

Title: (ILRI-EA/WA) Analyzing the science-policy-practice interface in climate change adaptation in East and West Africa

1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2015	Dec 2017	F1	Thornton, Philip <p.thornton@cgiar.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2	On-going	ILRI - International Livestock Research Institute - Kenya	Crane, Todd <T.Crane@cgiar.org>

Project is working on

Flaship(s)
F1 (before F4 - Philip): Priorities and Policies for CSA

Region(s)
EA: East Africa
WA: West Africa

Project summary

This project aims to conduct empirical analysis of policy formation and implementation as a social process that involves complex interactions between a wide variety of stakeholders, including global policy and research actors, donor agencies, national policymakers, government ministries and their staff at various levels, civil society stakeholders, and sub-national political actors. First, we will analyze national policy environments that influence pastoral and agropastoral systems in East and West Africa. The second part of the approach is to analyze the dynamics of science-policy interactions in specific cases. Findings will be disseminated through policy briefs and peer-reviewed publications, which will be promoted in national venues on an opportunistic basis. The degree to which we are able to promote in national venues depends largely on the amount of funding available in 2018.

2. Partners

Partner #1 (Leader)

Institution: ILRI - International Livestock Research Institute

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Crane, Todd <T.Crane@cgiar.org>	Overall project leader, taking over from Polly Ericksen.	HQ
Project Coordinator	Robinson, Lance <l.robinson@cgiar.org>	Activity 2014-208 *Leader*.	HQ
Partner	Chartier, Denis <denis.chartier@mnhn.fr>	He is the primary supervisor of Julien Meunier, the PhD student conducting the field research in Senegal.	HQ
Partner	Ivanova, Maria <maria.ivanova@umb.edu>	She is the supervisor of Wondwossen Wondemagegnehu, the PhD student conducting field research in Ethiopia.	HQ

Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	We have found it useful to have regular contact with university supervisors from an early stage.

Partnerships overall over the last reporting period:

We have developed good working relationships with both students' university supervisors, coming to understanding regarding conceptual approaches and publication strategies, for example, in order to ensure that the research outputs meet our programmatic needs as well as the students' graduation needs.

3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Country			Ethiopia
Country			Senegal
CCAFS Site	4.957	38.567	Borana
Climate Smart Village Sites	14.242	-15.407	Kaffrine

4. Outcomes

4.1 Project Outcomes

Project Outcome statement:

The outcome of this project will be more effective engagement between national governments toward climate smart food systems, through a deeper understanding of policy and governance processes, leading to more effective "science-policy" platforms and "multi-level learning alliances". There are two main objectives: 1. To analyze the dynamics of policy and governance processes and mechanisms both upstream in terms of influences on policy formation and downstream in terms of the implementation and impact on livelihoods and climate change adaptation. This will identify the factors that have influenced the development of existing policy dialogues, which determine which policy options are on or off the table. 2. To identify the best communication tools and modes of organization and for making platforms/alliances effective means of social learning between scientists and policy makers. This research will produce an empirical evidence base for recommending best practices in bringing science to bear on policy formation.

Annual progress towards outcome (end of 2016*): Strengths and weaknesses of existing policy processes and platforms are appreciated by CCAFS FP 4 researchers in Senegal and Ethiopia

Annual progress towards project outcome in the current reporting cycle (2016*): Both students' research activities have proceeded apace. Both students have completed working paper addressing how national policy processes affect pastoral adaptive capacity. These working papers are currently being converted into peer review publications.

How communication and engagement activities have contributed to achieving your Project outcomes:* Formal communication and engagement activities have been totally curtailed due to budget cuts, which leave no staff time or operating budget beyond the students' basic research needs. Students have done, and will continue to do, engagement in an opportunistic and ad hoc fashion.

Evidence documents of progress towards outcomes:* <Not Defined>

Annual progress towards outcome (end of 2015): National policy makers in both Ethiopia and Senegal can articulate an understanding of the cross-level governance processes that shape the local impact of one or two key national climate change adaptation policies.

Annual progress towards outcome (end of 2017): CCAFS scientists working in Senegal and Ethiopia can articulate the importance of key entry points and the impact of governance and political processes on uptake of science to shape national climate change adaptation policy. National stakeholders have a greater appreciation of the strengths and weaknesses of existing policy processes and platforms.

Annual progress towards outcome (end of 2018):

lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them.* Assumptions that policy making and policy implementation are non-linear and non-rational have been confirmed.

4.2 CCAFS Outcomes

RP EA Outcome 2019: National Ministries of Agriculture, Environment and parliamentarians are collaborating to make evidence-informed policies for increased investments in climate resilient food systems.

Indicator #1: # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

2019
<p>Target value: 1</p> <p>Cumulative target to date: 2</p> <p>Target narrative: Our analysis of policy and governance processes and mechanisms will help to identify particular policies and policy levers most in need of attention. This analysis, together with analysis of the science-policy interface, will result in an understanding of how to use more evidence-informed approaches to policymaking. As a result, policymakers in Ethiopia will take steps toward changing at least one policy by the end of 2018. Exactly which policy(ies) to target will be determined through the analysis.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>
2015
<p>Target value: 0</p> <p>Cumulative target to date: 0</p> <p>Target narrative: National level stakeholders in Ethiopia begin appreciating some of the dynamics of policy processes, including at the level of implementation of the policy focused on for this project.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>

2016

Target value: 0

Cumulative target to date: 0

Target achieved: 0.0

Target narrative: Discussions taking place in Ethiopia regarding specific actions to improve implementation of the target policy/platform.

Narrative for your achieved targets, including evidence: Findings are being developed that have the potential to inform policy making around pastoral development.

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome: The research has evolved in such a way that household level analyses have not been a focal point, thus minimizing any substantial gender analysis.

The expected annual gender and social inclusion contribution to this CCAFS outcome: As gendered analysis will be included in understanding the impacts of policy at community and household level, it is expected that the work will contribute to more gender sensitive policy.

Major Output groups:

- F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

RP WA Outcome 2019: National level decision-makers (Gov. ministries), national agricultural research systems, NGOs, civil society organizations, regional organizations use CCAFS science-derived decision support tools and systems to mainstream climate change into national plans and policies from local to national levels.

Indicator #1: # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

2019
<p>Target value: 1</p> <p>Cumulative target to date: 2</p> <p>Target narrative: Our analysis of policy and governance processes and mechanisms, together with analysis of the science-policy interface, will result in an understanding of how to use more evidence-informed approaches to policymaking. As a result, CCAFS derived science and other non-governmental stakeholders will engage more strategically with Senegalese policymakers and these policymakers in Senegal will take steps toward changing at least one policy to take into account evidence on equity and on the impacts of policies on climate smart practices in pastoral and agropastoral settings by the end of 2018. Exactly which policy(ies) to target will be determined through the analysis.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>
2015
<p>Target value: 0</p> <p>Cumulative target to date: 0</p> <p>Target narrative: National level stakeholders in Senegal begin appreciating some of the dynamics of policy processes, including at the level of implementation of the policy focused on for this project.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>

2016

Target value: 0

Cumulative target to date: 0

Target achieved: 0.0

Target narrative: Discussions taking place in Senegal regarding specific actions to improve implementation of the target policy.

Narrative for your achieved targets, including evidence: Findings are being developed that have the potential to inform policy making around pastoral development.

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome: The research has evolved in such a way that household level analyses have not been a focal point, thus minimizing any substantial gender analysis.

The expected annual gender and social inclusion contribution to this CCAFS outcome: As gendered analysis will be included in understanding the impacts of policy at community and household level, it is expected that the work will contribute to more gender sensitive policy.

Major Output groups:

- F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

F1 (before F4 - Philip) Outcome 2019: Appropriately directed institutional investment of regional/global organisations and processes (e.g. IFAD, WB, FAO, UNFCCC) based on national/regional engagement to learn about local climate smart food system priorities

Indicator #1: # of regional/global organisations and processes that inform their equitable institutional investments in climate smart food systems using CCAFS outputs

2019

Target value: 1

Cumulative target to date: 1

Target narrative: Bi-lateral and multilateral donor organizations, such as IFAD, the World Bank, and others, will gain an improved understanding of how their priorities and international discourses exert influence "downward" on national policy environments, and of the kinds of "upward" feedback that they require. This will lead to changes in their forms of engagement with developing country governments by 2019.

The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined>

2015

Target value: 0

Cumulative target to date: 0

Target narrative: Identify the most influential adaptation donor for the selected policy in Senegal and Ethiopia.

The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined>

2016

Target value: 0

Cumulative target to date: 0

Target achieved: 0.0

Target narrative: Because of reduced budget, this outcome should be dropped

Narrative for your achieved targets, including evidence: Because of reduced budget, this outcome should be dropped

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome: Because of reduced budget, this outcome should be dropped

The expected annual gender and social inclusion contribution to this CCAFS outcome: N/A

2017

Target value: 0

Cumulative target to date: 0

Target narrative: <Not Defined>

The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined>

Major Output groups:

- F1 (before F4 - Philip): Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

4.3 Other Contributions

Contribution to other CCAFS Impact Pathways:

Activity 2014-208: The activity will also contribute to Flagship 1 by helping to understand the connections between national and supranational policies and policy engagement on the one hand, and local level interplay among policies at the level of implementation. Improved understanding of this connection will result in policies that are better in that they lead to more effective implementation and more appropriate impact at local and community levels.

Collaborating with other CRPs

Dryland Systems

Description of collaboration: Work in Ethiopia under this project connects with Dryland Systems work on natural resources, especially rangeland, policy and governance. This project is focused on the science-policy interface, and DS CRP work on this issue is doing systems analysis at more local levels.

4.4 Case Studies

No case studies added

5. Project outputs

5.1 Overview by MOGs

Major Output groups - 2019

F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

F1 (before F4 - Philip): Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Major Output groups - 2016

F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: - We will have analyzed the environment created by the interaction of policies and implementation at the level of practice, and how these affect adaptation. - Will have begun to analyze how science-policy interaction influences policy.

Brief summary of your actual 2016 contribution towards the selected MOG: Research has collected rich data addressing these two points. It has been written up in attached working papers, which are currently being converted into submissions for peer review.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: Examination of local level analysis of the environments created by policy will include a gendered analysis.

Summary of the gender and social inclusion dimension of the 2016 outputs: The research has evolved in such a way that household level analyses have not been a focal point, thus minimizing any substantial gender analysis.

