



RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



**Theme leader 4.1
2013 technical report**

1. Activity Reporting

Activity 216-2013 (Milestone 4.1.1 2013.)

Title: Regional and Socio-economic Scenarios

Status: Complete. In 2013, the main participatory scenarios development process was completed for all CCAFS regions. 660,000 USD funding and support for meetings from global partners (OXFAM/FAO/UNEP WCMC) and regional/national partners (ASEAN/ECOWAS/LEAD-Pakistan/(ASEAN/ECOWAS/LEAD-Pakistan/Yes Bank India/Cambodia Ministry of AFF)) was organized for scenarios development and policy engagement. External funding and organizational support signified commitment from these partners who sought to use CCAFS scenarios results, methodology and expertise. It also increased the capacity of the scenarios programme to take on new regions – Southeast Asia was initiated ahead of schedule and an additional Latin American sub-region was added (the Andes) based on outside funding. In East Africa, scenarios developed had been finalized in 2012 and continual engagement to use scenarios for regional and national policy and investment guidance and building strategic planning capacity had already been initiated. In 2013, a key partnership with the Society for International Development was organized to pursue the most promising impact pathways through a central partner meeting and meetings and contact with the East African Farmers Federation, the Kilimo Trust, KARI and the EAC/EALA. In the meantime, through funding from UNEP WCMC and the EC Healthy Futures project, the East Africa CCAFS scenarios were extended to 2050 and combined with climate scenarios. In West Africa, the CCAFS scenarios were also extended to 2050 in a meeting with regional stakeholders in Ouagadougou in June 2013 and combined with climate scenarios. The scenarios process was used as a tool to engage ECOWAS and set up a partnership between ECOWAS and CCAFS with the help of the ECOWAS director Agriculture and Rural Development. The CCAFS West Africa scenarios results and process will be used in this partnership to help ECOWAS develop national capacities for strategic planning in its region. Preparations were also made for a multi-level policy guidance meeting in Ghana that combines Scenarios (theme 4) and SIA (theme 1) research. In South Asia, the CCAFS scenarios were quantified by regional stakeholders in a meeting in Nagarkot, Nepal in June 2013 and impact pathways for the use of the scenarios at national/regional levels were developed. Subsequently, together with a regional coordinator, the most promising impact pathways were initiated. These included a policy review process with the Pakistan planning commission, A meeting with India's IBIN facilitated by Yes Bank, and revision of Bangladesh' National Adaptation Plan funded by ADB using scenarios – all organized for early 2014. In Southeast Asia, the scenarios development model was condensed to allow for a single workshop to develop scenarios. This workshop was co-funded/co-organized by the FAO Epic program and also co-organized by UNEP WCMC who will fund a policy guidance workshop in SEA in 2014. Scenarios were developed, semi-quantitative inputs were provided and policy pathways were developed. FAO organized follow-up meetings in Viet Nam to use the scenarios for CSA investment planning with national policy makers and CCAFS. In Latin America, two parallel processes were organized, one for Central America funded by CCAFS LAM, the other for the Andes region by UNEP WCMC, following the one-workshop condensed model used in the Southeast Asia. Two sets of scenarios were created and quantified and impact pathways for the use of the scenarios were proposed by participants. In total, 81 national and regional impact pathways for the use of the scenarios to improve policies and investments were proposed by participants in all of the regions, of which 24

have been initiated in 2013. In addition, regional collaborations with the PANOS development journalism network and media links of regional coordinators have been set up and resulted in publications in regional/national media.

Gender component:

This activity is gender inclusive, in the sense that female participants are included in the process, but does not target gender issues specifically, though gender dimensions of future scenarios are explored in each scenarios process. We set a target of 30% participation by women in the planning workshops.

Deliverables:

- 1 journal article

2 Journal articles published (REC, PNAS), 2 accepted (both in GEC) Published articles:
http://download.springer.com/static/pdf/775/art%253A10.1007%252Fs10113-012-0350-1.pdf?auth66=1391778099_c4c4445cca77e7dad5c09435244d9f5d&ext=.pdf
<http://www.pnas.org/content/110/21/8357.full>

- 1 working paper

East Africa scenarios working paper (CCAFS working paper nr. 63) <http://cgspace.cgiar.org/handle/10568/34864>

- 3 briefs

1 Brief published by GFAR

(http://www.egfar.org/sites/default/files/files/Foresight%20Briefs/Joost_Vervoort_Brief03_Final.pdf)

1 Brief published by ECI Oxford (<http://ccafs.cgiar.org/publications/shared-action-food-and-environments-east-africa>).

1 Draft brief for collaboration with ECOWAS - to be published on ECOWAS website (see URL)

- various media stories

Sonja Vermeulen and Andy Challinor. 2013. How farmers can adapt to a warming world. Al Jazeera, 6 June 2013. see URL <http://www.aljazeera.com/indepth/opinion/2013/06/20136585711493753.html>;

S. Gopikrishna Warriar. 2013. How predictable can you get? The Hindu Business Line, 1 July 2013. See URL. <http://www.thehindubusinessline.com/opinion/how-predictable-can-you-get/article4932150.ece>.

Georgina Smith (CIAT). 2013. Looking for clues to navigate climate uncertainty. REUTERS Trustnet, 31 Oct 2013. See URL <http://www.trust.org/item/20131031114340-4a2g>

FAO, 1 Nov 2013. UN Website: <http://www.un.org.vn/en/fao-agencypresscenter1-96/2877-fao,-ccafs-and-uneep-support-the-government-of-vietnam-in-developing-regional-socio-economic-scenarios-for-climate-smart-agriculture.html>

Georgina Smith (CIAT). 2013. Looking at 2050 to create better policy today. REUTERS Trustnet, 18 November <http://www.trust.org/item/20131118114746-tkjes>

Editors, 2013. Revista Mercados & Tendencias (on-line and in print, regional private sector-oriented magazine). See URL <http://revistamyt.com/2013/12/en-que-debe-trabajar-la-centroamerica-hacia-2050/>

S. Gopikrishna Warriar. 2013. Adding quantity and direction to scenarios in South Asia.

<http://ccafs.cgiar.org/blog/adding-quantity-and-direction-scenarios-south-asia>

Georgina Smith (CIAT). 2013. Decision makers debate climate threats for Southeast Asia. http://ccafs.cgiar.org/es/blog/decision-makers-debate-climate-threats-southeast-asia#.Usq_AdJDsrX

Georgina Smith (CIAT) 2013. Thinking outside the box on climate change. CIAT blog <http://www.ciatnews.cgiar.org/2013/11/07/thinking-out-of-the-climate-box/>

Georgina Smith

(CIAT) 2013. The world in 2050: on the front line. CIAT blog. <http://www.ciatnews.cgiar.org/2013/11/12/the-world-in-2050-on-the-front-line/>

Manon Koningstein 2013. Hananta Yuyaspa - a new day and start - for the Andean countries <http://ccafs.cgiar.org/blog/hananta-yuyaspa-new-sunlight-scenarios-workshop-andean-countries#.UrHMnP2fGCo> ; Spanish: <http://ccafs.cgiar.org/es/blog/'hananta-yuyaspa'-un-nuevo-amanecer-para-los-pa%C3%ADses-andinos#.UqDUwMTimGs>

Oscar Marin 2013. Escenarios Futuros Para la Seguridad Alimentaria en Centroamerica. <http://ccafs.cgiar.org/es/blog/escenarios-futuros-para-la-seguridad-alimentaria-en-centroam%C3%A9rica#.UrHOy41zHVO>

- 1 film

3 films were completed - one for East Africa, one for South Asia and one for Southeast Asia (see URLs)

- 2 workshop reports

Workshop report for South Asia meeting 2 (June 2013, Nepal): <https://www.dropbox.com/s/64hqmjmx5f1dp8b/Workshop%20report%20CCAFS%20scenarios%20for%20SA%20-%20Nagarkot%20meeting.pdf>

Appendix:

<https://www.dropbox.com/s/r8ul13byyr5le49/Appendix%201%20CCAFS%20SA%20scenarios%20semi-quant%20assumptions.xlsx>

DRAFT report of CCAFS/FAO/UNEP WCMC Southeast Asia scenarios meeting (November 2013, Halong Bay) (do not share): <https://www.dropbox.com/s/atwxtkhuy9zuo8i/HaLong%20Workshop%20Report%202013.docx>

DRAFT report of CCAFS/UNEP WCMC/UCI Andes scenarios meeting (November 2013, Cali) (do not share): https://www.dropbox.com/s/b03nobazxpsuh23/Informe%20Taller%20Escenarios%20Andes%20CCAFS_050214.docx

DRAFT report of CCAFS/UCI scenarios meeting for Central America (December 2013, San Jose) (do not share): https://www.dropbox.com/s/07qcba30nxdzlwj/Informe%20Taller%20Escenarios%20Centroamerica%20CCAFS_070214.docx

INTERNAL report to select group of stakeholders on West Africa scenarios meeting (June 2013, Ouagadougou) (do not share):

<https://www.dropbox.com/s/o2xrqdbl1lvpr0p/Scenarios%20meeting%20Burkina%20Faso%20Next%20steps%20for%20CCAFS%20West%20Africa%20scenarios%20-%20development%2C%20use%2C%20papers.docx>

Appendix (do not share):

<https://www.dropbox.com/s/r8ul13byyr5le49/Appendix%201%20CCAFS%20SA%20scenarios%20semi-quant%20assumptions.xlsx>

- 2 presentations

2 Presentations held at Earth System Governance conference (see URLs for conference papers)

Partners:

EAFF; University of Oxford; ASARECA; CORAF/WECARD; EAC; Panos Eastern Africa; ECOWAS; Panos South Asia; NOMAFSI; UCI; IIASA; Earth System Governance; FAO; UNEP WCMC; SID EA; LEAD Pakistan; KARI; Oxfam Great Britain; ICONICS; SRC; ARPEC

Locations:

East Africa (EA), West Africa (WA), South Asia (SAs), Latin America (LAM), South East Asia (SEA)

Activity 198-2013 (Milestone 4.1.2 2013.)

Title: 4.1.2. Innovations in climate change research and communication for agriculture and food security

Status: Complete. Regional offices report on PAR and CSVs, including communication efforts and pro-gender and pro-poor interventions. Innovation funds established and EA farmer innovation fair held. Preliminary regional impact pathways complete in all 5 regions. Progress made on site impact pathways in WA and EA. Innovative dissemination of CSA information by Shamba Shape Up in EA reached >3 million weekly viewers per week over 13 episodes, and the impact was evaluated.

Gender component:

All PAR and innovation-focused research in CCAFS explicitly include women participants and research ways in which to ensure women and other disadvantaged groups benefit from the action research. Both qualitative and quantitative research approaches are taken. Communication approaches are also explicitly targeting women as well as men, and youths.

Deliverables:

- Workshop reports

Prolinnova project report uploaded to intranet, containing reports on Prolinnova International Partners Workshop

(www.prolinnova.net/sites/default/files/documents/about_us/prolinnova_reports/2013/ipw_report_may_2013_final.pdf), Agricultural Innovation Systems in Africa international workshop

(<http://aisa2013.wikispaces.com/file/view/report%20on%20aisa%20workshop%20may%202013.pdf>) and

Combining Local Innovative Capacity with Scientific Research (<http://aisa2013.wikispaces.com/clic-sr>). Support

given to outcomes thinking workshops in EA, WA, SA and SEA. RPLs to provide reports on regional outcomes thinking workshops, PAR and CSVs.

- EA innovation fair held

Prolinnova project report uploaded to intranet, as well as EAFIF report.

- training of partners within CCAFS select sites in each region held

Prolinnova project report uploaded to intranet, including PD training of partners in EA and WA. Support given to outcomes thinking workshops in EA, WA, SA and SEA. RPLs to provide reports on regional outcomes thinking workshops, PAR and CSVs.

