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**Climate Change,
Agriculture and
Food Security**



Planning workshop for Rwanda Climate Services for Agriculture project

March 2016

**Gloriose Nsengiyumva, Desire M. Kagabo, Eliud Birachi,
James W. Hansen**



Planning workshop for Rwanda Climate Services for Agriculture project Kigali, Rwanda, March 2016

Workshop Report

CGIAR Research Program on Climate Change,
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Desire M. Kagabo
Gloriose Nsengiyumva
Eliud Birachi
James W. Hansen

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Contact:

CCAFS Coordinating Unit - Faculty of Science, Department of Plant and Environmental Sciences, University of Copenhagen, Rolighedsvej 21, DK-1958 Frederiksberg C, Denmark. Tel: +45 35331046; Email: ccaafs@cgiar.org

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Abstract

This report presents the outputs of the planning workshop for the Rwanda Climate Services for Agriculture Project. The main objective of this planning workshop was to engage key partners in project planning, revise the project's specific activities, revise the timeline and work-plan for all implementation and monitoring and evaluation activities for the first year of the project. This workshop brought together all project implementation team members, and key partners such as *Twigire muhinzi* through which the services will be disseminated to farmers as the biggest stakeholders of the project. The implementing team was drawn from the International Center for Tropical Agriculture (CIAT), the University of Reading (UR), International Research Institute for Climate and Society (IRI), the International Livestock Research Institute (ILRI), the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Rwanda Agriculture Board (RAB) and Rwanda Meteorological Agency (Meteo-Rwanda). The two days planning meeting came up with an activity plan for all the four outcomes of the project, with responsible institutions and key partners for implementation. The report includes the process of the workshop, brief summary on presentations made, and the key summary and action points from the meeting.

Keywords

Planning, Climate services, Rwanda

About the authors

Gloriose Nsengiyumva is the CCAFS Rwanda Climate Services for Agriculture project – Outcome 1 coordinator based at the International Center for Tropical Agriculture (CIAT), Kigali, Rwanda. Contact: g.nsengiyumva@cgiar.org

Desire Mbarushimana Kagabo is the CCAFS Rwanda Climate Services for Agriculture project Coordinator based at the International Center for Tropical Agriculture (CIAT), Kigali, Rwanda. Contact: k.mbarushimana@cgiar.org

Eliud Birachi is a Market Economist at the International Center for Tropical Agriculture (CIAT), Kigali, Rwanda. Contact: e.birachi@cgiar.org

James William Hansen is a Senior Research Scientist at the International Research Institute for Climate and Society (IRI), Columbia University, USA. He leads CCAFS Flagship on Climate Information Services and Climate-Informed Safety Nets. Contact: jhansen@iri.columbia.edu

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Acronyms

CCAFS CGIAR Research Program on Climate Change, Agriculture and Food Security

CIAT International Center for Tropical Agriculture

CSA Climate Services for Agriculture

ENACTS Enhancing National Climate Services

PICSA Participatory Integrated Climate Services for Agriculture

RAB Rwanda Agriculture Board

Introduction

This report presents two days' workshop planning meeting with the Rwanda Climate Services for Agriculture project team. The purpose of this meeting was to bring together the implementing institutions and core project team, in order to revise the project's activities especially for year one planning and work on the monitoring and evaluation strategy. This workshop brought together all project implementation team members, and key partners such as *Twigire muhinzi* through which the services will be disseminated to farmers as the biggest stakeholders of the project. The implementing team was drawn from the International Center for Tropical Agriculture (CIAT), the University of Reading (UR), International Research Institute for Climate and Society (IRI), the International Livestock Research Institute (ILRI), the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Rwanda Agriculture Board (RAB) and Rwanda Meteorological Agency (Meteo-Rwanda). Nineteen participants (21% women) from the above-mentioned institutions attended the planning meeting (Appendix 2).

Workshop process

The workshop program (Appendix 1) included an overview of the project; results of the desktop review, pilot district selection workshop, and farmer and institutional stakeholder consultations; and overviews of the *Twigire Muhinzi* proximity extension model and the PICSA (Participatory Integrated Climate Services for Agriculture) approach. The remainder of the workshop focused on planning around each of the four project Outcomes.

