Completed	Select a format
		Other	Initiation of collaboration with the Manila Observatory on down-scaling of GCM scenarios to the scale relevant to crop models, for selected regions (zoom-ins).	2013	Partially completed	Select a format
		Model tools and software	Model RIDEV operational for CC scenarios (Model SAMARA not yet fully ready)	2012	Partially completed	Select a format
Current Partners		Acronym		Name		
		CG - CGIAR Center		International Rice Research Institute		
				Contact Point Full Name		Contact Point Email
				Andrew Nelson		a.nelson@irri.org
		Acronym		Name		
		GO - Government office/department		Manila Observatory		
		Contact Point Full Name		Contact Point Email		
		non available		non available		

Activity No. 205					
Activity title		A Systemic Framework for Integrated Adaptation Planning			
CCAFS Objective (select from drop list)		1.3 Policies and institutions for adaptation	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)	1.3.1 2014 (1)	
Activity objectives (what the activity aims to achieve)	Objective 1	To clarify whether, and if so what, differences in meanings, principles, methods and tools are being realized in formal and informal adaptation practice and why.			
	Objective 2	To reveal implications for diagnosing and building resilience and adaptation through capacity development interventions			
	Objective 3	To identify implications for the development of meta-theory and meta-methodology for adaptation planning. The program will produce site specific contextual insights as well as draw out scalable and replicable features which can guide regional, national and international climate adaptation policy, planning and decision-making processes.			
Activity status		Completed			
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		The overarching theoretical and methodological frameworks have been tested through the Nepal Field Research program and subsequent dialogue processes. Refinements have been made within each of the lenses and will be implemented and further tested and the entire approach refined and developed in Ghana and again in the third field site, most likely Brazil in 2013. Specific milestones achieved during this reporting period include the completion of the Nepal Field Research, hosting a pluri-disciplinary dialogue, individual academic milestones of the researchers, the selection of Ghana as the second field site, a scoping trip to Ghana, and increased research collaboration.			
Deliverables status (You may add any unexpected deliverable)	Type	Description	Year	Status	Format
	Reports, publications	Annual progress report including operational, conceptual and methodological frameworks for field research programs	2012	Completed	Document (*.doc, *.odt, *.pdf)
	Reports, publications	Working meta-theory and meta-methodological frameworks.	2012	Completed	Document (*.doc, *.odt, *.pdf)
	Reports, publications	Annual progress report including East Africa Field Reports	2013	Partially completed	Select a format
	Capacity	Final practitioner training packages for the frameworks and toolkits	2013	Partially completed	Select a format
	Reports, publications	Synthesis Report on all field programs and Final meta-theory and meta-methodology	2014	Partially completed	Select a format
	Reports, publications	Four University of Oxford DPhil Theses; Academic publications, minimum four per field program and one synthesis paper; Book titled "Systemic Adaptation Planning: Integrating Social, Economic and Environmental Dimensions of Adaptation to Climate Change in Food and Agricultural Systems	2014	Partially completed	Select a format
	Communication products	Policy briefs	2014	Partially completed	Select a format
Current Partners	NGO_DO - Non-governmental organization/Development organization		Acronym	Name	
			FSCN	Friends Service Council	
			Contact Point Full Name	Contact Point Email	
			Thapa Surya Bahadur	fsc@wlink.com.np	
	NGO_DO - Non-governmental organization/Development organization		Acronym	Name	
			HCI	Himalayan Climate Initiative	
Contact Point Full Name			Contact Point Email		
		Prashant Singh	info@himalayanclimate.org		

Activity No. 206																				
Activity title		Discussion paper analyzing the role of rural institutions in enabling adaptation to climate change in the agricultural sector (SEI)																		
CCAFS Objective (select from drop list)		1.3 Policies and institutions for adaptation	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)		1.3.1 2012 (1)															
Activity objectives (what the activity aims to achieve)	Objective 1	This document will seek to fill this knowledge gap on how rural institutions locally mediate, enable, or obstruct adaptive change, and how																		
	Objective 2	To build understanding of: - How rural institutions respond to climate-related stress, shocks, and upheavals - How do these institutions shape household decision-making processes and pathways to encouraging behavioural change - How institutional arrangements can enhance (and reduce?) the adaptive capacity of households to adopt new farming practices - What role rural institutions play in facilitating external support for adaptation – which institutions best leverage financial and technical support - How rural institutions interface with national policy to effectively implement interventions at the local level																		
	Objective 3	And then identify: - What is working where, how, and why; - Arrangements that best assist resource-poor households in reducing their vulnerability to climate change, disaggregated by location, gender, and other socioeconomic categories.																		
Activity status		Completed																		
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		Final manuscript delivered (to be published in 2013)																		
Deliverables status (You may add any unexpected deliverable)		<table border="1"> <thead> <tr> <th>Type</th> <th>Description</th> <th>Year</th> <th>Status</th> <th>Format</th> </tr> </thead> <tbody> <tr> <td>Reports, publications</td> <td>Discussion paper of maximum 25 pages intended to contribute to a more profound understanding of how local rural institutional actors respond to the upheavals in livelihood systems that are being triggered by climate change.</td> <td>2012</td> <td>Completed</td> <td>Select a format</td> </tr> <tr> <td>Communication products</td> <td>2 page executive summary converted into a policy brief</td> <td>2012</td> <td>Partially completed</td> <td>Select a format</td> </tr> </tbody> </table>				Type	Description	Year	Status	Format	Reports, publications	Discussion paper of maximum 25 pages intended to contribute to a more profound understanding of how local rural institutional actors respond to the upheavals in livelihood systems that are being triggered by climate change.	2012	Completed	Select a format	Communication products	2 page executive summary converted into a policy brief	2012	Partially completed	Select a format
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Acronym	Name																			
ARI - Advanced Research Institution	Stockholm Environment Institute																			
Contact Point Full Name	Contact Point Email																			
Lisa Schipper	lisa.schipper@sei-us.org																			

Activity No. 207																									
Activity title		NAPA review, capacity needs assessment and Policy workshop organization for Mozambique																							
CCAFS Objective (select from drop list)		1.3 Policies and institutions for adaptation	CCAFS Milestone No. (select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)		1.3.2 2012																				
Activity objectives (what the activity aims to achieve)	Objective 1	Carrying out a review of the National Adaptation Program of Action (NAPA)																							
	Objective 2	Performing a Climate change Capacity Needs Assessment, identifying research needs and priorities																							
	Objective 3	Coordinating the organization of a one-day national planning workshop on climate change and agricultural research whose theme is "Climate Smart Agriculture: Research Needs and Priorities"; to be held in Maputo in the last week of November 2012.																							
Activity status		Partially completed																							
Insert a small remark to indicate the status of the activity. (2-4 sentences required per activity)		80% of the activity was accomplished by Dec 2012. The policy workshop was delayed to February 2013 and thus the final reports will be delivered by mid- March.																							
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Reports, publications	Policy workshop report, related presentation and documentation	2012	Partially completed	Select a format																					

Current Partners	Acronym		Name	
	UEM		Universidade Eduardo Mondlane	
	AI - Academic Institution		Contact Point Full Name	Contact Point Email
			Antonio Queface	antonio.queface@gmail.com

