Workshop for annual review of Building Resilient Agro-sylvo-pastoral Systems in West Africa through Participatory Action Research (BRAS-PAR) Project and planning "Partnerships for Scaling Climate-Smart Agriculture (P4S) Phase II

2-3 May 2019 at Modern City Hotel, Tamale, Ghana

Workshop report

Funded by

CCAFS - Flagship 4 (old 2)

Report by

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Background

Building Resilient Agro-sylvo-pastoral Systems in West Africa through Participatory Action Research (BRAS-PAR) is a CCAFS Flagship 2 funded four year (2015-2018) project coordinated by the World Agroforestry (ICRAF) and implemented in collaboration with partners namely national agricultural research institutions (INERA in Burkina Faso, SARI in Ghana, INRAN in Niger and ISRA in Senegal) and the International Union for Conservation of Nature (IUCN in Burkina Faso). BRAS-PAR sought to develop up-scalable technological and social innovations of climate-smart agriculture integrating tree-crop-livestock systems through improved understanding of farmer's perceptions and demands, by addressing barriers to adoption taking into consideration gender and social differentiation.

The specific objectives include 1) testing, evaluating and validating with rural communities and other stakeholders, scalable climate-smart models of integrated tree-crop-livestock systems, the dominant farming systems in the region, that include climate-risk management strategies; 2) simulating options for improving water and tree-crop-livestock systems under different climate and socio-economic scenarios using models (WaNuLCAS, SWAT, etc.) for informed decision making; 3) assessing the conditions of success and failure of technological interventions on adaptation to climate change. The work here focus on research that evaluates climate-smart practices and technologies that are defined through participatory identification by multi-stakeholders in each site. Beyond these sites, the approach capitalizes lessons learnt from on-going climate resilient projects to encourage partners to add missing components to the climate-smart village model or initiate new activities when deemed appropriate.

Started in 2015, BRAS-PAR targeted three main outcomes: (i) National agricultural research institutions institutionalize the principles of PAR through integration of non-traditional partners in technologies development to generate wider context specific information to be fed into programs and policies to create the enabling environment for the scaling of CSA technologies; (ii) National extension services, development projects and farmer's organizations widely disseminate and ensure better access to information on best fit CSA portfolios to cope with climate change; and (iii) The private sector including NGOs (FNGN, Larwaal, ARCAD, Care international), microcredit institutions, agro-dealers, rural radios are scaling up/out relevant CSA portfolios through new incentive programs. This project has ended in December 2018 and the meeting review edthe main achievements.

During the same first phase of CCAFS , the project "Partnerships for Scaling (P4S) Climate-Smart Agriculture (P56)" was implemented mainly in East Africa with a focus on supporting countries and partners to plan and program CSA actions. It developed new innovations (e.g., The Compendium and Climate Risk Profiles), refreshed and adapted others (e.g., Climate Wizard, mobile-based monitoring) and collaborated on tools (e.g., Rural Household Multi-Indicator Survey, CSA MRV Profile) to develop a comprehensive set of evidence and information to serve diverse stakeholder needs for situation analysis, targeting and prioritizing, program support and monitoring and evaluation (aka 'CSA-Plan', Girvetz et al. 2018).

Merging the actions of BRAS-PAR and P4S I to become P4S II was done with the intention to use tools and evidence/lessons learned from the Climate-Smart Villages and other development activities, with existing and new partners through direct scientific support to decision makers (e.g., governments, civil society, and researchers) and capacity building to help bring CSA to scale. The scientific activities will be combined with dedicated communication activities such as photo essays, tweets, blog posts, *etc.* from field staff and partners to raise the visibility of the project and help show case of its successes in supporting countries and position of ICRAF, CIAT, and CCAFS as the go to research organization for the science of scaling up CSA. The key activity areas

of P4S II will be around: supporting CSA investment and programming, de-risking agriculture, digital delivery and monitoring and, communauty based scaling of CSA. The present meeting was thought to plan the new activities around these areas for 2019 and beyond.

Workshop proceedings

Day 1 activities

Welcome speech and workshop objectives

Dr Jules Bayala, the project Coordinator and Dr Saka Buah the representative of SARI (Savanna Research Institute) welcomed all the participants to the workshop being held in Tamale, Ghana. They noted the relevance of the project in the Sahelian context while wishing that the workshop yields fruitful outputs.