Dr. Eliud Birachi from CIAT, who welcomed everybody to Rwanda, outlined the objectives of the planning workshop, and thereafter officially opened the workshop. After Dr. Eliud's welcome remarks, a brief introduction of all participants took place. Dr. Eliud thereafter invited Dr. James Hansen to talk about the project's overview and context. Dr. Hansen's session was followed by presentations on outputs of Rwanda desk review for climate services, pilot sites selection process, outputs from the needs assessment (both farmers and institutions), and plans for outcomes one to four activities implementation.

Project overview

This presentation was done by Dr. James Hansen, CCAFS Flagship 2 Leader and Rwanda Climate Services for Agriculture (CSA) project's Principal Investigator. James explained the meaning of climate services within the context of the project, the requirements for climate services to benefit farmers, the intended innovations within the project and the actual design of the project. He continued with a brief outline of the year one provisional plan, since the detailed plan was going to be discussed later.

James noted key challenges to making climate services work for smallholder farmers, namely: credibility, salience, legitimacy, access, equity, and integration. He explained that the project would focus on the following: building capacity to communicate, understand and act on climate information; capacity to provide action oriented information; balance services at scale with context specific needs; and increase institutional capacity for sustainability.

James mentioned that the project will run for four years (2015 - 2019) and is funded by USAID, and coordinated by CCAFS. Implementing partners include government agencies such as RAB, Meteo Rwanda and their parent ministries. Technical partners include CIAT, IRI, ILRI, CCAFS, ICRAF, and University of Reading. Other partners will be determined within the project's life.

James mentioned that the project is designed according to four outcomes that will work closely to lead to the change of behaviour for farmers, institutions, and all climate services users. The outcomes are (1) climate services for farmers, (2) climate services for government and institutions, (3) climate information provision, and (4) national climate services governance.

Outcome 1, climate services for farmers, is the largest outcome in terms of project resources. It will reach a large number of farmers across all 30 of Rwanda's districts by the end of the project. The Participatory Integrated Climate Services for Agriculture (PICSA) approach will be used to train intermediaries to bring climate information into their face-to-face interactions with farmers. Communication channels through interactive radio and mobile phones to complement group interaction with trained intermediaries. Listener groups and gender sensitive programming will also be crucial within this outcome.

Outcome 3, climate information provision, focuses on Meteo Rwanda expanding its provision of the right information to end-users. Gaps in availability of historical information, especially for the decade following 1994, make it difficult to provide useful climate information and to address uncertainty. The ENACTS program of Meteo Rwanda is helping to fill this gap. The current set of online ENACTS Maprooms tool will be greatly expanded within the project, and will aid production and dissemination of derived products tailored to what agricultural decision-makers need.

For the design phase, the following activities have been completed: (a) desk review to ensure the project builds on what already exists; (b) selection of four initial pilot districts; (c) farm-level stakeholder consultation; (d) institution-level consultation; and (e) consolidation of prior ENACTS work, and preparatory work. Design phase activities that are still pending are (a) monitoring and evaluation technical planning workshop, and (b) nation-wide farmer baseline survey.

James reviewed the Year-1 provisional plan (Table 1). He noted that this planning workshop marks the transition from the design phase to the implementation phase.

Table 1. Provisional set of Year 1 implementation activities.

Outcome 1	Outcome 2	Outcome 3	Outcome 4
Analysis of communication channels	Analysis of key planning processes	Training Meteo Rwanda staff	Review of cross-ministerial governance structures in Rwanda and lessons from other structures globally
Train national staff on PICSA, graduate education	Decision maker survey	Products developed with partners, to meet identified needs	Recommend a governance structure, where to be housed, and specific functions
Climate services products tailored to demand	Climate services products tailored to demand	Stakeholder feedback workshops for feedback on prototype tool	Project governance body formed based on recommendation, and meeting quarterly
Farm level tool piloted and tested in four districts	Workshop to test new climate services products with decision makers	Product testing in user environment	

Results of the desk review

Dr. Maren Radeny presented the outputs from the desk review that was conducted by the CCAFS East Africa team at ILRI, including Dr. Mary Nyasimi. Maren gave a brief review of Rwanda's smallholder agriculture; climate trends, climate risks, and their impacts on

Rwandan agriculture; existing climate services and products; the national agricultural extension system; communication channels for climate services and products.

Discussion after the presentation highlighted several opportunities, including: (a) targeting climate services that are localized and based on farmers needs, (b) tapping into existing extension systems such as the *Twigire Muhinzi* model, (c) training promoters and farmer field facilitators to act as intermediaries in providing climate information, and (d) ensuring gender inclusive development of climate services. An additional comment was that the vulnerability map in the presentation needs to be updated to capture work by the East African Community and ICPAC.

