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Workshop report: Participatory Integrated Climate Services for Agriculture (PICSA) Specialist Intermediary Training Nyamata, Rwanda

June 2016

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Participatory Integrated Climate Services for Agriculture (PICSA) Specialist Intermediary Training

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Workshop Report

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

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Abstract

The Rwanda Climate Services for Agriculture project is a four-year initiative (2016-2019) that seeks to transform Rwanda's rural farming communities and national economy through improved climate risk management. This report presents the outputs of a five-day training on the use of a Participatory Integrated Climate Services for Agriculture (PICSA) approach to help farmers make climate informed decisions. This training brought together key government agencies in Rwanda, research organizations, farmers' representatives, development partners, non-governmental organizations and media. The one week training workshop aimed to initiate the process to develop skills of staff to become a group of expert trainers in the PICSA approach. The report includes the proceeding of the training workshop as well as reflections on workshop outcomes and feedback by participants.

Keywords

Planning and Review Workshop; Climate Services; PICSA; Seasonal Forecast; Rwanda

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Acronyms

CCAFS	CGIAR Research Program on Climate Change, Agriculture and Food Security
CIAT	International Center for Tropical Agriculture
DERN	Programme pour le Développement Rural du Nord
EPR	Eglise Presbyterienne au Rwanda
MINAGRI	Rwanda Ministry of Agriculture
NGO	Nongovernmental organization
OTP	Organisation pour le Travail et le Progrès
PICSA	Participatory Integrated Climate Services for Agriculture
RAB	Rwanda Agriculture Board
RCSA	Rwanda Climate Services for Agriculture
RDO	Rwanda Development Organization

Introduction

The Rwanda Climate Services for Agriculture project is a four-year initiative which aims to benefit thousands of farmers across Rwanda. A component of the initiative involves agricultural extension staff, development nongovernmental organizations (NGOs) and other intermediaries using the Participatory Integrated Climate Services for Agriculture (PICSA) approach to integrate climate services into their ongoing work with farming communities in Rwanda's 30 districts. This training workshop aimed to develop skills for a set of trainers who will serve as a core of experts to deliver trainings for front line staff that work with farmers.

The training was conducted by staff from the University of Reading who have developed and implemented PICSA in several countries and staff from International Center for Tropical Agriculture (CIAT) Rwanda who are running the Rwanda Climate Services for Agriculture project and collaborating with other key organizations including Rwanda Meteorology Agency (Météo Rwanda) and Rwanda Agriculture Board (RAB).

Positive feedback from the participants and the farmers they worked with during the field day indicated good understanding and response to PICSA methods and overall approach. On the final day of the workshop, clear plans were discussed for the next steps. In addition to staff from government organizations, NGO representatives also attended the training. They expressed their desire to be involved in the implementation of PICSA, opening up a possibility for a separate meeting with these NGOs to draft formal agreements and make more tangible plans specific to each organization.

Programme and participants

The workshop was intended to initiate the process to develop skills of staff to become a group of expert trainers in PICSA. The Director of Météo Rwanda, Mr. John Ntaganda Semafara, formally commenced and concluded the workshop.

The training spanned over the course of five days with details of the program provided in Appendix 1. The training covered in details each of the steps in PICSA that field staff undertake with farmers. Sessions included explanation and background followed by hands-on

practice of each step, feedback, and reflection. Day four was spent at Muyumbu Sector location of Rwamagana District where participants worked with groups of farmers to try out and gain experience in use of the methods they had been trained in. On the final day participants identified and developed plans for key follow up activities.

A total of 28 participants attended the training. They were from organizations working in climate/weather, agricultural research and extension and rural development including the Ministry of Agriculture (MINAGRI), Ministry of Local Government, Météo Rwanda, RAB, Programme pour le Développement Rural du Nord (DERN), One Acre Fund, and several NGOs, including Rwanda Development Organization (RDO), Send a Cow, Organisation pour le Travail et le Progrès (OTP), and Eglise Presbyterienne au Rwanda (EPR). A full list of participants is provided in Appendix 2.