F1 (before F4 - Philip): Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

Brief bullet points of your expected annual 2016 contribution towards the selected MOG:

Because of budget cuts, this MOG should be removed from this project.

Brief summary of your actual 2016 contribution towards the selected MOG: Because of budget cuts, this MOG should still be removed from this project

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output:
N/A

Summary of the gender and social inclusion dimension of the 2016 outputs: The research has evolved in such a way that household level analyses have not been a focal point, thus minimizing any substantial gender analysis.

Major Output groups - 2015

F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: Scoping studies in both sites have outlined actual national policy processes, including formulation and implementation, providing a foundation for informed engagement toward MOG.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:
<Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: Scoping studies identified relevant gender and social inclusions issues to be pursued in follow up research.

F1 (before F4 - Philip): Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: Scoping studies in both sites have outlined actual national policy processes, including formulation and implementation, providing a foundation for informed engagement toward MOG.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output:
<Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: Scoping studies identified relevant gender and social inclusions issues to be pursued in follow up research.

Major Output groups - 2014

F1 (before F4 - Philip): Improved national planning processes through policy analyses, (re)formulation and implementation; and stakeholder analyses and engagement through scenarios, learning alliances and science-policy dialogues

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

F1 (before F4 - Philip): Effective supra-national governance systems and equitable engagement mechanisms between international and regional/national stakeholders to influence global policy and strengthened capacities to integrate local priorities into global fora

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

5.2 Deliverables

D395 - Description of policy environment in pastoral/agropastoral settings in Ethiopia and Senegal and impacts on CCA

Main Information

Type: Reports and other publications

Subtype: Research workshop report

Status: Complete

Year of expected completion: 2016

New expected year: <Not Defined>

Cross-cutting dimension:

- N/A

Deliverable dissemination

Is this deliverable already disseminated: No

Open access: No

Open access restriction: <Not Defined>

License adopted: No

Deliverable Metadata

Disseminated title: <Not Defined>

Description / Abstract: <Not Defined>

Publication / Creation date: <Not Defined>

Language: <Not Defined>

Country: <Not Defined>

Keywords: <Not Defined>

Citation: <Not Defined>

Handle: <Not Defined>

DOI: <Not Defined>

Creator / Authors: <Not Defined>

Deliverable Quality check

FAIR Compliant: **F A I R**

Deliverable Data sharing

Deliverable files:

https://marlo.cgiar.org/data/ccafs/projects//7/deliverableDataSharing/SciPolInterfaceWP_Senegal.pdf

https://marlo.cgiar.org/data/ccafs/projects//7/deliverableDataSharing/SciPolInterfaceWP_Ethiopia.pdf

Partners contributing to this deliverable:

ILRI-F1 (before F4 - Philip)-EA-WA-P7 - Research Project

Submitted on 2017-02-20 at 14:41 (Reporting cycle 2016)



RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security



Institution	Partner	Type
ILRI - International Livestock Research Institute	Robinson, Lance <l.robinson@cgiar.org>	Responsible

5.3 Project Highlights

No project highlights added

6. Activities

A208 - Analysing the science-policy-practice interface

Description: This project aims to conduct empirical analysis of policy formation and implementation as a social process that involves complex interactions between a wide variety of stakeholders, including global policy and research actors, donor agencies, national policymakers, government ministries and their staff at various levels, civil society stakeholders, and sub-national political actors. First, we will analyze national policy environments that influence pastoral and agropastoral systems in East and West Africa. The second part of the approach is to analyze the dynamics of the science-policy interface platforms in real-time. Where the first part of the research assesses the overall policy environment, the second part emphasizes interface mechanisms between science and policy, focusing on how scientific information is produced, delivered, received, and drawn upon in the shaping of policies. Such analyses will enable a detailed understanding of the co-production of science, policy and (development) practice. [Project description is the same as activity description]

Start date: Jan 2015

End date: Dec 2017

Activity leader: ILRI - International Livestock Research Institute Robinson, Lance
<l.robinson@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: Research has proceed apace. Data collection is mostly completed; analysis and write up have begun.

Deliverables in this activity:

- D390: Analysis of cross-scale governance and policy dynamics in Senegal and Ethiopia

7. Leverages

No leverages added

Title: ILRI Mitigation in livestock systems and LED pathways

1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2015	Dec 2018	RP EA	Radeny, Maren <M.Radeny@cgiar.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2, Bilateral	On-going	ILRI - International Livestock Research Institute - Kenya	Ericksen, Polly <p.ericksen@cgiar.org>

Project is working on

Flaship(s)
F3 (Lini): Low emissions development

Region(s)
EA: East Africa

Project summary

This project integrates social and biophysical research, including surveys, ethnography, spatial and mechanistic modeling, and targeted GHG measurements, to co-define with stakeholders landscape mitigation leverage points, supportive social constructs, and national priorities in order to inform ongoing climate change policy processes in Uganda, Tanzania, and Kenya, through a focus on high mitigation potential livestock systems. The project seeks to answer four research questions: 1. Where are high mitigation potential livestock systems based upon current information? 2. What is the uncertainty of current information on emissions and spatial data for the identified livestock systems? 3. What are the incentives, institutional environments and investments needed for smallholders to adopt livestock climate smart practices and do they differ by geography (landscape), livelihood and gender? 4. What are the best strategies for engaging research users and value chain actors to implement LEDs?

2. Partners

Partner #1 (Leader)

Institution: ILRI - International Livestock Research Institute

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Ericksen, Polly <p.ericksen@cgiar.org>	Activity 2014-422 *Leader*. Activity 2014-102 *Leader*.	HQ
Partner	Butterbach-Bahl, Klaus <k.butterbach-bahl@cgiar.org>	Activity 2014-73 *Partner*. Activity 2014-213 *Leader*.	HQ
Partner	Crane, Todd <T.Crane@cgiar.org>	Activity 2014-293 *Leader*.	HQ
Partner	Goopy, John <J.goopy@cgiar.org>	Leads the emissions measurements activities.	HQ
Partner	Pelster, David <d.pelster@cgiar.org>	Leads one deliverable.	HQ

Partner #2

Institution: CIFOR - Center for International Forestry Research

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Rufino, Mariana <m.rufino1@lancaster.ac.uk>	Activity 2014-213 *Partner*. Activity 2014-73 *Leader*.	HQ
Project Coordinator	Martius, Christopher <C.Martius@cgiar.org>	Oversees the project for CIFOR	HQ

Partner #3**Institution:** ICRAF - World Agroforestry Centre**Contact(s):**

Type	Contact	Responsibilities and contributions	Branch
Partner	Rosenstock, Todd <t.rosenstock@cgiar.org>	no longer an active partner.	HQ

Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	The deep budget cuts from Window 1/ 2 are damaging as you know. Fortunately we have not had to disappoint any local partners or students under this project.

Partnerships overall over the last reporting period:

The partnership between ILRI and CIFOR continues as the backbone of this project. This partnership enabled us to successfully obtain IFAD funding to complement the CCAFS funds, and indeed to keep the project going after the 2015 and 2016 cuts. In spite of personnel changes at CIFOR the partnership is still strong, and the two centres complement each other on all aspects of the work. Sadly ICRAF was not able to remain as active due to the budget cuts.

3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Country			Kenya
Country			United Republic of Tanzania

4. Outcomes

4.1 Project Outcomes

Project Outcome statement:

National policy makers and donors use the decision support provided by this project for the design of and investment in LED pathways for livestock systems in Kenya and Tanzania based on robust evidence about mitigation potentials, institutional incentives, and tradeoffs/synergies between mitigation and development. The research will support a reduction in GHG emission intensities from livestock production (live weight, milk, per head) of 25% in intensive livestock systems of mixed highlands by 2019. The following specific outputs are expected by 2018. • Synthesis of current data and uncertainties on livestock-related emissions for East Africa. • Improved emissions estimates for livestock systems across East Africa. • Assessment of adoption potential of climate smart livestock technologies. • Recommendations for creating the required institutional mechanisms and enabling environment to promote adoption of climate smart livestock practices.

Annual progress towards outcome (end of 2016*): The regional baseline will be published. We will begin to target livestock systems in either Tanzania through the mapping and analysis of social differentiation as well as discussions with climate change units and livestock ministry staff.

Annual progress towards project outcome in the current reporting cycle (2016*): The global synthesis of data and uncertainties has been described in two publications (Roman-Cuesta et al 201x and 2016). For Kenya, this analysis is still ongoing (although partially reported in Brandt et al 2016). Brandt et al 2016 describes feed and manure management scenarios of dairy in Kenya. This paper indicates how much feed intensification and manure management might reduce GHG emissions from the dairy sector using spatially explicit maps, to help decision makers better target their interventions. For improved emissions factors, we have baseline data for two counties in Kenya for enteric ruminant emissions. Preliminary analysis indicates that these are lower than default IPCC values. This analysis will be published in 2017. For Kenya will have paper on enteric methane in early 2017. For manure, Pelster et al 2016 J.Env Q reported results from one study showing lower emissions than IPCC; an additional 6 months of data is consistent with this. A PhD study on how land use type affects emission from soils is also nearing completion and indicate that the most important determinants are land use and soil type. On the adoption potential, a paper on Best Practices for socially and gender inclusive dairy development contributed to the NAMA proposal. A second analysis of data on household gender dynamics has been submitted. A third analysis on how the interactions between households and dairy hubs affects the gendered adoption of market engagement is under way. This work all contributes to recommendations to ensure that any interventions intended to increase adoption of LED practices do not exacerbate gender inequities (at a minimum).

How communication and engagement activities have contributed to achieving your Project outcomes:*

In Kenya we have relied on continued engagement with the State Department of Livestock about the proposal for a Dairy NAMA; this has broadened now through the small USAID LED Feasibility study. In November we participated in LED event at COP for the first time, making links to Ethiopian contacts.. We also note that we are engaging with SLEEK and the Climate Change Directorate, to support an initiative to develop emissions factors for Kenya for manure management, following the protocols

and methods used at ILRI Mazingira centre.

Evidence documents of progress towards outcomes:* <Not Defined>

Annual progress towards outcome (end of 2015): We will have reviewed the emissions targets in the Kenya NAMA and the Kenya Livestock Master Plan. We will use the regional assessment to assess which plans to target in 2016, 2017 and 2018.

Annual progress towards outcome (end of 2017): Preliminary analysis of adoption potential of identified feeding strategies in at least two livestock systems (Kenya, Tanzania). Preliminary analysis of uptake of emissions results into Tanzanian national plans.

