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 Region Led Activities
Eastern Africa (EA)

Activity No. 167

Activity title		Mapping risks and opportunities for targeting appropriate crop and livestock adaptation strategies in East 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**	To identify the extent, scope, intensity and severity of major climate-related risks and opportunities for various farming systems (crop and livestock) in East Africa.
	Objective 2	To identify and characterize the current coping strategies used by farm households in the various farming systems in East Africa.
	Objective 3	To test (on-farm) and select promising adaptation strategies, including interventions and technologies, for major farming systems in East Africa.
	Objective 4	To undertake socio-economic analyses to select effective (cost-effective) interventions tailored to the various production systems.
Activity status		Uncompleted
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		Activity delayed as a result of the funding freeze on CCAFS contracts and activities. The contracting process finalized in December 2012 and funds have already been disbursed to the partners . Preliminary results and progress reports expected within the second quarter of 2013.

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Report on risks, opportunities and coping strategies related to climate change and agriculture in EA	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
Data	Database and interactive maps on current status of risks, opportunities and coping strategies related to climate change and agriculture	2013	Uncompleted	Database (*.sql, *.mdb, etc)
Reports, publications	Report on promising interventions (including technologies) for the farming systems vulnerable to climate change in EA (cropping and pastoral systems)	2014	Uncompleted	Document (*.doc, *.odt, *.pdf)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
organization/Development organization	ABCIC	African Biodiversity Conservation and Innovations Centre	Dan Kiambi	d.kiambi@abcic.org
CG - CGIAR Center				
CG - CGIAR Center	CIAT	International Center for Tropical Agriculture	Clare Mukankusi	c.mukankusi@cgiar.org
NARES - National agricultural research and extension services	KARI	Kenya Agricultural Research Institute	John Ojiem	ojiemj@yahoo.com

	Acronym	Name
NARES - National agricultural research and extension services	SARI	Selian Agricultural Research Institute
	Contact Point Full Name	**Contact Point Email**
	Ndeshi Munisi	nmunisi@hotmail.com
PRI - Private Research Institution	MARIL	Managing Risks for Improved Livelihood
	Contact Point Full Name	**Contact Point Email**
	Solomon Desta	solomon.desta82@gmail.com

Activity No. 168				
Activity title	Regional capacity building on using Climate Scenarios and Analogues for designing adaptation strategies in agriculture			
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**	To provide an overview of climate modeling techniques and tools.		
	Objective 2	To build regional capacity on the use of climate scenarios and analogues for designing adaptation options in agriculture.		
	Objective 3	To enhance community adaptation learning through farmer-to-farmer exchange visits.		
Activity status	Completed			
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	A regional workshop held from 7 - 10 August 2012 in ILRI, Nairobi in collaboration with Theme 1. The objective was to build regional capacity in East Africa on the use of climate scenarios and analogues for designing adaptation strategies. Twenty experts working on climate change and related fields from 4 countries (Ethiopia, Kenya, Tanzania and Uganda) including 5 women were trained. The participants were from different institutions - NGOs, Universities, National Meteorological Agencies and Agricultural Research Institute. This was followed by a national training workshop in Ethiopia in October 2012 organised in collaboration with the Ethiopian Institute of Agricultural Research (EIAR), where 17 participants from academic and research institutions were trained.			

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Capacity	Training of regional partners to use climate scenarios and analogues to design adaptation strategies in agriculture; and explore opportunities for farmer-to-farmer exchange visits to enhance adaptation learning and improve adaptive capacity of communities in the region	2012	Completed	Other
Workshops	One regional training workshop, and a national training workshop in Ethiopia	2012	Completed	Document (*.doc, *.odt, *.pdf)
Communication products	Video documentation of the training and a blog. The video will document the training participants expectations and how they intend to apply the analogues tool in their respective institutions and countries, including linkages with the National Adaptation Plans (NAPs).	2012	Partially completed	Blogpost

Current Partners	Acronym	Name
NARES - National agricultural research and extension services	EIAR	Ethiopian Institute of Agricultural Research
	Contact Point Full Name	**Contact Point Email**
	Andualem Shimeles	andushime@gmail.com

Activity No. 169

Activity title	Understanding social and cultural barriers to adaptation			
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**	To understand the social and cultural barriers to adaptation, incuding gender-disaggregated barriers to adapatation.		
Activity status	Partially completed			
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	As part of the Farms of the Future project, a farmer-to-farmer exchange visit has been undertaken with farmers from Lushoto in May 2012. The visit was organised in collaboration with Theme 1 and the Natural Resources Institute (NRI), University of Greenwich. During the visit farmers and stakeholders from Agricultural Innovation Systems visited the five different learning sites in Tanzania, including the Southern Highlands. The farmers and stakeholders were exposed to a wide range of ongoing community adaptation and risk management strategies to enhance knowledge exchange and learning opportunities about practices or technologies that might strengthen communities' resilience and adaptive capacity to better respond to their future climates.			

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	A report on social and cultural barriers to adaptation	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
Other	Farmers exchange visit	2012	Completed	Other
Communication products	Exchange visit videos	2012	Completed	Video (*.avi, *.mpeg, etc)
Communication products	Blog story	2012	Completed	Blogpost

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
AI - Academic Institution	NRI	Natural Resources Institute, University of Greenwich	Valerie Nelson	valairn@ntlworld.com
NARES - National agricultural research and extension services	ARI	Agricultural Research Institute Mlingano	Juma Wickama	wickama@gmail.com
NARES - National agricultural research and extension services	SARI	Selian Agricultural Research Institute	George Sayula	gsayula@hotmail.com

Activity No. 170

Activity title	Video testimonials on gender-specific farmer adaptation and mitigation strategies in East Africa			
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 (2)	
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To document how both indigenous and scientific knowledge are being used to develop adaptation and risk management strategies at the local level.		
	Objective 2	To highlight how women and youth are participating in testing coping strategies.		
Activity status	Partially completed			
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	The activity was delayed due to funding freeze. A consultant has been contracted, and has started the documentation exercise in one of the CCAFS sites (Nyando) from January 2013.			

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Communication products	Three participatory and targeted video testimonies	2013	Uncompleted	Video (*.avi, *.mpeg, etc)
Communication products	Photostories	2013	Uncompleted	Image (*.jpg, *.png, etc)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
Other		Consultant - Photojournalist and filmmaker	Kelvin Trautmann	kelvin@kelvintrautman.com

Activity No. 171

Activity title	Evaluation of baseline national adaptation policy and plans in Kenya and Ethiopia	
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**	To evaluate the status of the national adaptation programmes (NAPs) for Ethiopia and Kenya
Activity status	Partially completed	
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	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, Tanzania 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.	

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Synthesis report and policy brief	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
Other		Consultant	Victor Orindi	vorindi@gmail.com

Activity No. 172

Activity title	Using Climate Scenarios and Spatial Analogues in Designing Adaptation Strategies in Agriculture in East 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**	To Identify potential adaptation pathways using the analogues tool in selected farming systems in East Africa.
	Objective 2	To assess how the NAPAs respond to future climates using the analogues tool.
	Objective 3	To identify potential diversification pathways in response to future climate scenarios in selected farming systems.
	Objective 4	To facilitate farmer-to-farmer exchange of knowledge to enhance adaptation learning among communities in the region.
	Objective 5	To assess community visioning of potential adaptation pathways to future climates.
Activity status	Uncompleted	
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	Activity will build on the farmer-to-farmer exchange visit in Tanzania and the regional training workshop (activity no. 168) and will be implemented in 2013, linking with a related activity by IITA in Uganda. Proposal under review.	

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Report documenting potential adaption strategies across different farming systems in Kenya and Tanzania	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
Communication products	Videos and blogs from the exchange visits	2013	Uncompleted	Blogpost

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
NGO_DO - Non-governmental organization/Development organization	CARE	CARE International		
CG - CGIAR Center	ICRISAT	International Crops Research Institute for the Semi-Arid-Tropics		
AI - Academic Institution	SUA	Sokoine University of Agriculture		

	NARES - National agricultural research and extension services	**Acronym**	**Name**	
		ARI	Agricultural Research Institute Mlingano	
		Contact Point Full Name	**Contact Point Email**	
		Juma Wickama	wickama@gmail.com	

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 Region Led Activities
Eastern Africa (EA)

Activity No. 173

Activity title		Synthesis of knowledge gaps in risk management
CCAFS Objective *(select from drop list)*		2.1 Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods
CCAFS Milestone No. *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*		2.1.1 2012
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To identify new or innovative approaches to managing climate risks
	Objective 2	To document traditional risk-management strategies in each country, focusing on indigenous knowledge
	Objective 3	To establish IK weather/climate forecasting zones and teams
	Objective 4	To assessing the effectiveness of indigenous iractices and ieliefs of climate forecasting in Borana, southern Ethiopia
Activity status		Completed
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		Commissioned case studies have been completed in Ethiopia, Tanzania, and Uganda. In Tanzania and Uganda, case studies focussed on evaluating integration of scientific weather and climate forecasting and indigenous knowledge to provide downscaled accurate, timely and easily accessible forecasts to inform farm-level decision making. The case study in Ethiopia focussed on documenting the status, utilization, benefits, challenges and opportunities of rangeland enclosures and community action groups (CAGs) to understand their implications on improving adaptative capacity of pastoral communities. In Kenya, the activity focused on documenting the climate related opportunities for agricultural adaptation in Semi-Arid Eastern Kenya.