- CCAFS working paper

CARE: What Role for Carbon Finance in Smallholder Agriculture? – Some Reflections from Western Kenya. uploaded to intranet CARE: CLIMATE CHANGE, SMALLHOLDER AGRICULTURE AND FOOD SECURITY. uploaded to intranet (internal distribution only)

- CCAFS briefs

Climate change and social learning (CCSL): supporting local decision making for climate change, agriculture and food security. 2013. Carlile L, Ballantyne P, Ensor J, Foerch W, Garside B, Harvey B, Patterson Z, Thornton P, Woodend J. CCAFS learning brief No. 1. <http://ccaafs.cgiar.org/publications/climate-change-and-social-learning-ccsl-supporting-local-decision-making-climate-change#.UiWsBryevWo>

- various media stories, blogs

S. Gopikrishna Warriar. 2013. Staying one step ahead of South Asia's climate challenge. CCAFS blog, 10 May 2013. <http://ccaafs.cgiar.org/blog/Staying-step-ahead-South-Asia-climate-challenge>

Manon Verchot. 2013. Kenyan farmers use climate 'entertainment' for empowerment. CCAFS Theme 4.1 innovations quarterly blog series, 12 June 2013. <http://ccaafs.cgiar.org/blog/kenyan-farmers-use-climate-entertainment-empowerment>

Manon Verchot. 2013. Farmers get latest solutions for climate 'shape-up'. CCAFS Theme 4.1 innovations quarterly blog series, 17 June 2013. <http://ccaafs.cgiar.org/blog/farmers-get-latest-solutions-climate-shape>

Manon Verchot. 2013. Successful 'fast-food' agricultural knowledge in the making. CCAFS Theme 4.1 innovations quarterly blog series, 27 June 2013. http://ccaafs.cgiar.org/blog/interview-fast-food-agricultural-knowledge-making#.UhW_M7yevfZ

Vivian Atakos, Phillip Kimeli, John Recha, and Christine C. Jost. 2013. Pioneering peers inspire farmers in Kenya to get 'climate-proofed'. CCAFS Theme 4.1 PAR quarterly blog series, 13 July 2013. <http://ccaafs.cgiar.org/pioneering-peers-inspire-farmers-kenya-get-climate-proofed>

CCAFS. 2013. Transformative partnerships for a food-secure world (white board video on social learning) produced 17 May 2013. <http://www.youtube.com/watch?v=5pKaoD5sGjw>

- journal article

Wettasinha, C. and A. Waters-Bayer. 2013. Case Study. Promoting local innovation and participatory innovation development as a means of adapting to climate change: sharing and learning within the PROLINNOVA network. Knowledge Management for Development Journal 9(1): 108-114 <http://journal.km4dev.org/>

- TV episodes featuring CCAFS partners and themes broadcast to millions across EA

Series 2 and 3 of Shamba Shape Up aired in 2013 with climate change content featured in 6 and 10 episodes, respectively, of 13).

Partners:

PROLINNOVA; IIED; CARE; GROOTS; MEDIAE

Locations:

West Africa (WA), South Asia (SAs)

Activity 249-2013 (Milestone 4.1.3 2013.)

Title: Gender and Social Differentiation in climate change, agriculture and food security

Status: Complete. Quantitative gender research tool developed and implemented in 4 CCAFS countries by IFPRI-ILRI-CIAT with training of regional gender teams. 2 of 5 qualitative research modules developed and tested in Kenya, 3 of 5 drafted. CCAFS Gender and Climate Change Network established including all 5 CCAFS regions, wiki established, and face-to-face meeting for training and planning held. Capacity improved in all 5 regions for establishing gender strategies, and best practices in qualitative and quantitative analysis. Gender impact pathways established for all 5 regions. Themes, regions and centres report on gender.

Gender component:

This activity is 100% gender and social differentiation-focused, developing gender analysis tools and collecting gender-disaggregated data. It addresses numerous gender-related issues for CCAFS, such as what climate resilient agricultural practices and approaches are particularly beneficial for women and youths. It is also focuses on building gender research capacity within our local partners in all our regions and sites.

Deliverables:

- Gender module(s) and related training and data management materials available on dataverse

IFPRI survey on Dataverse: The purpose of this survey is to gather gender-disaggregated data on agricultural activities, decision-making, weather information, risk-perception and values from rural households in Kenya, Bangladesh, Uganda and Senegal. The survey ultimately will cover 200 households in each site - the same households that were sampled for the IMPACT Lite Surveys. This survey builds on the information collected in that round, supplementing the detailed productivity related information with data on decision-making and other topics. This information will be used for researchers, policy-makers and development practitioners to better understand the vulnerabilities of men and women to climate change, how they differ, and what actions can be taken to reduce that vulnerability.

- Local partners trained in gender analysis each CCAFS regions

- See above on IFPRI survey training. - Miruka O., Van de Grift E., Kristjanson P., Ferdous N., Jost C. 2013. CCAFS Gender Training and Strategizing Workshop Report. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: www.ccafs.cgiar.org .
<https://cgspace.cgiar.org/handle/10568/34992>

Partners:

CGIAR Consortium Office; IFPRI; ICRAF; FAO; CARE

Locations:

East Africa (EA), West Africa (WA), South Asia (SAs), Latin America (LAM), South East Asia (SEA)

Activity 250-2013 (Milestone 4.1.4 2013 (1).)

Title: 4.1.4. Climate and agriculture strategies and policies

Status: Partially complete. CU and RPLs report on work to build partner capacity to understand and use CC-related research evidence to influence national to international discussions, strategies, planning and policies. CIAT trained regional partners in EA in an innovative approach to integrate land and socio-economic surveys. Highlights from scenarios use pathways (policy review, investment proposals) initiated in 2013: ECOWAS and CCAFS engaged in research-policy partnership for coming years featuring capacity development in WA governments on scenario methodology, with Ghana review of CCAFS SIA results using scenarios functioning as a case study. ASEAN committed to organize policy review meeting based on SEA scenarios and other CCAFS work. FAO has engaged Vietnam policy-makers from MARD and others to review and improve CSA investment proposals using SEA scenarios. LEAD Pakistan to organize Pakistan planning commission review of 2030 rural agricultural development vision using SA scenarios. Following 2013 SEA scenarios workshop, Cambodia Ministry of Agriculture, Forestry and Fisheries planning to commit multi-million USD plan to CCAFS-guided activities on CSV, scenarios and SIA baseline (in current draft Climate Change Action Plan for agriculture) between 2014-2018. Following 2013 Andes workshop, Peru multi-sector platform to review Peru adaptation planning using Andes scenarios + CIFOR multi-level governance case study. Following 2013 Central America workshop, review of CCAD/SICA adaptation planning outlined.

Gender component:

This activity is gender inclusive, in the sense that female participants are included in the process, but does not target gender issues specifically.

Deliverables:

- FAO publication

Kristjanson P., Gordes, A., Sessa, R., Braimoh A., Vermeulen S. 2013. Local Institutions. Module 12 in Sourcebook on Climate-Smart Agriculture, Forestry and Fisheries. FAO, Rome. <http://www.fao.org/docrep/018/i3325e/i3325e00.htm>

- Land and socioeconomic health trainings completed in 2012

- Journal article (CIAT)

Tor-Gunnar Vågen and Leigh A Winowiecki. 2013. Mapping of soil organic carbon stocks for spatially explicit assessments of climate change mitigation potential. Environmental Research Letters Volume 8 Number 1. doi:10.1088/1748-9326/8/1/015011

Partners:

University of Oxford; ECOWAS; LEAD Pakistan; KARI; FAO; MAFF; Ministro de Agricultura y Riego

Locations:

2. Succinct summary of activities and deliverables by Output level

Output: 4.1.1

Summary:

In 2013, the main participatory scenarios development process was completed for all CCAFS regions. 740,000 USD funding was procured for 2013/2014 from global partners (OXFAM/FAO/UNEP WCMC) and support for meetings from regional and national partners (ASEAN/ECOWAS/LEAD/Pakistan/Yes Bank India) for scenarios development in the new regions (SEA and LAM) and policy engagement. This external funding signified commitment from these partners who sought to use CCAFS scenarios results, methodology and expertise. It also increased the capacity of the scenarios programme to take on new regions – Southeast Asia was initiated ahead of schedule and an additional Latin American sub-region was added (the Andes) based on outside funding. In East Africa, scenarios developed had been finalized in 2012 and continual engagement to use scenarios for regional and national policy and investment guidance and building strategic planning capacity had already been initiated. In 2013, a key partnership with the Society for International Development was organized to pursue the most promising impact pathways through a central partner meeting and meetings and contact with the East African Farmers Federation, the Kilimo Trust, KARI and the EAC/EALA. In the meantime, through funding from UNEP WCMC and the EC Healthy Futures project, the East Africa CCAFS scenarios were extended to 2050 and combined with climate scenarios. In West Africa, the CCAFS scenarios were also extended to 2050 in a meeting with regional stakeholders in Ouagadougou in June 2013 and combined with climate scenarios. The scenarios process was used as a tool to engage ECOWAS and set up a partnership between ECOWAS and CCAFS with the help of the ECOWAS director Agriculture and Rural Development. The CCAFS West Africa scenarios results and process will be used in this partnership to help ECOWAS develop national capacities for strategic planning in its region. Preparations were also made for a multi-level policy guidance meeting in Ghana that combines Scenarios (theme 4) and SIA (theme 1) research. In South Asia, the CCAFS scenarios were quantified by regional stakeholders in a meeting in Nagarkot, Nepal in June 2013 and impact pathways for the use of the scenarios at national/regional levels were developed. Subsequently, together with a regional coordinator, the most promising impact pathways were initiated. These included a policy review process with the Pakistan planning commission, a meeting with India's IBIN facilitated by Yes Bank, and revision of Bangladesh' National Adaptation Plan funded by ADB using scenarios – all organized for early 2014. In Southeast Asia, the scenarios development model was condensed to allow for a single workshop to develop scenarios. This workshop was co-funded/co-organized by the FAO Epic program and also co-organized by UNEP WCMC who will fund a policy guidance workshop in SEA in 2014. Scenarios were developed, semi-quantitative inputs were provided and policy pathways were developed. FAO organized follow-up meetings in Viet Nam to use the scenarios for CSA investment planning with national policy makers and CCAFS. In Latin America, two parallel processes were organized, one for Central America funded by CCAFS LAM, the other for the Andes region by UNEP WCMC, following the one-workshop condensed model used in the Southeast Asia. Two sets of scenarios were created and quantified and impact pathways for the use of the scenarios were proposed by participants. In total, 81 national and regional impact pathways for the use of the scenarios to improve policies and investments were proposed by participants in all of the regions, of which 24 have been initiated in 2013. In addition, regional collaborations with the PANOS development journalism network and media links of regional coordinators have been set up and resulted in publications in regional/national media.

Output: 4.1.2**Summary:**

Shamba Shape Up (SSU) completed airing of seasons 2-3 in 2013 with >3 million weekly viewers, including 16 episodes with climate relevant content and 2 focusing on entirely on climate change. All episodes are available online. Video clips of climate content were created and available online. Climate content for season 4 of was crowd sourced directly from 8 CG scientists and filming commenced the final quarter of 2013. SSU completed an outreach plan, and preliminary contacts were made with GROOTS Kenya to include SSU climate relevant materials in non-television platforms. SSU implemented a 2 part M+E system, including a KAP survey completed after every season and a monetization survey of SSU impact. CARE completed studies on the barriers to SACC participation, smallholder carbon finance opportunities and tree product values. Databases were created on tree survival rates and farm boundaries in EA, and a SACC workshop held. ProInnova hosted an EA farmer innovation fair in Nairobi, supported innovative farmers in terms of CC, hosted community level dare-to-share fairs and completed a report on community level social learning. We continued to host and facilitate the Climate Change and Social Learning Platform in collaboration with Theme 4.2. We supported outcomes thinking workshops hosted by the regional programs in EA, WA and SA. We facilitated the drafting of a CCAFS phase 2 TOC and impact pathway, including draft impact pathways for the 5 regions and flagship 4. We facilitated the flagship 4 team in designing the RBM system. The EA, SA and WA regional programs continued investments in PAR in climate smart villages (reported separately by each regional office). We have supported the development of a theory of change (TOC) and impact pathways in CCAFS. Theme 4 has established a general impact pathway for phase 1; theme 4.1 an impact pathway guided results based management system. Regional impact pathway workshops were held in EA, WA and SA. We have provided significant support to the design of CCAFS Phase 2, including the TOC and impact pathway development for alignment towards a mutual goal of science-driven (flagship) agenda and regional priorities. Each of the 5 regions, and flagship 4, completed preliminary impact pathways. The flagship 4 impact pathway is the basis of the results based management trial.