Annual progress towards outcome (end of 2018): Project outcome achieved (end of four years).

lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:* It is more difficult that we thought to get clear policy direction from country stockholders, as the NDCs are still so new, and cross ministry collaboration is still a challenge.

4.2 CCAFS Outcomes

RP EA Outcome 2019: National Governments and Agencies (Ministries of Environment, Agriculture and the National Environment Authorities) are designing, developing and implementing low emissions strategies for agriculture.

Indicator #1: # of low emissions plans developed that have significant mitigation potential for 2025, i.e. will contribute to at least 5% GHG reduction or reach at least 10,000 farmers, including at least 10% women.

2019

Target value: 0

Cumulative target to date: 1

Target narrative: Either the Tanzania or Uganda national plans also include emissions reductions in the Dairy sector. The plans will have solid evidence for how to achieve the 5% reduction based upon the targeting work as well as the measurements which have greatly reduced the uncertainty that currently exists and make it difficult to include the dairy sector in climate change investments.

The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined>

2015

Target value: 0

Cumulative target to date: 0

Target narrative: The regional baseline will start in 2015 so we will not have a target until 2016. We also need 2015 to review the two Kenya national plans and understand how to improve the data and estimates.

The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined>

2016

Target value: 1

Cumulative target to date: 1

Target achieved: 1.0

Target narrative: The Kenya national plan (NAMA) will have solid evidence for how to achieve the 5% reduction based upon the targeting work as well as the measurements which have greatly reduced the uncertainty that currently exists and make it difficult to include the dairy sector in climate change investments. Through the different project and private sector implementation initiatives under the ICRAF/ Unique Forestry project this plan could reach between 200 and 600 thousand farmers.

Narrative for your achieved targets, including evidence: We continue to support the efforts to develop a dairy NAMA in Kenya, hence we can count one plan that we are helping to influence. In terms of the narrative, the targeting deliverables (D400 and D403) can be used to better target the interventions, once the stakeholders are ready. The emissions factor development is well underway, and we are in discussions with several national (SLEEK, NAMA) and international initiatives (CCAC/ FAO, GRA) to use these new results to improve the quality of GHG emissions reporting from livestock development in Kenya.

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS

outcome: Two deliverables from 2016 contribute towards this outcome. First is a report on Best Practices for gender and socially inclusive development, a contribution to the Dairy NAMA proposal. This summaries experience from a range of practitioners on how to make dairy interventions better respond to the needs of both men and women. Second is a paper summarising data from the East African Dairy Development program in Kenya, showing that women and men not only play different roles in dairy value chains but that they report on those roles differently. These insights are informing future field work.

The expected annual gender and social inclusion contribution to this CCAFS outcome: Note the target of 10% of beneficiary farmers to be women. In order to comply with this we are conducting research into the gendered nature of participation in dairy value chains as well as the implications of introducing interventions and incentives to reduce emissions from dairy value chains on women.

Major Output groups:

- F3 (Lini): Methods and data for quantifying low-emissions agriculture options appropriate to smallholder farmers
- F3 (Lini): Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

4.3 Other Contributions

Contribution to other CCAFS Impact Pathways:

Activities 2014-102 and 2014-213: Are also contributing to the overall FP 3 impact pathway Outcome 1 on Science-based decision making - Global standards organizations and national decision-makers are planning and implementing low-emissions development strategies that contribute to food security, using reliable, comparable quantification data and decision support tools. This same activity Also contributes to the FP 3 outcome number 1. Activity 2014-293: FP 3 outcome 2: incentives and innovations.. We contribute by conducting research on social and institutional issues necessary to get the incentives for behaviour change right. This is a major contribution of our new IFAD project.

Collaborating with other CRPs

Livestock and Fish

Description of collaboration: The gender postdoc is joint between CCAFS and Livestock and Fish. We are using the value chain concept in our research into LED for Dairy. In Tanzania we will co-locate our measurement work in one of the L&F value chains.

4.4 Case Studies

Case Study #93

Title: Kenya prepares GCF concept note for low-emission and climate resilient dairy development

Year: 2016

Project(s): P12

Outcome Statement: With four years of technical and financial support from CCAFS, Kenya's State Department of Livestock has completed the development of a Green Climate Fund (GCF) concept note for a dairy NAMA. The NAMA, titled "Low-emission and climate resilient dairy development in Kenya," will catalyze investments of USD222.6 million in Kenya's dairy sector, directly impact over 150,000 households and reduce emissions by 8.80 MtCO₂e over the 10-year implementation period.

Research Outputs: 1. Smallholder dairy methodology: Draft methodology for quantification of GHG emission reductions from improved management in smallholder dairy production systems using a standardized baseline (<http://hdl.handle.net/10568/77602>) 2. Systematic review of the factors influencing the adoption of technologies, management practices and marketing channels in smallholder dairy production 3. 6 feasibility studies for the components of the NAMA, included as annexes in the GCF concept note. Studies a, b, and c will also be published as CCAFS info-briefs. a. Processor-led provision of gender-inclusive extension services to their suppliers b. Financial assistance for on-farm investments by farmers and cooperatives c. Increased commercial production and marketing of fodder d. Energy efficiency and renewable energy in cooling and processing facilities e. Adoption of biogas technologies by male and female dairy farmers f. Strengthened institutional and stakeholder capacities for scaling up low-emission dairy development 4. GCF Concept note (available on request but not yet for public dissemination)

Research Partners: ICRAF: Project leader (2015-onwards), project P13 ILRI: Conducted research on best climate-smart dairy practices, maintained partnerships with Kenyan ministries UNIQUE Forestry and Land Use: Research leader FAO: Partner in capacity building/training for the Ministry of Agriculture, Livestock and Fisheries on NAMAs

Activities: This outcome was the result of nearly 4 years of research and engagement by CCAFS, ICRAF, ILRI and UNIQUE Forestry and Land Use with ministries, donors, dairy companies, and producers' organizations. Numerous stakeholder consultations informed project design, including: • A multi-stakeholder platform meeting (September 2015), attended by 47 farmers, dairy, biogas and financial companies, and national and county government officials, served to raise awareness and obtain feedback on the scope and objectives of the project. • Consultations (November 2015) were held with 45 farmers, farmer organization and county government representatives from 8 counties (Muranga, Nyeri, Nyandarua, Kirinyaga, Meru, Embu, Tharaka Nithi, Machakos) to integrate the project with ongoing initiatives at county level. • A second multi-stakeholder platform meeting (August 2016), attended by 71 representatives of dairy and biogas companies, financial institutions, civil society organizations, development partners and government institutions, at which the draft project concept was shared and discussed.

Non-Research Partneres: 1.Kenya's National Treasury: GCF National Designated Authority, responsible for submission of the concept note to GCF 2. Dairy processors (e.g. Brookside, New Kenya Cooperative Creameries): Involved in technical design of the concept note and dissemination of best practices to suppliers 3. IFAD: GCF Accredited Entity for the project

Output Users: The State Department of Livestock, part of the Ministry of Agriculture, Livestock and Fisheries (MoALF): Executing Entity for the NAMA; co-developed the concept note and submitted to the National Treasury 2. Kenya Dairy Board: Dissemination of project practices and lessons throughout the sector and across counties to support wider replication

Evidence Outcome: (1) The concept note for the dairy NAMA, as submitted by Kenya's State Department of Livestock to the National Treasury and (2) a letter accompanying the concept note submission from the Principal Secretary of the State Department of Livestock, citing support from CCAFS. NOT YET FOR PUBLIC DISSEMINATION

Output Used: Outputs were used directly by the State Department of Livestock and Kenya Dairy Board to formulate the GCF concept note and disseminate practices. IFAD and Government of Kenya have committed USD 14.58 million and USD 2.23 million, respectively, in project co-financing.

References Case: Kenya's Dairy Nationally Appropriate Mitigation Action (NAMA) Concept Note: A Proposal for a Green Climate Fund Project. January 2017 NOT YET FOR PUBLIC DISSEMINATION

Primary 2019 outcome indicator(s):

- # of low emissions plans developed that have significant mitigation potential for 2025, i.e. will contribute to at least 5% GHG reduction or reach at least 10,000 farmers, including at least 10% women.

Link between outcome story and and the FP Outcome(s): Enhancement of equitable access to assets and participation in decision making for women in household dairy enterprises will be a key focus of the gender-inclusive extension approaches promoted by the NAMA. Benefits are expected for 152,700 households, with an estimated population of about 800,000 people, including 400,000 women and youth.

Annex uploaded:

<https://marlo.cgiar.org/data/ccafs/projects//111/caseStudy/NAMA%20Kenya%20Dairy%20NAMA%20GCF%20concept%20%20Note,January%202017.pdf>

5. Project outputs

5.1 Overview by MOGs

Major Output groups - 2019

F3 (Lini): Methods and data for quantifying low-emissions agriculture options appropriate to smallholder farmers

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

F3 (Lini): Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Major Output groups - 2016

F3 (Lini): Methods and data for quantifying low-emissions agriculture options appropriate to smallholder farmers

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2016 contribution towards the selected MOG: Initial calculations of emissions factors for manure management and ruminant digestion have been shared. One journal publication for manure management is available.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2016 outputs: Two reports shared on improving gender inclusion for dairy development, and understanding gender differences in value chain participation.

F3 (Lini): Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2016 contribution towards the selected MOG: One publication summarising potential contributions of feeding and manure management for the dairy sector in Kenya shared, including several different scenarios of adoption, emissions reductions or increases from both livestock production and land use change.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2016 outputs: The above mentioned reports will guide the identification of "best" interventions for low emissions in the livestock sector to ensure gender equity in adoption of the interventions.

Major Output groups - 2015

F3 (Lini): Methods and data for quantifying low-emissions agriculture options appropriate to smallholder farmers

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: Developed national level targeting strategy for selecting geographic locations for collecting data to develop estimates of emissions (current) and future reductions through targeted interventions. Developed and implemented sampling strategy for collecting emissions data from smallholder dairy systems at county level. Begun data collection for feed/ manure interventions.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: This is a geographic targeting process so gender not important.

F3 (Lini): Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: Engaging with the Kenya Dairy NAMA development process. Consulted with EADD partner Heifer as well as local Nandi stakeholders on site/ intervention sampling strategy.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: Undertaking analysis to understand the current gender differentiated roles in dairy production, to inform future analysis of how changes in dairy production to reduce GHG emissions will have an impact on women's duties and responsibilities.