The vulnerability map needs to be updated. Work has been done by EAC/ ICPAC. Additional relevant activities, not captured in the presentation, includes a centre of excellence for agricultural development, focused on horticulture and supported by the Israel government; and work supported by Buffet on irrigation in the eastern region of Rwanda.

Pilot district selection and stakeholder consultations

The presentation was done by Dr. Desire Kagabo, CSA Project Coordinator. Desire briefly explained the process of the pilot site selection activity, including the key participants involved. The pilot districts, Kayonza, Burera, Nyanza and Ngororero, were selected following criteria set by the project team and participants from the site selection meeting who are the key partners of the project. During the site selection meeting it was suggested that the national *Twigire Muhinzi* extension model could be used to reach the targeted number of farmers proposed by the CSA project, and in order to ensure sustainability of the services provided.

Desire also explained the process used for the farmer and institutional stakeholder consultation workshops, and insights about their climate service needs. A draft report from these consultations is available with the CSA team.

***Twigire Muhinzi* Proximity Extension Model**

This presentation was done by Moussa Senge, national level *Twigire Muhinzi* coordination team. Moussa mentioned that this model is a “home-grown solution” to ensure that all farmers in Rwanda have access to advisory services. Moussa discussed the background of the model,

objectives and outputs, coordination within the country and planning processes, and main activities undertaken within the extension model.

Several comments came out of the presentation and discussion. The PICSA approach is designed for extension agents; hence *twigire muhinzi* fits in quite well in this project. There is a need for planning and training sessions with intermediaries. Since the *twigire* model is seen as the best channel to reach targeted farmers within the project, activities need to fit into the *twigire* model. Timing is important in order to get information into the *twigire* activities.

Twigiri Muhinzi needs information about what tools and formats will be used. Issues to address include information on e.g., seasonal forecasts and start of rains. While SMS could contribute to communicating seasonal forecasts with farmers, it is not enough. Farmers must receive information about the uncertainty of forecasts and what it means for their decisions. They should be advised about planting time, use of organic matter, agroforestry options, rainwater harvesting, and other smart practices that may help them deal with climate-related risks. A WhatsApp group for local authorities and ministry representatives could be used to provide information on rainfall. A review of the number of women farmers involved (as per the constitution) should be done regularly

Participatory Integrated Climate Services for Agriculture (PICSA)

The presentation was done by Dr. Peter Dorward. Peter explained that the PICSA approach entails providing information and services to smallholders, ahead of and during the season, mainly by extension and NGO field staff, complimented by radio and SMS. He mentioned that the approach was developed in Zimbabwe in 2011, and later on piloted and improved in Tanzania and Kenya, and it went to greater scale in Ghana and Malawi. He said that the approach continues to adapt and improve in different locations and countries. He highlighted that PICSA approach comprises of climate information, agricultural management options and participatory decision-making tool. The exercise is done through 12 steps, which he presented.

Planning for Outcomes 1 and 2: Climate services for farmers and for institutions

The presentations were done by Gloriose Nsengiyumva, CSA Project Outcome 1 Coordinator. Gloriose showed the key objectives of the two outcomes and what has been done so far,

planned activities and planned methodologies to achieve the objectives. After the presentations, discussions took place on the presented activities and proposed timeline.

Discussion on Outcome 1

Moussa from the National *Twigire Muhinzi* extension model gave an example of how they work with their model. He gave an example with season A (starting from September to January). The extension materials start being designed in April, then field-tested and refined before they are rolled out in mid-August. These materials need to be officially distributed by the Rwandan Agriculture Board (RAB). After distribution of materials, trainings are scheduled at sector level. The trainings are done in classrooms and on the field. The materials include M&E strategy in order to assess impact, scalability and sustainability.

Peter said that PICSA could fit well within the *Twigire* model, since it already involves discussions with groups of farmers. Same combination of classroom and practicum is crucial for PICSA which makes it fit with the model. Timing ahead of season is useful and is also practiced within the PICSA approach. Peter said that PICSA would have to move schedule forward if it would fit with TWIGIRE time line (this will be further discussed on to check its feasibility).

Participants raised questions about farmer feedback within the *Twirigi* model, how Meteo Rwanda can engage farmers through *Twigire*, and what “tools” are planned within Outcome 1. Moussa addressed the issue of farmers’ engagement through *Twigire* by Meteo Rwanda by saying that there is a free hotline of Meteo Rwanda that was given to farmers and farmers are encouraged to call to request for any information about the weather. Meteo could use the same messaging system to reach farmers. It was noted that farmers ask for more information than Meteo can provide, or information that is available in the media.