Following the brief opening session, opportunity was given to the participants to amend the programme of the workshop which was adopted with some few changes.

The objectives and the expected outputs of the workshop were then presented by the project Coordinator Dr. Jules Bayala. He first presented an overview of BRAS-PAR project (Phase I) implemented from 2015 to 2018 including the sites namely Tibtenga in Burkina Faso, Doggoh and Bompari in Ghana, Kampa Zarma in Niger; Ngouye and Daga Birame in Senegal, the main results obtained and the reason for merging of BRAS-PAR and P4S for the second phase (2019-2021). The merging BRAS-PAR and P4S I to become P4S II was done with the intention to see tools and evidence/lessons learned from the CSV and other development activities, with existing and new partners through direct scientific support to decision makers (e.g., governments, civil society, and researchers) and capacity building to help bring CSA to scale. The key activity areas of P4S II consist of :

- Supporting CSA investment and programming;
- De-risking agriculture;
- Digital delivery and monitoring;
- Community based scaling of CSA.

In order to plan the new activities for P4S for 2019 and beyond, the workshop is organized to:

- Review activities conducted from 2015 to 2018;
- Draw lessons and synthesize key findings for scaling up in P4S II;
- Discuss about the implementation of the new CCAFS funds granted for 2019-2021;
- Plan P4S activities.

According to those objectives, the expected outputs presented included the following points:

- Main achievements and lessons learnt from 2015-2018 for BRAS-PAR are synthesized;
- 2019 workplans of the different partners are amended and ready for implementation;
- Scaling up strategies are defined and adopted.

Presentations and discussion

Presentations

Representatives of three countries (Burkina Faso, Ghana and Senegal) involved in BRAS-PAR presented the activities carried out from 2015 to 2018, the results obtained and the challenges. Niger which is not part of P4S II was not represented at the present workshop. The activities mainly focused on on-farm trials through participatory action research approach as summarized in table 1.

Table 1. Summary of presentations by BRAS-PAR partners

Team /Activities	**Burkina Faso**	**Ghana**	**Senegal**	**IUCN**
Baseline assessment	- Rural development marked by sectoral approaches - variability and climate change not perceived as an impediment for improved production	- Rainfall variability - Pests and diseases, - Degradation of farmlands - Decline in livestock production	- Limitation for CC understanding - Limited capacity of farmers and communities to integrate CC in their activities	- Low agricultural productivity, degradation of natural resources - Most efforts focused on biophysical barriers to enhance agricultural productivity, restore natural resources
CSV Designing	- Combination of approaches - School field - Capacity building through inter-farmer visit - Participatory development of CSV model	- Strategic portfolio of technologies - Climate information service tactical support - Institutional innovations - Stakeholder mobilization	- Participatory analysis of vulnerability and adaptation to CC; - Defining the CSV model to achieve the desired future of each community; - defining and developing partnerships - setting up an innovation platform; - participatory activity planning	- Base line study - Endline study

Creating evidence	- Two improved varieties of millet - Three biofortified varieties of millet - Three biofortified varieties of sweet potato - Two improved varieties of cowpea - one variety of sesame - FMNR, tree planting - Use of climate information	- Seeds of improved varieties, - Drought-tolerant/short cycle varieties, - Integrated use of organic and inorganic fertilizers, - Off-season crop market-gardening, - Intercropping, - Use of pesticides, - Tie ridges, - Earth bunds and - Use of climate information services	- Innovation platform established - Farmers capacitated to use climate information through PICSA approach - Farmers managed natural regeneration, exclosure plot for ecosystem services delivery - Vegetable and tree fruit garden for improving nutrition - Land Degradation Surveillance study for systematic landscape-level assessment of soil and ecosystem health	- Framework for CSV – BRAS-PAR developed - KAP as baseline for scaling up CSA technologies/practices (Diversity of technologies and practices, farmers self-assessment, attitudes about adoption, adaptation, mitigation, etc.) - Social learning as approach to scaling up CSA technologies / practices
Building capacity	- Training of trainers on various topics - Training of students - Training of farmers	- Training of trainers on various topics - Training of students - Training of farmers	- Training of trainers on various topics - Training of students - Training of farmers	- Training

General discussion

After of the presentations, there was a session of general discussions for better understanding of thepresented findings, improving the way of presenting the results and action plans of the new P4S II 2019-2021.