Major Output groups - 2014

F3 (Lini): Methods and data for quantifying low-emissions agriculture options appropriate to smallholder farmers

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

F3 (Lini): Decision support for identifying and prioritizing low-emissions CSA options, including synergies and tradeoffs with development objectives

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

5.2 Deliverables

D3036 - Best practice guide to socially and gender-inclusive development in the Kenyan intensive dairy sector

Main Information

Type: Training materials

Subtype: Guidebook/Handbook/Good Practice Note

Status: Complete

Year of expected completion: 2016

New expected year: <Not Defined>

Cross-cutting dimension:

- Gender
- Capacity Development

Gender level(s):

- Development of innovations/ interventions/ policies with explicit gender targeting
- Analysis of sex-disaggregated data

Deliverable dissemination

Is this deliverable already disseminated: Yes

Dissemination Channel: CGSpace

Dissemination URL:

<http://hdl.handle.net/10568/79382>

Open access: Yes

License adopted: CC_BY

Deliverable Metadata

Disseminated title: Best practice guide to socially and gender-inclusive development in the Kenyan intensive dairy sector

Description / Abstract: This report is a guide to best practices for gender and social inclusion in Kenyan intensive dairy sector. This guide is meant as a practical resource to inform the development of Kenya's Nationally Appropriate Mitigation Action (NAMA) strategy. Kenya's NAMA will provide climate finance mechanisms to a number of stakeholders in the livestock sector who are currently practising or interested in low-emissions development. Although development interventions in Kenya's dairy industry have begun to recognize gender and social differentiation issues, there is a critical need to fill the knowledge gaps that exist in the practical application of gender mainstreaming from policy to field level. This guide provides a synthesis of lessons learned and recommendations for gender-equitable low-emissions development. The guide draws upon both extant literature and project experiences revealed by industry experts (n=12). To safeguard the anonymity of participants, no personal names or official positions are mentioned. This guide solely focuses on high-potential dairy development areas, as these are the priority sites for Kenya's NAMA.

Publication / Creation date: 2017-01-01

Language: en

Country: KENYA

Keywords: DAIRIES,GENDER,LIVESTOCK

Citation: Tavenner, K. and Crane, T.A. 2016. Best practice guide to socially and gender-inclusive development in the Kenyan intensive dairy sector. ILRI Project Report. Nairobi, Kenya: ILRI.

Handle: <http://hdl.handle.net/10568/79382>

DOI: <Not Defined>

Creator / Authors:

- Tavenner, - K.
- Crane, - Todd

Deliverable Quality check

FAIR Compliant: **F A I R**

Partners contributing to this deliverable:

Institution	Partner	Type
ILRI - International Livestock Research Institute	Crane, Todd <T.Crane@cgiar.org>	Responsible

5.3 Project Highlights

Project highlight 191

Title: What are you feeding your cow: Dairy farmers trained on feeding and feed management

Author: John Goopy

Subject:

Publisher:

Year reported: 2016

Project highlights types:

- Capacity enhancement

Is global: No

Start date: Jan 2016

End date: Dec 2016

Keywords: dairy, feeding practices, productivity

Countries:

Highlight description: This describes a training course designed and delivered by ILRI training farmers in improved feeding practices. Although this is not a direct contribution to one of the official CCAFS outcomes, we think that improving farmer capacity in improved feeding practices is a key step in the pathway to impact. Over 100 farmers have been trained on different sources of feed, best practices to ensure nutritional quality. Hands on training sessions were a key part, and a training manual was disseminated.

Introduction / Objectives: Often, lack of farmer understanding of their dairy cattle nutritional requirements (and how to meet these) is a major impediment to increasing dairy production. Feed constraints are among the key constraints that smallholder dairy farmers grapple with. The International Livestock Research Institute (ILRI) under the Mazingira Centre- an environmental research and educational facility- has identified the need to build the capacity of farmers to improve the productivity of their dairy cows. Over 100 farmers have been trained in 2016 and early 2017.

Results: The training sessions exposed farmers to various sources of feed available. Farmers were trained through hands on sessions including silage preparation, best times to harvest pastures, and how to preserve forages.

Partners: GIZ funded the project. The trainings were conducted with the KALRO Bukura Farmer Training College.

Links / Sources for further information: <Not Defined>

6. Activities

A73 - Targeting agricultural systems and field measurements to reduce uncertainties in GHG emissions;

Description: Compile and analyse spatially explicit (local to national) activities (systems, land use, feed/biomass, emissions) and socio-economic data from downscaled global data sets, national statistical information and CGIAR databases, and quantify uncertainties to set targets for emissions reduction and to guide measurements. Assess potential to scale out mitigation interventions, informed by technical, economic, institutional issues, aligning with interventions to national LED pathways.

Start date: Jan 2015

End date: Dec 2018

Activity leader: CIFOR - Center for International Forestry Research Rufino, Mariana
 <m.rufino1@lancaster.ac.uk>

Status: On-going

Overall activity or progress made during this cycle: 1. Journal article submitted to Global Environmental Change: "Quantitative assessment of sectoral climate change mitigation options and their contribution to national targets: the case of dairy production in Kenya". This study assessed baseline emissions for the whole dairy sector of Kenya, including the 2 counties where ILRI and CIFOR conduct the research for Greening livestock. A number of scenarios are tested to estimate promising mitigation options through feeds and manure management. Highlight of this study is the risk of increased emissions due to land use change, which are spatially-explicit results of the analyses 2. Two reports on "Effects of agricultural intensification on forest degradation across Afri-montane forest landscapes in Kenya" and "Drivers of forest degradation and deforestation and GHG emissions in Kenya", show the preliminary results of 2 studies that show the linkage between dairy and livestock keeping and deforestation and forest degradation.

Deliverables in this activity:

- D403: Spatially explicit mapping of promising mitigation options at county level
- D400: Discussions about emissions uncertainties and hotspots for interventions;

A213 - Address uncertainties from activity 2 through measurement of fluxes, etc. using the SAMPLES protocol.

Description: Use the SAMPLES protocol to address uncertainties in the GHG estimates from livestock production through measurement of fluxes, biomass flows, manure management, feed quality, livestock numbers and land use.

Start date: Jan 2015

End date: Dec 2018

Activity leader: ILRI - International Livestock Research Institute Butterbach-Bahl, Klaus
<k.butterbach-bahl@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: The uncertainty analysis has been partially addressed in the deliverable 616 but not completely as the field data collection is still ongoing and hence we cannot do the full uncertainty analysis. The emissions factors are under development and this has been reported under the deliverables section. Several global publications have been uploaded as described in the deliverables section. These are high level publications assessing overall uncertainties for the AFOLU sector (Roman Cuesta et al). The SAMPLES papers and book have all been published and this is well documented.

Deliverables in this activity:

- D616: Emissions factors for different dairy feeding strategies, manure management options, manure application
- D613: Diet mapping for East African dairy industry.
- D614: Manure management survey and mapping for East Africa.

A293 - Assess social organisation and institutional incentives of current smallholder value chain activities in livestock systems

Description: Assess social organization and institutional (including economic) incentives of current smallholder and value chain activities in livestock systems across geography and livelihood diversity and gender, complementing the information from activity 2. Using ethnographic methods, empirically document and analyze the mechanisms that link incentive structures and individual behaviour along value chains.

Start date: Jan 2015

End date: Dec 2018

Activity leader: ILRI - International Livestock Research Institute Crane, Todd <T.Crane@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: Field work on the dynamics of gender participation in dairy development and the formal sector economy has been conducted in Nandi and Bomet. The full analysis of gender dynamics of market engagement is underway. Analysis of secondary data from EADD describing gender divisions at the household level in decision making, resources and labour, has been submitted. Several publications will come out in 2017. For the IFAD funded project, two PhD students have been recruited to start the analysis of "The cross-scale political economy of Dairy Development in Tanzania and Kenya".

Deliverables in this activity:

- D623: Report analysing the social distribution of participation in targeted livestock value chains
- D624: Analysis of the institutional mechanisms underpinning the social distribution of participation in livestock value chains
- D1095: Study on social contexts and conditions affecting gender equality in livestock value chains

A422 - Social Science Fellow – Gender Research

Description: The Post-Doctoral Fellow (PDF) would be a key contributor to, and significantly increase gender expertise in CCAFS and L&F through their research on social contexts and structural and normative conditions affecting opportunities for increasing gender equality in livestock value chain development in East Africa, with attention to reducing risk for women due to climate change and reducing emissions through making dairy production more efficient. The PDF is funded by the the CGIAR 2014 Gender Postdoctoral Fellowship for 54,050 per year for two years and 50,000 per year for two years from FP3 W1/2 funds.

Start date: Jan 2015

End date: Jul 2017

Activity leader: ILRI - International Livestock Research Institute Ericksen, Polly
<p.ericksen@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: The Gender Post Doc has been in post now for 18 months. Two reports on her progress have been submitted to CIAT and the CGIAR System Office. A report and a paper have been submitted. Another paper is under way. She is fully integrated into the project.

Deliverables in this activity:

- D623: Report analysing the social distribution of participation in targeted livestock value chains
- D1095: Study on social contexts and conditions affecting gender equality in livestock value chains

7. Leverages

No leverages added

Title: Surveillance and early warning systems for climate sensitive diseases in Vietnam and Laos

1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2015	Dec 2018	RP SEA	Tan Yen, Bui <y.bui@irri.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2	On-going	ILRI - International Livestock Research Institute - Kenya	Nguyen, Hung <h.nguyen@cgiar.org>

Project is working on

Flaship(s)
F4 (before F2 - James): Climate services and safety nets

Region(s)
SEA: Southeast Asia

Project summary

A warmer, wetter world is likely to be sicker. The Mekong is a hotspot for human, animal and plant disease, and some of the most important are highly sensitive to climate and climate changes. These diseases impose enormous burdens on human health and the agricultural sector and hinder broader development. Better tackling climate sensitive disease requires better information and tools. We identify a portfolio of climate-based information systems that target important diseases and are used successfully in other countries. We propose action research to adapt them for Vietnam/Laos and ensuring delivery through partnerships. The outcome is farming communities that are able to take practical action to reduce disease risk and/or benefit from risk-mitigating action by health providers. The impacts are better health, reduced economic loss from disease, increased food security, and ecosystems protected from disease spillover and misuse of agricultural chemicals

2. Partners

Partner #1 (Leader)