Workshop training sessions

The first day of the training program (Appendix 1) began with two presentations. The first presentation from the University of Reading facilitators introduced participants to the PICSA approach and outlined the aims and overview of the training week. The second presentation by Météo Rwanda was an overview of the concepts of climate, climate variability and climate change.

Long before the season

Current farming and livelihoods in your location

The first exercise of the workshop saw participants split into groups based upon agro-ecological zone to consider the current farming and livelihoods in their locations. This involved groups drawing a resource allocation map (Fig. 1) to depict a typical farmer in their location.



Figure 1. An example of a resource allocation map drawn by participants representing a typical farmer in the Southern Rwanda.

Locally specific historical climate information

For this session Météo Rwanda gave a brief presentation on historical climate information, how it is collected, recorded, and analyzed. This presentation was followed by the distribution of packs of graphs containing locally specific historical climate information. Participants reflected on what has happened to the climate of their location, how this compares and contrasts with their perceptions, and whether it agrees with what farmers say about climate in their locations. Participants were asked to respond to the following questions and report back in a plenary session:

- Looking at the graphs, are we seeing evidence of climate variability?
- Looking at the graphs, can we see evidence of climate change?
- Does what the graphs show agree with what farmers are saying about the climate?

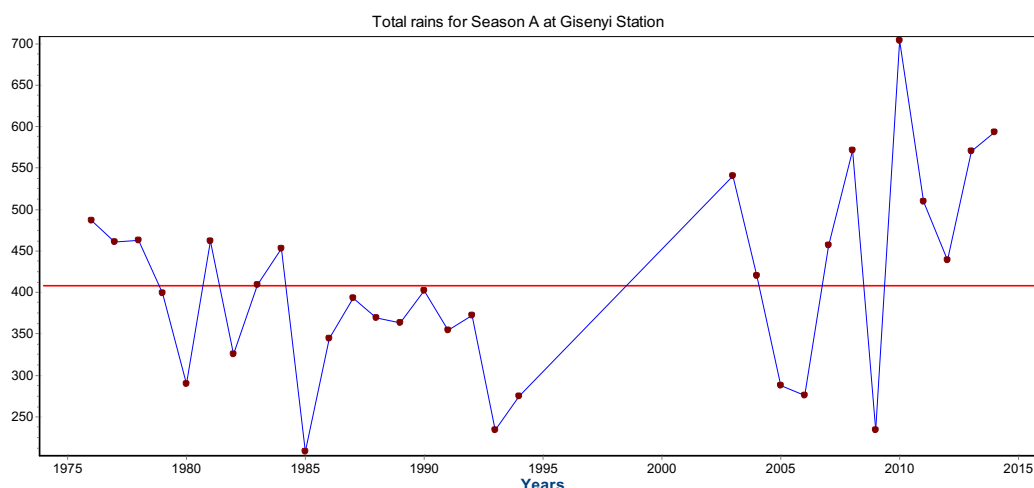


Figure 2. Example of graph showing the seasonal rainfall amount at Gisenyi station, Northern Rwanda.

Calculating probabilities and risks

The second day focused on different exercises on the use of historical climate graphs to work out probabilities; identifying and selecting suitable crops, varieties, and crop practices; crop management; and livestock and livelihood options. In breakout groups, participants were shown how to use the historical graphs to calculate the probability of receiving a given amount of rainfall in their locations, the probability of different start dates for the season, and the probability of a season being a specified length. These probabilities were then considered against key crop characteristics for the main crops grown in Rwanda. Consideration was given to planting dates, number of days to maturity, and the crop's water requirement.

Assessing crop, livestock, and livelihood options

To explore the existing and new crop, livestock, and livelihood options that may be suitable for the participants' local climate and weather, participants continued with the next exercise in the same breakout group. Participants were asked to draw farmers' options and identify who could do the activity/practice of choice, the benefits and who they benefit, performance of the mentioned practice under low/medium/high rainfall, the investments used, months (period of time) to start benefiting, and the risks that comes with the practice.