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Report on promoting integration of indigenous knowledge and scientific weather forecasting for risk management Lushoto District, Tanga	2012	Completed	Document (*.doc, *.odt, *.pdf)
Reports, publications	Report on innovative climate risk management focusing on empowering local communities to use climate and weather information integrated with indigenous knowledge to build	2012	Completed	Document (*.doc, *.odt, *.pdf)
Reports, publications	Report on social innovation and rangeland enclosure to adapt to a changing climate in Borana (Desta et al., 2012)	2012	Completed	Document (*.doc, *.odt, *.pdf)
Reports, publications	Report on the climate related opportunities for agricultural adaptation in Semi-Arid Eastern Kenya. (CCAFS East Africa)	2012	Completed	Document (*.doc, *.odt, *.pdf)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
AI - Academic Institution	SUA	Sokoine University of Agriculture	Prof. Henry Mahoo	mahoohenry@yahoo.com
AI - Academic Institution	MAK	Makerere University	Florence Kyazze	fbirungikyazze@agric.mak.ac.ug
NGO_DO - Non-governmental organization/Development organization	MARIL	Managing Risk for Improved Livelihoods	Getachew Gebru	ggebru@gmail.com
NARES - National agricultural research and extension services	NARO	National Agricultural Research Organization	Drake Mubiru	drakenmubiru@yahoo.com

	Acronym	Name
NARES - National agricultural research and extension services	TMA	Tanzania Meteorological Agency

Contact Point Full Name	Contact Point Email
Emmanuel Mpeta	empeta@meteo.go.tz

Activity No. 174

Activity title	Gender and socially-equitable participatory pilot demonstrations portfolios of agricultural risk management innovations and traditional local knowledge (Participatory Action Research Interventions)		
CCAFS Objective *(select from drop list)*	2.1 Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	2.1.3 2012 (1)
Activity objectives *(what the activity aims to achieve)* — **Objective 1**	To identify and test a portfolio of risk management strategies in partnership with local communities and stakeholders to better manage climate risks, improve livelihood resilience and enhance food security.		
Activity status	Partially completed		
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	Across CCAFS sites in East Africa, researchers from the national and international institutions and development partners are working with communities to test a portfolio of climate risk management strategies. These include diversification of livelihoods through bee-keeping in Nyando, testing the design and communication of downscaled, probabilistic seasonal forecasts and evaluating their impact on farmers' management and livelihood outcomes in Wote, Eastern Kenya (by ICRISAT). Other risk management interventions include identification of soil and water management technologies and practices to enhance climate resilience and increase agricultural productivity in Eastern Kenya.		

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Communication of downscaled, probabilistic seasonal forecasts and evaluating their impact on farmers' management and livelihood outcomes	2012	Completed	Document (*.doc, *.odt, *.pdf)
Reports, publications	Research report on enhancing climate resilience through soil water technologies to increase agricultural productivity in semi-arid Eastern Kenya	2012	Completed	Document (*.doc, *.odt, *.pdf)
Communication products	Documentation of bee-keeping as an alternative solution to address climate risks and Food Insecurity in Lower Nyando, Kenya	2012	Partially completed	Document (*.doc, *.odt, *.pdf)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
CG - CGIAR Center	ICRISAT	International Crops Research Institute for the Semi-Arid Tropics	KPC Rao	k.p.rao@cgiar.org
AI - Academic Institution	JKUAT	Jomo Kenyatta University	Bancy Mati	b.mati@resourceplan.co.ke
NGO_DO - Non-governmental organization/Development organization	WN	World Neighbors	Chris Macoloo	cmacoloo@wn.org

Activity No. 175

Activity title		Support the national partners in Ethiopia and Kenya through the NMHs (National Meteorological and Hydrological Stations) to develop tools for agricultural application
CCAFS Objective *(select from drop list)*	2.3 Support risk management through enhanced prediction of climate impacts on agriculture, and enhanced climate information and services	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 2.3.1 2012
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	Identify and organize crop forecasting validation data sets, and evaluate accuracy of existing crop forecasting methodology.
	Objective 2	Establish sub-national, national and regional teams to design meteorological products appropriate for agricultural applications
Activity status		Partially completed
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		As part of the Agricultural Model Inter-comparison project (AgMIP), four regional multidisciplinary teams comprising of climate, crop, economic and IT experts were formed in Sub-Saharan Africa (SSA). In Eastern Africa, country teams were formed in Kenya, Ethiopia, Tanzania and Uganda with ICRISAT as the coordinating agency. A SSA wide inception workshop was held in Accra, during 10-14 September, 2012 to help coordinate AgMIP Research Teams and facilitate production of compatible integrated regional assessments of climate change impacts and adaptation in selected agricultural systems. Thirteen

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Capacity	One regional inception and training workshop for Sub-Saharan Africa	2012	Partially completed	Document (*.doc, *.odt, *.pdf)
Capacity	2 teams established to test and validate crop and rangeland forecasting products for agricultural application	2013	Uncompleted	Select a format

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
CG - CGIAR Center	ICRISAT	International Crops Research Institute for the Semi-Arid Tropics	K P C Rao	k.p.rao@cgiar.org
AI - Academic Institution	Makerere	Makerere University	Prof. Moses Tenywa	tenywamakooma@yahoo.com

Activity No. 176

Activity title		Using improved downscaled seasonal forecasts for managing climate risks
CCAFS Objective *(select from drop list)*	2.3 Support risk management through enhanced prediction of climate impacts on agriculture, and enhanced climate information and services	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 2.3.1 2012
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	Assess the reliability of seasonal climate forecasts and its usefulness in farm level decision making
	Objective 2	Develop and test effective communication methods and formats for timely dissemination of Seasonal Climate Forecasts to various stakeholders, including farmers and extension agentsworkers)
	Objective 3	Assess effectiveness and usefulness of climate information in reducing risks
Activity status		Uncompleted
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		Activity carried forward to 2013, and will be led by ICRISAT working with the National Meteorological Hydrological Services (NMHS) agencies in Ethiopia, Kenya, Tanzania and Uganda. The proposal has been reviewed and approved.

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Capacity	Regional training on seasonal forecasting	2013	Uncompleted	Other
Model tools and software	Improve tools and methods to downscale Seasonal Climate Forecasts to local scale	2013	Uncompleted	Other
Communication products	Identified formats and communication methods for timely dissemination of seasonal climate forecast information	2013	Uncompleted	Select a format
Reports, publications	Reports and journal articles	2014	Uncompleted	Document (*.doc, *.odt, *.pdf)

Current Partners		Acronym	Name	Contact Point Full Name	Contact Point Email
	CG - CGIAR Center	ICRISAT	International Crops Research Institute for the Semi-Arid Tropics	KPC Rao	k.p.rao@cgiar.org
	GO - Government office/department	KMD	Kenya Meteorological Department		
	GO - Government office/department	NMA	National Meteorology Agency of Ethiopia		
	GO - Government office/department	UMD	Uganda Meteorological Department		
	GO - Government office/department	TMA	Tanzania Meteorological Agency		
	AI - Academic Institution	UON	University of Nairobi		

Activity No. 177				
Activity title		Provision of information on stress tolerance and adaptation of maize cultivars to support farmers' risk management strategies in areas vulnerable to climate change.		
CCAFS Objective *(select from drop list)*		2.3 Support risk management through enhanced prediction of climate impacts on agriculture, and enhanced climate information and services	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	2.3.1 2012
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	Identify and document maize varieties that are relevant for enhancing the productivity and adaptation to climate change in Kenya. This will include technologies under development and that have been released; released and adopted; and preferred by farmers.		
	Objective 2	Highlight specifically on the varieties that are adapted to drought-prone areas, farmers' preferences and their potential contribution in enhancing food security and farm level risk management in vulnerable areas.		
	Objective 3	Draw lessons and provide recommendations on policy and institutional priorities for enhancing farmer access to and use of maize technologies suitable for enhancing adaption to climate variability and change in Kenya.		
Activity status		Partially completed		
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		Activity delayed as a result of the funding freeze on CCAFS contracts and activities.The guide will be available in 2013		

Deliverables status *(You may add any unexpected deliverable)*	Type	Description	Year	Status	Format
	Reports, publications	Report documenting the available maize varieties, traits, farmer preferences, risk management strategies, contribution to food security and recommendations for enhancing availability of suitable technologies in Kenya.	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)

Current Partners		Acronym	Name	Contact Point Full Name	Contact Point Email
	CG - CGIAR Center	CIMMYT	International Maize and Wheat Improvement Center	Bekele Shiferaw	b.shiferaw@cgiar.org

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 Region Led Activities
Eastern Africa (EA)

Activity No. 178					
Activity title	Training of decision makers in inventories and use of appropriate tools and data				
CCAFS Objective *(select from drop list)*	3.1 Inform decision makers about the impacts of alternative agricultural development pathways	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	3.1.2 2012		
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To enhance the capacity of national policy researchers in modified DNDC and scenario analysis to assess national and project mitigation options			
Activity status	Completed				
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	Two training workshops were held in January and March at ILRI, Nairobi, focussing on National and Farm Scale Quantification of Agriculture GHG Emissions for the AFOLU sector. Fifteen participants from government, research and academic institutions from Ethiopia, Kenya, Uganda and Tanzania participated. The first training focussed on use of DNDC Biogeoechemical model for field and farm level quantification of GHG emissions and assessment of mitigation potential. The second training focussed on one-on-one training on using the DNDC model, specifically to review case study plans and data for model calibration and analysis plans. The DNDC model, example datasets, case studies, crop parameters and webGIS climate data tool were distributed to all the participants. The training was led by experts from DNDC Application, Research and Training and Alexandre Grais from Winrock International.				
Deliverables status *(You may add any unexpected deliverable)*	**Type**	**Description**	**Year**	**Status**	**Format**
	Capacity	Two regional training workshops and the training report is available.	2012	Completed	Document (*.doc, *.odt, *.pdf)
Current Partners	PRI - Private Research Institution	**Acronym**	**Name**		
			LLC Applied GeoSolutions		
		Contact Point Full Name	**Contact Point Email**		
		Bill Salas	wsalas@agsemail.com		

Activity No. 179					
Activity title	Quantification of GHG emissions to inform mitigation interventions in East African agricultural systems				
CCAFS Objective *(select from drop list)*	3.3 Test and identify desirable on-farm practices and their landscape-level implications	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	3.3.2 2012		
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To acquire appropriate equipment to measure GHG and build capacity of researchers in EA to measure GHG emissions from agricultural activities			
	Objective 2	To build capacity for modeling agricultural productivity and GHG emissions			
	Objective 3	Develop protocols for integrating gas measurements and modeling for characterizing environmental impacts of different agricultural systems			
	Objective 4	To conduct case studies in selected CCAFS sites to measure GHG emissions and identify suitable mitigation options for the case study			
Activity status	Partially completed				
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	The equipment for the project is expected to be delivered in Nairobi by end of January and will be moved to Uganda in February. The project team visited the Rakai site (Uganda) in October 2012 and initiated meetings with stakeholders in Uganda - NARO Kawanda and at Makerere University, and partners from IITA. The workplan for Rakai has been developed, where IITA and NARO will work together at the site. The next steps in Rakai will involve landscape characterisation, farm and field typology and field selections for measurements. In 2013, training activities are planned at the Maseno and Beca labs, and will involve the partners from Uganda, Kenya and Tanzania, including planning for the other sites.				