Institution: ILRI - International Livestock Research Institute

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Nguyen, Hung <h.nguyen@cgiar.org>	Activity 2014-203 *Leader*.	Ho Chi Minh, Vietnam
Partner	Bett, Bernard <b.bett@cgiar.org>	Activity 2014-204 *Leader*.	Ho Chi Minh, Vietnam
Partner	Lindahl, Johanna <Johanna.Lindahl@slu.se>	Activity 2014-205 *Leader*.	HQ
Partner	Grace, Delia <d.grace@cgiar.org>	Activity 2014-249 *Leader*.	Ho Chi Minh, Vietnam
Project Coordinator	Lee, Hu Suk <h.s.lee@cgiar.org>	Dr. Hu Suk Lee is a postdoc scientist of this He started working for ILRI from July 2015 and is the main person to work in Vietnam on the sero-prevalences of zoonotic diseases and epidemiological analysis between diseases and climate change.	Ho Chi Minh, Vietnam

Partner #2

Institution: ICRAF - World Agroforestry Centre

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Xu, Jianchu <J.C.Xu@cgiar.org>	Activity 2014-206 *Leader*.	Los Baños, Philippines
Partner	Su, Yufang <suyufang@mail.kib.ac.cn>	Activity 2014-206 *Co-Leader*.	Los Baños, Philippines

Partner #3

Institution: HSPH CENPHER - Hanoi School of Public Health Centre for Public Health and Ecosystem Research

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Pham Duc, Phuc <pdp@hsph.edu.vn>	Activity 2014-203 *Partner*. Activity 2014-204 *Partner*. Activity 2014-249 *Partner*.	HQ

Partner #4

Institution: IMHEN - Institute of Meteorology, Hydrology and Environment

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Quyen, Nguyen Huu <quyen.nguyenhuu@imh.ac.vn>	Mr. Quyen is a national partner from IMHEN and to work on climate data	HQ

Partner #5

Institution: MARD - Ministry of Agriculture and Rural Development

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Thanh, Ha Minh <thanhhanipp@yahoo.com>	Dr. Ha Minh Thanh from the Plant Protection Research Institute (PPRI) is the responsible for aflatoxin sampling and analyses in Vietnam	HQ
Partner	Nguyen, Tung <nguyentungncvd@hotmail.com>	Dr. Tung Nguyen is the head of Epidemiology Division, Department of Animal Health, MARD. He is collaborating in providing pig serum samples and analyses of leptospirosis and Japanese encephalitis.	HQ
Partner	Khong, Nguyen Viet <nguyenvietkhong@yahoo.com>	Dr. Nguyen Viet Khong is the Deputy Director of National Institute Veterinary Research (NIVR), MARD. He is collaborating regarding pig serum/urine sampling, and analyses of leptospirosis, Japanese encephalitis and aflatoxins.	HQ

Partner #6

Institution: MOH - Ministry of Health

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Huong, Nguyen <huong.fetp@gmail.com>	Dr Huong Nguyen is our contact person at the General Department of Preventive Medicine, connecting research team and outputs for public health translational impact	HQ

Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	We have learned that it is very important to share information/knowledge with partners in a timely manner before writing reports

Partnerships overall over the last reporting period:

Our partners have played a significantly important role in the implementation of sampling, lab analysis and survey as well as preparing financial/technical reports. We think that our partners have met our satisfaction.

3. Locations

This project is not global

Project level	Latitude	Longitude	Name
Country			Lao PDR
Province	21.0233	105.8453	Hanoi
Province	21.3289	103.9174	Son La
Province	19.1855	104.9153	Nghe An
Province	12.8343	108.0262	Dak Lak
Province	10.8991	107.0155	Dong Nai
Province	10.5321	105.1698	An Giang

4. Outcomes

4.1 Project Outcomes

Project Outcome statement:

Animal health, livestock and crop management bodies at different levels will use the information from the project (early warning system for climate sensitive diseases) to adapt or develop strategies and policies to better identify and reduce risks of livestock and crop diseases related to climate change. Farmers from the study sites and other places in Vietnam will know timely when they harvest maize or optimize the time of harvest to avoid diseases and to gain the productivity. The period of harvesting will be provided by the tools developed by the project to forecast the time of diseases occurrence and communicated by crop management organizations at the local levels. They will also know timely to prevent their pigs from getting sick or when they have to sell pigs to avoid the impact of diseases. The alerts on high risk of specific diseases prevention and time to selling animals will be provided by the tools developed by the project and communicated to farmers by animal health workers or extension services. Particularly, farmers in Laos will be aware of the best time for rubber tapping based on the climate information system developed.

Annual progress towards outcome (end of 2016*): Provincial departments of agriculture and rural development where the animal diseases hot spots are present will take full set of animal disease hot spots maps from the project as advisories. This will serve to inform the risk of animal diseases in their respective province.

Annual progress towards project outcome in the current reporting cycle (2016*): We conducted sampling/survey from 6 provinces in collaboration with national partners in order to better understand the prevalence/awareness of climate sensitive zoonotic diseases (CSZDs) as well as obtaining secondary datasets from ministries. Then, we assessed the seasonal pattern of CSZDs and its associated climate factors in Vietnam. In addition, we developed risk maps for CSZDs.

How communication and engagement activities have contributed to achieving your Project outcomes:*

We had the mid-term meeting with national partners in order to share knowledge/information as well as discussion on how to move forward for this project. In addition, if we have any issues, we would try to contact our partners on a regular basis as much as we can in order to minimize our mis-communication.

Evidence documents of progress towards outcomes:* <Not Defined>

Annual progress towards outcome (end of 2015): Provincial departments of agriculture and rural development where the animal diseases hot spots are present will take a first set of animal disease hot spots maps from the project as advisories to inform the risk of animal diseases in their respective province.

Annual progress towards outcome (end of 2017): Pilot farmers will have information to help mitigate zoonotic pig disease risk (e.g. When to vaccinate their pigs). This information is from the project (early warning system for climate sensitive diseases)

Annual progress towards outcome (end of 2018): In Laos, rubber management bodies will develop a system to provide farmers with information on the best time for rubber tapping thanks to the climate information system developed in Laos and China. Also in Laos, animal health workers and human health workers will develop a pilot whereby they will meet and work together with monitoring people to better prevent diseases transmitted from animal to humans.

lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:* We conducted survey to evaluate the prevalence of aflatoxins. As a result, positive levels of aflatoxins were not higher than other African countries. Here, we have learned that depending on the countries or continents, we may need to target different CSZDs.

4.2 CCAFS Outcomes

RP SEA Outcome 2019: National public sector institutions and the private sector (ICTS, media) understand climate information needs of stakeholders in the food system; collaborate on the design of climate services and products to meet those needs; and interpret and communicate the climate information effectively. Farmers access and use climate and early warning information and advisories.

Indicator #1: Number of regional, national, and/or sub-national initiatives incorporating research outputs to develop or improve major demand-driven, equitable, climate informed services that support rural communities

2019
<p>Target value: 0</p> <p>Cumulative target to date: 11</p> <p>Target narrative: Activity 2014-204: Number of farmers with improved capacity to adapt to climate related risk by accessing research-informed climate services and/or well-targeted safety nets. This is for the pilot: the potential number of farmers at risk and benefiting from information is in tens of millions Activity 2014-205: We target research institutes and universities working on maize production in Vietnam and the region to take up the forecasting model.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>
2015
<p>Target value: 3</p> <p>Cumulative target to date: 3</p> <p>Target narrative: <Not Defined></p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>

2016

Target value: 8

Cumulative target to date: 11

Target achieved: 8.0

Target narrative: Scaling up climate advisories on weather associated plant, animal and zoonotic pests to 8 provincial departments of agriculture and rural development and health department in Vietnam and Laos

Narrative for your achieved targets, including evidence: All partners were invited and participate to/in specify activities on a regular basis that fit into the frame sketched above (Objectives-Results-Outcomes) and that were of relevance and interest to them. Our findings had provided insight into understanding the seasonality and associated climate risk factors. This study may be another way of providing evidence to policy makers, public health workers and general public. However, our project needs to involve more other policy makers from ministerial and provincial levels in addressing CSZDs prevention and reduction.

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS

outcome: We conducted survey in order to better understand knowledge/public awareness of climate sensitive zoonotic diseases (CSZDs) depending on gender, social economic status and education level. We believe that this information might be useful which groups should be targeted as well as how to raise awareness of CSZDs among general public.

The expected annual gender and social inclusion contribution to this CCAFS outcome: The option of mitigating risks of zoonotic and plant diseases will imply the gender and social inclusion contribution

Major Output groups:

- F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries
- F4 (before F2 - James): New knowledge, capacity, and tools supporting the provision of equitable climate services for farmers are developed
- F4 (before F2 - James): Decision support systems improved or developed for incorporation into national food security safety net programs
- F4 (before F2 - James): Evidence and knowledge products synthesizing national gaps and opportunities to guide regional and global investment in climate informed agricultural and food security decision-making

4.3 Other Contributions

Contribution to other CCAFS Impact Pathways:

The impact pathways take place through the take-up of the diseases mapping by next users to prevent and avoid disease outbreak, to support targeted surveillance/control. This will reduce the loss of livestock production and the expenses for animal and human health care due to diseases. This contributes to the improvement of maize quality and economic gain in the most productive regions of maize thanks to avoiding pest will contribute to a better health and well-being of the population. Finally this helps rubber farmers target the best time to tap and therefore leads to an improvement of income and well-being.

Collaborating with other CRPs

Agriculture for Nutrition and Health

Description of collaboration: Agriculture for Nutrition and Health program (A4NH) from ILRI is co-funding for staff time.

Livestock and Fish

Description of collaboration: We are using pig serum samples from L&F CRP to investigate the prevalence of zoonotic diseases and identify the potential risk factors as well as developing risk maps using secondary dataset.

4.4 Case Studies

No case studies added

5. Project outputs

5.1 Overview by MOGs

Major Output groups - 2019

F4 (before F2 - James): New knowledge, capacity, and tools supporting the provision of equitable climate services for farmers are developed

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

F4 (before F2 - James): Decision support systems improved or developed for incorporation into national food security safety net programs

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

F4 (before F2 - James): Evidence and knowledge products synthesizing national gaps and opportunities to guide regional and global investment in climate informed agricultural and food security decision-making

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Major Output groups - 2016

F4 (before F2 - James): New knowledge, capacity, and tools supporting the provision of equitable climate services for farmers are developed

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: - Capacity building for national partners in analyzing aflatoxin and zoonoses. - Providing maps of disease hot spots to local governments and plant and animal health.