PRACTICE	WHO BENEFITS ♀ ♂	BENEFITS AND WHO BENEFITS ♀ ♂	PERFORMANCE V / OK / X LOW MED HIGH RF RF RF	INVESTMENT H/M/L \$	TIME OF START OF BENEFITS (MONTHS)	RISK
Intercropping ♂ ♀	♂ ♀	♂ ♀	✓ OK OK	⊙ H \$ L	4	Diseases Competition
Agroforestry ♂ ♀	♂ ♀	♂ ♀	✓ OK ✓	⊙ H \$ M	24	Competition Space
Mulshung ♂ ♀	♂ ♀	♂ ♀	✓ OK ✓	⊙ H \$ M	4	Diseases
Improve seeds ♂ ♀	♂ ♀	♂ ♀	✓ V OK	⊙ L \$ H	4	—
Agri input ♂ ♀	♂ ♀	♂ ♀	✓ OK X	⊙ L \$ H	4	Environment
Water drainage (Dam) ♂ ♀	♂ ♀	♂ ♀	✓ V OK	⊙ H \$ H	2	Vector borne Diseases

Figure 3. Different practices/options for a given farmer that is locally specific

After identifying the crops, livestock and livelihood options suitable for their specific locations, the next step was to facilitate farmers to understand their options based upon their individual circumstances and choose which option to consider in more details depending on farmers' resources and abilities.

Comparing and contrasting different options using participatory budgets

The third day mainly focused on exploring/planning of the selected crops, livestock and livelihood options; enabling implementation; receiving the seasonal forecast; and revisiting the resource allocation maps for the farmers to decide. Here, the intermediaries' responsibility would be to help farmers adjust their plans according to the received forecast. Through a series of presentations, the participants were guided to understand the use and importance of the participatory budgets as well as tips on why and how to enable implementation. They also learned about seasonal forecast, how it is prepared, why it is important, and how to use it with farmers.

The session began with a brief explanation of the participatory budget (Fig. 4). The participants then went back to their group to draw a participatory budget for the selected options in the previous step. The session continued with understanding the importance of enabling implementation. Once a farmer has made their choice in the previous steps, it is

important that they are able to source the required inputs, training, capital, etc. necessary to implement—keeping in mind that with the right resources, farmers’ chances of success are greatly increased.