James asked if there could be an opportunity to automate answers to common questions, with a menu system. Meteo-Rwanda does not yet have such a system, nor does *Twigire*. They mentioned that *Twigire* does not yet have a budget to set up a call center. James suggested the need to consider different channels for different types and time scales of information. Meteo-Rwanda replied that SMS/phone can be used for any time scale of information. The discussion considered whether short statements on seasonal forecasts are sufficient, and how Meteo Rwanda maprooms could be exploited.

Moussa mentioned that the fact that farmers cannot get location-specific information is frustrating. He would need a mechanism to provide information to farmer promoters. Meteo-Rwanda mentioned that farmers need to learn how to use probabilistic information. Moussa pointed out that climate risk and the role of diversification e.g., through intercropping is in conflict with the national monocropping policy. The project would do well if it informs this policy.

A participant from the University of Rwanda noted that project targets for women were low, and suggested that the service should reach more women than men. Someone noted that the project followed the Rwandan policy on the percentage of women (30%).

Peter emphasized the time frame of farmer decisions. Historic graphs reveal how variable the climate is. It gives a basis for farmers to think about what is the best combination of practices for the given location (which might challenge monocropping). It also shows which crops or cultivars would perform best in most years in the given location. He suggested that forecasts should then be interpreted to address climate related risks.

Moussa mentioned that RAB extension staffing is insufficient. Having 14,200 farmer promoters, 2500 farmer field school facilitators in 416 sectors over-burdens the sector agronomists, making it difficult for them to take on new assignments. He suggested that the hotline number could be enhanced and promoted in order to allow farmer promoters to get technical help. He also suggested that we target a subset of sectors, to provide additional technical support. The communication channel already exists. The project should take advantage of it by bringing in the right information. He suggested having a focal point for climate services in each district.

It was agreed that further discussion with the *twigire muhinzi* team is needed to develop a clear picture of how the model will be used within the project.

Discussion on Outcome 2

Tufa asked if the available government tools could be customized for use by the project. He suggested that the project might not be able to come up with its own tools during the first year, but could start with what is available, for example, through Meteo Rwanda's Maprooms. He said that Maprooms can be connected to the radar to include the data coming in from the weather stations. James asked what steps we should take in between maprooms and inclusion

of some specificity. Tufa explained that the process starts with the launch of the generic maprooms during the launch event (scheduled on 23rd March 2016), then training follows on use, enabling them to use the maprooms and receive the feedback on what specific information is needed. From the launch's presentation on maprooms, institutions can start suggesting what information they need.

It was mentioned that the Rwanda Environment Management Authority (REMA) has developed a web portal to facilitate access to information from different weather stations. It was suggested to think about this under Outcome 4 (climate services governance). Didace said that whatever product generated has to be packaged in a way end users understand, and that feedback from end-users is essential. Meteo Rwanda can therefore decide the best approach for coordinating climate information services.

Planning for Outcome 3: Climate information provision

Dr. Tufa Dinku presented on Enhancing National Climate Services (ENACTS). ENACTS builds on three pillars: improving availability of data, enhancing access to climate information, and promoting the use of climate information. Improving availability of data includes enabling national meteorological services to look at their data in a completely different way, quality control of their station data, and reconstructing historic data by combining station data with remote sensing or reanalysis of proxy data. Access is improved through online Maprooms that currently include: climate analysis tools, climate monitoring tools, and climate forecast tools. The next phase will include generating daily climate time series data, adding additional climate variables, developing sector-specific maprooms (agriculture, water, disaster, health), and improving the accuracy and presentation of seasonal climate prediction.

This discussion noted the need to strengthen the capacity of Meteo Rwanda to deliver operational climate services for agriculture and food security. Meteo Rwanda should develop demand driven climate services. A suggestion for doing this is to put in place a steering committee to provide guidance on how to select project-supported MSc students from Meteo Rwanda, ensuring that their research topics align with the objectives of the project.

Recommendations

Planning meeting participants agreed on the following summary and action points.