Activity No. 208																																				
Activity title		Support to Participatory Social Return on Investment (PSROI) pilot studies in Vietnam and Lao PDR.																																		
CCAFS Objective <i>(select from drop list)</i>		1.3 Policies and institutions for adaptation	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>	1.3.2 2013																																
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	This activity seeks to test the PSROI framework and its potential for replicaion by placing the framework in the hands of several governmental and NGO agencies in Viet Nam, to identify practical challenges to the framework's implementaiton. These PSROI replications by non-CCAFS staff will then feed in to a national level workshop in each country where the results of the pilots will be shared along with the adaptaiton measures identified in the communities where the framework was tested. The specific objectives of this activity are to support this initiative through four weeks of on-ground preparation and training of the replicating agencies in Vietnam and continued support in both Vietnam and Laos (CIAT activity) through skype and email exchanges when guidance is needed.																																		
Activity status		Completed																																		
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		Partnerships were established with the Vietnam Academy of Agricultural Sciences and the Agriculture and Forestry Policy Research Center within the Lao PDR National Agriculture and Forestry Research Institute. PSROI project teams within these institutes were created and the originally planned coordination meetings were extended to include multiple formal and hands-on trainings on the components of the PSROI framework throughout the year, developing national capacity for utilizing and evaluating PSROI. Four community-based PSROI pilot studies were conducted, two in each country, which included community workshops, expert consultations, adaptation intervention selection and design, questionnaire development, national level interviews, community focus groups, and households interviews in each community on livelihoods and locally selected adaptation interventions. Results and lessons learned workshops were held in December in Vietnam and January in Lao PDR to allow for cross-level, village to national levels, and cross-sectoral evaluation of the framework and initial findings as presented jointly by CIAT and the national research teams. Both meetings were accompanied by national press coverage. The project is currently in the final stages, which includes strengthening and finalizing the economic analysis to accompany the field work and creating final outputs to disseminate findings from the case studies and evaluations of the PSROI framework in different formats for the donor, policy maker, and academic communities																																		
Deliverables status <i>(You may add any unexpected deliverable)</i>		<table> <tr> <th>Type</th> <th>Description</th> <th>Year</th> <th>Status</th> <th>Format</th> </tr> <tr> <td>Workshops</td> <td>Training the replicating agency in Vietnam and one demonstration pilot</td> <td>2012</td> <td>Completed</td> <td>Select a format</td> </tr> <tr> <td>Other</td> <td>Assist in the production of PSROI impact maps resulting from each replication</td> <td>2012</td> <td>Partially completed</td> <td>Select a format</td> </tr> <tr> <td>Data</td> <td>Intervention input analysis and cost benefit results of each priority intervention</td> <td>2012</td> <td>Partially completed</td> <td>Select a format</td> </tr> </table>			Type	Description	Year	Status	Format	Workshops	Training the replicating agency in Vietnam and one demonstration pilot	2012	Completed	Select a format	Other	Assist in the production of PSROI impact maps resulting from each replication	2012	Partially completed	Select a format	Data	Intervention input analysis and cost benefit results of each priority intervention	2012	Partially completed	Select a format												
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Current Partners		<table> <tr> <td colspan="2">Acronym</td> <td colspan="2">Name</td> </tr> <tr> <td colspan="2">VAAS</td> <td colspan="2">Vietnamese Academy of Agricultural Sciences</td> </tr> <tr> <td colspan="2">AI - Academic Institution</td> <td>Contact Point Full Name</td> <td>Contact Point Email</td> </tr> <tr> <td colspan="2"></td> <td>Mrs. Bui Huy Hop, Deputy Director of International Cooperation</td> <td>bhhopvaas@gmail.com</td> </tr> <tr> <td colspan="2">Acronym</td> <td colspan="2">Name</td> </tr> <tr> <td colspan="2">AFPRC</td> <td colspan="2">Agriculture and Forestry Policy Research Center (AFPRC) within the National Agriculture and Forestry Research Institute (NAFRI),</td> </tr> <tr> <td colspan="2">NARES - National agricultural research and extension services</td> <td>Contact Point Full Name</td> <td>Contact Point Email</td> </tr> <tr> <td colspan="2"></td> <td>Dr. Thavone Inthavong, Acting Director</td> <td>i_thavone@yahoo.com</td> </tr> </table>			Acronym		Name		VAAS		Vietnamese Academy of Agricultural Sciences		AI - Academic Institution		Contact Point Full Name	Contact Point Email			Mrs. Bui Huy Hop, Deputy Director of International Cooperation	bhhopvaas@gmail.com	Acronym		Name		AFPRC		Agriculture and Forestry Policy Research Center (AFPRC) within the National Agriculture and Forestry Research Institute (NAFRI),		NARES - National agricultural research and extension services		Contact Point Full Name	Contact Point Email			Dr. Thavone Inthavong, Acting Director	i_thavone@yahoo.com
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Activity No. 314				
Activity title		Meta Synthesis of National Adaptation Plans and Policies across West and East Africa and South Asia		
CCAFS Objective <i>(select from drop list)</i>		1.3 Policies and institutions for adaptation	CCAFS Milestone No. <i>(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)</i>	1.3.2 2012
Activity objectives <i>(what the activity aims to achieve)</i>	Objective 1	To carry out a meta-synthesis of national adaptation plans and policies across CCAFS countries in West and East Africa and South Asia and produce a background document and policy brief for national policy makers and others working with them in the agricultural sector (e.g. NGOs, farmers organizations) for informing national adaptation planning and provide recommendations to CCAFS.		
Activity status		Partially completed		
Insert a small remark to indicate the status of the activity. <i>(2-4 sentences required per activity)</i>		Due to delays in the finalization of the regional synthesis, we agreed on an additional delay to deliver the metasynthesis (Early April 2013).		

Deliverables status (You may add any unexpected deliverable)	Type	Description	Year	Status	Format
	Reports, publications	Meta-synthesis of national adaptation plans and policies across West and East Africa and South Asia	2012	Partially completed	Document (*.doc, *.odt, *.pdf)
	Reports, publications	CCAFS Policy Brief	2013	Partially completed	Document (*.doc, *.odt, *.pdf)
Current Partners	Acronym		Name		
	Select a partner type.				
			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 Theme Led Activities

Theme 1. Adaptation to Progressive Climate Change

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 1.1.1 Development of farming systems and production technologies adapted to climate change conditions in time and space through design of tools for improving crops, livestock, agronomic and natural resource management practices	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	* The Climate Analogue tool and its online portal have been through a continuous improvement supported by an interactive validation process involving its application in the field (Thee "Farm of the Future" pilots implemented in Africa and South Asia) and the feedback from end-users and key stakeholders capacitated in the regional training workshops (Dakar and Nairobi). * Improved Agril Platform and database for multi-location trials of technologies and genotypes for GxE interaction analysis, calibration and evaluation of crop models. 2,524 new trials uploaded (from 126 new contributing institutions) reaching a total of 4,296 trials (from 186 institutions). A total of 6,227 visits from 95 different countries were registered over the year. * AMKN portal: Revamping of the website began in February/March of 2012 and is still ongoing (new design done, ongoing implementation work. See: test.amkn.org). New site-specific pages developed; wide range of information gathered and classified. Moving towards a 2013 version that will allow the syndication of a wide range of data (climate change impacts, linking to Analogues, Agril, etc).
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	* Three regional training workshops on the Use of Climate Analogue undertaken reaching 70 local researchers from 15 countries. engagement of key stakeholders, NARES and Universities. Training material and Video developed (https://www.youtube.com/watch?v=ZlWznCEIKME). * Development of a methodology to study farmer's social, cultural and gender specific barriers for enabling behaviour change and improve adaptive capacity based on farmer to farmer exchanges between analogue locations ("Farms of the future" pilot projects successfully carried out in Nepal, Tanzania and Ghana). Deliverables: Synthesis reports including: a) analysis on the approach and recommendations for further up scaling and implementation, b) documentation of the effects of socio-cultural characteristics on the learning process, use and potential adoption of new mitigation and adaptation practices; Policy advisory document targeted to national decision makers on community level adaptive capacity and principle barriers to adapt effectively. * Catalogue of Climate Smart Agricultural practices and technologies -being examined under the CGIAR- developed (through a combination of on-line surveys and formal meta-analysis). Deliverables: Virtual library of 1270 peer-reviewed publications on widely promoted CSA practices. Draft Working Paper that will be developed into a peer-reviewed publication in 2013. * Three years partnership consolidated with IIAM- Mozambique. Start of the project "Managing climate related risks to improve livelihood resilience and adaptive capacity in agricultural ecosystems" in collaboration with IUCN with the support of the EA CCAFS and the Reading team. Deliverables: Training on the methodology held for 14 students from the Polytechnic University of Gaza (ISPG); baseline survey carried out in two sites in the Xai Xai and for Chicalacuala districts (280 hh surveyed). Analysis of the database in SPSS statistical analysis programme ongoing. * Intellectual support in gender analysis for Theme 1 ensured through a long term partnership established with the University of Florida (Prof. C.D. Deere) and the new position of J. Twyman at CIAT/CCAFS T1. Delivered activities: desk review of CIAT/CCFAS materials; a review of the instruments for the Impact Light Survey and the Women's Empowerment in Agriculture Index (WEAI) developed by IFPRI to assess the extent to which either questionnaire or a reduced version could be added to the baseline surveys for LAC; Support provided to the IFPRI gender team developing the Gender Module to be applied as a follow-up in the baseline sites; Re-analysis of baseline questionnaires/data for targeting adaptation measures; Development of a short- and medium-term strategy for gender research related to climate change; Visit by Deere and Uesche to CIAT headquarters.
Objective 1.2 Develop breeding strategies for addressing abiotic and biotic stresses induced by future climatic conditions, variability and extremes, including novel climates	
Outcome 1.2: Strategies for addressing abiotic and biotic stresses induced by future climate change, variability and extremes, including novel climates mainstreamed among the majority of the international research agencies who engage with CCAFS, and by national agencies in at least 12 countries	
Output 1.2.1 Understanding and evaluating the response of different varieties/crops to climate change in time and space, and generating comprehensive strategies for crop improvement through a combination of modeling, expert consultation and stakeholder dialogue	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	* Collaborative inter center research carried out on addressing P&D impacts under Climate variability and change (Bioversity, CIP, IITA, CYMMIT and Kansas State University). Deliverables: five technical reports (including Report on banana weevil population model; sub-module "Index interpolator" developed for ILCYM; New knowledge about complex interactions between interacting beneficial soil microorganisms, the cowpea plant; and the legume pod borer (a cowpea pest) with regard to changing and erratic rainfall pattern; and a draft report describing current understanding of how farmers are likely to make decisions about pest/disease management under climate change) * Successful workshop on "Management of critical pests and diseases through enhanced risk assessment and surveillance and understanding of climate impacts through enhanced modeling" conducted from the 10th-14th of December 2012 at the International Potato Center, (CIP) Lima, Peru (co-funded by CCAFS and CRP 3.4-RTB). It successfully linked scientists from CG-Centers (Bioversity, CIAT, CIMMYT, CIP, ICRISAT, IITA, and IRRI) and other stakeholders (CABI, FAO, FERA, UC Davis, University of Leeds, University of Kansas, Ohio State University) working in pest and disease management. It focused on challenges and opportunities to synergize expertise towards improving risk assessments of pests and diseases under current and changing climates in order to target surveillance initiatives, as well as to share experiences and develop joint modeling approaches to better understand the effects of climate change on agricultural pests, diseases and crop losses. Deliverables: Workshop report including Road map and detailed work plan with main expected products, milestones and outcomes for a three-year period. * PhD research initiated on the influence of climate change on the occurrence of crop pests and diseases (supervised by AC, Univ of Leeds). * Long term partnership established with EMBRAPA focused on a methodological development of an online tool for the identification of Target Population Environments: improving the predictions of agricultural production using crop models. Deliverables: First planning meeting held in Goiânia/Brazil (10-13 Dec); Data set from 12 field experiments for cultivar Perola organized for CROPGRO/DSSAT; Data set for 4 field experiments for cultivar BRSMG Curinga and BRS Primavera organized for ORYZA/DSSAT and uploaded in AgTrials; Crop model CROPGRO/DSSAT for cultivar Perola calibrated and evaluated; Crop model ORYZA/DSSAT for cultivars BRSMG Curinga and BRS Primavera calibrated. * Successful second year of CIRAD's partnership focused on developing adaptation strategies for crops to climate change on the basis of a model-assisted analysis of climate change impacts on the performance of current and hypothetical varieties (ideotypes) in rice and sorghum. Deliverables: Adaptation of the newly development model RIDEV for bulk simulations (multi-scenario) of rice crop phenology and incidence of thermal stresses; Implementation of a modeling training course; initiated collaboration with the Manila Observatory on down-scaling of GCM scenarios to the scale relevant to crop models, for selected regions (zoom-ins).