Output: 4.1.3**Summary:**

We provided support to IFPRI-ILRI-CIAT to carry out a quantitative Gender Intra-household Survey, based on the IMPACTlight survey and visiting the same households, in Kenya, Bangladesh, Uganda, and Senegal. The survey is designed to provide evidence towards the main gender and climate change information gaps as identified in the CCAFS gender strategy. IFPRI trained partners in each country, who implemented the survey. We worked with CARE, FAO and IFAD to begin revisions to the FAO/CCAFS training guide on participatory gender and climate change research. A social learning approach including scientists, technical staff and farmers was used to identify the topics to be covered in the manual and review manual contents. 2 of 4 modules have been developed and field tested. The remaining 2 have been drafted. The CCAFS Network of Gender and Climate Change Scientists was formalized with members from all 5 regions, and an IT platform established as a sub-page of the CGIAR gender and agriculture network wiki. A meeting for gender NGO, NARS and CG partners in each CCAFS country was held in October, with nearly 50 participants, who were trained in best practices in gender strategies as well as quantitative and qualitative research. Detailed regional gender impact pathways were developed, with implementation plans involving the CCAFS gender partners.

Output: 4.1.4

Summary:

CU and RPLs report on work to build partner capacity to understand and use CC-related research evidence to influence national to international discussions, strategies, planning and policies. CIAT published on its innovative approach to integrate land and socio-economic surveys.

3. Publications

Publication #1

Type: Journal papers

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Vermeulen, S. J., A. J. Challinor, P. K. Thornton, B. M. Campbell, N. Eriyagama, J. M. Vervoort, J. Kinyangi, A. Jarvis, P. Läderach, J. Ramirez-Villegas, K. J. Nicklin, E. Hawkins, and D. R. Smith. 2013. Addressing uncertainty in adaptation planning for agriculture. *Proceedings of the National Academy of Sciences of the United States of America* 110:8357-8362.

Publication #2

Type: Book chapters

CCAFS Themes: Theme 4.1

Citation: Farnworth C, Kristjanson P, Rijke E. 2013. 'Climate smart' agriculture and beyond. Pp 107-120 in: Farnworth C, Fones Sundell M, Nzioki A, Shivutse V, Davis M. *Transforming gender relations in agriculture in sub-Saharan Africa*. Swedish International Agricultural Network Initiative, Stockholm Environment Institute and SIDA. Stockholm, Sweden.

Publication #3

Type: Book chapters

CCAFS Themes: Theme 4.1

Citation: Kristjanson P., Gordes, A., Sessa, R., Braimoh A., Vermeulen S. 2013. Local Institutions. Module 12 in *Sourcebook on Climate-Smart Agriculture, Forestry and Fisheries*. FAO, Rome.

Publication #4

Type: Book chapters

CCAFS Themes: Theme 4.1

Citation: Puskur R, Ballantyne P, Kristjanson P. 2013. Redesigning a livestock research institute to support livestock development within an AIS approach. PP 326-330 in: *Agricultural Innovation Systems: An Investment Sourcebook*. World Bank Agriculture and Rural Development Series. ISBN 978-0-8213-8684-2. 618 pp.

Publication #5

Type: Working papers

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Shaw A, Kristjanson P. 2013. Catalysing Learning for Development and Climate Change. An exploration of social learning and social differentiation in CGIAR. CCAFS Working Paper 43. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark.

Publication #6

Type: Working papers

CCAFS Themes: Theme 3, Theme 4.1

Citation: Raut N, Raya B, Sitaula BK, Bajracharya RM, Kristjanson P. 2013. Gender roles and greenhouse gas emissions in intensified agricultural systems in the mid-hills of Nepal. CCAFS Working Paper 47.

Publication #7

Type: Policy briefs

CCAFS Themes: Theme 3, Theme 4.1

Citation: Bernier Q, Franks P, Kristjanson P, Neufeldt H, Otzelberger A, Foster K. 2013. Addressing gender in climate-smart smallholder agriculture. ICRAF Policy Brief No. 14. Nairobi, Kenya. World Agroforestry Centre (ICRAF). 4p.

Publication #8

Type: Other

CCAFS Themes: Theme 4.1

Citation: Vincent, K, Cull, T, Kapoor, A, Aggarwal, PK, Bhatta, GD, Lau, C, Kristjanson, P, Phartiyal, P, Parvin, G, Bisht, S, Nilormee, S. 2013. Gender, climate change, agriculture, and food security: a CCAFS training-of-trainers (TOT) manual to prepare South Asian rural women to adapt to climate change. CCAFS Training Manual.

Publication #9

Type: Journal papers

CCAFS Themes: Theme 4.1

Citation: Beuchelt TD, Badstue L. 2013. Gender, nutrition- and climate-smart food production: opportunities and trade-offs. Food Security 5(5): 709-721.

Publication #10

Type: Working papers

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Gonsalves J. 2013. A new relevance and better prospects for wider uptake of social learning within CGIAR. CCAFS Working Paper No. 37. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #11

Type: Other

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: CCSL Initiative. 2013. CCAFS climate change and social learning strategy. CCSL Learning Brief No. 2. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #12

Type: Other

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Carlile L, Ballantyne P, Ensor J, Foerch W, Garside B, Harvey B, Patterson Z, Thornton P, Woodend J. 2013. Climate change and social learning (CCSL): supporting local decision making for climate change, agriculture and food security. CCSL Learning Brief No. 1. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #13

Type: Other

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: CCAFS. 2013. Unlocking the potential of social learning for climate change and food security: Wicked problems and non-traditional solutions. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #14

Type: Other

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Carlile L. 2013. 5 key institutional change areas for adopting a social learning methodology with CCAFS and the CGIAR system: a synthesis paper. Synthesis of ideas from the CCAFS-ILRI Workshop on Communications and Social Learning in Climate Change, held 8-10 May 2012. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #15

Type: Other

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: CCAFS. 2013. Social learning and climate change. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #16

Type: Policy briefs

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Joost Vervoort. 2013. Shared action on food and environments in East Africa April 2013. ECI Policy Brief April 2013. <http://ccafs.cgiar.org/publications/shared-action-food-and-environments-east-africa>.

Publication #17

Type: Working papers

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Harvey B, Ensor J, Garside B, Woodend J, Naess LO, Carlile L. 2013. Social learning in practice: A review of lessons, impacts and tools for climate change. CCAFS Working Paper No. 38. Copenhagen, Denmark: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Publication #18

Type: Other

CCAFS Themes: Theme 4.1

Citation: FAO. 2013. Guide de formation: recherche sur le genre et les changements climatiques dans l'agriculture et la sécurité alimentaire par le développement rural. Rome, Italy: Food and Agriculture Organization of the United Nations (FAO).

Publication #19

Type: Other

CCAFS Themes: Theme 4.1

Citation: FAO. 2013. Guía de capacitación: investigación del género y cambio climático en la agricultura y la seguridad alimentaria para el desarrollo. Rome, Italy: Food and Agriculture Organization of the United Nations (FAO).

Publication #20

Type: Working papers

CCAFS Themes: Theme 2, Theme 4.1

Citation: Jost C. 2013. Delivery models for climate information in East and West Africa. CCAFS Working Paper no. 41. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark.

Publication #21

Type: Policy briefs

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Vervoort J, Ericksen P. 2013. No foresight, no food? Regional scenarios for Africa and South Asia. GFAR Policy Brief July 2013.

Publication #22

Type: Journal papers

CCAFS Themes: Theme 4.1

Citation: Walker PGT, Jost C, Ghani AC, Cauchemez S, Bett B, Azhar M, Murahman J, Widiastuti T, Daju D, Mariner J. 2013. Estimating the transmissibility of H5N1 and effect of vaccination in Indonesia. *Transboundary and Emerging Diseases*, doi:10.1111/tbed.12108

Publication #23

Type: Journal papers

CCAFS Themes: Theme 4.1

Citation: B. Bett, M. McLaws, C. Jost, L. Schoonman, F. Unger, J. Poole, M. L. Lapar, E. S. Siregar, M. Azhar, M. M. Hidayat, S. E. Dunkle and J. Mariner. 2013. The Effectiveness of Preventative Mass Vaccination Regimes Against the Incidence of Highly Pathogenic Avian Influenza on Java Island, Indonesia. *Transboundary and Emerging Diseases*, doi:10.1111/tbed.12101

Publication #24

Type: Other

CCAFS Themes: Theme 4.1, Theme 4.2

Citation: Carey C. 2014. The CCAFS Regional Scenarios Programme: External Evaluation Report on Progress Towards Programme Outcomes. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. <http://hdl.handle.net/10568/34994>

Publication #25

Type: Other

CCAFS Themes: Theme 4.1

Citation: Miruka O., Van de Grift E., Kristjanson P., Ferdous N., Jost C. 2013. CCAFS Gender Training and Strategizing Workshop Report. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: www.ccafs.cgiar.org.

4. Communications

Media campaigns:

Sonja Vermeulen and Andy Challinor. 2013. How farmers can adapt to a warming world. Al Jazeera, 6 June 2013.

<http://www.aljazeera.com/indepth/opinion/2013/06/20136585711493753.html>

S. Gopikrishna Warriar. 2013. How predictable can you get? The Hindu Business Line, 1 July 2013.

<http://www.thehindubusinessline.com/opinion/how-predictable-can-you-get/article4932150.ece>.

Blogs:

Joost Vervoort and S. Gopikrishna Warriar. 2013. Guiding policy-makers by exploring the future of food security under climate change in South Asia. <http://ccafs.cgiar.org/blog/guiding-policy-makers-exploring-future-food-security-under-climate-change-south-asia#.UrG8ttJDsrU>

Langford K. 2013. Could scenario-building be the tool that links food security science with policy-making? <http://ccafs.cgiar.org/es/blog/could-scenario-building-be-tool-links-food-security-science-policy-making#.UwXUv15sh9c>

Gopikrishna-Warriar S. 2013. Adding quantity and direction to scenarios in South Asia.

<http://ccafs.cgiar.org/blog/adding-quantity-and-direction-scenarios-south-asia>

Gopikrishna-Warriar S. 2013. Staying one step ahead of South Asia's climate challenge.

<http://ccafs.cgiar.org/blog/Staying-step-ahead-South-Asia-climate-challenge>

Georgina Smith (CIAT). 2013. Decision makers debate climate threats for Southeast Asia.

http://ccafs.cgiar.org/es/blog/decision-makers-debate-climate-threats-southeast-asia#.Usq_AdJDsrX

Georgina Smith (CIAT) 2013. Thinking outside the box on climate change. CIAT blog

<http://www.ciatnews.cgiar.org/2013/11/07/thinking-out-of-the-climate-box/>

Georgina Smith (CIAT) 2013. The world in 2050: on the front line. CIAT blog.

<http://www.ciatnews.cgiar.org/2013/11/12/the-world-in-2050-on-the-front-line/>

Smith G. 2013. Framing the bigger picture: climate change in SE Asia.

<http://www.ciatnews.cgiar.org/2013/11/06/framing-the-bigger-picture-climate-change-in-se-asia/>

Manong Koningstein 2013. Hananta Yuyaspa - a new day and start - for the Andean countries

<http://ccafs.cgiar.org/blog/hananta-yuyaspa-new-sunlight-scenarios-workshop-andean-countries#.UrHMnP2fGCo> ; Spanish:

<http://ccafs.cgiar.org/es/blog/'hananta-yuyaspa'-un-nuevo-amanecer-para-los-pa%C3%ADses-andinos#.UqDUwMTimGs>

Marin O. 2013. Escenarios futuros para la seguridad alimentaria en Centroamérica.