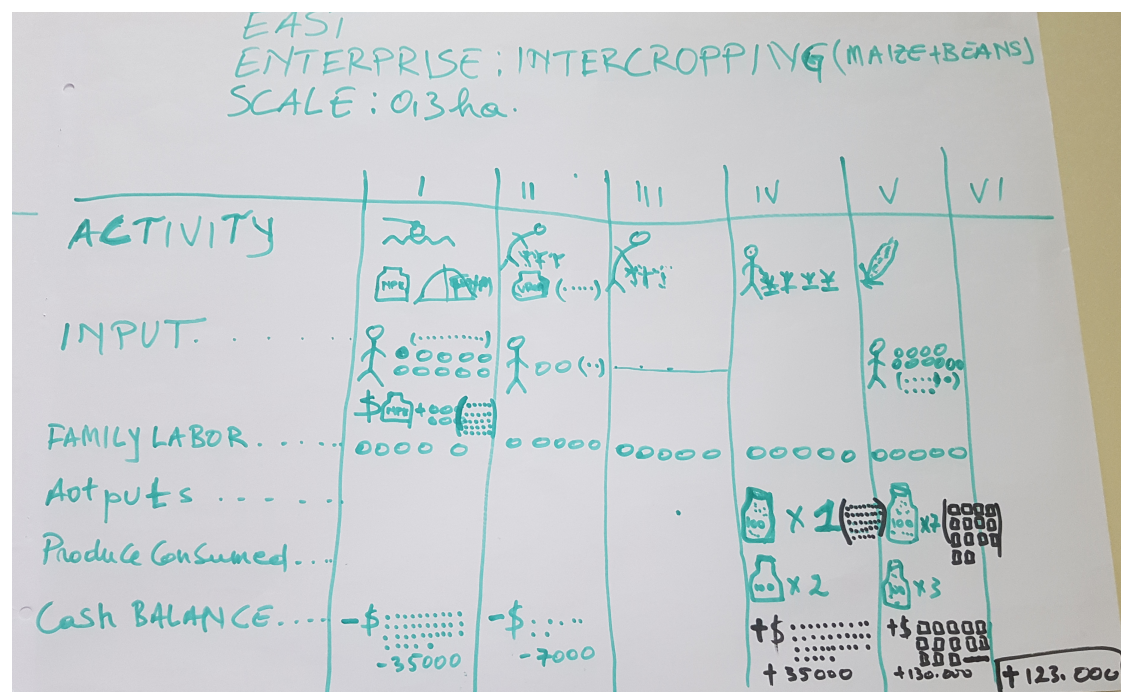


Figure 4. A participatory budget drawn by a participant for a farmer in the East.

Seasonal and short-term forecasts

During the third day of the training, Météo Rwanda presented on seasonal forecast in Rwanda, including how the forecast is developed, examples of forecast results, and also how the forecast is disseminated by Météo Rwanda. Participants were then provided with a number of example seasonal forecasts to consider the impact on the decisions that they had made in their groups throughout the week. Météo Rwanda also explained what the short-term forecasts are; how they are developed and disseminated. Participants were given a toll-free number where to send feedback and questions to Météo Rwanda. After all the presentations, the remainder of the day was spent preparing for the field day.

Field day with farmers

During the field day, the participants remained in their same groups and were paired with a group of farmers to go over some of the key PICSA steps. This field day is an opportunity for the participants to experience the process of working with farmers, see farmers’ reactions, and gain confidence in implementing the PICSA approach. The field day took place in Muyumbu

Sector of Rwamagana District in the Eastern part of Rwanda, where historical information had been produced on the third day and printed for use with farmers. 48 farmers from Muyumbu Sector were present during the field day.

The field day began with general introductions of expert trainers and farmers, with farmers specifying the type of farming they do—the crops they grow or what livestock or livelihood activity they do. Rwanda Climate Services for Agriculture (RCSA) Project Coordinator, Dr. Desire Kagabo, introduced what the project does and why Muyumbu Sector had been selected for the visit and training.



Figure 5. A farmer drew the resource allocation map of his household.

Reflection on field day and planning for further PICSA workshops

The last day of the training focused on reflection from the field day and planning for further PICSA training in the four pilot districts during the project's first year. A timetable of activities to prepare for the implementation of PICSA to four districts in Rwanda ahead of Season A was developed and discussed. At the end of the workshop participants responded to a questionnaire to provide feedback for the training team. The results of this feedback were very positive, with a clear favor for the field day and practice in groups (Appendix 3).

Conclusions

The five-day training workshop aimed to develop skills and capacity of staff who can train farmer promoters and front line staff in extension and NGOs who can help support delivery of PICSA implementation. The training went very positively with full engagement from all participants throughout the course. During the opening and closing of the workshop, the Director of Météo Rwanda demonstrated commitment to the project. Feedback from the field day from the participants and the farmers they worked with indicated good understanding and response to PICSA methods and overall approach. Farmers from the field day training reported that the training contents were very relevant and useful. On the final day of the workshop, clear plans were discussed for the next steps. The NGO representatives in attendance expressed their desire to be involved in the implementation of PICSA. It was agreed that if feasible, a separate one to two-day meeting would be held with them to develop memorandum of understandings (MOUs) and make more tangible plans specific to each organization. Plans were made for necessary preparation for the implementation in the four pilot districts to commence in July with the training of Farmer Promoters.