Output 1.2.2 Breeding strategies disseminated to key national agencies and research partners	
<i>Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives</i>	These activities build up in 2013 onwards.
Objective 1.3 Integrate adaptation strategies for agricultural and food systems into policy and institutional frameworks	
Outcome 1.3: Improved adaptation policies from local to international level supporting farming communities, rural institutions and food system actors adapted to future climate conditions in at least 20 countries.	
Output 1.3.1 Improved institutional arrangements and socially differentiated adaptation planning approaches at the local level to enable farming system adaptation strategies for crop improvement through a combination of modeling, expert consultation and stakeholder dialogue	
<i>Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives</i>	* Discussion paper produced: "<i>Adaptation to Climate Change and Agriculture: What Role for Rural Institutions? Analyzing the role of rural institutions in enabling adaptation</i>". Drawing on case studies from the Climate Change, Agriculture and Food Security research programme (CCAFS) regions and beyond, the paper explores some key institutional typologies in rural agriculture and discusses how institutions can support or undermine adaptation processes. It also offers some highlights on the role of rural institutions in adapting to change and recommendations for additional research topics. * Integrated program of research into the resilience and adaptive capacity of socio-ecological systems to climate change across social, institutional, economic and environmental scales and levels (3 years partnership) aiming to the development of a "A Systemic Framework for Integrated Adaptation Planning". Deliverables: Operational, conceptual and methodological frameworks for field research programs developed; Indo-gangetic Plain Field Research Program (Nepal) completed; Pluri-disciplinary dialogue workshop held in Oxford, Indo-gangetic Plain field report and Working Paper; Practitioner training packages for the frameworks and toolkit; Draft academic papers; ☐
Output 1.3.2 Public and private sector policies and strategies at the national level to enable farming communities and the food system to adapt to predicted future conditions	
<i>Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives</i>	* Four community-based Participatory Social Return on Investment (PSROI) pilot studies carried out in Vietnam and Laos, which included community workshops, expert consultations, adaptation intervention selection and design, questionnaire development, national level interviews, community focus groups, and households interviews in each community on livelihoods and locally selected adaptation interventions. Partnerships were established with the Vietnam Academy of Agricultural Sciences and the Agriculture and Forestry Policy Research Center within the Lao PDR National Agriculture and Forestry Research Institute. Deliverables: National level workshop held aiming to train local partners and develop two case studies to identify a range of promising adaptation options; Results and lessons learned workshops; 3 policy briefs (drafted), 2 national stories (completed); book chapter on case study results; journal article, Technical country reports. * Meta Synthesis of National Adaptation Plans and Policies across across CCAFS countries in West and East Africa and South Asia carried out. Deliverables: background document) for informing national adaptation planning and provide recommendations to CCAFS; Policy brief for national policy makers and others key players working in the agricultural sector (e.g. NGOs, farmers organizations). * NAPA review and Climate change Capacity Needs Assessment carried out in Mozambique. National Policy workshop on "Climate change Adaptation for Agriculture: Challenges for Agriculture Research" to be held in February 2013 in partnership with IIAM. Deliverables: Report including the NAPA review and Capacity Need assesment; workshop report (March 2013)

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 Theme Led Activities

Theme 1. Adaptation to Progressive Climate Change

Publication 1	Type	Citation identifier
	Journal papers	http://dx.doi.org/10.1007/s12042-012-9096-7
	Citation	
Publication 2	*Jarvis, A., Ramirez-Villegas, J., Herrera-Campo, B.V. and C. Navarro-Racines. 2012. Is Cassava the Answer to African Climate Change Adaptation? Tropical Plant Biol. 5 (1) 9-29.	
	Type	Citation identifier
	Journal papers	http://dx.doi.org/10.1016/j.jnc.2012.07.006
Publication 3	Ramirez-Villegas, J., Jarvis, A. and J. Trouval. 2012. Analysis of threats to South American flora and its implications for conservation. Journal for Nature Conservation.20 (6) pp 337-348.	
	Type	Citation identifier
	Journal papers	http://download.springer.com/static/pdf/82/ar
Publication 3	Citation	
	* Ramirez-Villegas, J., Salazar, M., Jarvis, A. and C.E. Navarro-Racines. 2012. A Way Forward on Adaptation to Climate Change in Colombian Agriculture: Perspectives Towards 2050. Climatic Change. 115, pp 611–628.	

Publication 4	<table> <tr> <th>Type</th><th>Citation identifier</th></tr> <tr> <td>Journal papers</td><td>http://dx.doi.org/10.1016/j.agrformet.2012.03</td></tr> <tr> <th colspan="2">Citation</th></tr> <tr> <td colspan="2">Ramirez-Villegas, J., and A. Challinor. 2012. Assessing relevant climate data for agricultural applications. Agricultural and Forest Meteorology 161 (2012), pp 26-45.</td></tr> </table>	Type	Citation identifier	Journal papers	http://dx.doi.org/10.1016/j.agrformet.2012.03	Citation		Ramirez-Villegas, J., and A. Challinor. 2012. Assessing relevant climate data for agricultural applications. Agricultural and Forest Meteorology 161 (2012), pp 26-45.	
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** Vermeulen, S. J., P.K. Aggarwal, A. Ainslie, C. Angelone, B.M. Campbell, A.J. Challinor, J.W. Hansen, J.S.I. Ingram, A. Jarvis, P. Kristjanson, C. Lau, G.C. Nelson, P.K. Thornton, E. Wollenberg (2012). Options for support to agriculture and food security under climate change. Environmental Science & Policy 15 (1), pp 136–144.									
Publication 9	<table> <tr> <th>Type</th><th>Citation identifier</th></tr> <tr> <td>Book chapters</td><td>http://ciat.cgiar.org/wp-</td></tr> <tr> <th colspan="2">Citation</th></tr> <tr> <td colspan="2">*Jarvis, A.; Ramirez-Villegas, J.; Tapasco, J.; Navarro, C.; Peterson, C.; Zapata, E.; Fisher, M.J. 2012. Are Climate Change Adaptation and Mitigation Options Eco-Efficient? Chapter 3 In: Issues in Tropical Agriculture. Eco Efficiency: From Vision to Reality. International Center for Tropical Agriculture, CIAT, Cali, Colombia.</td></tr> </table>	Type	Citation identifier	Book chapters	http://ciat.cgiar.org/wp-	Citation		*Jarvis, A.; Ramirez-Villegas, J.; Tapasco, J.; Navarro, C.; Peterson, C.; Zapata, E.; Fisher, M.J. 2012. Are Climate Change Adaptation and Mitigation Options Eco-Efficient? Chapter 3 In: Issues in Tropical Agriculture. Eco Efficiency: From Vision to Reality. International Center for Tropical Agriculture, CIAT, Cali, Colombia.	
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Publication 10	<table> <tr> <th>Type</th><th>Citation identifier</th></tr> <tr> <td>Book chapters</td><td>http://www.bioversityinternational.org/filead</td></tr> <tr> <th colspan="2">Citation</th></tr> <tr> <td colspan="2">Mathur, P.N., Ramirez-Villegas, J.; Jarvis, A.; 2012. The Impacts of Climate Change on Tropical and Subtropical Horticultural Production. In: Sthapit, B.R., Ramanatha Rao, V., Sthapit, S.R. (Eds.) Tropical Fruit Tree Species and Climate Change. Bioversity International, New Delhi, India. ISBN: 978-92-9043909.</td></tr> </table>	Type	Citation identifier	Book chapters	http://www.bioversityinternational.org/filead	Citation		Mathur, P.N., Ramirez-Villegas, J.; Jarvis, A.; 2012. The Impacts of Climate Change on Tropical and Subtropical Horticultural Production. In: Sthapit, B.R., Ramanatha Rao, V., Sthapit, S.R. (Eds.) Tropical Fruit Tree Species and Climate Change. Bioversity International, New Delhi, India. ISBN: 978-92-9043909.	
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Publication