Under Outcome 1: climate services for farmers:

- Schedule training, engagement and M&E to fit into the existing extension model
- Include a process to capture farmer feedback.
- Roll out PICSA into the existing *Twigiri Muhinzi* extension model, including development and translation of materials.
- Explore opportunities for introducing other communication channels while planning for 2017. Involve the local media at the various training levels
- Complement, reinforce Meteo Rwanda existing products while introducing new products
- Strategy for engaging other players – NGOs and private sector such as the media. Start discussions and raise awareness (possibly through PICSA training with a focus on 2017 planning)
- Develop a gender strategy for PICSA and follow up in pilot districts, M&E
- Include possible policy constraints such as monoculture into M&E

Under Outcome 2: climate services for government planning:

- Look at categories of institutional users.
- Conduct a systematic study covering: what information decision-makers currently use; what decisions could be improved with better use of improved information; government decisions that might constrain farmers' risk management decisions, and the methodology CCAFS has applied in Ethiopia.
- Prioritize which decisions to focus on for information and capacity development.
- Inform government stakeholder about farmer preferences.
- Explore engagement opportunities through ENACTs launch and Meteo Rwanda government contacts.

Under Outcome 3: climate information provision:

- Form a committee to address priority training and education needs of Meteo Rwanda.
- Develop an agreed set of climate information products.
- Implement a system to integrate user feedback to inform further product development.
This is a shared responsibility with Outcomes 1 and 2, and can be incorporated into project monitoring and evaluation activities.

Under Outcome 4: climate services governance:

- Have a functional oversight committee by end of the year. Initially keep a small set of organizations represented in the governance structure.
- Study lessons about climate services governance structures and processes from successful case studies.
- Recommend composition and terms of reference for a project oversight committee.

Appendix 1: Workshop Program

DAY 1		
<i>Session 1 (Chair: Desire Kagabo)</i>		
9:00-9:15	Welcome, objectives of planning workshop	
9:15-9:30	Introduction of participants	
9:30-10:15	Project overview and context Discussion	Jim Hansen
10:15-10:45	Break	
10:45-11:15	Desktop review: Climate Services in Rwanda: Agriculture Sector Discussion	Maren Radeny
11:15-11:45	Farmer needs Discussion	Gloriose Nsengiyumva
11:45-12:15	Institutional decision-maker needs Discussion	Desire Kagabo
12:15-12:30	Session summary	
12:30-1:30	Lunch	
<i>Session 2 (Chair: Jim Hansen)</i>		
1:30-2:45	Planning for Outcome 1: Climate services for farmers	Gloriose Nsengiyumva
2:45-3:15	Break	
3:15-4:30	Planning for Outcome 2: Climate services for government and institutions	Desire Kagabo
4:30-5:00	Summary of Day 1	

DAY 2		
<i>Session 3 (Chair: Desire Kagabo)</i>		
9:00-9:15	Review of Day 1 and objectives for Day 2	
9:15-10:15	Planning for Outcome 3: Climate information provision	Tufa Dinku
10:15-10:45	Break	
10:45-11:45	Planning for Outcome 4: Climate services governance	Eliud Birachi
11:45-12:30	Summary of plans and action points	
12:30	Lunch	
1:30	Work planning by Project Management Team	

Appendix 2: Lists of Participants

Name	Institution	Position	Gender
Aimable Gahigi	RAB	Researcher in Agro-meteorology and Climate Change program	Male
Anthony Twahirwa	Rwanda Meteorology Agency	Division manager	Male
Desire Kagabo	CIAT Rwanda	CCAFS Project Coordinator	Male
Didace Musoni	Rwanda Meteorology Agency	Division manager	Male
Donat Nsabimana	University of Rwanda	Senior Scientist	Male
Eliud Birachi	CIAT Rwanda	Market Economist	Male
Floribert Vuguziga	Rwanda Meteorology Agency	Meteorologist	Male
Francesco Fiondella	IRI	IRI Communications Officer	Male
Gloria Batamuliza	RAB	Communication Officer	Female
Gloriose Nsengiyumva	CIAT Rwanda	CCAFS Project Outcome 1 Coordinator	Female
Graham Clarkson	University of Reading		Male
Innocent Bisangwa	MINAGRI	Environment and climate change specialist - Ministry of Agriculture and Animal resources	Male
James Hansen	IRI	CCAFS Flagship 2 Leader	Male
Maren Radeny	ILRI	CCAFS EA	Female
Michel Kabirigi	RAB	Research technician	Male
Moussa Senge	RAB	Twigire Muhinzi coordination team	Male
Peter Dorward	University of Reading		Male
Tufa Dinku	IRI		Male
Vivian Atakos	CCAFS	Communication Specialist	Female