<http://ccafs.cgiar.org/es/blog/escenarios-futuros-para-la-seguridad-alimentaria-en-centroam%C3%BA>

Tall A. 2013. ""Reaching farmers with climate information is mission possible"".

<http://ccafs.cgiar.org/blog/reaching-farmers-climate-information-mission-possible> "

Manon Verchot. 2013. Kenyan farmers use climate 'entertainment' for empowerment. CCAFS Theme 4.1

innovations quarterly blog series, 12 June 2013. <http://ccafs.cgiar.org/blog/kenyan-farmers-use-climate-entertainment-empowerment>

<http://ccafs.cgiar.org/blog/kenyan-farmers-use-climate-entertainment-empowerment>

Manon Verchot. 2013. Farmers get latest solutions for climate 'shape-up'. CCAFS Theme 4.1 innovations

quarterly blog series, 17 June 2013. <http://ccafs.cgiar.org/blog/farmers-get-latest-solutions-climate-shape>

Manon Verchot. 2013. Successful 'fast-food' agricultural knowledge in the making. CCAFS Theme 4.1 innovations quarterly blog series, 27 June 2013. http://ccafs.cgiar.org/blog/interview-fast-food-agricultural-knowledge-making#.UhW_M7yevfZ

Vivian Atakos, Phillip Kimeli, John Recha, and Christine C. Jost. 2013. Pioneering peers inspire farmers in Kenya to get 'climate-proofed'. CCAFS Theme 4.1 PAR quarterly blog series, 13 July 2013. <http://ccafs.cgiar.org/pioneering-peers-inspire-farmers-kenya-get-climate-proofed>

Jost C. 2013. Facilitating impact in the CCAFS Regions. <http://ccafs.cgiar.org/blog/facilitating-impact-ccafs-regions>

Kristjanson P. 2013. Supporting grass-roots efforts key to climate change adaptation. <http://ccafs.cgiar.org/blog/supporting-grass-roots-efforts-key-climate-change-adaptation>

Kristjanson P. 2013. Turning research into actions that matter. <http://ccafs.cgiar.org/blog/turning-research-actions-matter>

CCAFS Climate Change and Social Learning Champions. 2013. Farmers and scientists: better together in the fight against climate change. <http://ccafs.cgiar.org/blog/farmers-and-scientists-better-together-fight-against-climate-change>

Carlile L. 20103. Making it real: Social learning in practice. <http://ccafs.cgiar.org/research-highlight/making-it-real-social-learning-practice>

Meadu V. 2013. Transformative partnerships for a food-secure world. <http://ccafs.cgiar.org/blog/transformative-partnerships-food-secure-world>

Christine Jost, Gopal Bhatta and Manon Verchot. 2013. Are there gender impacts from 'climate-smart' agriculture? CCAFS Theme 4.1 gender quarterly blog series, 2 July 2013. <http://ccafs.cgiar.org/are-there-gender-impacts-climate-smart-agriculture>

Nafisa Ferdous and Christine Jost. 2013. Capturing gender perceptions through participation. CCAFS Theme 4.1 gender quarterly blog series, 7 September 2013. <http://ccafs.cgiar.org/blog/capturing-gender-perceptions-through-participation#.UjBBqbWqW3l>

Ferdous N, Jost C. 2013. Creating participatory gender and climate change research tools together. <http://ccafs.cgiar.org/blog/creating-participatory-gender-and-climate-change-research-tools-together>

Cecilia Schubert. 2013. Challenging gender assumptions within farming and climate change research. CCAFS Theme 4.1 gender quarterly blog series, 13 November 2013. http://ccafs.cgiar.org/blog/challenging-gender-assumptions-within-farming-and-climate-change#.UnPB_yTFbfb

Foster K. 2013. Smart made even smarter: Gender addressed in new brief on climate smart agriculture. <http://ccafs.cgiar.org/smart-made-even-smarter-gender-addressed-new-brief-climate-smart-agriculture>

Beare D. 2013. Gender attitudes and practices investigated in Bangladesh. <http://ccafs.cgiar.org/gender-attitudes-and-practices-investigated-bangladesh>

Websites:

None

Social media campaigns:

One social media campaign held in relation to disseminating the Shamba Shape Up blogs:
<http://ccafs.cgiar.org/es/blogs/ssu>

Newsletters:

None

Events:

Joost Vervoort, Rathana Peou van der Heuvel, Greetje Schouten, Erik Mathijs, Frans Hermans, Kasper Kok, Ariella Helfgott, Angela Wilkinson. 2013. Future speak: discourses in strategic deliberative arenas for food systems governance. Paper presented at the Earth System Governance conference, <http://tokyo2013.earthsystemgovernance.org/wp-content/uploads/2013/01/0266-VERVOORT-ET-AL.pdf>

Joost Vervoort, Robin Bourgeois, Polly Ericksen, Kasper Kok, Philip Thornton, Wiebke Foerch, Moushumi Chaudhury, Patti Kristjanson. 2013. Linking multi-actor futures for food systems and environmental governance. Paper presented at the Earth System Governance conference, Tokyo, 28-13 January 2013. http://tokyo2013.earthsystemgovernance.org/wp-content/uploads/2013/01/0269-VERVOORT_BOURGEOIS_ERICKSEN_KOK_THORNTON_FOERCH_CHAUDHURY_KRISTJANSON.pdf

Videos and other multimedia:

East Africa scenarios: <http://www.youtube.com/watch?v=6zDTLfyKcf4>;

South Asia scenarios: <http://www.youtube.com/watch?v=zkJ-RGWFGU>;

Southeast Asia scenarios with UNEP WCMC and FAO: <http://www.youtube.com/watch?v=9oKMhBs0meY>

Elisabeth van de Grift. 2013. Exploring future food security, livelihoods and environments under climate change in South Asia. http://www.youtube.com/watch?feature=player_embedded&v=zkJ-RGWFGU

Video-interviews from Gender Workshop in October 2013:
<http://www.youtube.com/watch?v=iOr5Gqy2GU8&list=PLmATng7IKk6XWw2z8zdxvhmTSEbZ3ycPg>

Other communications and outreach

Video: Transformative partnerships for a food-secure world (March 2013):
<http://www.youtube.com/watch?v=5pKaoD5sGjw>

Photos: South Asia workshop 2 <http://www.flickr.com/photos/cgiarcclimate/sets/72157634438122943/>

Photos: Southeast Asia workshop 1 <http://www.flickr.com/photos/cgiarcclimate/sets/72157637540876486/>

Photos: Central America workshop 1 <http://www.flickr.com/photos/cgiarcclimate/sets/72157638546156883/>

Photos: Andean region workshop 1 <http://www.flickr.com/photos/cgiarcclimate/sets/72157638333013656/>

Photos: Science Meeting 2013, Bodega Bay (USA)

<http://www.flickr.com/photos/cgiarcclimate/sets/72157633377396820/>

Photos: Gender Workshop Nairobi Kenya 22-25 October

<http://www.flickr.com/photos/cgiarcclimate/sets/72157636877152334/>

Other communications and outreach:

Georgina Smith (CIAT). 2013. Looking for clues to navigate climate uncertainty. REUTERS Trustnet, 31 Oct 2013.

<http://www.trust.org/item/20131031114340-4a2gc>

FAO, 1 Nov 2013. UN Website: <http://www.un.org.vn/en/fao-agencypresscenter1-96/2877-fao,-ccafs-and-unep-support-the-government-of-vietnam-in-developing-regional-socio-economic-scenarios-for-climate-smart-agriculture.html>

Georgina Smith (CIAT). 2013. Looking at 2050 to create better policy today. REUTERS Trustnet, 18 November

<http://www.trust.org/item/20131118114746-tkjes>

Editors, 2013. Revista Mercados & Tendencias (on-line and in print, regional private sector-oriented magazine).

<http://revistamyt.com/2013/12/en-que-debe-trabajar-la-centroamerica-hacia-2050/> Langford K. 2013. Could

scenario-building be the tool that links food security science with policy-making?

<http://ccafs.cgiar.org/blog/could-scenario-building-be-tool-links-food-security-science-policy-making#.UwTIUV5sh9c>

5. Case studies

Case Study #1

Title:

Gender and Socially Inclusive Research in Climate Change and Food Security

Author: Theme 4.1

Type: Social differentiation and gender, Innovative non-research partnerships

Project description:

In 2011 with FAO we developed a guide on participatory gender and CC research. TLs identified priority topics. The guide standardizes sample selection, ensures consistency in fieldwork, creates uniformity in reporting and aides in cross-site comparison. We are now revising the guide as a flexible group of participatory research tools to support partners in gathering information for designing inclusive and gender sensitive CSA programs. The revised manual addresses: co-creation of knowledge, climate resilient agriculture, climate information systems, mitigation. Each module contains a set of participatory tools for gathering information with communities. A strategic group of partners are working on the revisions. FAO, CCAFS, CARE, IFAD, We Effect and GROOTS ensure that the revised manual meets the needs of globally diverse users, takes advantage of the best expertise, and is disseminated widely. Training and capacity building will take place within these partner orgs. Social learning is being used in the participatory co-development of the modules, including: experts, technical personnel, farmers. In 2014 the manual will be completed and tested, with training of partners in EA and WA.

Introduction / objectives:

By 2016, we anticipate our partners are using our tools to design gender-targeted CSA programs. We are researching how to target CSA technologies and practices to vulnerable groups to catalyze adoption of CSA and achieve meaningful impact for smallholders. We are developing a flexible group of participatory tools to support research and development partners in gathering information that will help them design inclusive and gender sensitive programs in CSA.

Project results:

- Training guide v1 published '12, v2 in English, French and Spanish '13.
 - Downloaded 10,000x Jul– Dec '13 from FAO website
 - Field testing results published as 3 working papers
 - Manuscript submitted to Climate and Development Feb '14
- Women less inclined to adopt CSA, or less able due to financial and resource limitations
- Research to modify CSA labour roles to be attractive to women is needed
- Innovative approaches (video, visualizations, etc.) to climate analogues for women more valuable than exchange visits

- Women's access to information is limited by lower levels of literacy and technology ownership
- Visualization tools helped farmers systematically consider research topics, and helped scientists keep information organized and recorded
- Participatory methods rely on skilled practitioners skilled with a thorough understanding of the study context and subject
- V1 of the guide did not fully elucidate factors contributing to gender disparities
- The FAO 'Gender and Climate-Smart Agriculture' online learning event, Feb '14, featured the training guide
 - o 3 days, 300 participants
 - o Webinar on gender sensitive CSA featured Kristjanson & Ferdous of T4.1
- Revised manual:
 - o Elucidates factors contributing to gender disparities
 - o Focuses research and development next-users rather than on CCAFS blog about the participatory co-development of knowledge approach entitled "Capturing gender perceptions through participation", where we are taking to revise the manual have been visited 478 times. The blog was tweeted 39 times and liked on Facebook 46 times.