To help better understand the achieved findings, future presentations by the country teams should:

- be more specific and informative on the magnitude of the increase instead of just mentioning only percentage about improvement caused by a new technology tested;
- evaluate economic profits of the tested and validated technologies and practices;
- develop business model as a way for scaling out for the most promising technologies such as mechanized zai;
- improve the scaling out by considering the social network learning process;
- acknowledge that we have some advantage for community-based activities as our work is already based on community approaches. However, we need to engage more to devlop investment plans for the region where we are operating. This can be done through consultancy which will require additional funds and we are therefore encouraged to raise more funds in the coming year;
- continue working in Baurkina Faso despite the security issues. As the scaling out is about going beyond the area where we are already working, the security issue should not impede the implementation of the project in Burkina Faso. The scaling out can be done in safer areas of the country.

Follow-up actions

1. Make evident our findings
    a. Synthesize lessons learnt showing evidence (10 pages): 2 months (July 5, 2019)
    b. Process supported by success stories
    c. Behavioral change based on IUCN work
2. Prepare oral stories
    a. Coordinate with focal point
    b. Within each country, make a powerpoint presentation for discussion with key partners and potentials donors
    c. Make a video for 3-5 min that can serve for funds raising activities
3. Make a list of technical publications
    a. All potential publications
4. Brainstorm on workplan around the 4 areas
    a. Country can choose to go for 2 areas or start by 4 areas
        i. Ex. CSA profil for the hole region
    b. Evaluation
        i. Evidence for improving nutrition
        ii. Evidence at landscape level (satellite image) /
5. Submit a draft to WASCAL (June 14)
    a. Dr Babou Bationo of Burkina Faso to share the proposal with the rest of the group
    b. Ghana team to share a draft with P4S II teams and German partners.

Day 2 activities

CCAFS West Africa Regional Programme activities in the CSV sites (2015-2018)

On behalf of the regional programme leader Dr. Robert Zougmore, Dr. Mathieu Ouedraogo presented the activities implemented by CCAFS in the WA region from 2015 to 2018. The activities of the CCAFS West Africa regional program in 2018 consisted of empowering women with CIS in Ghana, NTFP in Senegal and *Casia tora* in Niger, M&E of Climate-smart villages and conducting some specific studies as followed:

- Diffusion and Adoption of CSA technologies and practices in CSVs (Niger, Mali, Ghana);
- Prioritization of CSA technologies and cost-benefits analysis in CSVs (Burkina Faso, Ghana, Niger, Mali, Senegal);
- Use of climate information in Burkina Faso, Senegal and Ghana (Esoko, cowpea and sesame Value chain).
- Climate-smart goat value chain (fodder bank).

The discussion was focused on the methodology adopted for mid-line studies at village, household and organizational levels. It started as a Pilot 2018 study in Ghana especially on the drivers of changes to crop, agriculture and land management from 2011 to 2018. There is a need to find a suitable method to understand and interpret the feedback from farmers.

Activities to be explored by research areas for P4S-II in West Africa

Participants were then split into 3 groups to discuss about the research areas defined in the P4S II proposal and identify priority research areas for West Africa teams. Below is the syhthesis of the results of the group discussions on the 4 areas of P4S.

Supporting CSA Investments and Programming

- Develop national investment plans (demand driven plans, flexibility and opportunistic - integrate CSA approach in existing plans at their revision if offered the opportunity to do so - focus on subnational level)
- Elaborate programs and policies at national and subnational scales,
- Document evidence on what works where from the CSV
- Develop MRV assessments for National and sub-national governments
- Identify social learning groups and capacitate them on the CSA technology packages
- Collaborate with resource persons (customary chiefs, religious leaders, village leaders)
- Develop an operational guide for the CSA technological packages
- Capacitate the producers to access the inputs needed to implement the technology package

De-risking agriculture

- Strengthen the capacity for climate risk analysis and understanding
- Capacitate actors for implementating activities for risk management (warrantage, Techniques for commodities storage)
- Develop risk profiling and identification of appropriate CSA technologies
- Develop tailored climate insurance schemes for farmers (based on market-oriented crops)
- Develop business models for sustainable and profitable agricultural entrepreneurship