Deliverables status *(You may add any unexpected deliverable)*	Type	Description	Year	Status	Format
	Capacity	GHG measurement training workshop	2012	Partially completed	Select a format
	Capacity	Modeling workshop	2014	Uncompleted	Select a format
	Reports, publications	Project report	2014	Uncompleted	Select a format
	Reports, publications	Policy Briefs	2014	Uncompleted	Select a format

Current Partners		Acronym	Name
	CG - CGIAR Center	ILRI	International Livestock Research Institute
		Contact Point Full Name	**Contact Point Email**
		Mariana Rufino	m.rufino@cgiar.org

Activity No. 180

Activity title		Identification, testing and documentation of options for low climate impact sustainable agricultural intensification
CCAFS Objective *(select from drop list)*	3.3 Test and identify desirable on-farm practices and their landscape-level implications	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 3.3.1 2012 (2)
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To test (on-farm) a portfolio of promising mitigation practices such as water management, agro-forestry, sustainable land management (including conservation agriculture)
	Objective 2	To promote the promising water management, agro-forestry, sustainable land management practices
	Objective 3	To determine the effects of land use management to GHG emissions so as to promote climate smart agriculture
Activity status		Partially completed
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		As part of the participatory action research (PAR), sustainable intensification strategies are being tested at CCAFS sites in Nyando (Kenya) and Lushoto (Tanzania). These interventions include sustainable land management that integrates fodder and fruit trees, sustainable intensification, and agro-forestry to increase on-farm tree cover to 10%. Specific practices include cut off drains, buffer strips, contour farming, terraces and tied ridges for soil and water conservation; landscape modeling of green house gases(GHG) Nyando (T3) with ICRAF and, CIFOR to estimate the net mitigation benefits of planting trees on farms in rural Western Kenya.

Deliverables status *(You may add any unexpected deliverable)*	Type	Description	Year	Status	Format
	Capacity	One learning and sharing workshop conducted through the regional learning partnership to develop the indicator framework	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
	Reports, publications	Journal article on trade-off analysis of mitigation in smallholder agriclture	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
	Reports, publications	Working paper on effects of land use management on GHG emissions	2013	Uncompleted	Select a format
	Model tools and software	A conservation agriculture decision support tool for decision makers	2013	Uncompleted	Database (*.sql, *.mdb, etc)
	Communication products	Photo essay of soil and water conservation, agroforestry and soil fertility management activities	2013	Uncompleted	Image (*.jpg, *.png, etc)

		Acronym	Name
	CG - CGIAR Center	ICRAF	World Agroforestry Center
		Contact Point Full Name	**Contact Point Email**
		Acronym	**Name**
	NGO_DO - Non-governmental organization/Development organization	VI	VI-Agroforestry
		Contact Point Full Name	**Contact Point Email**

Current Partners	NARES - National agricultural research and extension services	**Acronym** KARI	**Name** Kenya Agricultural Research Institute	**Contact Point Full Name** / **Contact Point Email**
	NARES - National agricultural research and extension services	**Acronym** SARI	**Name** Selian Agricultural Research Institute	**Contact Point Full Name** / **Contact Point Email**
	GO - Government office/department	**Acronym**	**Name** Ministries of Agriculture, Livestock and Fisheries	**Contact Point Full Name** / **Contact Point Email**
	NARES - National agricultural research and extension services	**Acronym** TAFORI	**Name** Tanzania Forestry Research Institute	**Contact Point Full Name** / **Contact Point Email**

Activity No. 181			
Activity title		Measurement and mitigation of greenhouse gases in African livestock systems: Building capability to meet the challenge	
CCAFS Objective *(select from drop list)*		3.3 Test and identify desirable on-farm practices and their landscape-level implications	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* → 3.3.2 2012
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To improve understanding of the diversity of livestock management systems in the region, the greenhouse gas emissions and the special characteristics of those systems.	
	Objective 2	To showcase existing research programmes and document critical data, knowledge and capability gaps in order to identify activities that would help enhance the region's ability to measure, monitor and develop options to mitigate greenhouse gas emissions intensity from livestock systems while improving the livelihoods of small holder farmers.	
	Objective 3	To identify opportunities for future collaboration and coordinated capacity building activities in livestock mitigation research across African countries.	
Activity status		Completed	
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		ILRI hosted a 3-day workshop from 24 - 26 September 2012, sponsored by the Government of New Zealand, ILRI and CCAFS. Twenty participants representing Government, National Research Institutes and Universities from ten African countries participated: Burkina Faso, Ethiopia, Ghana, Kenya, Mali, Niger, Senegal, South Africa, Tanzania, and Uganda.	

Deliverables status *(You may add any unexpected deliverable)*	**Type**	**Description**	**Year**	**Status**	**Format**
	Workshops	Capacity building workshop for 10 African countries. Workshop report available.	2012	Completed	Document (*.doc, *.odt, *.pdf)

Current Partners	CG - CGIAR Center	**Acronym** ILRI	**Name** International Livestock Research Institute	**Contact Point Full Name** Silvia Silvestri / **Contact Point Email** s.silvestri@cgiar.org
	ARI - Advanced Research Institution	**Acronym** GRA	**Name** Global Research Alliance	**Contact Point Full Name** Deborah Knox / **Contact Point Email** Deborah.Knox@mpi.govt.nz

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 Region Led Activities
Eastern Africa (EA)

Activity No. 182

Activity title		Participatory pilot demonstrations of portfolios of agricultural risk management, adaptation and mitigation options including traditional local knowledge (Participatory Action Research) and developing community level capacity for PAR to address the impacts of climate change in East Africa
CCAFS Objective *(select from drop list)*	4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 4.1.2 2012
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To identify priority constraints and interventions in long-term adaptation to climate change, managing climate related risks in agricultural systems and opportunities for mitigation of GHG emissions in agriculture.
	Objective 2	To develop critical skills for long-term facilitated community engagement, learning and development
	Objective 3	To develop systems for tracking and reporting progress and a local learning communication strategy
Activity status		Partially completed
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		Activity linked to the participatory action research in Theme 1 (167), Theme 2 (174) and Theme 3 (180). PICO Eastern Africa held informal interviews with partners and communities across three CCAFS sites (Nyando, Lushoto, Borana) in order to improve the implementation of site-specific research with a broad range of partners, develop critical skills for long-term facilitated community engagement, learning and development. Preliminary results were used as input into a regional PAR and outcome mapping workshop in November 2012.

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Communication products	Policy briefs, blogs, video testimonials and newsletter articles	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
Reports, publications	Working paper on the PAR process to inform the partnership strategy at the PAR sites	2013	Partially completed	Document (*.doc, *.odt, *.pdf)

Current Partners

Acronym	Name
PICO	PICO Eastern Africa

PRI - Private Research Institution

Contact Point Full Name	Contact Point Email
Ed Rege	ed.rege@picoteamea.org

Activity No. 183

Activity title		Building strategic partnerships at national and regional levels, including Africa-wide engagements with multiple stakeholders
CCAFS Objective *(select from drop list)*	4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 4.1.4 2012 (1)
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To develop new partnerships and strengthen existing partnerships
	Objective 2	To strengthen the Regional Learning Partnership (RLP) established in 2011
Activity status		Completed
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*		In 2012, the program focussed on strengthening the existing parnerships and developing new partneships at local, national, regional and global scales. As part of the Regional Learning Partnership (RLP), CCAFS in collaboration with COMESA, EAC and SADC organized post-Durban dialogue workshops on Climate Change and Agriculture in Eastern and Southern Africa, to help further articulate the African position on agriculture within the international climate change negotiations (UNFCCC). COMESA and CCAFS in partnership with other regional actors and networks (e.g. ACPC), have continued to support the African Group of Negotiators (AGN) to communicate and deepen the understanding of agriculture and build capacity for negotiators to engage in the UNFCCC process. In September, CCAFS held a side event at the African Ministerial Conference on Environment (AMCEN). A Regional Science workshop was held in June 2012, to prioritize and respond to the research needs on climate change and agriculture in East Africa, bringing together researchers from the CGIAR centers and national research institutions.

Deliverables status
(You may add any unexpected deliverable)

Type	Description	Year	Status	Format
Communication products	Communication of CCAFS research through websites, blogs, events	2012	Completed	Blogpost
Communication products	Regional engagement and communication strategy	2013	Partially completed	Document (*.doc, *.odt, *.pdf)
Workshops	Two stakeholders workshops before COP 18 - Post-Durban workshops on Agriculture and Climate Change in Eastern and Southern Africa, a side event at AMCEN in September 2012, Regional Learning Partnership Strategic planning and outcome mapping workshop, Regional Science Workshop, Participation in GCARD2, 3 Adaptation and Mitigation Professional Group (AMPG) breakfast meetings	2012	Completed	Document (*.doc, *.odt, *.pdf)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
RO - Regional Organization	ICPAC	IGAD Climate Prediction and Applications Centre	Cromwell Lukorito	cbusolo@uonbi.ac.ke
RO - Regional Organization	EAC	East African Community	Brian Otiende	BOtiende@eachq.org
RO - Regional Organization	ASARECA	Association for strengthening Agricultural Research in Eastern and Central Africa	Michael Waithaka	m.waithaka@asareca.org
RO - Regional Organization	COMESA	Common Market for Eastern and Southern Africa	George Wamukoya	george.wamukoya@yahoo.com
RO - Regional Organization	SADC	Southern African Development Community	Paul Msoma	pmsoma@sadcpf.org
NGO_DO - Non-governmental organization/Development organization	CARE	Care International	Ruth Mitei	rmitei@careclimatechange.org
NGO_DO - Non-governmental organization/Development organization	Ectrust	Ecotrust	Lilian Kiguli	lkiguli@ecotrust.or.ug
NGO_DO - Non-governmental organization/Development organization	ALIN	Arid Lands Information Network	Esther Lungahi	elungahi@alin.net
RO - Regional Organization	SACAU	Southern African Confedaration of African Unions	Manyewu Mutamba	mmutamba@sacau.org
End_users - End users	EAFF	East African Farmers Federation	Mainza Mugoya	mmainza@eaffu.org

Activity No. 184

Activity title	Linking existing and future climate change-related research and science to farmer organizations at regional (EAFF), national (EAFF member organizations) and sub-national levels		
CCAFS Objective *(select from drop list)*	4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	4.1.4 2012 (1)
Activity objectives *(what the activity aims to achieve)* — **Objective 1**	To assess the relevance and viability of climate science tools for application in Eastern Africa		
Activity status	Uncompleted		
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	The activity was delayed due to the funding freeze and delays in the contracting process. The assesment will be carried out in 2013.		