Partners:

- FAO – Co-development of the V1&2, publication, WA, EA, SEA training, co-authors on working papers and peer-reviewed papers, review of revised manual, field-testing, training
- CARE International – Co-development of revised manual focusing on CARE gender

Links/sources for further information:

Publications

- FAO (2013) 'Gender and Climate Change Research in Agriculture and Food Security for Rural Development – Training Guide', version 1. Rome: Food and Agriculture Organization of the United Nations (FAO). <http://hdl.handle.net/10568/21790> (accessed 26 June 2013).
- Chaudhury M, Kristjanson P, Kyagazze F, Naab J B, Neelormi S. 2012. Participatory gender-sensitive approaches for addressing key climate change-related research issues: evidence from Bangladesh, Ghana, and Uganda. Working Paper 19. Copenhagen: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). <http://ccafs.cgiar.org/publications/participatory-gender-sensitive-approaches-addressing-key-climate-change-related> .
- Kyazze, FB, Owoyesigire, B, Kristjanson P, Chaudhury M. 2012. Using a gender lens to explore farmers' adaptation options in the face of a changing climate: Results of a pilot study in Uganda. CCAFS Working Paper No. 26 CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: <http://ccafs.cgiar.org/>
- Naab, J.B. and Koranteng, H. 2012. Gender and Climate Change Research Results: Jirapa, Ghana. Working Paper No. 17. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Nairobi,

Kenya. Available online at: <http://ccafs.cgiar.org/Sites>

- FAO Gender and Agriculture Climate Smart Learning Event:
<http://www.fao.org/climatechange/micca/79527/en/>
- FAO/CCAFS guide in 3 languages: <http://www.fao.org/climatechange/micca/gender/en/Blogs>
- Nafisa Ferdous and Christine Jost. 2013. Capturing gender perceptions through participation. CCAFS Theme 4.1 gender quarterly blog series, 7 September 2013. 478 Unique Page Views.
<http://ccafs.cgiar.org/blog/capturing-gender-perceptions-through-participation#.UjBBqbwqW3I>

Case Study #2

Title:

PROLINNOVA: Linking knowledge to action with social learning and farmer-led innovation approaches

Author: Theme 4.1

Type: Social differentiation and gender, Innovative non-research partnerships

Project description:

The PROLINNOVA Network (Promoting Local Innovation in ecologically oriented agriculture and resource management) [<http://www.prolinnova.net/>], together with CCAFS and many local partners, is testing social learning and local innovation processes in many CCAFS focal countries. 2013 activities included:

- Co-organising the Week on Agricultural Innovation in Africa (WAIA), including the PROLINNOVA International Partners Workshop (IPW), the Eastern Africa Farmer Innovation Fair (EAFIF) and the international workshop on Agricultural Innovation Systems in Africa (AISA) in May 2013.
- Communicating how multistakeholder platforms and other social-learning mechanisms contribute to building resilient communities.
- Supporting PROLINNOVA Country Platforms (CPs) in documenting processes of change and facilitating reflection-action learning cycles. The main activities planned at regional level, by PROLINNOVA–Kenya in Eastern Africa and by PROFEIS–Senegal in West Africa, involved:
 - Documenting local innovation processes supporting adaptation to climatic and other change
 - Training local partners in participatory innovation development (PID) to adapt to change
 - Facilitating farmer-led joint research on local innovations and other relevant options through PID
 - Producing various materials and communicating to promote local innovation and PID
 - Facilitating multistakeholder platforms at national and subnational level
 - Engaging in policy dialogue to promote PID and other forms of social learning as ways to deal with challenges of climate change, agriculture, food security and rural livelihoods.

Introduction / objectives:

Fostering innovation processes to build more equitable bridges between scientists, public sector actors and farmers to better face the challenges of a changing climate, through close collaboration with a global farmer innovation network called PROLINNOVA. We are jointly testing and documenting outcomes from social learning approaches such as regional farmer innovation fairs in CCAFS regions, local innovation support funds, and participatory innovation development in CCAFS sites.

Project results:

The Kenyan innovators involved in the EAFIF formed an association called the Kenya Farmers Innovators Association to promote farmer-led innovation. This group organised and held another farmer innovation fair in Machakos in August, 2013 and are planning others in different places in Kenya. Six months after the EAFIF, interviews with sixteen of the Kenyan participants showed:

- Several farmers received orders linked to their innovations (e.g. for avocado seedlings, Spirulina products, hybrid beehives, feed blocks).
- Some farmer innovators were testing new ideas learnt at the fair, e.g. for his tree seedlings, the Kenyan innovator in avocado grafting built a plastic greenhouse similar to the one exhibited by a farmer innovator from Uganda. Another was testing a water-harvesting innovation shown by a Tanzanian participant.
- The farmer innovators are now documenting their innovations in order to share their ideas more easily with others and to prove that these were their original ideas, with a view to registering their innovations.
- The youth group that exhibited the benefits of Spirulina is now teaching other farmers and has produced a booklet on how to make Spirulina products.
- Several farmers reported upgrading their products or services after having gained new ideas and advice in discussions with other farmers and formal researchers at the fair. The Ag Innovations Systems in Africa workshop outputs (proceeding, papers, poster abstracts, policy brief) are found in the links under documents below, as are the reports on the Kenya and Senegal activities.

Partners:

PROLINNOVA is not a typical NGO; rather it is a network of many local NGO, university and other partners self-motivated to work on farmer-led innovation. We are also working closely with WorldFish and AAS on measuring impact of these approaches. PROLINNO

Links/sources for further information:

Links/Sources for further information: www.prolinnova.net/latestnews

www.prolinnova.net/content/sollinkka-social-learning-linking-knowledge-action

www.prolinnova.net/sites/default/files/documents/thematic_pages/climate_change_pid/sollinkka_for_ipw_2013_pdf.pdf

Wikispace for the West Africa Farmer Innovation Fair: <http://aisa2013.wikispaces.com>

Documents

A case study of sharing and learning within the ProInnova network about promoting local innovation and PID as a means of adapting to climate change was published in early 2013 in the Knowledge Management for Development e-journal. The immediate outputs of the AISA workshop were:

- updates made by the facilitation team on the wikispace (<http://aisa2013.wikispaces.com/ais+workshop>) during the workshop, to allow a larger group of interested people worldwide to follow the event;
- abstracts of all papers and posters printed and distributed to all participants and posted in the wikispace (http://aisa2013.wikispaces.com/AISA_papers_posters)
- process report on the AISA workshop (<http://aisa2013.wikispaces.com/file/view/Report%20on%20AISA%20workshop%20May%202013.pdf/446109814/Report%20on%20AISA%20workshop%20May%202013.pdf>); and
- policy brief on “Supporting local dynamics: 5 policy recommendations for enhancing innovation by African smallholder farmers”, based partly on JOLISAA findings and partly on discussions during AISA (<http://aisa2013.wikispaces.com/file/view/JOLISAA%20policy%20brief%20DINA4%20low%20density.pdf/473030902/JOLISAA%20policy%20brief%20DINA4%20low%20density.pdf>)
- electronic proceedings, with the full papers based on oral presentations and posters, the Living Keynote and the highlights of the discussions during the workshop, to be posted on the Web in late December. The reports on activities at national level can be found on the Kenya page (www.prolinnova.net/kenya), the Senegal page (www.prolinnova.net/senegal) and the PROFEIS page (www.prolinnova.net/profeis). Blogs and news articles The PROLINNOVA International Secretariat solicited and posted a large number of documents on the EAFIF, including photos, video films, blogs and magazine articles, as well as reports about the process of preparing the fair. These can provide inspiration and guidance for organisers of future such events, such as the West African Farmer Innovation Fair to be held in 2014. <http://www.prolinnova.net/content/fair-and-workshop-recognising-farmer-innovation-eastern-africa> <http://ccafs.cgiar.org/events/28/may/2013/eastern-african-farmer-innovation-fair#UvN4UPmSxhg>]. <http://aisa2013.wikispaces.com/farmer+fair>

Two articles on the social learning process during the EAFIF were published in popular magazines for development practitioners: www.prolinnova.net/content/joint-learning-innovation-eastern-africa

Case Study #3

Title:

Building Outcome Capacity in the CCAFS Network of Gender and Climate Change Scientists

Author: Theme 4.1

Type: Social differentiation and gender, Capacity enhancement

Project description:

Our strategy calls for gender mainstreaming. In 2011, we convened a technical working group to review info gaps and priorities. In addition, we began to develop quantitative and qualitative research tools aimed at these questions. We supported training of partners in the 3 regions to use the tools. We also supported a Competitive Small Grants Program for early career gender and CC female scientists in the CCAFS regions. In 2013 we established the Network of Gender and Climate Change Scientists. In October 2013 50 network members from all 5 CCAFS regions attended a workshop in Nairobi with the following objectives:

- Support gender research in partners by reviewing research tool and best practices;
- Help our partners with their gender research strategies;
- Develop a plan for gender and CC research in the CCAFS regions. During the workshop our partners participated in 2-day training sessions on best practices in gender and CC relating to: (i) quant. research, (ii) qual. research, (iii) and gender mainstreaming strategies. We introduced our partners to the CCAFS theory of change and how gender is integrated within it, and they developed gender specific impact pathways that contribute to the CCAFS IDOs. With the CGIAR Gender Network we established an electronic platform for CG gender and CC scientists that is being expanded to include non-CG scientists. We encourage network self-organization in the regions. We will work with all the regional offices along these lines in 2014.

Introduction / objectives:

Targeting women in agricultural development increases the likelihood of achieving our IDOs. Our strategies to achieve the greatest impact include supporting regional research for informing, catalyzing and targeting CSA solutions to women and other vulnerable groups. When we identify and ‘co-create’ successful options and solutions with partners, we will achieve scale.

Project results:

- CCAFS Competitive Small Grants Program for early career female scientists:

Recipient'	Position at time of grant	Current position	Influence of grant on career
Nani Raut	PhD candidate, Norwegian Unv of Life Sciences, Norway.	Visiting Faculty, Kathmandu University	Published as CGIAR working paper, strengthened CV, experience
Annuciate Nakiganda	Climate Change Champion, NARO (Uganda NARS)	Climate Change Champion, NARO (Uganda NARS)	Funded research interest, build analytical skills, expanded network, attended Climate Smart Agriculture Global Science Conference, March 2013, Unv. California

Gulsan Parvin Researcher and Member of Executive Committee Pathikrit- (A Social and Human Development Organization), Bangladesh
Researcher at International Environment and Disaster Management (IEDM), Kyoto University, JAPAN
funded research interest, experience, capacity
Arame Tall No response, currently a CCAFS employee working at IFPRI
Laeticia Dioyal No response

- CCAFS Network of Gender and Climate Change Scientists in the regions:

No.	Region
9	Latin America
5	South Asia
5	Southeast Asia
7	East Africa
5	West Africa

- 5 detailed gender impact pathways (per region)A blog entitled “Challenging gender assumptions within farming and climate change research” covering the workshop has been viewed 394 times and was translated into Spanish. Video-interviews with several of the participants and workshop leaders were conducted, and all 8 videos have been viewed 1200 times, with the most popular video on gender differences in access to climate information in Latin America being viewed 593 times.

Partners:

- CCAFS Regional Programs – Organization of regional CCAFS gender network members and activities
- AWARD – Facilitation of quantitative research track in October 2013 workshop
- CARE – Facilitation of gender strategies track in October 2013 workshop
- Emory

Links/sources for further information:

Documents

- FAO (2012) 'Gender and Climate Change Research in Agriculture and Food Security for Rural Development – Training Guide', version 1. Rome: Food and Agriculture Organization of the United Nations (FAO).
<http://hdl.handle.net/10568/21790>.
- Miruka O., Van de Grift E., Kristjanson P., Ferdous N., Jost C. 2013. CCAFS Gender Training and Strategizing Workshop Report. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. Available online at: <https://cgspace.cgiar.org/handle/10568/34992>
- Raut N, Raya B, Sitaula BK, Bajracharya RM, Kristjanson P. 2013. Gender roles and greenhouse gas emissions in intensified agricultural systems in the mid-hills of Nepal. Working Paper No. 47. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Nairobi, Kenya.
<http://ccafs.cgiar.org/publications/gender-roles-and-greenhouse-gas-emissions-intensified-agricultural-systems->

mid-hillsBlogs

- Cecilia Schubert. 2013. Challenging gender assumptions within farming and climate change research. CCAFS Theme 4.1 gender quarterly blog series, 13 November 2013. 394 Unique Page Views.
http://ccafs.cgiar.org/blog/challenging-gender-assumptions-within-farming-and-climate-change#.UnPB_yTFfb
- Cecilia Schubert. 2013. CCAFS gender training and strategizing workshop.
<http://www.youtube.com/watch?v=iOr5Gqy2GU8&list=PLmATng7lKk6XWw2z8zdxvhmTSEbZ3ycPq>, YouTube, 31 October 2013 Sites
- CCAFS - Climate Change, Agriculture and Food Security Dataverse Gender Survey,
<http://thedata.harvard.edu/dvn/dv/CCAFSbaseline/faces/StudyListingPage.xhtml;jsessionid=698e15174786e0c546f9a00d4a85?mode=1&collectionId=4844>

Case Study #4

Title:

Shamba Shape-Up (SSU): Evidence-based, Innovative Climate Change and Agriculture Communication and Extension

Author: Theme 4.1

Type: Successful communications

Project description:

Series 1 (13 episodes) of this farm makeover TV show aired March-June of 2013, series 2 and 3 March-September 2013. Series 4 will broadcast in March 2014.