Type

Other

Citation identifier

Citation

- * East Africa moves towards implementation plans with the Climate Analogues tool
<http://ccafs.cgiar.org/blog/east-africa-moves-towards-implementation-plans-using-climate-analogues-tool>
- * Climate Analogues arrives in Costa Rica, this time for PGR conservation: <http://ccafs.cgiar.org/blog/climate-analogues-arrives-costa-rica-time-pgr-conservation>
- * One man's future is another man's present: Farms of the Future hits Tanzania: <http://ccafs.cgiar.org/blog/one-mans-future-another-mans-present-farms-future-hits-tanzania>
- * Finding the future for farmers in Beora Nepal <http://ccafs.cgiar.org/blog/finding-future-farmers-beora-nepal>
- * Agriculture - soon a key component in Nepal's climate change agenda? <http://ccafs.cgiar.org/blog/agriculture-soon-key-component-nepals-climate-change-agenda>
- * Working on Target Population of Environments (TPE) identification for Rice and Beans in Colombia and Brazil
<http://dapa.ciat.cgiar.org/working-on-target-population-of-environments-tpe-identification-for-rice-and-beans-in-colombia-and-brazil/>
- * Mekong farmers take part in climate adaptation planning: <http://ccafs.cgiar.org/blog/mekong-farmers-take-part-climate-adaptation-planning>

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 Theme Led Activities Theme 1. Adaptation to Progressive Climate Change

Title	Author	
Pests and Diseases in a changing climate: multi-centre input to modelling impacts	CCAFS theme 1, Bioversity, CIP, CIMMYT, IITA, KSU	
Type	Date (DD/MM/YYYY)	Countries
Inter-center collaboration		Global
Keywords	Photo URL	
1 diseases risk assessment, climate change, crop losses, harmonized protocols for surveillance		
Introduction/Objectives (400 characters)		
At the Third Annual CCAFS Science Workshop, Copenhagen, Denmark, 1-2 May 2012, emerging interest at different centers was identified to study the effects of climate change on agricultural pests and diseases. To tackle this issue and to better understand complex interactions, two main recommendations were drawn up: • The crucial need to take advantage of each other CG center capacities and bring the pest and diseases modeling group together to expand models and tools • To bring CG-centers and other stakeholders together to assemble and evaluate a general platform for pest and disease risk assessments under climate change, based on the results of the scoping study commissioned by CCAFS in 2011 and led by the Kansas State University.		
Description of the project,, procedures etc. (1100 characters)		
CCAFS 1.1 undertook an important effort to encourage a set of leading centers (Bioversity, CIP, CIMMYT, IITA and Kansas State University) to join forces and strengthen collaboration on P&D research. Specific objectives of this initiative included: a) To organize and conduct a scientific review and planning workshop on pest and disease modeling to assemble and review (i) existing resources related to the main 5 results of the scoping study, and (ii) to plan for the development of new shared resources. b) To initiate and conduct research and development activities in climate change related pest and disease assessments and modeling. <u>Undertaken research:</u> * CIP Specific objective: To integrate new modules to ILCYM in order to improve the software capacity in climate data interpolation and modeling and predicting changes in the regional distribution and abundance of insect pests. * Bioversity specific objectives: To develop a basic population model for banana weevil and its response to changes in temperature based on values from the literature; and to implement the crop model InfoCrop in R as important step for modeling yield losses related to pests in ILCYM software. * CIMMYT specific objectives: To conduct phenology modeling and climate change risk assessments using ILCYM for the larger grain borer (<i>Prostephanus truncatus</i>) and the maize weevil (<i>Sitophilus zeamais</i>) with the objectives to assess the effect of climate change on distribution, crop damage and loss in maize due to the larger grain borer and the maize weevil. * IITA specific objectives: This work addressed the interaction between soil beneficial microorganisms, mediating defense reactions to the attack of pod borers in cowpea, as influence by a range of water supply regimes from flooding to drought. It specifically aims to quantify pod borer attack (damage and cowpea yield) as a function of the application of soil beneficial microorganisms influenced by varying water availability. * Specific Objectives Kansas State University: to develop a framework for evaluating the likely 'effectiveness' of decision support systems (DSS) and early warning systems (EWS) as well as of index insurance to support adaptive management of pests and diseases.		
Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)		
I. A workshop was conducted from 10-14 December, 2012 at the International Potato Center, Lima, Peru. It was jointly funded by CCAFS and the research programs on Roots, Tubers, and Banana (RTB). The workshop successfully linked 32 scientists from 16 institutions including 7 CG-Centers (Bioversity, CIAT, CIMMYT, CIP, ICRISAT, IITA, and IRRI) and other stakeholders (CABI, FAO, FERA, icipe, UC Davis, University of Leeds, Kansas State University, Ohio State University, University of Missouri) working in pest and disease management. Discussions focused on challenges and opportunities to synergize expertise towards improving risk assessments of pests and diseases under current and changing climates in order to target surveillance initiatives as well as to share experiences and develop joint modeling approaches to better understand the effects of climate change on agricultural pests, diseases and crop losses. This joint workshop was successful at harmonizing different research programs in order to use resources more efficiently and share precious knowledge and experience across CGIAR centers and their partners. • The result was to develop a 3 years Road map and detailed work plan that includes an authoritative and synergized logframe with clear products, milestones and outcomes. Further, the foundation has been built for joint proposal development to RTB, CCAFS and for bilateral funded research projects. II. Collaborative research included: <u>CIP:</u> R-codes made available for climate data interpolation from CIAT adapted to ILCYM platform. Creation of a sub-module called "Index interpolator" for the analysis of regional climate change patterns on pest establishment and abundance with daily min and max temperatures. <u>BIOVERSITY:</u> In preparation for testing the ILCYM model on the effects of climate change on insect pests, life cycle parameters for the banana corm weevil were compiled and sensitivity testing was done with the model. In the second phase of work, the INFOCROP model was converted to R software in preparation for crop-pest linked models and for risk assessment and the role of agrobiodiversity. <u>CIMMYT:</u> Existing life table data of the larger grain borer (<i>Prostephanus truncatus</i>) and of the maize weevil (<i>Sitophilus zeamais</i>) reviewed; data gaps filled. <u>Kansas State University:</u> Modeling framework developed for evaluating the likely 'effectiveness' of EWS/DSS for pests and diseases and for decisions about management of abiotic stressors that may support adaptation to climate change. Three manuscripts in preparation to be submitted by March 2013 to peer-reviewed journals		

CASE
STUDY 1

	Partners involved and their role (250 characters) IITA partners: University of Adomey Laiavi (UAC), Benin CIMMYT partner: Kenya Agricultural Research Center (KARI) The banana research networks coordinated by Bioversity.			
	Links/Sources for further information Workshop report available in the intranet.			