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Report on scoping of climate science tools for application in the region	2013	Uncompleted	Select a format
Workshops	Regional training workshop on selected climate science tools	2013	Uncompleted	Select a format

Current Partners

Acronym	Name	
EAFF	Eastern Africa Farmers Federation	
RO - Regional Organization	**Contact Point Full Name**	**Contact Point Email**
	Mainza Mugoya	mmainza@eaffu.org

Activity No. 185

Activity title	Household and village baseline surveys for CCAFS site in Wote, Eastern Kenya		
CCAFS Objective *(select from drop list)*	4.2 Assemble data and tools for analysis and planning	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	4.1.4 2012 (1)
Activity objectives *(what the activity aims to achieve)* — **Objective 1**	To finalize baseline data collection for East Africa		
Activity status	Completed		
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	The household and village baselines surveys have been completed. The surveys were carried out between April and June 2012, where 140 households across seven villages were interviewed. The organizational baseline surveys will be completed in 2013. Analysis of the household baseline survey completed and a draft report is available.		

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Data	Data from the baseline survey will be available on the DataVerse website	2013	Partially completed	Database (*.sql, *.mdb, etc)
Reports, publications	Draft of report of the Household Baseline Survey	2013	Partially completed	Document (*.doc, *.odt, *.pdf)

Current Partners

Acronym	Name	
MOA	Ministry of Agriculture	
GO - Government office/department	**Contact Point Full Name**	**Contact Point Email**
	Muoti Mwagangi	cmuoti71@yahoo.com

Activity No. 186

Activity title	Regional site characterization and gender-disaggregated baseline data collection at household, village and institution levels	
CCAFS Objective *(select from drop list)*	4.2 Assemble data and tools for analysis and planning	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 4.2.1 2012 (3)
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To implement the IMPACT lite tool to characterize livelihood activities in diverse agricultural production systems in East Africa
	Objective 2	Develop databases of production systems and web-based metadatabases of the data collected
Activity status	Completed	
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	Data collection for all the six sites in East Africa completed in 2012. The data are centrally stored at ILRI and a training and data collection manual has been compiled. The data will be analysed in 2013.	

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Data	Databases, database tools, and meta-data on agricultural impact models collated and/or developed and shared	2013	Partially completed	Database (*.sql, *.mdb, etc)

Current Partners

	Acronym	Name	Contact Point Full Name	Contact Point Email
CG - CGIAR Center	ILRI	International Livestock Research Institute	Mariana Rufino	m.rufino@cgiar.org

Activity No. 187

Activity title	Developing a strategy for engagement with National Met Services, data and tool collation, and capacity building	
CCAFS Objective *(select from drop list)*	4.2 Assemble data and tools for analysis and planning	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)* 4.2.1 2012 (1)
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	To establish baseline climatic conditions in the region focusing on soils, historical climate, agricultural systems and natural resources
	Objective 2	To generate climate products from metoerological data for CCAFS sites in East Africa
Activity status	Partially completed	
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	The use of broader historical weather data to generate products such as MarkSim was done in 2012 in Dodoma, Tanzania due to data availability as a trial. Once Lushoto data is available, the activity will be carried out at the site. The following is planned for 2013: assistance on improvements to the MarkSim weather generator, particularly in relation to daily temperature and rainfall simulation, and in providing documentation for successive versions of the software; stock-taking of the Weatherman tool for providing filled-in data sets of daily weather data, and assistance in the provision of suitable documentation and training materials, so that the software can become more widely available and co-developing future country-based versions of this software in ways that build on national data holdings but do not compromise their protected access.	

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Data	Meteorological data	2013	Partially completed	Document (*.doc, *.odt, *.pdf)
Capacity	Traininig the NMS staff of climatic data analysis	2013	Partially completed	Document (*.doc, *.odt, *.pdf)
Communication products	Climate products to be used by farmers for decision making	2013	Partially completed	Document (*.doc, *.odt, *.pdf)
Reports, publications	Weather forecast, and climatic (30 year) reports for CCAFS sites	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
Model tools and software	CLICOM, CLIDATA and CLIMSOFT	2013	Partially completed	Database (*.sql, *.mdb, etc)
Workshops	Training farmers on how to interpret and use the climate products	2013	Partially completed	Document (*.doc, *.odt, *.pdf)

Current Partners		Acronym	Name	Contact Point Full Name	Contact Point Email
	CG - CGIAR Center	ICRISAT	International Crops Research Institute for the Semi-Arid Tropics		
	GO - Government office/department	ICPAC	IGAD Climate Prediction and Applications Centre		
	AI - Academic Institution		University of Reading		
	GO - Government office/department	TMA	Tanzania Meteorological Agency		
	GO - Government office/department	NMA	National Meteorological Agency (Ethiopia)		
	GO - Government office/department	UMA	Uganda National Meterological Agency		
	GO - Government office/department	KMD	Kenya Meteorological Department		
	AI - Academic Institution	SUA	Sokoine University of Agriculture		

Activity No. 188				
Activity title	Development of an assessment toolkit to analyze likely effects of specific adaptation and mitigation options in the region, with a focus on rangelands, vulnerability assessment at sub-national levels.			
CCAFS Objective *(select from drop list)*	4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	4.2.1 2013 (5)	
Activity objectives *(what the activity aims to*	**Objective 1**	To develop regionally relevant methodology to make comprehensive assessment of climate change impacts on agriculture in consultation with global AgMIP project team members		
Activity status	Uncompleted			
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	Related to activity 175 in Theme 2. The region sponsored participants to attend the IFDC training on Decision Support Tools for Agricultural Production, Fertilizer Recommendations and Climatic Variability in Arusha. Plans are underway to link them to work with AgMIP to develop decision support for fertilizer management in agriculture linking to the crop modeling work in 2013.			

Deliverables status *(You may add any unexpected deliverable)*	Type	Description	Year	Status	Format
	Model tools and software	Decision support tool	2013	Uncompleted	Document (*.doc, *.odt, *.pdf)
	Workshops	AgMIP Sub Saharan Workshop in Accra	2012	Completed	Document (*.doc, *.odt, *.pdf)

Current Partners		Acronym	Name	
	CG - CGIAR Center	ILRI	International Livestock Research Institute	
		Contact Point Full Name		Contact Point Email
		Acronym	Name	
	Other	IFAD	International Fund for Agricultural Development	
		Contact Point Full Name		Contact Point Email

Activity No. 189				
Activity title	Assessing vulnerability to climate change in Ethiopia			
CCAFS Objective *(select from drop list)*	4.2 Assemble data and tools for analysis and planning	**CCAFS Milestone No.** *(select from drop list / for further details go to CCAFS 2012 - 2015 LOGFRAME sheet)*	4.1.4 2012 (1)	
Activity objectives *(what the activity aims to achieve)*	**Objective 1**	Assessing vulnerability to climate change in four regions in Ethiopia		
	Objective 2	Identify future research areas or themes and potential development programs		
	Objective 3	Synthesize the issues arising from previous conference and workshop discussions		
Activity status	Partially completed			
Insert a small remark to indicate the status of the activity. *(2-4 sentences required per activity)*	In 2012 four consultants carried out field assessments of vulnerability to climate change for crops, livestock, natural resources, including policy issues in order to identify specific areas of intervention. A consultative workshop was held to discuss the findings of the field assessment and to create a plan for integrating adaptation and mitigation actions and policies into the national framework. The consultants reports will be compiled as an output of the Ethiopian Ministry of Agriculture in 2013.			

Deliverables status *(You may add any unexpected deliverable)*

Type	Description	Year	Status	Format
Reports, publications	Vulnerability assessment report for drafting short, medium and long term intervention programs	2012	Partially completed	Document (*.doc, *.odt, *.pdf)
Workshops	Consultative workshop to discuss findings of the study and plan for way forward	2012	Completed	Document (*.doc, *.odt, *.pdf)

Current Partners		Acronym	Name	
	NGO_DO - Non-governmental organization/Development organization	CCF-E	Climate Change Forum - Ethiopia	
		Contact Point Full Name		Contact Point Email
		Gebru Jember		gebr_j@yahoo.com
		Acronym	Name	
	GO - Government office/department	MOA	Ministry of Agriculture - Ethiopia	
		Contact Point Full Name		Contact Point Email
		Sileshi Getahun		getasil_69@yahoo.com

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 Region Led Activities
Eastern Africa (EA)