Episodes can be downloaded from the SSU website. Clips are featured on Africa Knowledge Zone. SSU maintains additional extension platforms. Viewers can SMS for a leaflet (in English or Swahili) that includes pictures and simple instructions on the farming techniques highlighted in each episode. SSU's Facebook site, where farmers share experiences with different practices, is the biggest and rapidly growing farming social media site in East Africa, with thousands of followers.

We support CSA content integrated with other issues. Season 2 episode 12 and season 3 episode 10 were CSA specific. SSU then selects CG-generated CSA content of greatest value for its viewers, and works with the scientists and their collaborators (NGOs, NARS, etc.) to highlight the technology or practice.

SSU maintains a database of requests for leaflets, a unique opportunity for innovative impact research. After every series a post season knowledge, attitudes and skills study is conducted. In 2013 AECF commissioned a study of 300 farmers to estimate financial benefits from adopting practices recommended by SSU. In 2014 the

study will be improved and scaled to 3,000 farmers in collaboration with Reading and Wageningen University.

In 2013 we jointly developed an outreach plan. SSU will establish dissemination partnerships over the medium to long-term to develop replicable outreach models, starting with GROOTS Kenya in 2014.

Introduction / objectives:

This is research on how to achieve impact from CG CSA technologies and practices beyond the direct influence of the research community. SSU is a makeover style TV show in EA. We are collaborating with SSU so that farmers in EA have access to information and resources that can help them adapt to a changing climate by learning about CSA techniques. Overall, the goal is for the smallholder agriculture sector to become more resilient to the expected climate shocks of the future.

Project results:

- >3 million weekly viewers
- SMS requests:

Episode	Series 2	Series 3
1	1,915*	1,291*
2	1,005	1,448*
3	725*	1,365*
4	1,880*	1,905*
5	1,038	1,287
6	790	785*
7	1,120	809*
8	1,446*	1,015*
9	1,740*	812
10	1,574	617*
11	1,485	1,428*
12	1,370*	815*
13	1,110	682

* Episodes with climate change content

- CG scientists participating in SSU series 4:

Series	Episode	Technology	Location	Scientist	Centre	Partner
4	TBD	Evergreen Agriculture	Embu, Kenya	Alfred Micheni Jonathan Muriuki	ICRAF	KARI
4	TBD	Improved hybrid/Mulato grass seeds for animal feed	Uganda	Brian OWOYESIGIRE	ILRI, CIAT	NARO
4	TBD	Farm diversification/Agroforestry	Bondo, Kenya	Walter Adongo	ICRAF	
4	TBD	Aflatoxin in groundnuts	Bungoma, Kenya	Sam Njoroge Kai Mausch	ICRISAT	
4	TBD	Dryland crops	Kajiado, Kenya	Polly Ericksen Wiebke Foerch	ILRI	
4	TBD	Improved calf feeds and feeding	Nakuru, Kenya	Emmanuel Kinuthia Ben Lukuyu	ILRI	Coopers, EADD
4	TBD	Charcoal briquettes	Nairobi, Kenya	Mary Njenga	ICRAF	
4	TBD	Evergreen Agriculture	Machakos, Kenya	Esther Karanja Jonathan Muriuki	ICRAF	

- Proportion viewers learning something new 89%
 - Proportion changing >1 farming practice 46%
- Proportion making CSA changes:
- Intercropping 11%
 - Soil fertility 22%
 - Proportion accessing weather forecasts: 76% viewers, 68% non-viewers
 - Median net soil fertility benefit: 13,746,233 USD
 - Median net dairy production benefit: 45,645,508 USD

As of 31 Jan '14, SSU Facebook had 23,017 likes, including: USAID Kenya, Innovate, Fairfood Int'l, Guardian International Dev. Journalism Competition, Uganda National Farmers Fed. 2013, Gates Foundation featured SSU among "Seven projects in agriculture that are making this a Better World." As of 2 September 2013 Googling SSU generated 27,00 results, including features in: The Guardian, New Agriculturalist, Sci-Afrique, The Communication Initiative Network, Voice of America, SciDev. Modern Farmer. Overall the 3 CCAFS blogs about SSU were viewed 566 times in 2013, shared on various social media platforms including tweeted 125 times (with the story "Kenyan farmers use climate 'entertainment' for empowerment" being the most popular one as it was tweeted 73 times), and shared on Facebook 33 times. The mentioned story also got 247 unique page views. A video interview with the SSU presenter was also conducted which has received 149 views to date.

Partners:

- Mediae – SSU parent company
- GROOTS Kenya – First outreach partner, 2014, through USAID funded Accelerating Women’s Access to Market and Trade (AWAMT) project
- ICRAF, ILRI, CIAT, ICRISAT – CG climate change content
- KARI, NARO, Coopers, EADD – CG centre

Links/sources for further information:

Publications:

- ACAR. 2013. Report for Mediae: Shamba Shape Up Series One Development Benefit and Systemic Impact. Africa Centre for Applied Research. 2nd September 2013.
- The Mediae Company©. 2013. Shamba Shape Up Series 2 and 3 KAPs Report. December 2013.Sites:
- Shamba Shape-up: <http://www.shambashapeup.com/>
- Mediae: <http://www.mediae.org/>
- Africa Knowledge Zone: <http://www.africaknowledgezone.org/Blogs:>
- Manon Verchot. 2013. Kenyan farmers use climate 'entertainment' for empowerment. CCAFS Theme 4.1 innovations quarterly blog series, 12 June 2013. 247 Unique Page Views <http://ccaafs.cgiar.org/blog/kenyan-farmers-use-climate-entertainment-empowerment>
- Manon Verchot. 2013. Farmers get latest solutions for climate 'shape-up'. CCAFS Theme 4.1 innovations quarterly blog series, 17 June 2013. 189 Unique Page Views. <http://ccaafs.cgiar.org/blog/farmers-get-latest-solutions-climate-shape>
- Manon Verchot. 2013. Successful 'fast-food' agricultural knowledge in the making. CCAFS Theme 4.1 innovations quarterly blog series, 27 June 2013. 130 Unique Page Views http://ccaafs.cgiar.org/blog/interview-fast-food-agricultural-knowledge-making#.UHW_M7yevfZ
- Syngenta. <http://www.syngenta.com/global/corporate/en/news-center/features/Pages/feature-28-01-2013.aspx>

6. Outcomes

Outcomes

Title:

Regional scenarios to guide policies, investments and institutional change

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

The scenarios program of the CGIAR's Climate Change, Agriculture and Food Security program (CCAFS) focuses on the use of combined climate/socio-economic scenarios to guide policies and investments at regional and national levels in East and West Africa, South and Southeast Asia, the Andes and Central America (Chaudhury et al. 2013, Vermeulen et al. 2013, Vervoort et al. accepted). The CCAFS regional scenarios are developed from diverse stakeholder knowledge and quantified through agricultural economic and land-use models. CCAFS forward-looking and evidence based scenarios are used by decision-makers to guide policy and investment choices along impact pathways at regional, national and sub-national levels. These impact pathways are proposed by regional stakeholders, such as the development of investment proposals for Climate Smart Agriculture in North Vietnam by FAO and national policy makers, the planned dedication of funds for scenario use and capacity building along with Climate Smart Villages and SIA baselines by the Cambodian Ministry for Agriculture, Forestry and Fisheries (8 mln USD proposed by MAFF) and the review of a 2030 vision for rural development under climate change of the Pakistan Planning Commission organized by LEAD Pakistan. By the end of 2013, national and regional stakeholders in the five CCAFS regions were involved in setting up processes for developing more appropriate adaptation and mitigation strategies and policies using the CCAFS scenarios. Two hundred and forty organizations, representing government departments, regional economic bodies, CSOs and NGOs, farmer organizations, private sector investors, academia and the media have participated in scenarios processes in the five CCAFS regions (table 1). To use the scenarios, stakeholders have proposed to take forward a total of 81 scenario-guided impact pathways to improve decision-making on agriculture and food security under climate change in their own governments and organizations. Of these 81, the first steps of 24 pathways have been taken forward with many others, identified at scenarios meetings in late 2013, to be initiated in 2014 (table 1). In four of our regions and at the global level, international organizations, national partners and economic communities have invested 660,000 USD in 2013 (and an additional estimated 80,000 USD for smaller meetings) in the scenarios programme for creating enabling policy environments and to help shape national and regional priorities (table 1). These organizations had no previous experience with the scenarios methodology used by CCAFS, and have all reported learning and intent to use scenarios methodology beyond the scope of their specific engagement with the CCAFS program (Carey 2014). Examples are:

- FAO is funding scenarios development and processes to develop investment proposals for climate-smart agriculture in Southeast Asia.
- UNEP WCMC is funding scenarios development, modeling and policy guidance meetings on trade-offs between agricultural development and conservation under climate change in Southeast Asia, East Africa and the Andes region.
- Oxfam Great Britain is funding a research program for the use of the CCAFS scenarios and CCAFS case studies to supply evidence for their global advocacy program in 2014 and 2015 on climate and food justice.

- The ASEAN economic body for Southeast Asia has budgeted a policy guidance meeting in early 2014 to use the CCAFS scenarios for regional policies.
- The ECOWAS economic body for West Africa is organizing a close collaboration with CCAFS on policy guidance, a link that was first established through, and focuses heavily on, the West Africa regional scenarios process.
- A global partnership with the GFAR Global Foresight Hub has been established to help farmer organizations worldwide develop internal strategic planning capacity through the use of scenarios methodology.

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

Scenarios up to 2050 were developed in all regions with participants representing a total of 240 organizations from diverse sectors. These socio-economic scenarios were quantified using agricultural economic models, providing quantitative information on key agricultural elements (agricultural commodities, calorie availability, land use and emissions). Socio-economic effects on these elements were combined with climate change impacts (Vervoort et al. accepted). The process of developing scenarios has been streamlined considerably from multiple workshops to a single workshop model that generates all necessary inputs and from the beginning focuses on stakeholders' proposals at regional and national levels for decision and investment guidance. The scenarios have been communicated through workshop reports, blogs and videos (<http://ccafs.cgiar.org/scenarios>), research papers (Chaudhury et al. 2013) and policy briefs (Vervoort and Ericksen 2012, Vervoort 2013). Online CCAFS scenarios products have received 11.073 page visits and have been reposted by global partners in global, regional and national news outlets (table 1). The scenarios program, and its quantitative dimension specifically, has since its inception been supported strongly in terms of scientific expertise, facilitation and resources (funding simulation modelling and analysis) by theme 4.2, which makes the CCAFS scenarios program a fully integrated theme 4 effort when additional interactions with the global-level work of theme 4.3 (support through workshop facilitation, dialogue on modelling efforts at multiple levels) are also considered. Central to the success of the scenarios program has been the support from the CCAFS RPLs. This has included integration of the scenarios processes with regional program priorities, and stakeholder engagement which has been key to developing a great number of connections (Carey 2014). Importantly, the evaluation shows that support by regional scenarios coordinators, often funded from the budgets of the RPLs, has been crucial to enabling continuous engagement with regional actors and organizing processes for the use of the scenarios (Carey 2014). These regional coordinators have been working either internally as part of CCAFS staff or through regional partners such as the Society for International Development (SID) in East Africa and The University for International Cooperation in Central America and the Andes region. In all regions, adding the quantitative dimension thanks to support by theme 4.2, extending the standard time line to 2050 and quantitatively combining socio-economic and climate scenarios have further helped garner interest in the scenarios (Vervoort et al. accepted). The scope and therefore potential usefulness of the scenarios has been further extended by partners such as FAO and UNEP WCMC, who have begun to use the stakeholder-generated scenarios to produce their own results from land use change models and local risk simulations. This has opened up opportunities for the cross-level linking of regional and local drivers of change based on previous experience in the scenarios team (Herrero et al. Accepted). The Theme 1 Systemic Integrated Adaptation program team has supported the development of the scenarios from a local-to-national perspective, being deeply involved in the development of methodology and co-facilitating scenarios meetings. In turn, multiple workshops are planned in 2014 to test local-to-national policy recommendations of the SIA program against the regional scenarios.