Brief summary of your actual 2016 contribution towards the selected MOG: We had the mid-term meeting with national partners which was a good opportunity to share knowledge/information in order to better understand the situations of CSZDs in Vietnam as well as how to reduce the exposure and negative impact of aflatoxins. In addition, we shared the prediction models and risk maps.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: Gender will be involved differently in mitigating risks of zoonotic and plant diseases in terms of production, harvesting and consumption

Summary of the gender and social inclusion dimension of the 2016 outputs: None. It was not related to gender and social issues.

F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: - Capacity building for national partners in analyzing climate data and link these data to diseases.

Brief summary of your actual 2016 contribution towards the selected MOG: We conducted epidemiological GIS training for public health workers how to utilize the national data including analysis. In addition, we are supervising a master student from university in Vietnam.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: There is less gender issues involved here.

Summary of the gender and social inclusion dimension of the 2016 outputs: We are supervising a Vietnamese female student for her master.

F4 (before F2 - James): Decision support systems improved or developed for incorporation into national food security safety net programs

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2016 contribution towards the selected MOG: We conducted survey to evaluate the prevalence of aflatoxins in maize and pigs as well as assessing the public awareness among people for the first time in Vietnam. We expect that our studies might be another way of providing evidence to policy makers, public health workers and general public.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2016 outputs: We conducted survey to evaluate awareness of aflatoxins depending on gender, economic status and education level. We found that demographic factors (such as gender and level of education) significantly influences knowledge of aflatoxins.

F4 (before F2 - James): Evidence and knowledge products synthesizing national gaps and opportunities to guide regional and global investment in climate informed agricultural and food security decision-making

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2016 contribution towards the selected MOG: We conducted the first national studies to systematically evaluate the levels of aflatoxins from maize and pigs in Vietnam. We believe that our findings might be helpful to better understand the disease as well as establishing food safety regulations in order to reduce the health impacts in humans and animals.

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2016 outputs: None. It was not related to gender and social issues.

Major Output groups - 2015

F4 (before F2 - James): New knowledge, capacity, and tools supporting the provision of equitable climate services for farmers are developed

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: Based on our data analysis, we identified the temporal pattern of the climate sensitive diseases in Vietnam. This analyzed information might be useful to develop public health policy in relation with livestock development as well as agricultural and environmental policy.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: None. It was not related to gender and social issues.

F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: We have obtained the climate data last 40 years in Vietnam from Institute of Meteorology and Hydrology and Climate Change, Ministry of Natural Resources and Environment (IMHEN, MONRE),

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: None. It was not related to gender and social issues.

F4 (before F2 - James): Decision support systems improved or developed for incorporation into national food security safety net programs

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: We conducted a systematic literature review in order to understand the relationship between climate change and zoonotic diseases in Vietnam.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: None. Because a project coordinator started working in the middle of July 2015. He was focusing on a systematic literature review in 2015.

F4 (before F2 - James): Evidence and knowledge products synthesizing national gaps and opportunities to guide regional and global investment in climate informed agricultural and food security decision-making

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: We have obtained the national data for human disease cases as well as climate data. We implemented the epidemiological data and prepared posters, leaflet and manuscript for publication.

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: None. It was not related to gender and social issues.

Major Output groups - 2014

F4 (before F2 - James): Decision support systems improved or developed for incorporation into national food security safety net programs

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

F4 (before F2 - James): Evidence and knowledge products synthesizing national gaps and opportunities to guide regional and global investment in climate informed agricultural and food security decision-making

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: Based on our data analysis, we identified the temporal pattern of the climate sensitive diseases in Vietnam. This analyzed information might be useful to develop public health policy in relation with livestock development as well as agricultural and environmental policy.

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: None. It was not related to gender and social issues.

F4 (before F2 - James): New knowledge, capacity, and tools supporting the provision of equitable climate services for farmers are developed

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: Based on our data analysis, we identified the temporal pattern of the climate sensitive diseases in Vietnam. This analyzed information might be useful to develop public health policy in relation with livestock development as well as agricultural and environmental policy.

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: None. It was not related to gender and social issues.

F4 (before F2 - James): New climate information and analysis that enhances the capacity of data providers (e.g. regional and national meteorological institutions) to meet the demands of climate service beneficiaries

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

5.2 Deliverables

D394 - Database of climate sensitive zoonotic diseases and aflatoxicosis, meteorological data in Vietnam

Main Information

Type: Reports and other publications

Subtype: Research workshop report

Status: Complete

Year of expected completion: 2016

New expected year: 2016

Cross-cutting dimension:

- Capacity Development

Deliverable dissemination

Is this deliverable already disseminated: Yes

Dissemination Channel: Other

Dissemination URL:

<http://pestforecast.wikispaces.com/About+the+project>

Open access: Yes

License adopted: No

Deliverable Metadata

Disseminated title: <Not Defined>

Description / Abstract: <Not Defined>

Publication / Creation date: <Not Defined>

Language: <Not Defined>

Country: <Not Defined>

Keywords: <Not Defined>

Citation: <Not Defined>

Handle: <Not Defined>

DOI: <Not Defined>

Creator / Authors: <Not Defined>

Deliverable Quality check

FAIR Compliant: F A I R

Partners contributing to this deliverable:

Institution	Partner	Type
ILRI - International Livestock Research Institute	Lee, Hu Suk <h.s.lee@cgiar.org>	Responsible

ILRI-F4 (before F2 - James)-SEA-P49 - Research Project

Submitted on 2017-02-17 at 02:20 (Reporting cycle 2016)



RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security



ILRI - International Livestock Research Institute	Lee, Hu Suk <h.s.lee@cgiar.org>	Other	
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5.3 Project Highlights

No project highlights added

6. Activities

A203 - To Develop/disseminate risk maps of climate sensitive diseases (CSDs) in Vietnam

Description: A systematic literature review on climate sensitive animal diseases (leptospirosis and Japanese encephalitis) and aflatoxicosis will be carried out to determine trends of these diseases drivers, impacts on health and livelihoods by gender for Vietnam and Laos by a post-doctoral researcher. A database on these diseases will be developed and mapped at national level and focus on the provinces where data are available coupled with climate data provided by national partners. Risk maps will be developed based on the vulnerability framework which combines exposure, sensitivity and adaptive capacity. These analyses will be done at provincial level in both countries. Wherever the data is available from human diseases related to animal diseases (zoonoses), this will be mapped too. All the maps of hot spots will be used specifically for Vietnam and Laos to identify targets for further research and interventions.

Start date: May 2015

End date: Dec 2019

Activity leader: ILRI - International Livestock Research Institute Lee, Hu Suk <h.s.lee@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: We have done the literature review and developed risk maps for viral encephalitis, malaria, dengue, and shigella.

Deliverables in this activity:

<Not defined>

A204 - Developing a real-time prediction system for climate sensitive diseases (CSDs) in Vietnam

Description: We are developing a climate-based prediction tool driven by seasonal climate forecasts for viral encephalitis, dengue, malaria, shigella as the most prevalent climate-sensitive. The prediction system to be developed will run on a spatial grid of the same size as that used for gridded precipitation datasets, covering the spatial extent of the target provinces where diseases prevalence is high and climate condition varies importantly. Dynamic models, driven by climate variables such as precipitation, temperature, humidity and land use will be developed and validated using historical data on disease outbreaks. Validated models will then be used for generating future predictions based on the climate forecasts.

Start date: Jan 2015

End date: Dec 2019

Activity leader: ILRI - International Livestock Research Institute Lee, Hu Suk <h.s.lee@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: We have published 1 paper (viral encephalitis) and submitted 3 other papers (malaria, dengue and shigella).

Deliverables in this activity:

<Not defined>

A205 - To evaluate the prevalence/awareness of aflatoxin in maize and pig in Vietnam

Description: Aflatoxins are some of the most important mycotoxins which are serious public health threats. We will develop a risk-prediction model of toxin accumulation pre-harvest and immediately after harvest in order to inform farmers to timely harvest maize to avoid loss caused by fungi, and how to undertake other risk mitigating practices to reduce the levels of aflatoxins. Data to be collected at regional level in 6 provinces including weather parameters and practices from silking to harvesting, agronomic factors, harvesting and storage conditions and methods, crop varieties and varietal susceptibility. Effect of environmental factors on toxin production and the development of crops needs to be included in the model. A value chain study will be conducted to understand how maize production, trade, and consumption function. To collect data and optimize the model, we will survey levels of aflatoxins in products and to sample at the field and harvest.

Start date: Jan 2015

End date: Dec 2019

Activity leader: ILRI - International Livestock Research Institute Lee, Hu Suk <h.s.lee@cgiar.org>

Status: On-going

Overall activity or progress made during this cycle: We have conducted a national scale survey of aflatoxin in maize and pigs. One paper on aflatoxin in maize was published and another paper on pig has been submitted. A MSc thesis on aflatoxin in a province is on going.

Deliverables in this activity:

<Not defined>

7. Leverages

No leverages added

Title: (ILRI) What works where for which farmer: Household modelling for improved targeting of CSA technologies

1. Description

Start date	End date	Management liaison	Mgmt. liaison contact
Jan 2014	Dec 2016	F1	Thornton, Philip <p.thornton@cgiar.org>

Funding source types	Status	Lead Organization	Project leader
W1/W2	Complete	ILRI - International Livestock Research Institute - Kenya	Van Wijk, Mark <m.vanwijk@cgiar.org>

Project is working on

Flaship(s)
F1 (before F4 - Philip): Priorities and Policies for CSA

Region(s)
EA: East Africa
WA: West Africa

Project summary

This is a continuation of a 2015 activity, that has lead to two papers submitted, 2 further in advanced drafts, and links with medium sized NGOs thanks to contact made through ICRAF. In 2015 We calculated a simple indicator of food availability using data from 93 sites in 17 countries across contrasted agro-ecologies in sub-Saharan Africa (13000+ farm households) and analysed the drivers of variations in food availability. These analyses will be taken forward in 2016 and spatially explicit analyses will be performed for at least 3 countries in SSA

2. Partners

Partner #1 (Leader)

Institution: ILRI - International Livestock Research Institute

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Project Leader	Van Wijk, Mark <m.vanwijk@cgiar.org>	Activity 2014-189 *Leader*. Activity 2014-190 *Leader*. Activity 2014-382 *Leader*.	HQ

Partner #2

Institution: WUR - Wageningen University and Research Centre

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Giller, Ken <k.giller@wur.nl>	Activity 2014-189 *Partner*. Activity 2014-190 *Partner*. Activity 2014-382 *Partner*.	HQ

Partner #3

Institution: CSIRO - Commonwealth Scientific and Industrial Research Organisation

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Herrero, Mario <m.herrero@csiro.au>	Activity 2014-189 *Partner*. Activity 2014-190 *Partner*. Activity 2014-382 *Partner*.	HQ

Partner #4

Institution: ICRAF - World Agroforestry Centre

Contact(s):

Type	Contact	Responsibilities and contributions	Branch
Partner	Muthuri, Catherine <c.muthuri@cgiar.org>	Activity 2014-382 *Partner*.	HQ

Lessons regarding your partnerships and possible implications for the coming planning cycle:

Year	Lesson(s)
2016	Partnerships are key as they bring in essential contacts. This will not affect the coming planning cycle as this project will be discontinued.