Theme 1. Adaptation to Progressive Climate Change	
Objective 1.1 Analyze and design processes to support adaptation of farming systems in the face of future uncertainties of climate in space and time	
Outcome 1.1: Agricultural and food security strategies that are adapted towards predicted conditions of climate change promoted and communicated by the key development and funding agencies (national and international), civil society organizations and private sector in at least 20 countries	
Output 1.1.2 Building of regional and national capacities to produce and communicate socially inclusive adaptation and mitigation strategies for progressive climate change at the national level (e.g. through NAPAs)	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	In collaboration with Theme1, a regional training workshop was held in August 2012 at ILRI (Nairobi) to build capacity on the use of Climate Scenarios and Analogues for designing adaptation strategies in agriculture. Twenty experts from NGOs, Universities, National Meteorological agencies and Agricultural Research Institutes, working on climate change and related fields from 4 countries (Ethiopia, Kenya, Tanzania and Uganda) were trained. At the end of the regional training workshop, country teams from Ethiopia, Kenya, Tanzania and Uganda developed action plans. The regional training was followed by a national training in Ethiopia in October 2012 organized in collaboration with the Ethiopian Institute of Agricultural Research (EIAR), to strengthen the capacity of Ethiopian National Institutions. Seventeen participants from academic and research institutions were trained. A farmer-to-farmer exchange visit was undertaken with farmers in Lushoto (Tanzania) in May 2012 as part of the Farms of the Future project. Farmers and stakeholders from Agricultural Innovation Systems (AIS) in Lushoto visited the various learning sites in Tanzania, all close climate analogues of their villages including the Southern Highlands. Farmers and stakeholders were exposed to a wide range of ongoing community adaptation and risk management strategies to enhance knowledge exchange and learning opportunities about practices or technologies that might strengthen their communities' resilience and adaptive capacity to better respond to their future climates. A blog post on the exchange visit is available on the CCAFS website. In addition a number of partners are evaluating (on-farm) various adaptation options across the CCAFS sites East Africa. In Uganda, for example, CIAT completed the first phase of the participatory evaluation of drought tolerant bean varieties, where four drought tolerant bean varieties, a local check and a newly released improved bean variety were tested at across nine sites (four in Rakai and five in Hoima). In Nyando and Lushoto, the national research institutions (KARI and SARI) are working with the local communities to test on-farm cereal and legume adaptation interventions.
Theme 2. Adaptation through Managing Climate Risk	
Objective 2.1 Identify and test innovations that enable rural communities to better manage climate-related risk and build more resilient livelihoods	
Outcome 2.1: Systematic technical and policy support by development agencies for farm- to community-level agricultural risk management strategies and actions that buffer against climate shocks and enhance livelihood resilience in at least 20 countries	
Output 2.1.1 Synthesized knowledge and evidence on innovative risk management strategies that foster resilient rural livelihoods and sustain a food secure environment	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	The regional program commissioned three case studies - in Ethiopia, Tanzania, and Uganda - to identify innovative approaches in risk management and document traditional risk management strategies focusing on indigenous knowledge. In Tanzania and Uganda, the case studies focussed on evaluating integration of scientific weather and climate forecasting and indigenous knowledge to provide downscaled accurate, timely and easily accessible forecasts to inform farm-level decision making. Seasonal forecasting groups have been formed in three villages in Lushoto district, Tanzania. These groups are using indigenous knowledge (IK) together with scientific climate information from the Tanzania Meteorological Agency (TMA). This has resulted in accurate, timely and accessible downscaled consensus seasonal forecasts to inform farm-level decision making and climate risk management. Consensus forecasts are issued at the beginning of every season. In Uganda, an inventory of indigenous knowledge on forecasting has been carried out and the next steps will involve strengthening weather information flow networks at local level. In Ethiopia, the case study focussed on documenting the status, utilization, benefits, challenges and opportunities of rangeland enclosures and community action groups (CAGs) to understand their implications on improving adaptative capacity of pastoral communities. In Kenya, the activity focused on documenting the climate related opportunities for agricultural adaptation in Semi-Arid Eastern Kenya. All the case studies have been completed with the reports under review.
Output 2.1.3 Development; and demonstration of the feasibility, acceptability and impacts; of innovative risk management strategies and actions for socially-differentiated rural communities	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	Across all CCAFS sites in East Africa, researchers from national and international institutions and development partners are working with communities to test a portfolio of climate risk management strategies. These include on-farm diversification of livelihoods through bee-keeping, small livestock (sheep, goats and poultry) and horticulture in Nyando. Documentation of the different risk management options has been initiated in Nyando, including photo essays. Several activities were initiated in Eastern Kenya. 1) ICRISAT in collaboration with KARI tested the effectiveness of different methods of communicating downscaled seasonal climate forecast information and its impact on management and productivity of smallholder farms. Communication methods tested included training workshops to make farmers better understand the probabilistic climate forecast information, agro-advisories with forecast information along with advice on potential management options, and both training and agro-advisory. The results show significant differences in the way farmers plan and manage their farms if they have access to climate information compared to those without access. 2) Different soil and water management technologies and practices were identified and documented in Eastern Kenya. Alongside terracing and tree planting, three priorities for improving climate resilience were identified and included i) water harvesting with storages (tanks, ponds, dams, sand/ subsurface dams) with supplemental irrigation of crops, ii) micro-catchment runoff farming techniques (pits, basins, trenches, deep tillage), and iii) adoption of drought tolerant/evading crops and integrated soil fertility management. 3) Participatory evaluation and promotion of integrated sorghum - legume technologies to enhance production and productivity of drought tolerant crops (sorghum, greengrams and cowpeas) in Wote by ICRISAT. Farmer sensitisation, trial host farmer identification and 240 on farm trials were established in Nov 2012. Data collections is on going and field days are planned for early 2013 and final report in May 2013.

Objective 2.3 Support risk management through enhanced prediction of climate impacts on agriculture, and enhanced climate information and services	
Outcome 2.3 Enhanced uptake and use of improved climate information products and services, and of information about agricultural production and biological threats, by resource-poor farmers, particularly vulnerable groups and women, in at least 12 countries	
Output 2.3.1 Improved, value-added climate information products, knowledge, tools, methods; and platforms for monitoring and predicting impacts of climate fluctuations on agricultural production and biological threats; to support management of agricultural and food security risk	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	Four regional multidisciplinary teams of climate, crop, economic and IT experts have been formed in Sub-Saharan Africa (SSA) as part of the Agricultural Model Inter-comparison project (AgMIP). Country teams have been formed in Kenya, Ethiopia, Tanzania and Uganda with ICRISAT as the coordinating agency. A SSA wide inception workshop was held in Accra, during 10-14 September, 2012 to help coordinate AgMIP Research Teams and facilitate production of compatible integrated regional assessments of climate change impacts and adaptation in selected agricultural systems.
Theme 3. Pro-Poor Climate Change Mitigation	
Objective 3.1 Inform decision makers about the impacts of alternative agricultural development pathways	
Outcome 3.1: Enhanced knowledge and tools about agricultural development pathways that lead to better decisions for climate mitigation, poverty alleviation, food security and environmental health, used by national agencies in at least 20 countries	
Output 3.1.2 Enhanced tools, data and analytic capacity in regional and national policy and research organizations to analyze mitigation sectors and agricultural development options	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	Two training workshops were conducted to enhance the capacity of national policy researchers in modified DNDC and scenarios analysis led by experts from DNDC Application, Research and Training and Alexandre Grais from Winrock International. The trainings focussed on the application of several approaches for quantifying emissions from agriculture, collection of spatial data for national, watershed and farm level assessment of agriculture GHG emissions and review of approaches for analyzing remote sensing data for mapping agricultural land use. Fifteen participants from government, research and academic institutions from Ethiopia, Kenya, Uganda and Tanzania participated. The trainings were useful in presenting certain options and planning tools to mitigate the agricultural sector's impact in climate change through accessible and user-friendly tools and methods. In addition, critical issues and data gaps were identified for using detailed process models, like DNDC, for agricultural mitigation and adaptation studies in East Africa. More efforts are need to calibrate and validate these tools to meet the need for modeling tools for decision support in the region.
Objective 3.3 Test and identify desirable on-farm practices and their landscape-level implications	
Outcome 3.3: Key agencies dealing with climate mitigation in at least 10 countries promoting technically and economically feasible agricultural mitigation practices that have co-benefits for resource-poor farmers, particularly vulnerable groups and women	
Output 3.3.1 Analysis of mitigation biophysical and socioeconomic feasibility for different agricultural practices and regions, and impacts on emissions, livelihoods and food security	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	Sustainable intensification strategies were tested at CCAFS sites in Nyando and Lushoto as part of the participatory action research (PAR). These interventions include sustainable land and water management, and agro-forestry to increase on-farm tree cover to 10%. Landscape modeling of green house gases(GHG) Nyando (T3) with ICRAF, CIFOR-estimate the net mitigation benefits of planting trees on farms in rural Western Kenya …..Nuefeldt et al., Other activities were delayed and will be carried forward to 2013.
Output 3.3.2 Methods developed and validated for GHG monitoring and accounting at farm and landscape level to contribute to compliance and voluntary market standards	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	In order to inform mitigation interventions in East African agricultural systems, ILRI is working with scientists from the national research institutions in Uganda, Kenya and Tanzania to build their capacity on quantification of GHG emissions. Initial visits have been made to the Rakai site (Uganda) and meetings initiated with stakeholders in Uganda - NARO Kawanda and at Makerere University, and partners from IITA. The equipment for the project has been purchased. In 2013, training activities are planned at the Maseno and Beca labs, and will involve the partners from Uganda, Kenya and Tanzania, including planning for the other sites. ILRI, CCAFS and Global Research Alliance (GRA) hosted the 3-day workshop in September 2012 workshop on measurement and mitigation of greenhouse gases in African livestock. The workshop aimed at improving the understanding of the diversity of livestock systems in the region, the greenhouse gas emissions and the special characteristics of livestock systems. Existing research programmes were presented, including documentation of critical data, knowledge and capability gaps in order to identify activities that would help enhance the region's ability to measure, monitor and develop options to mitigate greenhouse gas emissions intensity from livestock systems while improving the livelihoods of small holder farmers. Twenty participants representing Government, National Research Institutes and Universities from ten African countries participated: Burkina Faso, Ethiopia, Ghana, Kenya, Mali, Niger, Senegal, South Africa, Tanzania, and Uganda.
Theme 4. Integration for Decision Making	
Objective 4.1 Explore and jointly apply approaches and methods that enhance knowledge to action linkages with a wide range of partners at local, regional and global levels	
Outcome 4.1: Appropriate adaptation and mitigation strategies mainstreamed into national policies in at least 20 countries, in the development plans of at least five economic areas (e.g. ECOWAS, EAC, South Asia) covering each of the target regions, and in the key global processes related to food security and climate change	
Output 4.1.2 Evidence on, testing and communication of, successful strategies, approaches, policies, and investments contributing to improved science-informed climate change-agricultural development-food security policies and decision making	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	In order to develop community level capacity for participatory action research and improve the implementation of site-specific research with a broad range of partners across the CCAFS site in East Africa, the regional program commissioned a study undertaken by PICO Eastern Africa. Field visits have been completed in three sites - Nyando, Lushoto and Borana - where informal interviews were carried out with partners and communities. An assessment and mapping of the local partners was undertaken, highlighting some of the key partnership challenges across the sites. Findings from the study will inform on-going and future PAR activities in the region.
Output 4.1.4 Strengthening capacities to effectively engage in global policy processes and mainstreaming risk, adaptation and mitigation strategies into national policies, agricultural development plans, and key regional and global processes related to agriculture and rural development, food security and climate change	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	The regional program focussed on strengthening existing partnerships and developing new partnerships at local, national, regional and global scales. As part of the Regional Learning Partnership (RLP), CCAFS in collaboration with COMESA, EAC and SADC organized post-Durban dialogue workshops on Climate Change and Agriculture in Eastern and Southern Africa, to help further articulate the African position on agriculture within the international climate change negotiations (UNFCCC). COMESA and CCAFS in partnership with other regional actors and networks (e.g. ACPC), have continued to support African group of negotiators (AGN) to communicate and deepen the understanding of agriculture and build capacity for negotiators to engage in the UNFCCC process. CCAFS held a side event at the African Ministerial Conference on Environment (AMCEN) in September and an exhibition at the Second Conference on Climate Change and Development in Africa (CCDA-II) in October. In order to respond to the need to develop projects that address needs for research, CCAFS East Africa convened a regional science workshop that brought together CGIAR and national scientists to develop thematic research activities that support climate risk management, adaptation and mitigation. At the end of the workshop, four thematic research groups were formed to work at the CCAFS sites in East Africa. An outcome mapping workshop was held as a follow-up to the regional science workshop and to integrate with the work of development partners across the sites in East Africa. The objective of the workshop was to map the output-outcome-impact pathways across the learning sites and to build stronger partnership and coordination of research and development activities among partners. Various blogs are available on the CCAFS website highlighting key outcomes of the different engagement processes above.