CASE STUDY 2	Title		Author	
	The Rambo Root		Andy Jarvis and Neil Palmer	
	Type	Date (DD/MM/YYYY)	Countries	
	Successful communications activities		Global	
	Keywords			Photo URL
	cassava, impacts			
	Introduction/Objectives (400 characters)			
	This was a highly successful communications activity which gained global attention promoting an article published in early 2012 in the scientific journal Tropical Plant Biology. Theme 1 and CIAT's communications unit joined forces to develop a press release outlining the major findings of the article, and released it in February 2012.			
	Description of the project,, procedures etc. (1100 characters)			
	The research behind the press release was lead by Andy Jarvis and Julian Ramirez from Theme 1 of CCAFS. Upon acceptance, together with the Communications unit of CIAT a press release was developed for release when the article appeared online. CIAT then took a lead in promoting the article, and sending to potential news outlets. Andy Jarvis attended interviews.			
Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)				
Uptake in the popular press was tremendous, including live radio interviews. The story appeared in BBC, Scientific American, NBS, MSN, and in important daily papers form across the globe. There continue to be stories appearing making reference to cassava as a Rambo Root. Beyond media impact, the Rambo Root phrase is currently being used by the Global Cassava partnership (funded by the Gates Foundation) as the primary communications instrument for attracting more attention to the crop. The significant exposure has resulted in renewed attention being given to Cassava as an orphan crop with significant potential to contribute to adaptation. Through communications, the primary message from the paper has significantly impacted on increased funding investment, and development attention being given to cassava.				
Partners involved and their role (250 characters)				
CIAT: Communications unit of CIAT lead the development of the press release, and coined the famous Rambo Root term. Global Cassava Partnership: The article was published as an invited contribution to a special edition of the journal that the GCP edited. GCP at the time was chaired by the Danforth Centre in the US.				
Links/Sources for further information				
Deutsche Welle http://www.dw.de/cassava-a-rambo-root-that-can-fight-climate-change-in-africa/a-15956780 Toronto Star http://www.thestar.com/news/world/2012/08/04/does_cassava_hold_the_secret_to_climate_change_adaptation.html All Africa http://allafrica.com/stories/201202281304.html Southern Times http://www.southerntimesafrica.com/news_article.php?id=7203&title=Cassava%20The%20Rambo%20of%20Food%20Crops&type=93 Huffington Post http://www.huffingtonpost.com/2012/02/27/scientists-cassava-will-_n_1303826.html IRIN (posted later) http://www.irinnews.org/report/95694/CLIMATE-CHANGE-Cassava-key-to-food-security-say-scientists Scientific American http://www.scientificamerican.com/article.cfm?id=climate-models-spell-hard-times-tropical-farmers BBC World News http://www.bbc.co.uk/news/world-africa-17190622 Washington Post http://www.washingtonpost.com/world/africa/scientists-say-cassava-will-thrive-in-climate-change-best-bet-for-african-farmers/2012/02/27/gIQAdvDodR_story.html San Francisco Gate Chronicle http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2012/02/27/international/i063422570.DTL&type=science ABC News http://abcnews.go.com/International/wireStory/scientists-cassava-thrive-climate-change-15799956#.T0zd7fEgdSQ Las Vegas Sun http://www.lasvegassun.com/news/2012/feb/27/af-africa-rambo-root/ CBS News http://www.cbsnews.com/8301-501710_162-57385734/scientists-cassava-will-thrive-in-climate-change/ Miami Herald http://www.miamiherald.com/2012/02/27/2663627/scientists-cassava-will-thrive.html Seattle Times http://seattletimes.nwsource.com/html/nationworld/2017609457_apafaricaramboroot.html BBC World Service http://www.bbc.co.uk/worldservice/africa/2011/04/000000_network_africa.shtml				

	Title		Author	
	Building capacity on the use of the climate Analogue tool		CCAFS Theme 1, CCAFS EA, CCAFS WA, CCAFS SA, Bioversity, ANACIM	
	Type	Date (DD/MM/YYYY)	Countries	
	Capacity enhancement		ganda, Tanzania, Ethiopia, Kenya, Costa Rica, Italy, Senegal, Burkina Faso, Mali, Niger, Senegal, Gha	
	Keywords			Photo URL
	Analogue, adaptation strategies, planning			ir.org/sites/default/files/resize/assets/images/analogue_climate_durban_
Introduction/Objectives (400 characters)				
Based on the estimations that suggest that more than 70% of the climate patterns expected in 2030 already exist somewhere on Earth today, the CCAFS Climate Analogue tool developed by CCAFS allows identifying and mapping sites with statistically similar climates across space and time, based on multiple climate projections. This novel approach provides useful insights to support the evaluation and formulation of agricultural adaptation options and strategies. Over the last year, and following the launch of the Beta version of the tool, a great interest and demand has risen among the wide community of potential users including the scientific community, NARS, NGO and policy makers. This led to the design of several training workshops at regional and national level.				

Description of the project,, procedures etc. (1100 characters)

In close collaboration with the CCAFS Regional Program leaders from EA and WA two 4-days Training workshops were held in Dakar (April) and Nairobi (August) to build regional capacity on the use of Climate scenarios and Climate Analogues for designing adaptation strategies in agriculture. The workshops aimed to:

- a) Sensitize and motivate regional partners to use Climate scenarios and Analogue to design adaptation strategies and disseminate the methodologies learned into their institutions and countries (trainers training)
- b) Train participants into the use of the tool and online platform
- c) Allow practical learning through exercises, analysis of case studies and discussion on all the potential applications and use of the tool.

The WA and EA regional workshop provided the opportunity for South-South knowledge exchange as its co-trainer was a Senegalese champion (from the Agence nationale de l'aviation civile et de la météorologie du Sénégal - ANACIM) who was trained at the first Analogue workshop held in Kathmandu (Nepal) at the end of 2011.

This capacity building effort was also extended to support specific Center led projects that might benefit from the Analogue approach such as the Bioversity project on "Strengthening National Capacities to implement the International Treaty on Plant Genetic Resources for Food and Agriculture". Analogue training sessions were incorporated in their Planning/Launch regional workshops held in Rome and San Jose (Costa Rica), in which multiple national partners were involved from Africa, Asia and Latin America. They aimed to share the approach and illustrate its potential applications including advocacy (on the need to access plant genetic resources from other countries and to locate areas that need urgent conservation) and evaluation of potential germplasm flow as specific adaptation options.

I. Specific training material was produced including:

- Climate Analogue Training Manual by Flora Mer, Julian Ramirez-Villegas, Osana Bonilla-Findji, David Arango, Camilo Barrios, Ousmane Ndiaye, Andy Jarvis.
- Explanatory Video : <https://www.youtube.com/watch?v=ZIWznCEIKME>

II. Two regional workshops carried out in Senegal and Kenya that gathered **47 participants from 9 countries** (Mali, Burkina Faso, Niger, Ghana, Senegal, Ethiopia, Uganda, Kenya, Tanzania) affiliated to a wide range of organizations including Research institutions, Government bodies, Academia, Foundations, NGOs:

* The WA training workshop was held in Dakar (9-13 April) hosted by CCAFS WA in partnership with AGRYMET and the Permanente Interstate Committee for Drought Control in the Sahel and ANACIM. **Beneficiaries: 31** (25 men, 6 women) from the following institutions: National Meteorology Agency (Senegal), INERA, INRAN, IER, SARI, FNMG (NGO), AMEDD (NGO), DPAH, DRA Ségou, DGA, AGRHYMET, ANID, ISRA/LNRPV, ANCAR.

- Communication product: The event was announced in the National TV: <http://dl.free.fr/rarFgBOTQ>

* The EA Training workshop was held in Nairobi (7-10 August) hosted CCAFA EA in partnership with ILRI. **Beneficiaries: 16** (13 men, 3 women) from the following institutions: National Meteorology Agency, University of Nairobi/ICPAC, Sokoine University of Agriculture African Biodiversity Conservation and Innovations Centre, KARI, Agricultural Research Institute Mlingano Tanga (Tanzania), CARE, Bulindi Zonal Agricultural Research and Development Institute

III. CCAFS EA held one National Level training workshop in Ethiopia in collaboration with EIAR as a follow up of the regional training workshop held in early August, 2012 in Nairobi. **Beneficiaries: 17** participants from universities, research institutions, National Meteorology Agency

IV. Two training sessions carried out (Italy and Costa Rica) as part of the regional planning workshops of Bioversity's project on "Strengthening National Capacities to implement the International Treaty on Plant Genetic Resources for Food and Agriculture". **Beneficiaries: 66 participants from 13 countries** (Burkina Faso, Costa Rica, Cote d'Ivoire, Guatemala, Nepal, Rwanda, Uganda, The Netherlands, Italy, Belgium, USA, UK, and Ethiopia) issued from a wide range of organizations.

• Italy (Rome 2-4 May): **Participants 22** (16 men; 6 women). Represented organizations: Secretariat permanent de la Commission nationale de Gestion des Ressources Phytogénétiques (SP/CONAGREP), Dirección Superior de Operaciones Regionales y Extensión Agropecuaria, University of Abobo-Adjamé, Centro Agronómico Tropical de Investigación y Enseñanza –CATIE, National Agricultural Research Council (NARC), Rwanda Agriculture Board (RAB), National Agricultural Research Laboratories, Netherlands Ministry of Economic Affairs, Agriculture and Innovation, Treaty Effectiveness Initiative, Centre for the Philosophy of Law (CPDR), Université catholique de Louvain, University of Illinois at Chicago, CUPPA, Department of Agricultural and Food Economics, School of Agriculture, Policy and Development, The University of Reading, Addis Ababa University (AAU), ITPGRFA Secretariat, Food and Agricultural Organization of the United Nations (FAO), Bioversity.