What partners helped in producing the outcome?

As of the end of 2013, for financial years 2013/2014, 40% of the CCAFS scenarios program funding was provided by partners (740.000 USD). The main/multi-regional funders were FAO, UNEP WCMC and Oxfam Great Britain. These organizations funded workshops, modelling, personnel and policy engagement processes, as well as using the results of the scenarios processes in a wider sense in their own organizations. Regional economic bodies such as ECOWAS (West Africa), the East African Community (East Africa), ASEAN (Southeast Asia) and CCAD have helped select regional stakeholders, outlined funds for workshops and committed to regional partnerships with CCAFS. Other organizations and departments like KARI Kenya, LEAD Pakistan and YES Bank India have also organized or taken the first steps to organize scenarios use processes – again, 24 impact pathways led by regional stakeholders in contexts where the scenarios can be used have been initiated and more will follow. The Global Forum on Agricultural Research's Global Foresight Hub has set up a global partnership with the CCAFS scenarios processes to develop farmer organizations' internal capacity for strategic planning (Carey 2014). CCAFS has commissioned work to the Society for International Development in East Africa to help organize impact pathways for the use of the scenarios. In Latin America, a team at the University of International Cooperation has been trained in facilitating scenarios workshops in the Andes and Central America and work with regional stakeholders to develop impact pathways for the use of the scenarios. Journalism networks PANOS East Africa and PANOS South Asia have been engaged to report on the steps of the scenarios processes in several regions.

Who used the output?

Of the participants representing the 240 regional and national organizations involved in the scenarios processes, most participants report new knowledge about the scenarios methodology that they intended to apply in their own organizational contexts (Carey 2014). Much of this intent to use scenarios products and methodology is reflected in the 81 impact pathways that regional stakeholders have proposed. Other main users are the global organizations: FAO, UNEP WCMC and Oxfam GB. The scenarios processes are also designed to help the CCAFS Regional Program Leaders build regional networks and prioritize research with key partners. Finally, other researchers in CCAFS, the CGIAR and the Future Earth community have initiated collaborations: to use the regional scenarios to frame local-to-national level research and policy engagements (such as the CCAFS SIA/regional scenarios project in Ghana and the CIFOR Global Comparative Study on REDD+ - Module IV in Peru (Carey 2014) or to link the regional scenarios to global efforts (the Earth System Governance methodology taskforce)).

How was the output used?

From the perspective of the global partners, the scenarios processes help them guide policy and investment processes and build global advocacy: "I think the main benefit is a tool to enhance conversations between policy-makers and researchers and this greatly assists us in targeting our work. The scenarios that are being developed in partnership with CCAFS are in and of themselves an output that we intend to build upon to support future policy assistance work in those countries. In addition, I think the scenario tool could be very useful more broadly in FAO's work to facilitate communication and target technical work [...]" Leslie Lipper, director of the FAO EPIC program (questionnaire for Carey (2014)) "We want to understand what are the key trends and challenges for the future so it can support our programme and policy design." Ricardo Fuentes,

head of research, Oxfam Great Britain (questionnaire for Carey (2014))“The key benefit for us is that we get access to sophisticated regional socio-economic scenarios for our regions of interest that were developed by a team of experts with considerable experience with the process.”Arnout van Soesbergen, programme officer, UNEP WCMC (questionnaire for Carey (2014))From the perspective of regional economic bodies and national governments, engaging in scenarios processes has allowed participants to broaden and deepen their insights about key regional issues through processes that can be characterized as social learning (Kristjanson et al. 2014) and for the development of networks (Carey 2014). In terms of using the scenarios, the priority for regional and national actors is to guide regional/national policies as well as to build internal capacity for strategic planning within their teams and wider constituencies. Here are some quotes from the most recent work in Latin America: ‘The CCAD belongs to the SICA and is responsible for policy development on a regional level. These plans are developed perhaps without taking into consideration these kinds of scenarios. I consider it important to use the scenarios that we developed here to elaborate action plans of these strategies or to update them (the strategies). All these methods are very useful, not only for CCAD but also for the other institutions of SICA such as the Central American Agricultural Council (CAC) and COMISCA, which is about Health and Tourism.’Nelson Trejo, former Executive Secretary of the Central American Commission for Environment and Development (presenting plans at end of workshop)“This information helps us, because the future scenarios give us indicators regarding how we should prepare ourselves in the area of food security.”Lucio Tito, Ministerio de Desarrollo Rural y Tierras, Bolivia (interview after workshop) “Ecuador has huge research needs, particularly of the socioeconomic and agricultural variety, and this workshop has opened a lot of doors to us to start working more in this area.”Ana Lucía Morillo, Secretaria Nacional de Planificación y Desarrollo, Ecuador (interview after workshop)Similarly, the scenarios processes have helped CCAFS regional teams work with partners and prioritize policy and investment guidance: “We’ve already had very useful feedback in the sense that several countries are going to include this process within their own policy development strategies.”Ana María Loboguerrero, CCAFS Latin America Regional Program Leader (interview after workshop)Efforts at developing strategic planning capacity at regional, national and local levels have also been prioritized by diverse actors: for instance, it is a main priority for the ECOWAS/CCAFS partnership to conduct capacity building..

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 CCAFS scenarios program falls under Theme 4.1 impact pathway 4.1.1 – Regional Socio-economic Scenarios Program (see figure 1). M+E of impact pathway 4.1.1 relied on a series of outcome, output and deliverable indicators to provide an evidence-base of progress towards and meeting the target outcome story (see table 1). These indicators, as well as the overall scenarios program, were evaluated in an external review by Dr. Chris Carey (2014), who has experience with scenarios work in policy and private sector contexts as well as with the evaluation of policy guidance processes in Rwanda. This evidence allows us to conclude that we have successfully completed implementation of impact pathway 4.1.1, and can continue with impact pathway 4.1.4 - Evidence-based and Forward-looking Climate and Agriculture Strategies and Planning (see figure 2). In this pathway the CCAFS Scenarios Program will be tested as a tool for building partner soft skills to understand and use climate change related research evidence to influence national to international discussions, strategies, planning and policies. This will be done through case study-based research in each region to answer the

following question: how effective are forward-looking socio-economic scenarios in influencing climate change strategies, planning and policy; what processes have changed because of scenarios? Table 1. M+E indicators for Theme 4.1 impact pathway 4.1.1 – Regional Socio-economic Scenarios Program.

Indicator	Results/Outcome	Milestone to outcome story	Number of partner organizations that are participating in the scenarios process by region
Linkage	240 organizations (governments, regional economic bodies, private investors, farmers' organizations, CSOs and NGOs, academia and the media) have participated in regional scenarios processes in the five CCAFS regions. Process and type of participants in each workshop were represented by 361 individuals ranging from mid-level to senior individuals in their organizations.	Increasing demand for scenarios process: number of actors that have requested or are supporting the scenarios process in the CCAFS regions	4 global partners (FAO, UNEP WCMC, Oxfam Great Britain and GFAR) are supporting scenarios processes. In the regions, 15 regional and national organisations (regional economic bodies like ECOWAS, EAC, ASEAN and SICA, governments, civil society organizations and NGOs) have provided active support for scenarios processes.
Indicator	Milestone to outcome story	Outcome	Milestone to outcome story
Results/Outcome	Funds provided for scenarios process by partner organizations in CCAFS regions and regional partners have provided 660.000 USD (and an additional estimated 80.000 USD for smaller meetings) to the development of scenarios and their use for policy and investment guidance.	Process	Activity to milestone
Linkage	Increasing use of scenarios in CCAFS regions; number of champions emerging; number and types of partners engaged in forward planning for climate change adaptation and mitigation	81 impact pathways to guide policy and investment were proposed to be taken forward by participants across the five regions, of which 24 have been initiated so far. In Africa and Asia, process participants representing 12 organizations have been particularly active in organizing opportunities for the use of the scenarios ("champions") and the large number (56) of detailed impact pathways that have emerged from the Southeast Asia and Latin America processes initiated by the end of 2013 indicate that many more will emerge in 2014. The 24 impact pathways currently being taken forward involve new regional stakeholders in specific organizational contexts (such as Pakistan Planning Commission, ASEAN, ECOWAS); since these processes are still underway the numbers and types of new participants involved in scenarios use is currently unknown. Additionally, the most feasible of the 57 other impact pathways that were largely outlined toward the end of 2013 will be pursued as far as feasible and will involve new groups of regional stakeholders.	Process
Indicator	Activity to milestone	Number of champion success stories	Deliverable
Results/Outcome	The evaluation report refers to its regional outcomes where many success stories are underway. The report highlights 5: ECOWAS/CCAFS integration in West Africa, KARI capacity building in East Africa; LEAD Pakistan supporting a review of the Pakistan Planning Commission's plans; Collaboration with ASEAN, the private sector and media in Southeast Asia.	Number of views, forwards and tweets of scenarios blog	Deliverable
Linkage	Scenarios pages all together (including documents, landing page etc.) were visited 11,073 times since the inception of the programme in 2010, of which 4,299 visits were in 2013. The scenarios landing page in 2013 had 1,761 visitors, compared to the highest theme page Theme 1 (1,960 visitors) and the highest region page, East Africa (2,757 visitors). Overall, the 16 blogs about CCAFS scenarios were visited 4418 times (since January 2010), of which 1821 visits were to the seven blogs published in 2013. These blogs were tweeted 15 times by 10 different tweeters. The most visited blog was published in early 2013 and featured a video detailing the scenarios process in East Africa, with 710 hits. There have been 18 reposts of scenarios blogs/reports/papers including on DFID, UN main page, FAO, GFAR, Reuters, Al Jazeera and in regional/national newspapers. A video		

detailing the East Africa scenarios (26 April 2013) had 594 views, one about South Asia scenarios (11 November 2013) has had 236 views, and one about South-East Asia scenarios (13 November 2013) has had 195 views. Flickr photos from South Asia had 364 views, for Southeast Asia 384 views, for Central America 216 views and for the Andean region 218 views. Outcome Outcome story to 4.1 outcome New institutional arrangements resulting from scenario champions' work CCAFS has been included as part of the ECOWAS task force, thus internalizing CCAFS in the ECOWAS decision making process. Following the Central America workshop Danilo Saravia, in his analysis of the participation by the then Executive Secretary of CCAD in the entire Central American workshop, highlighted 'the strengthening of the relations of the Executive Secretary of CCAD with other public and private entities in the region' Figure 1a-c. Theme 4.1 impact pathway 4.1.1 – Regional Socio-economic Scenarios Program. Figure 2a-b. Theme 4.1 impact pathway 4.1.4. References Carey C. 2014. The CCAFS Regional Scenarios Programme: External Evaluation Report on Progress Towards Programme Outcomes. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Copenhagen, Denmark. <http://hdl.handle.net/10568/34994> Chaudhury, M., J. Vervoort, P. Kristjanson, P. Ericksen, and A. Ainslie. 2013. Participatory scenarios as a tool to link science and policy on food security under climate change in East Africa. *Regional Environmental Change* 13:389-398. Herrero, M., P. Thornton, A. Bernues, I. Baltenweck, J. M. Vervoort, J. van de Steeg, S. Makokha, M. T. van Wijk, S. Karanja, M. C. Rufino, and S. D. Staal. Accepted. Exploring future changes in smallholder farming systems by linking socio-economic scenarios with regional and household models. *Global Environmental Change*. Kristjanson, P., B. Harvey, M. Van Epp, and P. K. Thornton. 2014. Social learning and sustainable development. *Nature Climate Change* 4:5-7. Vermeulen, S. J., A. J. Challinor, P. K. Thornton, B. M. Campbell, N. Eriyagama, J. M. Vervoort, J. Kinyangi, A. Jarvis, P. Läderach, J. Ramirez-Villegas, K. J. Nicklin, E. Hawkins, and D. R. Smith. 2013. Addressing uncertainty in adaptation planning for agriculture. *Proceedings of the National Academy of Sciences of the United States of America* 110:8357-8362. Vervoort, J. 2013. Shared action on food and environments in East Africa. in E. C. Institute, editor. ECI Policy Brief 1. University of Oxford, Oxford. Vervoort, J. and P. Ericksen. 2012. No foresight, no food? Regional scenarios for Africa and South Asia. *The Futures of Agriculture: Future Studies*. Vervoort, J. M., P. Thornton, P. Kristjanson, W. Förch, P. J. Ericksen, K. Kok, J. S. I. Ingram, M. Herrero, A. Palazzo, A. E. S. Helfgott, A. Wilkinson, P. Havlík, D. Mason-D'Croz, and C. Jost. accepted. Challenges to scenario-guided adaptive action on food security under climate change. *Global Environmental Change*. Additional Deliverables Documentation: J.M. Vervoort, A.M. Palazzo, D. Mason-D'Croz, P.J. Ericksen, P. Thornton, P. Kristjanson, W. Förch, M. Herrero, P. Havlík, C. Jost, Food security, environments and livelihoods in East Africa: Four Scenarios. CCAFS Working Paper 63 Research and Learning Tools:- PANOS. 2013. Which way to food security in East Africa? Future scenarios in a changing climate. YouTube, 26 April 2013. <http://www.youtube.com/watch?v=6zDTLfyKcf4> Elisabeth van de Grift and Adeyemi Ademiyluli. 2013. Food security futures of South Asia: a meeting in Nepal. <http://ccafs.cgiar.org/blog/guiding-policy-makers-exploring-future-food-security-under-climate-change-south-asia#.UrG8ttJDsrU>. YouTube, 11 November 2013. - Elisabeth van de Grift. 2013. Southeast Asians explore regional future(s) for food security, agriculture and environments under climate change <http://www.youtube.com/watch?v=9oKMhBs0meY>. YouTube, 13 November 2013. - 6 news articles 2013-18 blogs 2012-2013: <http://ccafs.cgiar.org/blogs/future-scenarios>