Partnerships overall over the last reporting period:

The partnerships have worked out very well. Diverse contacts are now in place with NGOs (e.g. TreeAID and FIPS-Africa) to apply the tools we have developed.

3. Locations

This project is not global

Project level	Latitude	Longitude	Name
CCAFS Site	-0.269	35.068	Nyando
CCAFS Site	-1.809	37.724	Makueni
CCAFS Site	1.535	31.546	Albertine Rift
CCAFS Site	-0.621	31.484	Kagera Basin
CCAFS Site	-4.79	38.417	Usambara
CCAFS Site	4.957	38.567	Borana
CCAFS Site	13.828	-2.113	Yatenga
CCAFS Site	10.735	-2.624	Lawra-Jirapa
CCAFS Site	14.242	-15.407	Kaffrine
Village	8.925	37.9842	Bako
Village	8.925	37.9842	Melkassa
Village	-1.761	29.3873	Gishwati
Province	-2.3951	30.3981	Bugesera

4. Outcomes

4.1 Project Outcomes

Project Outcome statement:

FP 4 flagship projects running in sub Saharan Africa will use the outputs generated by the model analyses to better target already identified or newly to be developed CSA technologies. Outcomes in terms of better information supply to policy makers and policy analysis institutions will be achieved by linking onto the information platforms developed by Flagship 4 WA and EA projects. At least one NGO (currently links with Oxfam are established) will use the outputs generated by the analyses in their planning and targeting.

Annual progress towards outcome (end of 2016*): The household modelling results of this project play an effective support role for the outscaling of the identified or to be identified CSA practices, thereby increasing the outreach potential of the different FP 4 flagship projects in sub Saharan Africa by using their existing information supply chains to policy makers. The first direct links with NGOs (e.g. WorldVision, OneAcre Fund) have been made,

Annual progress towards project outcome in the current reporting cycle (2016*): Indeed concrete links with NGOs (TreeAID and FIPS-Africa) have been made, and at the moment the first application of our household survey and analyses framework RHoMIS is being set up with TreeAID in Ghana, to be followed by applications in Burkina and Ethiopia. Together with FIPS-Africa an application in Kenya will be prepared. Together with CONABIA a trial application is now being set up in Mexico. So our work is leading to uptake at NGO and GO level, rather than at policy level.

How communication and engagement activities have contributed to achieving your Project outcomes:* In terms of communication a strong effort has been made by going to a series of meetings and presenting our work. In those meetings we have made personal contacts with representatives of different NGOs and this has now led to concrete uptake of our tools. Furthermore our toolkit will be used in a series of large (\$10M+) ag development projects (SIIL Feed the Future; AfricaRISING Ethiopia; EU-IFAD funded CLIP).

Evidence documents of progress towards outcomes:* <Not Defined>

Annual progress towards outcome (end of 2015): The household modelling results of this project play an effective support role for the outscaling of the identified or to be identified CSA practices, thereby increasing the outreach potential of the different FP 4 flagship projects in sub Saharan Africa by using their existing information supply chains to policy makers.

Annual progress towards outcome (end of 2017): The household modelling results of this project play an effective support role for the outscaling of the identified or to be identified CSA practices, thereby increasing the outreach potential of the different FP 4 flagship projects in sub Saharan Africa by using their existing information supply chains to policy makers. The first direct links with NGOs (e.g. WorldVision, OneAcre Fund) have been made,

Annual progress towards outcome (end of 2018):

lessons regarding your Theory of Change and implications for the coming planning cycle; e.g. how have your assumptions changed, or do you have stronger evidence for them:* In the original Ia we were especially targeting the bigger NGOs and high level policy making. Due to our lack of contacts there or disinterest of the larger NGOs it is clear we were targeting the wrong audience. Most interest for our targeting and prioritization work lies with the smaller to medium sized NGOs and ag development projects with an associated research component.

4.2 CCAFS Outcomes

RP EA Outcome 2019: National Ministries of Agriculture, Environment and parliamentarians are collaborating to make evidence-informed policies for increased investments in climate resilient food systems.

Indicator #1: # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

2019
<p>Target value: 0</p> <p>Cumulative target to date: 2</p> <p>Target narrative: Activity 2014-189: Also here we link up to the information channels set up by the Flagship 4 WA project and their target values Activity 2014-189: Here we will link up to the Flagship 4 EA project and make use of their information channels in both Uganda and Tanzania. Activity 2014-190: Here we also link up to the Flagship 4 WA project and its targets, and will make use of their information supply chains Activity 2014-190: Here we also link up to the Flagship 4 EA project and its targets, and will make use of their information supply chains</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>
2015
<p>Target value: 0</p> <p>Cumulative target to date: 0</p> <p>Target narrative: Priority report generated and through the FP4 WA project inserted into policy development process.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>

2016

Target value: 1

Cumulative target to date: 2

Target achieved: 0.0

Target narrative: Through existing AA activities, especially where ILRI is involved, key information to be channeled to these policy formulations is generated

Narrative for your achieved targets, including evidence: Like explained before it is clear that our targeting and prioritization work was not focusing on the right audience to achieve impact. The concrete interest and uptake of our toolkit by small to medium sized NGOs shows both the success and failure of our setup.

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome: A gender module has been successfully developed and included in our toolkit. Specific gender differentiated analyses are underway to identify intensification options that do not show the typically shift from female to male control when increased value is achieved.

The expected annual gender and social inclusion contribution to this CCAFS outcome: Gender differentiated information on control over benefits of on and off farm activities for different farm groups can now be generated using a new farming system analysis framework, Rhomis. This tool has been applied in Tanzania, and further applications in Ethiopia are envisaged for next year.

Major Output groups:

- F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

RP WA Outcome 2019: National level decision-makers (Gov. ministries), national agricultural research systems, NGOs, civil society organizations, regional organizations use CCAFS science-derived decision support tools and systems to mainstream climate change into national plans and policies from local to national levels.

Indicator #1: # of equitable national/subnational food system policies enacted that take into consideration climate smart practices and strategies

2019
<p>Target value: 0</p> <p>Cumulative target to date: 2</p> <p>Target narrative: Activity 2014-189: Also here we link up to the information channels set up by the Flagship 4 WA project and their target values Activity 2014-189: Here we will link up to the Flagship 4 EA project and make use of their information channels in both Uganda and Tanzania. Activity 2014-190: Here we also link up to the Flagship 4 WA project and its targets, and will make use of their information supply chains Activity 2014-190: Here we also link up to the Flagship 4 EA project and its targets, and will make use of their information supply chains</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>
2015
<p>Target value: 0</p> <p>Cumulative target to date: 0</p> <p>Target narrative: Priority report generated and through the FP4 WA project inserted into policy development process.</p> <p>The expected annual gender and social inclusion contribution to this CCAFS outcome: <Not Defined></p>

2016

Target value: 1

Cumulative target to date: 2

Target achieved: 0.0

Target narrative: Through existing WA activities, especially where ILRI is involved, key information to be channeled to these policy formulations is generated

Narrative for your achieved targets, including evidence: Like explained before it is clear that our targeting and prioritization work was not focusing on the right audience to achieve impact. The concrete interest and uptake of our toolkit by small to medium sized NGOs shows both the success and failure of our setup.

Narrative for your achieved annual gender and social inclusion contribution to this CCAFS outcome: A gender module has been successfully developed and included in our toolkit. Specific gender differentiated analyses are underway to identify intensification options that do not show the typically shift from female to male control when increased value is achieved.

The expected annual gender and social inclusion contribution to this CCAFS outcome: Gender differentiated information on control over benefits of on and off farm activities for different farm groups can now be generated using a new farming system analysis framework, Rhomis, which will be applied next year in several sites in the region.

Major Output groups:

- F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

4.3 Other Contributions

Contribution to other CCAFS Impact Pathways:

Activity 2014-189: We will supply information to the Flagship 1.1 WA and EA projects in which ILRI is both involved. Targeting analyses of CSA practices will be performed, and the outreach potential will be quantified.

Collaborating with other CRPs

Integrated Systems for the Humid Tropics
Description of collaboration: Data exchange and collaboration in tool development
Livestock and Fish
Description of collaboration: Data exchange and collaboration in tool development

4.4 Case Studies

Case Study #100

Title: iNGOs work supported by rapid farm characterization work

Year: 2016

Project(s): P71

Outcome Statement: Smaller to medium sized iNGOs often do not have the critical mass to perform their own detailed targeting and monitoring and evaluation exercises. The RHoMIS tool has now been taken up for elaborate testing by two iNGOs and one GO to see whether it can be used to evaluate the effectiveness of ongoing outscaling of technological interventions and for improved targeting of future outscaling exercises.

Research Outputs: The last two years concentrated on developing the tool and testing it in field based applications (e.g. Hammond et al. 2017), as well as testing its ability to detect change in smallholder farm livelihoods in a relatively short time span (e.g. 3-4 years, the typical length of ag development projects). The latter has been done now in 5 CCAFS benchmark sites, and the first successful analyses have been summarized in a journal paper recently submitted (Fraval et al., submitted). In the newest surveys we have integrated a, what we call, 'motivations and aspirations' module to evaluate the openness to innovation of different farmers (framework developed in Hammond et al., accepted, Ag Systems), thereby allowing us to bring together information on farm livelihood characteristics, ongoing changes in land use, ag productivity and livelihood orientation, and motivation information, giving us unique insight into the outscaling potential of interventions.

Research Partners: ICRAF, Wageningen University, Bioversity International

Activities: RHoMIS tool development and testing in the field. Development of a specific motivation and aspiration module. Framework in R to automatically analyse the digital survey data. Setup of a dataserer (<http://rhomis.net/formshare>) and a website for dissemination (<http://rhomis.net>)

Non-Research Partneres: TreeAID, CONABIO, Lutheran World Relief

Output Users: TreeAID, CONABIO, Lutheran World Relief

Evidence Outcome: Lutheran World Relief has used RHoMIS in an application in southern Kenya in project led by Bioversity International, while at the moment we are preparing an application together with TreeAID in northern Ghana. CONABIO will start first trials with the tool in Mexico in the coming weeks.