• Costa Rica (22 August) hosted by the Ministry of Agriculture and Livestock: **Participants 44** (26 men; 18 women). Institutions represented : Executive Secretariat of agricultural sector planning), Ministry of Agriculture and Livestock, National program of Organic Agriculture (Costa Rica), National Grains Program (Costa Rican Ministry of Agriculture and Livestock), National Program on Roots and Tubers (Costa Rican Ministry of Agriculture and Livestock), Instituto Nacional de Tecnología Agropecuaria (INTA), Comisión nacional de recursos fitogenéticos (CONAFI), Universidad Nacional de Costa Rica, Fundación para el Fomento y Promoción de la Investigación y Transferencia de Tecnología Agropecuaria de CR (FITTACORI), Fondo de Desarrollo Noruego (FDN).

Partners involved and their role (250 characters)

Leeds (U.K.)

Training workshop organisers:

- WA: CCAFS WA, CCAFS T1, ANACIM- AGRYMET
- EA: CCAFS EA, CCAFS T1, ILRI, EIAR
- Europe: Bioversity
- Costa Rica: Bioversity, Ministry of Agriculture and Livestock

Trainers:

- CCAFS T1, CIAT
- ANACIM /Met Office (Senegal)

Links/Sources for further information

- * East Africa moves towards implementation plans with the Climate Analogues tool
<http://ccafs.cgiar.org/blog/east-africa-moves-towards-implementation-plans-using-climate-analogues-tool> AP178
- * Creating the needed capacity to use climate information in Ethiopia
<http://ccafs.cgiar.org/blog/creating-needed-capacity-use-climate-information-ethiopia>
- * Climate change models may help spur lawmakers to implement seed treaty
<http://ccafs.cgiar.org/blog/climate-change-models-may-help-spur-lawmakers-implement-seed-treaty>
- * Climate Analogues arrives in Costa Rica, this time for PGR conservation:
<http://ccafs.cgiar.org/blog/climate-analogues-arrives-costa-rica-time-pgr-conservation>

Title		Author	
Agtrials - the Global Agricultural Trial Repository for climate change analysis		Glenn Hyman (CIAT), Andy Jarvis (CCAFS)	
Type	Date (DD/MM/YYYY)	Countries	
Inter-center collaboration		Global	
Keywords		Photo URL	
open access agriculture, evaluation trials, G x E analysis, Data base, repository		www.agtrials.org	
Introduction/Objectives (400 characters)			
For decades cultivar testing has proven to be an efficient and valuable methodology for varietal improvement and targeted dissemination. Trial sites in particular, maintained by CG-centers, advanced research institutes and/or NARS, have been key elements for improvement programs addressing issues such as drought tolerance, heat stress, pasture and livestock management, soil, water and forest management, and fisheries. However, much of the information on trial sites is not publically available, and indeed large volumes of historic trials data are likely lost due to poor data management. Gaps remain and there is an urgent need to design and test new institutional arrangements and to improve the dissemination performance of the system.			
Description of the project,procedures etc. (1100 characters)			
To tap into this knowledge gap, CCAFS has undertaken an ambitious initiative aiming to develop an agricultural technology evaluation database for climate change analysis. The specific objectives of this project include: • To establish a broad database and online repository of multi-site trials • To compile, manage and share standardize information on evaluations of agricultural technology worldwide. • Acquire agricultural evaluation data sets by joining between CG centers, NARS as other key stakeholders • Explore the geographic dimensions of agricultural evaluation The purpose of the database is to conduct subsequent analysis on the performance of agricultural technologies under a changing climate and form the basis for the: i) calibration and validation of crops models under current and future conditions, ii) evaluation and testing the efficacy of trialed materials for adaptation, iii) design of experiments iv) exploration of adaptation options (Genetic improvement; On-farm management practices) v) assessing technology transfer options vi) building “adaptation packages”			
Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)			
The Agtrials Platform (www.agtrials.org) is contributing to the adoption of a new approach based on a shared vision of an ‘Open Access Agriculture’. It provides a geographic interface allowing accessing a broad database on the performance of agricultural technologies at sites across the developing world. It builds on decades of evaluation trials, mostly of varieties, but includes any agricultural technology for developing world farmers. Specific results include: - An online repository and database with a powerful visualization of the trial data which is highly populated and incorporates adding value tools (climate and soil data), and is linked to the Analogue tool, MarkSim and AMKN platform. It also includes a blog section developed to establish a sharing space for the community of users. Visitors/users can view independent or groups of trials, make queries of specific data set (by crop, institution, contact, country and other selection fields) and/or download data upon previous agreement on the attributed licenses. - A consolidated community of users: in 2012 the site showed a constant flow of traffic with a total of 6,227 visits registered from 95 different countries around the world. A respectable proportion of total viewers (77%) were returning visitors, while the rest were first-time visitors (23%). - A broad accessible dataset: total of 4,296 evaluation trials (a trial is one growing season, for one crop at one location, but can be multiple varieties), for 20,351 varieties/races at 1158 sites in 95 countries. Common bean has the largest number of trials (1405) followed by cassava (1029), forages (406), sorghum (391), rice (388), banana (169) and others. - Ongoing research on beans, potato and cassava through small projects or studentships. - Successful partnerships: • An increased network of stakeholders from NARS, CG Centers and universities worldwide who actively contribute with agricultural technologies data and use the associated CCAFS tools for analysis (G x E methodology, analogue, etc). See partners section. • A major integration effort was developed with the Generation Challenge Programs Crop Ontology project, including discussion of how the two initiatives are integrated in a Journal article for Frontiers in Crop Physiology (http://gisweb.ciat.cgiar.org/trialsitesblog/?p=379). Information sources have been dynamically linked so that changes in either of the databases are reflected in the other, supporting the growth and improvement of both. This integration has helped to standardize terminology among all contributors of trial data. • Collaboration with Monsanto Corporation has resulted in a draft study of yield gaps for maize globally, to be submitted for publication in 2013 • Collaboration with the AgMIP project resulted in mapping of variables between the two initiatives. In February 2013 researchers from both initiatives meet at the University of Florida to consolidate the collaboration • Successful linkage with the CRP RTB. One proposal has been submitted to the Roots Tubers and Bananas research program of the CGIAR. The proposal will develop data for AgTrials and conduct an analysis of yield gaps for bananas, cooking bananas, cassava, sweet potato, potato and yam. • PABRA (Gates-funded Tropical Legumes initiative, where participants agreed to use the AgTrials system)			
Partners involved and their role (250 characters)			
• 10 CG centers : CIAT (beans, forages, cassava), ICARDA (maize, chickpeas), ICR (potatoes, sweet potatoes), Bioversity (bananas), CIMMYT (maize), ICRISAT (sorghum, millet, groundnuts), ICARDA (lentils, faba beans, barley, durum wheat, chickpeas), ILRI (animal trials), IRRI (rice), AfricaRice (rice), IITA (cassava) • NARS: IER Mali (sorghum, millet), Instituto Colombiano Agropecuario, Corpoica (Colombia), EMBRAPA, • Universities: Wageningen (The Netherlands), University of California – Riverside, Universidad de Caldas (Colombia),Universidad Catolica de Chile, Potchefstroom University (South Africa), • Generation Challenge Programme – CropOntology • CRP RTB • AgMIP project • Monsanto			
Links/Sources for further information			
Platform: www.agtrials.org - Open access agriculture: http://ccafs.cgiar.org/blog/open-access-agriculture - Sharing data on agricultural trials: towards a global repository: http://dapa.ciat.cgiar.org/sharing-data-on-agricultural-trials-towards-a-global-repository/ - AgTrials and AgMIP advance collaboration: http://dapa.ciat.cgiar.org/agtrials-and-agmip-advance-collaboration/ - Looking for weather data? http://dapa.ciat.cgiar.org/looking-for-weather-data/			