Appendix 1: Workshop Programme

DAY 1	Time	Topic
9.00	30	Registration
	5	Introduction and welcome
	10	Formal opening
	10	Logistics
	20	Ice-breaker
Break - 10.15-10.45 incl. group photo		
	15	Course aims and outline
	20	An overview of climate services and the PICSA approach
	40	What are climate, climate variability and change
	60	Current farming & livelihoods in your location (using RAMs, Seasonal Calendars for crops and livestock) (Exercise)
Lunch - 1.00-2.00		
	30	Current farming & livelihoods in your location (using RAMs, Seasonal Calendars for crops and livestock) (Exercise)
	25	Historical climate information (what is it, where is it from, who collects it and how, and how is it produced)
	10	Historical Climate information for your area 1: explanation of graphs
	30	Historical Climate Information 2: What has happened to the climate, what does this mean + what are the potential causes (Exercise)
Tea - 3.35-3.50		
	30	Historical Climate Information 2: What has happened to the climate, what does this mean + what are the potential causes (Exercise)
	45	Using historical climate graphs to work out probabilities (Exercise)
	5	Review of day
DAY 2 START 8.30		
	10	Recap from day 1 and timetable for day 2
	60	Introducing the use of probability of exceedance graphs
Break - 10.10-10.40		
	1.5hr	Identifying and selecting suitable crops, varieties and crop practices (exercise)
	30	Crop management, livestock and livelihood options
Lunch - 12.40-1.40		
	1hr	Crop management, livestock and livelihood options (including probabilities, livelihood options table, RAMs) - exercise
	20	Farmers as decision makers & the role of facilitators What are 'options by context'
	30	Exploring/planning for selected crops, livestock & livelihood options (PBs, RAMs) - PBs - Intro
Tea - 3.30-3.45		
	1hr	Exploring/planning for selected crops, livestock & livelihood options (PBs, RAMs) - PBs - exercise

	10	The farmer decides - revisiting RAMs and seasonal calendars
DAY 3 START 8.30		
	10	Recap from day 2
	20	Enabling implementation (the role of seed supplies, markets, savings clubs and crop insurance etc)
	1h15	<p>Preparing to adjust plans?</p> <p>Option A: Improved downscaled seasonal forecast (if available). What is it? How is it produced and communicated, what are its advantages and limitations?</p> <p>Option B: What is the Seasonal Climate Forecast as widely used at present</p> <p>How is it produced and communicated, what does it include, what are its advantages and limitations</p> <p>What future developments may become available (CPT)?</p>
Break - 10.45-11.15		
	45	Understanding and using the seasonal forecast - how does this effect plans - exercise
	30	Short term forecasts, severe weather warnings & updates to the SCF - how and when are they produced and communicated
	1hr	Interpreting SMS forecasts and warnings (exercise)
Lunch - 1.30-2.30		
	15	Recap of process and main components
	30	Planning for field day
	15	Tips for facilitation
Tea - 3.30-3.45		
	45	Prepare materials and practice exercises for field day
DAY 4 START 8.00		
		Field day
DAY 5 START 8.30		
	1hr	Reflection, feedback, lessons learned
	20	Recap on PICSA and key components
BREAK 9.50-10.20		
	30	How will we implement PICSA in Rwanda? Discussion
	1.25hr	Practical planning for implementation
	45	Monitoring and evaluation
	30	Course evaluation
	20	Certificates and close
Lunch and close- 2.00		