Output Used: Concrete uptake of the developed tool and the associated analysis framework

References Case: Fraval S, Hammond J, Lannerstad M, Oosting S, Sayula G, Teufel N, Silvestri S, Poole J, Herrero M, van Wijk MT. Livelihood strategies and food security in Lushoto, Tanzania: 'Step-up' at your own risk and 'hang-in' if you can. Submitted to Agricultural Systems. Hammond J, Pagella T, Smajgl A, Yi Z, van Wijk M, Xu J, Ward J, Su Y, Harrison R. Farm Types and Farmer Motivations to Adapt: Implications for Design of Sustainable Agricultural Interventions using the Example of Rubber Plantations in South West China. Agricultural Systems, conditionally accepted. Hammond J, Fraval S, van Etten J, Suchini JG, Mercado L, Pagella T, Frelat R, Lannerstad M, Douchamps S, Teufel N, Valbuena D, van Wijk MT. 2016. The Rural Household Multi-Indicator Survey (RHoMIS) for rapid characterisation of households to inform climate smart agriculture interventions: Description and applications in East Africa and Central America. Agricultural Systems, in press.

Primary 2019 outcome indicator(s):

- # of regional/global organisations and processes that inform their equitable institutional investments in climate smart food systems using CCAFS outputs

Link between outcome story and the FP Outcome(s): No more concrete link, sniff, sniff...

Annex uploaded:

5. Project outputs

5.1 Overview by MOGs

Major Output groups - 2019

F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

Brief bullet points of your expected annual 2019 contribution towards the selected MOG: <Not Defined>

Brief 2019 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Major Output groups - 2016

F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

Brief bullet points of your expected annual 2016 contribution towards the selected MOG: - foresight activities under way using CCAFS scenarios, currently mainly focusing on EA

Brief summary of your actual 2016 contribution towards the selected MOG: Underlying data are available for systems in East Africa. To further improve these analyses household level re-survey data is available for the CCAFS benchmark sites in Lushoto (Tanzania), Wote, Nyando (both Kenya) and Rakai (Uganda) showing drastic changes in farm livelihoods in only 3-4 years (Fraval et al. submitted).

Brief 2016 plan of the gender and social inclusion dimension of the expected annual output: Gender differentiated analyses on control over benefits of on and off farm activities executed for the Tanzanian CCAFS benchmark site

Summary of the gender and social inclusion dimension of the 2016 outputs: A gender module has been successfully developed and included in our toolkit. Specific gender differentiated analyses are underway to identify intensification options that do not show the typically shift from female to male control when increased value is achieved.

Major Output groups - 2015

F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

Brief bullet points of your expected annual 2015 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2015 contribution towards the selected MOG: - First data analysis using database of 13k+ farm households completed - Rapid multi-indicator survey tool developed and applied in 4 contrasting systems in developing countries - Spatial maps generated of farming systems and key patterns in drivers of household level food security for Uganda. Analyses for other countries underway

Brief 2015 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2015 outputs: Gender equity is integrated element in the rapid multi-indicator survey tool. First paper on the tool and analyses has been submitted. Applications are foreseen for west, central and east africa, which together with existing data will result in a global analysis of the interplay between agriculture, gender, and nutrition

Major Output groups - 2014

F1 (before F4 - Philip): Priority setting contextualised with national stakeholders and capacity strengthened to apply outputs in policy formulation; including trade-off analyses, foresight activities, and quantification of regional socio-economic scenarios

Brief bullet points of your expected annual 2014 contribution towards the selected MOG: <Not Defined>

Brief summary of your actual 2014 contribution towards the selected MOG: <Not Defined>

Brief 2014 plan of the gender and social inclusion dimension of the expected annual output: <Not Defined>

Summary of the gender and social inclusion dimension of the 2014 outputs: <Not Defined>

5.2 Deliverables

D2483 - CCAFs infonote describing a key tool in assessing CSA options, the RHoMIS survey tool

Main Information

Type: Reports and other publications

Subtype: Policy brief/policy note/briefing paper

Status: Complete

Year of expected completion: 2016

New expected year: <Not Defined>

Cross-cutting dimension:

- Gender

Gender level(s):

- Collection of sex-disaggregated data
- Analysis of sex-disaggregated data
- Monitoring/impact assessment of gender outcomes of research/innovations/interventions/policies

Deliverable dissemination

Is this deliverable already disseminated: Yes

Dissemination URL:

<http://rhomis.net/blog/wp-content/uploads/2016/09/CCAFS-info-note-VanWijkHammond-et-al-final.pdf>

Dissemination Channel: Other

Open access: Yes

License adopted: No

Deliverable Metadata

Disseminated title: Mark van Wijk, James Hammond, Jacob van Etten, Tim Pagella, Randall Ritzema, Nils Teufel and Todd Rosenstock. 2016. The Rural Household Multi-Indicator Survey (RHoMIS) A rapid, cost-effective and flexible tool for farm household characterisation, targeting interventions and monitoring progress towards climate-smart agriculture. CCAFS Infonote, 4pp.

Description / Abstract: Key messages: ? RHoMIS is a rapid, cheap, digital farm household-level survey and analytical engine for characterizing, targeting and monitoring agricultural performance. ? RHoMIS captures information describing farm productivity and practices, nutrition, food security, gender equity, climate and poverty. ? RHoMIS is action-ready, tested and adapted for diverse systems in more than 7,000 households across the global tropics. ? Want more info? See: <http://rhomis.net/>

Publication / Creation date: 2016-12-01

Language: english

Country: Ecuador

Keywords: CCAFS infonote

Citation: Mark van Wijk, James Hammond, Jacob van Etten, Tim Pagella, Randall Ritzema, Nils Teufel and Todd Rosenstock. 2016. The Rural Household Multi-Indicator Survey (RHoMIS) A rapid, cost-effective and flexible tool for farm household characterisation, targeting interventions and

monitoring progress towards climate-smart agriculture. CCAFS Infonote, 4pp.

Handle: -

DOI: -

Creator / Authors:

- Van Wijk - Mark
- Hammond - James
- van Etten - Jacob
- Pagella - Tim
- Ritzema - Randall
- Teufel - Nils
- Rosenstock - Todd

Deliverable Quality check

FAIR Compliant: F A I R

Partners contributing to this deliverable:

Institution	Partner	Type
ILRI - International Livestock Research Institute	Van Wijk, Mark <m.vanwijk@cgiar.org>	Responsible

D359 - Ex-ante assessment of CSA practices in 9 African CCAFS benchmark sites

Main Information

Type: Articles and Books

Subtype: Journal Article (peer reviewed)

Status: Complete

Year of expected completion: 2016

New expected year: <Not Defined>

Cross-cutting dimension:

- N/A

Deliverable dissemination

Is this deliverable already disseminated: Yes

Dissemination URL:

https://www.researchgate.net/publication/313021288_Is_production_intensification_likely_to_make_farm_households_food-adequate_A_simple_food_availability_analysis_across_smallholder_farming_systems_from_East_and_West_Africa

Dissemination Channel: Other

Open access: Yes

License adopted: No

Deliverable Metadata

Disseminated title:

Is_production_intensification_likely_to_make_farm_households_food-adequate_A_simple_food_availability_analysis_across_smallholder_farming_systems_from_East_and_West_Africa

Description / Abstract: Despite considerable development investment, food insecurity remains prevalent throughout East and West Africa. The concept of 'sustainable intensification' of agricultural production has been promoted as a means to meet growing food needs in these regions. However, inadequate attention has been given to assessing whether benefits from intensification would be realized by farm households considering highly diverse resource endowments, household and farm characteristics, and agroecological contexts. In this study, we apply a simple energy-based index of food availability to 1800 households from research sites in 7 countries in East and West Africa to assess the food availability status of each of these households and to quantify the contribution of different on- and off-farm activities to food availability. We estimate the effects of two production intensification strategies on food availability: increased cereal crop production from crop-based options, and increased production of key livestock products from livestock-based options. These two options are contrasted with a third strategy: increased off-farm income for each household from broader socioeconomic-based options. Using sensitivity analysis, each strategy is tested against baseline values via incremental production increases. Baseline results exhibit considerable diversity within and across sites in household food availability status and livelihood strategies. Interventions represented in the crop and livestock options may primarily benefit food-adequate and marginally food-inadequate households, and have little impact on the most food-inadequate households. The

analysis questions what production intensification can realistically achieve for East and West African smallholders, and how intensification strategies must be augmented with transformational strategies to reach the poorest households.

Publication / Creation date: 2016-12-01

Language: english

Country: vietnam

Keywords: Sustainable intensification.Food availability.Food security.Household analysis.Household modeling.Production intensification

Citation: Ritzema RS, Frelat R, Douchamps S, Silvestri S, Rufino MC, Herrero M, Giller KE, Lopez-Ridaura S, Teufel N, Paul BK, van Wijk MT. A simple food availability analysis across smallholder farming systems from East and West Africa: Is production intensification likely to make farm households food-adequate? Food Security, in press

Handle: -

DOI: 10.1007/s12571-016-0638-y

Creator / Authors:

- Ritzema - Randall
- Frelat - Romain
- Douchamps - Sabine
- Silvestri - Silvia
- Rufino - Mariana
- Herrero - Mario
- Giller - Ken
- Lopez-Ridaura - Santiago
- Teufel - Nils
- Paul - Birthe
- van Wijk - Mark

Publication Metadata

Volume:

Issue:

Pages:

Journal/Publisher name: Food Security

Indicators for journal articles: • This journal article is an ISI publication

Publication acknowledge: Yes

Flagships contribution: • INTEGRATED SYSTEMS FOR THE HUMID TROPICS

Deliverable Quality check

FAIR Compliant: F A I R

Partners contributing to this deliverable:

Institution	Partner	Type

ILRI-F1 (before F4 - Philip)-EA-WA-P71 - Research Project

Submitted on 2017-02-20 at 15:31 (Reporting cycle 2016)



RESEARCH PROGRAM ON
Climate Change,
Agriculture and
Food Security



ILRI - International Livestock Research Institute	Van Wijk, Mark <m.vanwijk@cgiar.org>	Responsible
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5.3 Project Highlights

No project highlights added

6. Activities

No activities added

7. Leverages

No leverages added