Objective 4.2 Assemble data and tools for analysis and planning	
Outcome 4.2 Improved frameworks, databases and methods for planning responses to climate change used by national agencies in at least 20 countries and by at least 10 key international and regional agencies	
Output 4.2.1 Integrated assessment framework, toolkits and databases to assess climate change impacts on agricultural systems and their supporting natural resources	
Regional site and baseline characterization	
Prepare a succinct summary of activities and deliverables, organised by Output level of the CCAFS objectives	Household and village baselines surveys have been completed for Wote site. Initial analysis completed and a draft report is available. A regional site characterization and gender disaggregated baseline data collection at household level (led by ILRI) using the IPMACT lite tool completed for all the six sites in East Africa. A training and data collection manual has been compiled and the data are centrally stored at ILRI. Data will be analysed in 2013. In Ethiopia, CCAFS commissioned a vulnerability assessment study for crops, livestock, natural resources, including policy issues in order to identify specific areas of intervention. This was a follow-up to the national conference and workshop in 2012. A consultative workshop was held in December 2012 to discuss the findings of the vulnerability assessment and to create a plan for integrating adaptation and mitigation actions and policies into the national framework. Reports from the consultants are under review and will be compiled as an output of the Ethiopian Ministry of Agriculture in 2013.

Milestone Status Report - 2012

MILESTONE REPORT 1

Theme	Milestone	Milestone Status
Theme 1	1.1.2 2012	Uncompleted

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

Activity delayed as a result of the funding freeze on CCAFS contracts and activities. The contracting process finalized in December 2012 and funds have already been disbursed to the partners . Preliminary results and progress reports expected within the second quarter of 2013.

MILESTONE REPORT 2

Theme	Milestone	Milestone Status
Theme 1	1.3.1 2012 (2)	Partially completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

The activity was delayed due to funding freeze. A consultant has been contracted, and has started the documentation exercise in one of the CCAFS sites (Nyando) from January 2013.

MILESTONE REPORT 3

Theme	Milestone	Milestone Status
Theme 1	1.3.2 2012	Partially completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

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

MILESTONE REPORT 4

Theme	Milestone	Milestone Status
Theme 2	2.1.1 2012	Completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

Commissioned case studies have been completed in Ethiopia, Tanzania, and Uganda. In Tanzania and Uganda, case studies focussed on evaluating integration of scientific weather and climate forecasting and indigenous knowledge to provide downscaled accurate, timely and easily accessible forecasts to inform farm-level decision making. The case study in Ethiopia focussed on documenting the status, utilization, benefits, challenges and opportunities of rangeland enclosures and community action groups (CAGs) to understand their implications on improving adaptative capacity of

MILESTONE REPORT 5

Theme	Milestone	Milestone Status
Theme 2	2.1.3 2012 (1)	Partially completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

Across CCAFS sites in East Africa, researchers from the national and international institutions and development partners are working with communities to test a portfolio of climate risk management strategies. These include diversification of livelihoods through bee-keeping in Nyando, testing the design and communication of downscaled, probabilistic seasonal forecasts and evaluating their impact on farmers' management and livelihood outcomes in Wote, Eastern Kenya (by ICRISAT)

MILESTONE REPORT 6

Theme	Milestone	Milestone Status
Theme 2	2.3.1 2012	Uncompleted

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

As part of the Agricultural Model Inter-comparison project (AgMIP), four regional multidisciplinary teams comprising of climate, crop, economic and IT experts were formed in Sub-Saharan Africa (SSA). In Eastern Africa, country teams were formed in Kenya, Ethiopia, Tanzania and Uganda with ICRISAT as the coordinating agency

MILESTONE REPORT 7

Theme	Milestone	Milestone Status
Theme 3	3.1.2 2012	Completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

Two training workshops were held in January and March at ILRI, Nairobi, focussing on National and Farm Scale Quantification of Agriculture GHG Emissions for the AFOLU sector. Fifteen participants from government, research and academic institutions from Ethiopia, Kenya, Uganda and Tanzania participated

MILESTONE REPORT 8

Theme	Milestone	Milestone Status
Theme 3	3.3.2 2012	Partially completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

The equipment for the project is expected to be delivered in Nairobi by end of January and will be moved to Uganda in February. The project team visited the Rakai site (Uganda) in October 2012 and initiated meetings with stakeholders in Uganda - NARO Kawanda and at Makerere University, and partners from IITA

MILESTONE REPORT 9

Theme	Milestone	Milestone Status
Theme 3	3.3.1 2012 (1)	Partially completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

As part of the participatory action research (PAR), sustainable intensification strategies are being tested at CCAFS sites in Nyando (Kenya) and Lushoto (Tanzania). These interventions include Sustainable land management that integrates fodder and fruit trees, sustainable intensification, and agro-forestry to increase on-farm tree cover to 10%. Specific practices include cut off drains, buffer strips, contour farming, terraces and tied ridges for soil and water conservation

MILESTONE REPORT 10

Theme	Milestone	Milestone Status
Theme 4.1	4.1.2 2012	Partially completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

Activity linked to the participatory action research in Theme 1 (167), Theme 2 (174) and Theme 3 (180). PICO Eastern Africa held informal interviews with partners and communities across three CCAFS sites (Nyando, Lushoto, Borana) in order to improve the implementation of site-specific research with a broad range of partners, develop critical skills for long-term facilitated community engagement, learning and development. Preliminary results were used as input into a regional PAR and outcome mapping workshop in November 2012.

MILESTONE REPORT 11

Theme	Milestone	Milestone Status
Theme 4.1	4.1.4 2012 (1)	Completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

In 2012, the program focussed on strengthening the existing partnerships and developing new partnerships at local, national, regional and global scales. As part of the regional learning partnership (RLP), CCAFS in collaboration with COMESA, EAC and SADC organized post-Durban dialogue workshops on Climate Change and Agriculture in Eastern and Southern Africa, to help further articulate the African position on agriculture within the international climate change negotiations (UNFCCC).

MILESTONE REPORT 12

Theme	Milestone	Milestone Status
Theme 4.2	4.2.1 2012 (1)	Completed

Theme Leader comments on Milestone status

Regional Program Leader comments on Milestone status

Data collection for all the six sites in East Africa completed in 2012. The data are centrally stored at ILRI and a training and data collection manual has been compiled. The data will be analysed in 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 Region Led Activities
Eastern Africa (EA)

	Type	Citation identifier
Publication 1	Other	http://cgspace.cgiar.org/handle/10568/24695

Citation

Recha, J., Kinyangi, J., Omondi, H. (2012) Climate Related Risk and Opportunities for Agricultural Adaption and Mitigation in Semi-arid Eastern Kenya. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

	Type	Citation identifier
Publication 2	Journal papers	http://www.sciencedirect.com/science/article/

Citation

Vermeulen, S., Zougmore, R., Wollenberg, E., Thornton, P., Nelson, G., Kristjanson, P., Kinyangi, J., Jarvis, A., Hansen, J., Challinor, A., Campbell, B. and Aggarwal, P. (2012). Climate change, agriculture and food security: A global partnership to link research and action for low-income agricultural producers and consumers. CURRENT OPINION IN ENVIRONMENTAL SUSTAINABILITY 4(1): 128-133

	Type	Citation identifier
Publication 3	Working papers	http://cgspace.cgiar.org/bitstream/handle/105

Citation

Wollenberg E, Herrero M, Wassmann R, Neufeldt H, Vermeulen S, Rosswall T, Campbell B, Hellin J, Jarvis A, Challinor A, Snook L, Smakhtin V, Kinyangi J. (2012). Setting the agenda: Climate change adaptation and mitigation for food systems in the developing world. CCAFS Working Paper no. 29. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS)

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 Region Led Activities
Eastern Africa (EA)

CASE STUDY 1

Title
Synthesis of Submissions on Issues Related to Agriculture to the Thirty Sixth Session of the Subsidiary Body on Scientific and Technological Advice: Summary for Negotiators

Author
Moses Tenywa, Woldeamlak Bewket, Cromwel Lukorito, David Mkwambisi and Mohamed Nasr, James Kinyangi and George Wamukoya

Type
Policy advocacy

Date (DD/MM/YYYY)

Countries
Regional and Global

Keywords
Agriculture, climate change, submissions, adaptation, mitigation

Photo URL

Introduction/Objectives (400 characters)
During the COP17 talks on Climate Change in Durban in 2011, Parties agreed to mandate the Subsidiary Body for Scientific and Technical Advice (SBSTA) to consider issues related to agriculture and to prepare a decision to be adopted at COP18 in 2012. Consequently, parties and observer organizations were expected to made submissions to SBSTA on issues relating to agriculture, including agricultural elements of a Nationally Appropriate Mitigation Action (NAMA). The synthesis analyses the submissions from developed and developing countries to provide a negotiation working document summarizing issues relevant to agriculture in order to find the middle ground. The synthesis identifies areas of commonality and divergence and to understand possible scenarios to bridge the differences needed to reach agreement on agriculture in the UNFCCC process.