CASE STUDY 5

Title		Author	
Systemic Integrated Adaptation (SIA) social lens: examining the relationship between adaptive capacity and social differentiation		Meghan Bailey, Ariella Helfgott	
Type	Date (DD/MM/YYYY)	Countries	
Social differentiation and gender		Nepal	
Keywords		Photo URL	
social differentiation, Adaptive capacity, Women's Empowerment in Agriculture Index, adapt			
Introduction/Objectives (400 characters)			
The Systemic Integrated Adaptation (SIA) Research Program draws together diverse forms of knowledge generation and sense-making from across disciplines, sectors and social worlds towards the interrelated goals of climate adaptation, sustainable development, environmental management and food security for small-holder farmers. The program considers the integrated social, economic, political and environmental systems in which small-holder farmers are embedded, and aims to co-identify and support appropriate actions at multiple levels within these systems. The key questions addressed within the social lens are: What is the impact of different forms of social differentiation on adaptation of small-holder farmers? How do particular adaptation strategies differentially affect different social groups?			
Description of the project, procedures etc. (1100 characters)			
The social lens employs a suite of methods and data sources to triangulate understanding on the key questions above. The key methods are: The Systemic Integrated Adaptation - Social Differentiation (SIA-SD) Index : an adaptation of the Women's Empowerment in Agriculture Index. It is a scaled down version of the WEAI with additional modules on climate consciousness, information dissemination and adaptation decision-making and in all modules relates to collects all forms of social differentiation rather than gender alone. The SIA-SD is administered to a representative sample. In the Nepali field work, 345 households were enumerated within the Makrahar Village Development Committee – a sub section of the Rupandehi district. A Repertory Grid Analysis: conducted in each field site. It surfaces worldview, which are analyzed at community level to identify prevailing and outlying perspectives on particular topics – in this case, a number of decisions related to building adaptive capacity. Extensive participant observation while embedded within the community for 4 months, including time spent with harder-to-reach marginalized individuals such as third gender identifying individuals, castrated men, families of the Yadav minority caste, persons with physical and cognitive disabilities, low ranking women within extended families, elderly persons living separately from families. SIA Workshop			
Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)			
A. Key finding on social differentiation from the Nepal field program * <u>Yadav Minority Caste</u> : 10 of the 118 households of the focus community belong to the minority Yadav caste. When Yadav women arrive to their marital homes, usually in their mid to late teenage years, they are not allowed to leave the homestead for the first five years and they are never allowed to join groups (including women's farming groups or loans and savings groups) of any kind. Development schema in Nepal is set up around group work and the majority of NGO interventions are centered on group formation. As such, Yadav women cannot directly participate in any trainings, votes, committee decisions, nor have access to access to credit of any kind unless through their husbands or fathers. * <u>Illiterate Individuals</u>: Women's numeracy and literacy in comparison to men counterparts is extraordinarily low. The only older women within the villages that have the ability to write their names have taken a specific course for that purpose in adulthood. This impedes many facets of their lives including the suit of adaptation options and adaptation information they have access to. * <u>Low Ranking Women</u> within Extended Households: Women who have married into an extended family homestead report very low levels of freedom and agency within the home according to the repertory grid analysis and the SIA-SD Index. Follow up interviews with women who scored very low levels of freedom, revealed that the most significant barrier to attending trainings or skills development, for example, was their mothers-in-law. B) Key finding FoTF Nepal program: * Younger women participants who had not traveled outside of the community previous to the exchange reported very significant changes in their lives (critical thinking). They frequently mentioned they had developed an "eye" for noticing new things and asking questions. * Several of the women reported feeling very at ease, even sentiments of re-inventing themselves during the exchange, particularly related to public speaking. However, many reported falling back into habits they didn't like, such as not speaking in public meetings, once they returned to Beora where existing hierarchies remained. * A small number of negative experiences were mentioned - most notably by women participants who were called "politicians" once arriving home, which is meant to be insulting and suggest that a woman who is noticeably in the public sphere is not modest mannered, as is expected. ☹			
Partners involved and their role (250 characters)			
University of Adelaide and University of Oxford. Friends Service Council Nepal was the official SIA organizational partner for the field program CCAFS SA			
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 Theme Led Activities Theme 1. Adaptation to Progressive Climate Change

OUTCOME 1

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

An early outcome story which continues to grow presented together with Theme 4 is that of CCAFS Climate. Although this is not directly a case of use of CCAFS outputs by non-research partners, the CCAFS Climate portal is having significant impact by putting downscaled climate information of long term climate changes into the hands of non-climate scientists. We have successfully moved beyond our immediate sphere of influence and have a broad user base that is now global, and multi-disciplinary, which is using this data to support impact and adaptation analyses in multiple target and non-target sectors for CCAFS.

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

The outputs have been:

- Development of downscaled climate products from CIAT, ILRI, IFPRI and PIK 2009 to present
- Design and deployment of the CCAFS Climate Portal in 2010

What partners helped in producing the outcome?

ILRI, PIK, IFPRI, CIAT, Tyndall Centre,

Who used the output?

Researchers from the fields of biodiversity, agriculture and ecosystem functioning.

How was the output used?

Use in modelling of climate impacts and in evaluating adaptation options. This included a number of impact studies which generate greater understanding of the possible risks posed by progressive climate change. Specific cases in the realm of agriculture include analyses of crop suitability impacts, and research by Zimbabwean national researchers on the relative adaptation potential of different maize varieties.

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.

Google Scholar searches of citations yields 31 peer reviewed articles and 6 book chapters already published with this data which has only been available for 2 years. This is only an early indication of a potential outcome, and further research into the use of the data and the resultant outcomes that these subsequent studies are having is required to further the evidence base. Citations yielded by Google Scholar can be found here: <http://www.ccafs-climate.org/citations/>

OUTCOME 2

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

The SIA project is delivering an early outcome in the formation of local capacity and strengthened autonomous adaptation processes which are occurring in Nepal. There are early indications that the LAPA process will use elements of the PSROI approaches in their planning.

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

Specific outputs that contribute are form the PSROI working paper and policy brief, the Farms of the Future activity in Nepal under the SA regional program, and the field activities of SIA in early 2012.

What partners helped in producing the outcome?

This early outcome is being promoted by NARC in Nepal at the local level, and being scaled to national level through the Himalayan Field Research Network which has been formed. This consists of a network of organisations from ICIMOD, the two main Nepali universities, national down to local government agencies, NGOs and CBOs.

Who used the output?

Local NGOs and members of the Himalayan Field Research Network. Plus interest from the LAPA initiative.

How was the output used?

PSROI community based planning approaches, and the FOTF manual being adopted as approaches for community based planning, and autonomous adaptation approaches.

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.

Personal communications with SIA team. This is a very early potential outcome, but the indications are that this is an emerging story.

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.

2

CCAFS Theme Led Activities Theme 1. Adaptation to Progressive Climate Change

During 2012, Theme 1 focussed its gender work on three major fronts:

1. Social differentiation strongly tied into PAR work in Nepal (and in 2013 in Ghana) through the Systemic Integrated Adaptation (SIA) project lead by the University of Adelaide and University of Oxford.
2. Social differentiation and gender tied into Farms of the Future work which was undertaken in Tanzania and Ghana in 2012 through the University of Greenwich
3. Intellectual and strategic gender research leadership and implementation set up through the University of Florida and with CIAT through Jennifer Twyman.

The PAR based work in the SIA project in Nepal has explicitly understood socially differentiated constraints, barriers and priorities for community based adaptation for the interventions considered from the PSROI approach.

In the FOTF work in Ghana and Tanzania, the gender component examined the appropriateness of farmer to farmer exchange. Diagnostic workshop were designed as an essential component of the FOTF program, to increase the potential for the appropriateness of exchange, understand the priorities of the participants and gain knowledge of forms of social differentiation. Where appropriate, different social groups were sometimes mixed together and at other times separated in order to triangulate data generated. The findings of the diagnostic workshop guided the subsequent steps of participant selection and exchange program to ensure socially, culturally, economically, politically and environmentally appropriate exchanges. It also assisted in identifying local relevant challenges that inform interventions that may be adopted by farmers, as well as assets / strengths extant at the community –level that they may draw on in addressing these challenges

Many of the higher level and focussed gender research in Theme 1 will be achieved through the partnership with the University of Florida, and in conjunction with CIAT through Jennifer Twyman's postdoc appointment. In 2012, a gender workplan was constructed with key research questions identified which feed into the broader CCAFS strategy. Together with CIAT, work on gender implications of transformational adaptation was advanced in benchmark sites in East Africa, and the groundwork has been laid for a number of student projects with the University of Florida which will activate in 2013.

Theme Leader Summary by Output - 2012

Theme Leaders will report on the same categories before, following the reporting depth of “Medium” in the explanatory notes. In addition, Theme Leaders will provide a synthesis of all Program Participant activities, arranged by Output as per the CCAFS logframe. These reports will be 3-5 pages.

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 1.1.1 Development of farming systems and production technologies adapted to climate change conditions in time and space through design of tools for improving crops, livestock, agronomic and natural resource management practices	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
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)	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
Output 1.1.3 New knowledge, guidelines and access to germplasm are provided for using genetic and species diversity to enhance adaptation, productivity and resilience to changing climate with benefits for socially marginal groups.	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
Objective 1.2 Develop breeding strategies for addressing abiotic and biotic stresses induced by future climatic conditions, variability and extremes, including novel climates	
Outcome 1.2: Strategies for addressing abiotic and biotic stresses induced by future climate change, variability and extremes, including novel climates mainstreamed among the majority of the international research agencies who engage with CCAFS, and by national agencies in at least 12 countries	
Output 1.2.1 Understanding and evaluating the response of different varieties/crops to climate change in time and space, and generating comprehensive strategies for crop improvement through a combination of modeling, expert consultation and stakeholder dialogue	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
Output 1.2.2 Breeding strategies disseminated to key national agencies and research partners	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
Objective 1.3 Integrate adaptation strategies for agricultural and food systems into policy and institutional frameworks	
Outcome 1.3: Improved adaptation policies from local to international level supporting farming communities, rural institutions and food system actors adapted to future climate conditions in at least 20 countries.	
Output 1.3.1 Improved institutional arrangements and socially differentiated adaptation planning approaches at the local level to enable farming system adaptation strategies for crop improvement through a combination of modeling, expert consultation and stakeholder dialogue	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
Output 1.3.2 Public and private sector policies and strategies at the national level to enable farming communities and the food system to adapt to predicted future conditions	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	
Output 1.3.3 Policies to enable access to and use of genetic resources for climate change adaptation research, and diffusion of adapted germplasm strategies for crop improvement through a combination of modeling, expert consultation and stakeholder dialogue	
Provide a synthesis of all Program Participant activities pertaining to this output as per the CCAFS logframe. These reports will be 3-5 pages long (max. 30,000 characters).	