Appendix 2: Participant List

No	Name	Institution/Position	Gender
1	Niyitegeka J M V	Météo Rwanda	Male
2	Ndayisaba P. Celestin	RAB	Male
3	Gakwavu Thomas	RAB	Male
4	Kabirigi Michel	RAB	Male
5	Nsengiyumva Theogène	RAB	Male
6	Moussa SENKE K.	RAB /Twigire Muhinzi National Coordination	Male
7	Uwimana J. Bosco	RAB	Male
8	Nizeyimana Jean de Dieu	RAB /Twigire Muhinzi Zonal Coordination	Male
9	Gahigi Aimable	RAB Research Assistant	Male
10	Mukazarukundo Clarisse	Météo Rwanda	Female
11	Mukamana Blandine	Météo Rwanda	Female
12	Ayabagabo Christophe	RDO	Male
13	Mbati Mugunga Mathieu	Météo Rwanda	Male
14	Ayabagabo Prosper	Météo Rwanda	Male
15	Florentine Mukarubayiza	Radio Huguka	Female
16	Augustin Ngirakamaro	RAB / NALD Twigire muhinzi	Male
17	Vuguziga Floribert	Météo Rwanda	Male
18	Tiffany Minjauw	IFAD Climate Services Analyst	Female
19	Kimanyi Clement	OTP	Male
20	Bisangwa Innocent	Environmental & Climate Change Specialist MINAGRI	Male
21	Ndizeye David	RAB / Zonal Twigire Field Coordinator/East	Male
22	Simpenzwe Celestin	Burera / District Agronomist	Male
23	Kanakuze Valens	Send a cow Rwanda	Male
24	Nyiramahoro Eugenie	DERN Program Responsible D' Appui Technique	Female
25	Kabahizi Etienne	DERN Coordinator	Male
26	John Ntaganda Semafara	DG. Météo Rwanda	Male
27	Theogène Mugabonake	Agriculture Officer in Nyanza District	Male
28	Yvonne Uwase M.	CIAT	Female
29	Peter Dorward	University of Reading	Male
30	Gloriose Nsengiyumva	CIAT	Female
31	Desire Kagabo	CIAT	Male
32	Graham Clarkson	University of Reading	Male
33	Mathias Nkundabatware	EPR Agronomist	Male
34	Hakizurimwijuru Felix	Ngororero District Agronomist	Male

35	Vivian Atakos	CCAFS Communication	Female
36	Joseph Gafaranga	IMBARAGA Rwanda Farmers Organizastion	Male

Appendix 3: Participant Feedback

Evaluation of the course

Component to evaluate	Very bad (1)	Bad (2)	Medium (3)	Good (4)	Very good (5)	No comment
How much have you learned from the course?			2	11	10	
How were the course components on climate and weather?			4	11	8	
How were the course components on crops?			3	15	5	
How were the course components on livestock and livelihoods?			5	8	10	
How were the course components on decision making?			2	10	11	
How important was the field day practical for your learning?				8	15	
How were the materials provided such as graphs and field guide?			1	8	14	
How was the venue for the training course?			2	6	15	
How was the venue for the field day?			3	9	10	1

Ranking of course components

Course component	Frequency
Field day	5
Practice in groups and field day	4
Analyzing the historical climate information	2
Historical climate information as a basis for decision making	1
Analyzing historical climate information, relating it to farm activities, and making decisions	1
Exercises and presentations	1
Climate services information, RAMs & Participatory budgeting	1
Options, Historical climate information	1
Logistic part	1
Options and budget	1
RAM, Historical climate information, Options	1
Lunch	1
Presentations	1
Risk and probabilities	1
Training manual	1
Total	23

Suggestions for improvement

What should be improved?	Frequency
Clear guidelines	1
It was good and no improvement is needed	2
Improve the course content by adding graphs preparation in the training	1
Increasing materials for measuring rains in many sectors of the country	1
Details on crop tables versus Historical climate information	1
Include leisure times such as cocktails	1
Provide enough time for learners to discuss & understand the practices	1
Providing many field days in different areas	1
Increase the time for practical exercises	2
Component on crops	1
Time reserved to field	1
Time for practical in groups	1
Training content should be improved especially on presentations made by Météo staffs	1
Time with farmers	1
Have enough time in the field	1
The hotel is expensive	1
Improve on explanations to farmers	1
Increase the time allocated to the training (at least 2 weeks)	1
More time in the field	1
Total	21