Description of the project, procedures etc. (1100 characters)
Submissions from 21 Parties, five IGOs and 24 NGOs were reviewed. The review was commissioned by CCAFS and COMESA and undertaken by agriculture and climate change scientists from Africa working with lead African negotiators. Approximately 50% of the submissions by Parties were from Africa. Views were compiled from e-mail discussions, reviews of submissions by Parties, IGOs and NGOs, analyses, meetings, review of documents, and workshop-dialogue. CCAFS, COMESA, FAO, and Parties from Uganda, Kenya, Ethiopia, Malawi, and Zambia provided feedback that assisted the review group to refine the understanding of the submissions in the context of the mandate of SBSTA. The review of submissions mainly focused on key scientific and technological aspects related to agricultural adaptation, productivity, food security, livelihoods and socio-economic development. In addition, actual and potential areas of conflicts (divergent issues) in the submissions between African Parties and those of other submissions were identified. Throughout the analysis, the scientific basis supporting the African position was considered. Data and information from all submissions was treated with the same level of authority and cross-referenced between the submissions of Parties and Observer organizations, as well as other reference sources. The synthesis was complimented by inputs from Parties and Observer organizations during SBSTA 36 negotiation held 2012 in Bonn, Germany.

Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)
Three major areas of convergence by developing and developed Parties submissions were identified: i) Recognition of the importance of agriculture sector in achieving food security and consensus that the agriculture sector highly sensitive and most vulnerable to climate change risks. ii) Work program on agriculture to include adaptation and mitigation. SBSTA should establish a framework for the work program on agriculture with a clear goal, guiding principles for adaptation and mitigation, linkages with REDD programs and mechanisms for addressing all Partners' needs and views. iii) Need to enhance international cooperation on agriculture within UNFCCC and beyond, for example, on research and technology development. Other issues relevant to considerations of agriculture by SBSTA raised included lack of reliable data for quantifying climate change impacts; scientific, technical, environmental and socio-economic barriers to the implementation of adaptation actions; assessment of technologies used by smallholder farmers in Africa relevant to climate change, and methods, tools and measurements of GHG emissions. Areas of actual and potential divergence between African and developed countries included: i) Priority on adaptation and mitigation, with developing countries advocating for adaptation as a priority with mitigation co-benefits and developed countries advocating for both. ii) Majority of the African countries emphasized the importance of agriculture to the national economies, while most of the developed countries perceived agriculture mainly in the context of sustaining food security. iii) Most submissions from developing countries emphasizing the plight of smallholder and marginalized farmers unlike the submissions from developed countries. iv) Contrasting views on financing agriculture strategies and nature of support for early action in agriculture. Efforts should identify mechanisms that are sufficient, predictable, additional and timely in delivering the financial resources for adaptation.

Partners involved and their role (250 characters)
Common Market for Eastern and Southern Africa (COMESA) identified agriculture and climate scientists and the lead negotiators from Africa.

Links/Sources for further information

CASE STUDY 2

Title

Promoting use of Integrated Indigenous and Scientific Weather and Climate Forecasts for Climate Risk Management

Author

Drake N. Mubiru, Florence B. Kyazze, Ahamed Zziwa, and James Lwasa , Henry Mahoo

Type

Successful communications activities

Date (DD/MM/YYYY)

Countries

Uganda and Tanzania

Keywords

Indigenous knowledge, climate forecasts, climate risks

Photo URL

Introduction/Objectives (400 characters)

Across East Africa, the variable nature of rain-fed agriculture increases vulnerability to climate risks. Unpredictable rainfall and increased drought and flood intensity are likely to impact negatively on food security and livelihoods. Accurate, reliable and timely climate and weather predictions are urgently needed to inform farm-level decision making. This case study aims at promoting the integration and utilization of indigenous knowledge (IK) and scientific weather and climate forecasting for managing climate risks. Indigenous knowledge in weather or climate forecasting and innovations for managing climate risks are identified and documented across CCAFS sites in Uganda and Tanzania, including analysis of rainfall and temperature trends.

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

The study was implemented in three CCAFS sites of Lushoto (Tanzania), Rakai and Hoima (in Uganda). In Tanzania trends in annual and seasonal rainfall characteristics were analyzed using data from the Tanzania Meteorological Agency (TMA) from 1920-2011. Key informant interviews and focus group discussions were used to gather information on climate change and Indigenous Knowledge (IK) on climate and weather forecasting. These were complimented with household surveys to collect information on awareness and knowledge on climate change and variability, sources of and access to weather information, occurrence and severity of climate extremes, perceptions of climate change as a risk, severity and concern of climate extremes, perception on scientific and indigenous forecasts, and indicators of good and bad rainfall seasons. In Uganda, historical trends in rainfall and temperature from 1938 to 2011 from weather stations close to the two sites were analyzed. Similar to Tanzania, data were collected through household surveys and focus group discussions. The household survey collected information on climate-related risks and their causes, characteristics, and indicators, drivers and or disincentives for adoption of climate change adaptation technologies, and farmers' perceptions of climate change. Information from the surveys was used to identify and stratify climate information users to enable effective information packaging and dissemination. The focus group discussions collected information on trends of climate-related risks, farmer innovations for coping with climate-related risks.

Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)

In Lushoto, a general decreasing trend in annual rainfall and changes on the rainfall amounts received during long and short rainy seasons. A slight shift toward early or delayed onset of the rains observed. A combination of local indicators used in predicting the weather and climate. Indicators commonly used to predict a good rainfall season and onset of rain included insects, the flowering of peaches and plums, the appearance of swarms of pirates, butterflies, frogs, ants and grasshoppers. IK forecasting groups were formed based on gender and areas of specialization such as plants, insects, animals, winds, moon and stars. The seasonal March April May (MAM) 2012 forecasts using IK and TMA were identical, with both predicting normal MAM seasonal rains. In Uganda, changes in rainfall onset and cessation, and seasonal distribution of rainfall were reported. Results show a general declining trend in average annual rainfall in Hoima, and a relatively stable trend in Rakai. A lot of variability of rainfall across seasons, with heavy rains in dry seasons, dry spells in rainy season. Farmers over the years have learned to predict climate patterns especially onset and cessation of the rainy seasons using various local indicators. For the onset of the rains, indicators included appearance of dark clouds, direction and strength of the wind, very high temperatures during the night and position of the moon. Other indicators included behavioral changes in animals and plants. In both cases, communities heavily rely on IK as a reliable means of predicting weather information. Combining IK with scientific weather or climate information is likely to result in accurate, timely, reliable and user-friendly information that can be used by farmers for making agricultural decisions. Packaging of the information and media of communication are key to ensuring dissemination. There is need to validate and document IK and other local innovations for coping with climate-related risks.

Partners involved and their role (250 characters)

In Uganda, NARO and Makere University carried out the study. In Tanzania, the study was carried by Sokoine University of Agriculture in collaboration with the Tanzania Meteorological Agency (TMA).

Links/Sources for further information

Mubiru, D., Kyazze, F., Zziwa, A., and Lwasa, J. (2012). Towards Innovative Climate Risk Management: A strategy to Empower Local Communities to Use Climate and Weather Information Integrated with Indigenous Knowledge to Build Resilient Livelihoods.

Mahoo, H. (2012). Promoting Integration of Indigenous Knowledge and Scientific Weather and Climate Forecasting for Risk Management Under a Changing Climate in Lushoto District, Tanga Region.

CASE STUDY 3

Title

Regional Science Workshop

Author

Robert Ouma, Maria Nassuna Musoke, Maren Radeny and Assenath Kabugi

Type

Capacity enhancement

Date (DD/MM/YYYY)

Countries

Regional - Kenya, Uganda, Tanzania, Ethiopia

Keywords

Research needs, priorities, risk management, adaptation, mitigation, agriculture

Photo URL

Introduction/Objectives (400 characters)

The case study builds on the regional needs for research and priorities identified from national and regional engagement workshops in 2011 and early 2012. The overall objective was to plan and develop thematic research to support climate risk management, adaptation and mitigation options in East Africa to be supported as seed PAR activities for building longer term projects with the greatest potential to deliver CCAFS outcomes and impact. The initiative also sought to establish collaboration between CGIAR and national level scientists working at the CCAFS sites.

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

In order to understand the regional needs for research and priorities and to develop strategic partnership for CCAFS research at local, national and regional scales, the regional program actively engaged partners at national and regional levels. A major outcome of the engagement process was a synthesis of the regional needs for research and priorities, including opportunities for pilot participatory research activities at CCAFS sites in East Africa. CCAFS organized a regional science workshop in June 2012 to build networks among CGIAR and national level scientists to develop thematic research activities that support climate risk management, adaptation and mitigation options in East Africa. Over 50 participants from national, regional and international organizations working in agricultural research and extension, food security, early warning systems, development practitioners in East Africa participated.

Project results (be concrete as possible), innovate findings, novel outcomes and short discussion on the implication of these results (1100 characters)

A major outcome of the workshop was the formation of four thematic research groups comprising of CGIAR and national scientists working in East Africa. The thematic research areas identified included mapping risks and opportunities for targeting appropriate crop and livestock adaptation strategies in East Africa; use of climate scenarios, spatial and temporal analogues in designing adaptation strategies in agriculture; quantification of greenhouse gas (GHG) emissions to inform mitigation interventions in East African cropping systems; assessment of land management strategies for crop-livestock intensification for climate change mitigation; reducing risk and capitalizing on opportunities created by variable climate through use of improved downscaled seasonal climate forecast and agriculture-climate knowledge interface for policy and action. The research groups will be collaborating and working at the CCAFS sites to implement the projects.

Partners involved and their role (250 characters)

Scientists from CGIAR and national research institutions will be working with communities across the CCAFS site to test and evaluate (on-farm) a portfolio of adaptation, mitigation and risk management options. Development practitioners and government extension services will upscale the interventions.