7. Outcome indicators

Outcome indicator #1

Outcome indicator:

Agriculture mainstreamed into the global climate change policies, and major international food security initiatives fully incorporate climate change concerns

Achievements:

In four of our regions and at the global level, international organizations (FAO, Oxfam, UNEP WCMC), national partners and economic communities have invested/allocated over \$600K towards CCAFS scenarios process for influencing regional and national climate change and food security strategies and policies. These organizations had no previous experience with the scenarios methodology used by CCAFS, and have all reported learning and intent to use CCAFS scenarios methodology beyond the scope of their specific engagement with the CCAFS program. Theme 4.1 trialed an impact pathway based M+E system in 2013 to monitor progress in achieving its outcome targets.

M+E results have been uploaded to the intranet:

4.1.1 New institutional arrangements resulting from scenario champions' work	34.1.1 Number of actors that have requested or are supporting the scenarios process in the CCAFS regions	174.1.1 Funds provided for scenarios process by partner organizations in CCAFS regions	740,000 USD	4.1.1 Number of partner organizations that are participating in the scenarios process by region	240	4.1.1 Number and type of participants in scenarios workshops	360	4.1.1 Number of scenarios champions emerging	124.1.1 Scenario champion success stories	124.1.1 Number of views of scenarios blog	16 blogs with 4,418 views	4.1.2 Number of listeners reached by SSU climate change episodes	>3 million weekly viewers	4.1.2 Number of CC technologies from CGIAR research disseminated by SSU per season	8 in season	44.1.2 Number of views of PAR blogs	1 blog with 359 views	4.1.2 Number of views of innovation blogs	3 blogs with 585 views	4.1.3 Number of gender grant recipients employed in a climate change field	4 of 54.1.3 Number and type of organization for CCAFS annual gender workshop participants	53	4.1.3 Number of gender tool downloads	10,000, Jul– Dec	4.1.3 Number of views of gender blog	3 blogs with 1,216 views
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Evidence:

See external evaluation report by Carey (2014) [URL].

8. Leveraged funds

Leveraged fund

Title:

The FAO ESA EPIC program is co-funding and co-organizing CCAFS scenarios development in Southeast Asia, and funding collaboration with policymakers and donors on CSA investment proposals for Vietnam. FAO support consists of funding for meetings, quantific

Partner name: FAO**Budget:** \$210000**Theme:** T4

Leveraged fund

Title:

UNEP WCMC, through a project funded by the MacArthur foundation, is co-funding scenarios development, quantification and personnel, as well as meeting to help decision-makers from different sectors review scenarios results and apply them to their policies

Partner name: UNEP World Conservation Monitoring Centre**Budget:** \$315000**Theme:** T4

Leveraged fund

Title:

Oxfam Great Britain has funded a short project by ECI Oxford and CCAFS to deliver a research paper that informs the Oxfam GB food justice under climate change campaign planned for 2014-2015. This research paper is informed by CCAFS research (scenarios and

Partner name: Oxfam Great Britain**Budget:** \$30000**Theme:** T4

Leveraged fund

Title:

The TransMango FP7 project funds a Tanzania policy guidance workshop where global socio-economic/climate scenarios linked to the role of Europe in global food security will be linked to Tanzania's future through the CCAFS East Africa scenarios

Partner name: TransMango (EC FP7 project)

Budget: \$30000

Theme: T4

Leveraged fund

Title:

Healthy Futures is an EC FP7 program focused on the vulnerability of rural communities in EA to vector-borne diseases and links to food security and socio-economic/climate change impacts. After a first meeting where the CCAFS EA scenarios were used to exp

Partner name: Healthy Futures FP7 program

Budget: \$55000

Theme: T4

Leveraged fund

Title:

CCAFS Collaboration with Shamba Shape-Up, a farm reality TV show produced by the MEDIAE Company in Kenya, to get CG outputs related to CC broadcast to millions of farmers in East Africa. The Africa Enterprise Challenge Fund matched the funding provided by

Partner name: MEDIAE Company

Budget: \$100000

Theme: T4

9. Theme Leader Summary by outputs

Output: 4.1.1

Summary:

In 2013, the main participatory scenarios development process was completed for all CCAFS regions. At least 660.000 USD funding was procured for 2013/2014 from global partners (OXFAM/FAO/UNEP WCMC) and support for meetings from regional and national partners (ASEAN/ECOWAS/LEAD) Pakistan/Yes Bank India/Cambodia Ministry of AFF) for scenarios development and policy engagement. This external funding signified commitment from these partners who sought to use CCAFS scenarios results, methodology and expertise. It also increased the capacity of the scenarios programme to take on new regions – Southeast Asia was initiated ahead of schedule and an additional Latin American sub-region was added (the Andes) based on outside funding.

In East Africa, scenarios developed had been finalized in 2012 and continual engagement to use scenarios for regional and national policy and investment guidance and building strategic planning capacity had already been initiated. In 2013, a key partnership with the Society for International Development was organized to pursue the most promising impact pathways through a central partner meeting and meetings and contact with the East African Farmers Federation, the Kilimo Trust, KARI and the EAC/EALA. In the meantime, through funding from UNEP WCMC and the EC Healthy Futures project, the East Africa CCAFS scenarios were extended to 2050 and combined with climate scenarios.

In West Africa, the CCAFS scenarios were also extended to 2050 in a meeting with regional stakeholders in Ouagadougou in June 2013 and combined with climate scenarios. The scenarios process was used as a tool to engage ECOWAS and set up a partnership between ECOWAS and CCAFS with the help of the ECOWAS director Agriculture and Rural Development. The CCAFS West Africa scenarios results and process will be used in this partnership to help ECOWAS develop national capacities for strategic planning in its region. Preparations were also made for a multi-level policy guidance meeting in Ghana that combines Scenarios (theme 4) and SIA (theme 1) research.

In South Asia, the CCAFS scenarios were quantified by regional stakeholders in a meeting in Nagarkot, Nepal in June 2013 and impact pathways for the use of the scenarios at national/regional levels were developed. Subsequently, together with a regional coordinator, the most promising impact pathways were initiated. These included a policy review process with the Pakistan planning commission, A meeting with India's IBIN facilitated by Yes Bank, and revision of Bangladesh' National Adaptation Plan funded by ADB using scenarios – all organized for early 2014.

In Southeast Asia, the scenarios development model was condensed to allow for a single workshop to develop scenarios. This workshop was co-funded/co-organized by the FAO Epic program and also co-organized by UNEP WCMC who will fund a policy guidance workshop in SEA in 2014. Scenarios were developed, semi-quantitative inputs were provided and policy pathways were developed. FAO organized follow-up meetings in Viet Nam to use the scenarios for CSA investment planning with national policy makers and CCAFS.

In Latin America, two parallel processes were organized, one for Central America funded by CCAFS LAM, the other for the Andes region by UNEP WCMC, following the one-workshop condensed model used in the

Southeast Asia. Two sets of scenarios were created and quantified and impact pathways for the use of the scenarios were proposed by participants.

In total, 81 national and regional impact pathways for the use of the scenarios to improve policies and investments were proposed by participants in all of the regions, of which 24 have been initiated in 2013. In addition, regional collaborations with the PANOS development journalism network and media links of regional coordinators have been set up and resulted in publications in regional/national media.

See summary by output for detailed report. The theme 4.1 outcome story is about this output.

Output: 4.1.2

Summary:

In strategic partnership with various organizations including PROLINNOVA, IFAD, Mediae (Shamba ShapeUp), we are jointly testing innovative approaches to scaling out knowledge on CSA practices and communication approaches including participatory innovation development (PID) and local innovative support funds (LISFs). In 2013 a successful East Africa Farmer Innovation Fair was held (catalyzing a similar one in WA in 2014) with gov't and NGO partners from across EA. 26 episodes of SSU were aired in 2013, 16 (62%) with climate change content, reaching more than 3 million viewers per episode and generating 31,457 requests for more information by mail (20,554 for climate change relevant information, or 65% of total requests). As of 31 January 2014 the SSU Facebook had 23,017 likes.

Climate Smart Villages (CSV), participatory action research (PAR) and regional theory of change (TOC) activities fall under this output and reported on by the regional programs. Early in 2013, we supported outcomes thinking workshops in EA, WA and SA, and supported the development of IDOs and the phase 2 proposal. In the second half of 2013 we supported CCAFS in developing its draft phase 2 science driven regionally active impact pathway.

See summary by output for detailed report. SSU and Prolinnova are 2 of Theme 4.1 case studies for 2013. Theme 4.1 monitors its progress according to its impact pathway. A report on impact pathway indicators has been uploaded to the intranet.

Output: 4.1.3

Summary:

Strategic gender partnerships with CARE, FAO, WeEffect, ViAgroforestry, U of Florida, IFPRI, ILRI, CIAT, ICRAF have produced new gender-CCAFS related capacity (50 partners trained in gender approaches and gender impact pathway development), a publically available quantitative gender survey tool for use by research partners, 2 participatory gender and climate change research modules (on CRA and CIS) for use by research and development partners, and gender impact pathways (i.e. strategies) in all 5 CCAFS regions. The FAO/CCAFS training guide on participatory gender and climate change research, available online in English, Spanish and French, was downloaded 10,000 times in the second half of 2013.

Theme, regional and centre gender activities fall under this output and are reported on by these units.

See summary by output for detailed report. The CCAFS gender research network and the practitioner's manual on Gender and Socially Inclusive Research in Climate Change and Food Security are 2 of Theme 4.1 case studies for 2013. Theme 4.1 monitors its progress according to its impact pathway. A report on impact pathway indicators has been uploaded to the intranet.

Output: 4.1.4

Summary:

Partners in regional and national organizations including EAC, CORAF, FANRPAN, KARI have been supported with technical trainings and opportunities to engage in global CC policy processes. An evaluation of the CCAFS Scenarios Program lead to a retargeting of the program from a focus on development of climate change relevant socio-economic scenarios in each of the 5 CCAFS regions (Output 4.1.4 complete, and turned over to the regional programs for management), to research on the impact of scenario use by partners who are in the position to influence next-users on national and regional (bottom up) strategy and planning processes that lead to policy change (output 4.1.4).

Regional and CU policy-related activities fall under this output and reported on by the CU and regional programs.