Milestone Status Report - 2012

MILESTONE REPORT 1

Theme	Milestone	Milestone Status
Theme 1	1.1.1 2012 (1)	Completed

Theme Leader comments on Milestone status

The platform is established fully and we have a number of cases of good GxE analyses from T1 and from specific centers (e.g. CIMMYT, CIAT).

Regional Program Leader comments on Milestone status

WA: Scope for more GxE analysis in WA in 2013.

SA: CCAFS in partnership with Bioversity and national partners evaluated rice and wheat germplasm in India, hotspots of climate risks were identified using climate analogues of current and future climate, ICRISAT identified and characterized analogue locations for evaluation, testing and germplasm sampling in S Asia, IWMI produced vulnerability map of mid hill watersheds of Nepal incorporating a number of bio-physical, climatic and socio-economic indicators, CIMMYT has collected data from various long-term trials (from completed as well as on-going farmers' field and on-station trials) in different parts of Nepal, India and Bangladesh. Based on the activities of different centres, substantial works have been happened but there needs to be cross-centre collaboration to build a platform for multi-location trials and calibrate crop models.

MILESTONE REPORT 2

Theme	Milestone	Milestone Status
Theme 1	1.1.1 2012 (2)	Partially completed

Theme Leader comments on Milestone status

Robust analogue method developed and case studies conducted in three regions (EA, WA, SA). The method is through a platform, and we have a working document which fully reports on the methods and approaches. One peer-reviewed paper has already reported on the analogue approach, but a dedicated peer-reviewed paper on the analogue method continues to be developed and is available only in draft form.

Regional Program Leader comments on Milestone status

MILESTONE REPORT 3

Theme	Milestone	Milestone Status
Theme 1	1.1.1 2012 (3)	Completed

Theme Leader comments on Milestone status

This milestone is the responsibility of IWMI. They report as partially completed as they have ongoing activities in this area of work, but I consider that the milestone as stated in the logframe has been delivered on. For more information, see IWMI annual report.

Regional Program Leader comments on Milestone status

MILESTONE
REPORT 4

Theme	Milestone	Milestone Status
Theme 1	1.1.1 2012 (4)	Completed
Theme Leader comments on Milestone status		
IWMI responsible for these milestones, and they have been fully delivered as per IWMI Annual Report 2012.		
Regional Program Leader comments on Milestone status		

MILESTONE
REPORT 5

Theme	Milestone	Milestone Status
Theme 1	1.1.2 2012	Completed
Theme Leader comments on Milestone status		
Three regional training workshops and several national training workshops on the Use of the Analogue tools were carried out reaching ca. 70 reserachers and key stakeholders from 15 countries. Three farmer to farmer exchanges among analogue sites were succesfully carried out in Nepal, Tanzania and Ghana, involving at least 40% women and adopting a socially differentiated focus for the analysis of barriers to adaptation.		
Regional Program Leader comments on Milestone status		
WA: Echange completed (ghana: 18 farmers + 6 ASI agric extension);		
EA (regional training; 20 participants trained + national training- ethiopia: 17 participants)		
SA: CCAFS in partnership with CIAT and Oxford university successfully organized the farmers exchange on climate analogue sites in Nepal which was a great success providing ideal learning opportunity for the farmers from their analogue locations. This was one of the successful activities with the farmers in 2012. ☐		

MILESTONE
REPORT 6

Theme	Milestone	Milestone Status
Theme 1	1.1.3 2012 (1)	Partially completed
Theme Leader comments on Milestone status		
This milestone corresponds to Bioversity and is only partially completed. Surveys were finalised behind schedule, and hence the final technical report is to be delivered in June 2013.		
Regional Program Leader comments on Milestone status		
SAS: Bioversity International partially completed the development of methodologies for surveys of communities in Nepal to assess the relative tolerance of traditional crops to climate change, has analysed gender disaggregate data on perception, crop/varieties use and management and their relation to climate change adantion in Nenal and India. CIMMYT identified kev phenotyping sites for maize in IGP including a semi-controlled		

MILESTONE
REPORT 7

Theme	Milestone	Milestone Status
Theme 1	1.1.3 2012 (2)	Completed
Theme Leader comments on Milestone status		
Bioversity conducted surveys of CG scientists in 2011 on the use of plant genetic resources for climate change adaptation. Results were published in 2012 in two papers, accompanied by coverage through social media. As part of the seconf phase of the research Bioversity developed a survey instrument, and identified respondents in 19 countries, focusing on non-CG organizations. The survey using this instrument will be conducted in 2013.		
Regional Program Leader comments on Milestone status		

MILESTONE REPORT 8

Theme	Milestone	Milestone Status
Theme 1	1.2.1 2012	Partially completed

Theme Leader comments on Milestone status

There has been initial discussions and agreements with a number of crop breeding institutions, but a document has not been published. During 2013 the priority setting activities together with commodity CRPs will address this deficiency. I personally do not see the partial completion of this milestone as a particular problem. The milestone itself was a means to an end which is reflected in the milestones at end of 2014.

Regional Program Leader comments on Milestone status

SA: ICRISAT used long-term experiment data to calibrate APSIM for sorghum, maize and chickpea, and simulations of systems run with historical data, ICARDA monitored major changes in population structures of insect pests and diseases of cereals and legumes in Nepal and Bangladesh. Development of climate-proof crops requires concerted efforts from Breeding institutions.

MILESTONE REPORT 9

Theme	Milestone	Milestone Status
Theme 1	1.3.1 2012 (1)	Completed

Theme Leader comments on Milestone status

Document produced that synthesized institutional arrangements, policies and mechanisms for improving the adaptive capacity of agricultural sector actors... Final version delivered, to be published as a CCAFS Report in 2013.

Regional Program Leader comments on Milestone status

SA: CCAFS in partnership with IFPRI completed a documentation of the past and current policies and programs implemented in agriculture, livestock and fisheries sectors in Sri Lanka, India, Nepal and Bangladesh. Prioritization of adaptation/mitigation options in climate smart villages of Bihar and Haryana has been completed at the farmers scale. It will continue in Nepal, Bangladesh and other parts of India. Concrete finding based on these studies has yet to come. ☐

MILESTONE REPORT 10

Theme	Milestone	Milestone Status
Theme 1	1.3.1 2012 (2)	Completed

Theme Leader comments on Milestone status

Video testimonios on gender specific adapt and mitig strategies in 1-3 sites in each of the initial target regions has been progressively delivered on over the past 2 years. During 2012 there was only a limited number of new testimonials, but I consider the milestone as completed.

Regional Program Leader comments on Milestone status

EA: Activity delayed due to funding freeze. A consultant has been contracted and has started the documentnation exercise in one of the CCAfs sites (Nyando)

MILESTONE REPORT 11

Theme	Milestone	Milestone Status
Theme 1	1.3.2 2012	Partially completed

Theme Leader comments on Milestone status

Meta Synthesis of National Adaptation Plans and Policies across across CCAFS countries in West and East Africa and South Asia ongoing. Delivery expected by April 2013 (including background document for informing national adaptation planning and provide recommendations to CCAFS and Policy brief. For reporting to the Consortium this can be considered as completed. As of February 2013 it is only partially completed.

Regional Program Leader comments on Milestone status

EA:
This activity was delayed, however, a lead consultant has been identified to evaluate the current status of the National Adaptation Plans (NAPS) in Ethiopia, Kenya, Tanzanai and Uganda. The consultant will research and collect other relevant national and regional documents including the Climate Change and Green Growth Strategies. In addition, consultations will be made with a small group of stakeholders such as relevant ministries, agricultural practitioners, researchers, development partners, international and local NGOs.

SAs:
CCAFS in partnership with IFPRI completed a documentation of the past and current policies and programs implemented in agriculture, livestock and fisheries sectors in Sri Lanka, India, Nepal and Bangladesh. Prioritization of adaptation/mitigation options in climate smart villages of Bihar and Haryana has been completed at the farmers scale. It will continue in Nepal, Bangladesh and other parts of India. Concrete finding based on these studies has yet to come.