Links/Sources for further information

1) Developing a Climate Change, Agriculture and Food security Research Agenda for East Africa: Identifying Research Needs and Priorities: Emerging Issues from Regional Engagements and Studies in East Africa available at http://scienceworkshop-june2012.wikispaces.com/file/view/Regional%20Research%20Needs%20and%20Priorities_Final.pdf/342761212/Regional%20Research%20Needs%20and%20Priorities_Final.pdf

2) Ouma R., Musoke M., Radeny M., and Kabugi A., CCAFS East Africa Regional Science Workshop Report June 26 - 28th, 2012

3) Blog - Responding to the research needs on climate change and agriculture in East Africa available at http://ccafs.cgiar.org/blog/responding-research-needs-climate-change-and-agriculture-east-africa

4) Blog - Testing appropriate climate smart practices with farmers' help available at http://ccafs.cgiar.org/blog/Appropriate-climate-smart-practices-tested-farmers-help

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 Region Led Activities
Eastern Africa (EA)

OUTCOME 1

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

In East Africa, we have seen that sustained efforts within the African group of negotiators have resulted in for the first time, African countries providing joint submissions on Agriculture to the UNFCCC and having a stronger voice within the technical bodies (SBSTA) and the COP process. The outcome is that there is now a clear Africa position in the UNFCCC process that argues for the inclusion of agriculture in an international agreement on climate change, providing African countries with access to research, technology and capacity to adapt to climate change as well as building co-benefits for mitigation

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

2 meetings of the regional partners in 2011, 2 post Durban workshops and an AGN preparatory meeting for Doha, A meeting of 5 scientists and 1 policy expert supporting the AGN, A synthesis report on submissions of issues related to agriculture to SBSTA 36, 4 breakfast meetings over 2011/2012, a face to face meeting with a Tanzania minister for agriculture in 2011, and a party membership to the Kenya COP 18 delegation

What partners helped in producing the outcome?

Our new partnership with ACPC and COMESA, together with the EAC enabled us to further scale up the science and policy dialogues where CCAFS supported a team of scientists to provide a synthesis of submissions to SBSTA, and to further inform the African position on adaptation and mitigation in Agriculture during COP 18.

Who used the output?

The Africa Group of Negotiators sub group on Agriculture, COMESA staff, the Africa Climate Policy Center, high level policymakers in 19 African countries

How was the output used?

The meetings, workshops and briefing papers have helped to build awareness and understanding of the issues related to the impacts of climate change on agriculture and the impacts of agriculture on climate change

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.

A cohesive African Group of negotiators on agriculture working with scientists to use evidence to inform negotiations. A CCAFS submission paper to SBSTA 36 and a synthesis paper of the issues related to agriculture submitted to SBSTA 36

OUTCOME 2

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

A strengthened research agenda with active participatory action work through a network of CGIAR and NARES partners in our 4 focus countries. This is a new way of doing integrated cross-disciplinary research

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

In 2010 and 2011, we conducted more than 20 consultative meetings with key research and non research partners in the region, to take stock of the needs and priorities for research on climate change, agriculture and food security. In June 2012, we hosted a high level regional science workshop where CG and NARES partners developed integrated research projects that respond to emerging needs and priorities in East Africa (see http://ccafs.cgiar.org/blog/responding-research-needs-climate-change-and-agriculture-east-africa)

What partners helped in producing the outcome?

Partners were galvanised through the regional learning partnership but especially Makerere University, NARO Uganda, SARI Tanzania and World Agroforestry Center in Kenya as well as MARIL in Ethiopia played a key role in completing the baseline surveys in 2011/2012, that were shared at the regional workshop to discuss emerging changes to farmers' practices

Who used the output?

Regional science, modelling and GHG measurements groups have used the outcomes of the workshop to co-produce joint proposals for integrated research that is now being conducted at CCAFS sites.

How was the output used?

The output of the consultations was used for priority setting, recognizing that the region is diverse in biophysical and social economic conditions therefore needs for research differ by geography and by agricultural systems. The workshop outputs were used to draw up broad areas of research covering the four CCAFS themes.

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

The outcome is 6 joint proposals for research that have been co-produced by CG and non-CG partners. The summary of the consultation process to arrive at the priorities and needs is highlighted here http://scienceworkshop-june2012.wikispaces.com/

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.

CCAFS Region Led Activities
Eastern Africa (EA)

n 2012, women and other social groups such as youth groups were actively integrated into CCAFS research. Among the risk management interventions in Nyando, women are participating in a number of livelihood diversification interventions. These include improved bee-keeping using Langstroth beehives that are well integrated with efforts to improve sustainable land management through agro-forestry. Ten (10) farmer self-help groups in eight villages are participating, out of which three are women self-help groups. Of the other seven groups, 70% of the members are women. Other livelihood diversification interventions where women are actively involved include improved management of poultry, sheep and goats. CCAFS is supporting a partnership with two NGOs (World Neighbors and VI - Agroforestry) and Ministry of Livestock Development to work with the farmers at improving the management and productivity of small livestock. The management of small livestock is not labor intensive compared to cattle. In addition, women have more control over the management of small stock enterprises. Through capacity building of community saving and credit groups, women in Nyando are able to access credit which they use to set up alternative income generating activities such as basket weaving and, horticulture.

In Lushoto (Tanzania), women are actively participating in the mitigation interventions — agro-forestry and training on establishing and managing tree nurseries. In Uganda, CIAT carried out an evaluation of four new drought tolerant bean varieties, a local check and a newly released improved bean for their performance under different climate scenarios as well as assessing the farmers' perceptions towards these varieties. Of the 320 farmers participating in the evaluation across the CCAFS sites, 56% were women. Analysis of variety ranking disaggregated by gender at podding stage to check for heterogeneity in ranking between men and women farmers shows that women ranked KATB1 more favorable compared to men while the latter ranked farmer seed variety higher than women did. KATB1 is relatively early maturing which could be the reason women like it since they play the role of providing for subsistence needs of the family. Since bean crops are largely cultivated by women, the discrepancies in ranking could reflect the differences in the knowledge about bean production and its adaptability between men and women rather than actual differences in preferences.

In order to build regional capacity on the use of Climate Scenarios and Analogues for designing adaptation strategies, a regional training workshop was held in 2012. Twenty experts from NGOs, Universities, National Meteorological agencies and Agricultural Research Institutes, working on climate change and related fields in the region were trained, five of which were women. As part of Farms of the Future project, a farmer-to-farmer exchange visit was undertaken with farmers in Lushoto (Tanzania) to several analogue sites in Tanzania to enhance exchange of knowledge and adaptation learning. While the original design of selecting farmers to participate was based on equal representation of women and male farmers, it emerged that involving women in exchange visits is a challenge. Many women are unable to participate, especially if the visit requires them to be away from home for a long duration of time. Out of the 15 farmers who participated, only four were women. Despite this, an attempt was made to ensure that the few female farmers who participated in the visit interacted with their female counterparts in the host villages. Also, the women farmers had an opportunity to share their experiences and what they had learnt on return to Lushoto as they had documented the entire experience through video. In 2013, efforts will be made to increase participation of women in future farmer –to-farmer exchange visits.

Gender inequality in agriculture means that women and men farmers in developing countries have different vulnerabilities and unequal capacities to deal with the impact of climate change on agriculture. Through the CCAFS gender grant, the regional program supported Dr. Annunciate Nakiganda, from Uganda to investigate the differential effects of climate change on men and women crop and livestock farmers. Initial findings from the study show that division of labor between men and women determines exposure to risk. Access to and control over resources determines the financial and physical security of women and their families and ultimately, their capacity to cope with the impacts of climate variability and change. Water shortage, for example, mainly affects the women and young girls who walk long distances in search of water. Similarly, lack of pastures lowers milk production, which consequently affects women's ability to sell milk.

Regional Program Leader Synthesis Report - 2012

Regional Program Leaders will report on the same categories before, following the reporting depth of "Medium" in the explanatory notes. In addition Regional Program Leaders will provide a synthesis of all Program Participant activities, arranged as follows:

Provide a synthesis of research activities at CCAFS sites (max. 5,000 characters).

Following the baseline surveys undertaken in the region, a suite of participatory action research (PAR) activities have been initiated in the learning sites. The purpose of the PAR is to investigate adaptation and risk management options aimed at enhancing resilience to climate variability and change and promote food security through actions that build community capacity and strengthen community structures to ensure long term presence of skilled and knowledgeable personnel within the local communities. Following the PAR approach, a portfolio of technologies and practices were identified and are being tested by farmers in the different learning sites in CCAFS East Africa. A flexible and adaptive partnership structure has been established to ensure that the changing needs, capacity, differences, and goals of diverse stakeholders are understood and effectively harnessed to adhere to the research objectives. Partners in the sites comprise of CGIAR Programs like ILRI, CIAT and ICRISAT, National Agricultural Research Institutes, Academic Institutions, Local Government, Development Practitioners, Private Sector, Community Based Organizations and individual farmers.

In Nyando, research activities are focusing on participatory evaluation and promotion of crop varieties for yield and adaptability and farmer preference with a focus on sorghum, cassava and maize varieties, digging and improving of water harvesting pans and soil conservation measures such as terracing. Activities focusing on diversification of enterprises for risk management include; introduction of Gala goats and Dorper sheep for breeding, beekeeping, improved management of poultry and the establishment of a revolving fund and community input supply shop for income generating activities. Pro-poor mitigation activities include agroforestry and sustainable intensification. In Sirikiwa, activities focus on enhancing the effectiveness of CSA through improved fodder shrubs and innovative extension approaches. In 2012 activities at the newly established site, Wote largely focused on

Provide a synthesis of cross-center activities (max. 5,000 characters).

Provide a synthesis of regional engagement and communications activities (max. 5,000 characters).

Most of the engagement and communication activities held in 2012 focused integration of agriculture into climate change policy discussions. Following the conclusion of the COP17 Durban talks on Climate Change in December 2011, Parties agreed to mandate the Subsidiary Body for Scientific and Technical Advice (SBSTA) to consider issues related to agriculture and to prepare a decision to be adopted at COP18 in Qatar. The Regional Program, in partnership with COMESA, EAC and SADC organized two workshops in Arusha, Tanzania and Johannesburg, South Africa in mid-February to help further articulate the African position on agriculture.

During the 14th session of the African Ministerial Conference of the Environment (AMCEN) in Arusha in September, the Regional Program organized a side event titled, 'Integrating

Provide a synthesis of activities related to decision support systems and tools (max. 5,000 characters).

Under this component, the Regional Program has organized, coordinated, sponsored and facilitated a series of training workshops aimed at building regional capacity. A regional training session on "Using climate scenarios and Analogues for Designing Adaptation Strategies in East Africa" was held at the ILRI campus in Nairobi from 7th to 10th August, 2012. The main objective was to build regional capacity on the use of climate scenarios and analogues for designing adaptation options, and to provide an overview of climate modeling