- Capacitate actors for better analysis of a business plan for climate-sensitive value chain including access to climate information and access to market

Digital delivery and monitoring

- Assess the cost-effectiveness of various digital extension approaches under a range of contexts including interactive voice recording, short message systems (SMS), etc.
- Develop mobile phone-based monitoring such as voice calls and SMS, with both public and private sector partners. Example of key partners: World Food Program, Viamo, GeoPoll, ILRI
- Develop user-friendly MRV (monitoring reporting and verification plan)
- Collect, analyze and publish data by using digital monitoring and evaluation approaches

Community based scaling of CSA

- Organize exchange visits
- Test and validate the CSV for new sites
- Map the spread of adopted CSA options (Evidence creation)
- Strengthen the partnership (old and new partners)
- Identify and set up dialogue groups on Agro-Silvo-pastoral policies
- Identify champions and support them to advocate for policy changes
- Assess the actual potential influence of policies on the implementation and adoption of CSA technologies

Follow-up actions

Lists of publications for scientific journal, posters and policy briefs to be produced in 2019 were proposed by each country team through group discussion on day 2. They are summarized in table 2 and 3.

Table 2. Proposed list of publications for scientific journals

No	Tentative Title	Responsible	Time frame
Burkina Faso			
1	Effet de l'information climatique sur les revenus dans le Nord du Burkina Faso		
2	Effet de l'information sur le comportement des producteurs dans le Nord du Burkina Faso		
3	Analyse coûts bénéfices des technologies et pratiques climato-intelligentes dans le Nord du Burkina Faso		
4	Assessment of ligneous resources following topographic distribution for adaptative management of ecosystems in northern in the context of climate change		
Ghana			

1	Participatory prioritization of CSA technologies/practices: Implication for adoption in Northern Ghana	Mathieu Ouadraogo/Anselm Nyuor	End of June 2019
2	Estimating costs and benefits of CSA options: Implication for sustainable agriculture in Ghana	Mathieu Ouadraogo/Anselm Nyuor	End of August 2019
3	Promising climate-smart agriculture options in the Bompari and Doggoh communities in northern Ghana: Smallholder Farmers' Attitude toward adaptation	S.S. Buah	End of July 2019
4	Maize Response to Integrated Nutrient Management options under variable rainfall conditions in the Guinea Savanna Zone	S.S. Buah	End of July 2019
5	Water management and fertilizer effects on maize production under variable rainfall conditions in Guinea Savanna Zone of Ghana	S.S. Buah	End of July 2019
Senegal			
1	Croissance et production fruitière de quatre variétés de *Tamarindus indica* au Sahel (D. SANOGO, C DEMBÉLÉ et *al.,*);	D. SANOGO	
2	Evaluation des coûts et avantages des technologies et pratiques agricoles intelligentes face au climat dans les villages climato-intelligents: cas des villages de Tounes mosquée et Daga Birame au Sénégal (M. SALL et *al.,*);	M. SALL	
3	Evaluation des coûts et avantages du PTACR (BA CAMARA , M. SALL et *al.,*)	BA CAMARA	
4	Rôles des services écosystémiques sur la subsistance des population du VCI de Daga Birame au Sénégal		
5	Gestion communautaire des espaces sylvo-pastoraux inter villageois dans le VCI de Daga Birame: services écosystémiques et impacts; (D. SANOGO/M. BADJI/ HS BA et *al.,)*	D. SANOGO	
6	La domestication des fruitiers forestiers : un moyen efficace pour soutenir durablement l'entreprenariat au Sénégal		
7	Paquet Technologique Agroforestier Climato Intelligent : une pratique innovante dans le contexte de la transition agro-écologique au Sénégal		
8	Évaluation économique des technologies mises en place dans le Village Climato-Intelligent de Daga Birame, Kaffrine, Sénégal		

9	Le VCI une stratégie pour atteindre la neutralité de la dégradation des terres		
10	Effets du paquet technologique agricole climato-résilient pour l'amélioration des rendements de mil (Pennisetum glaucum (L.) R. Br.) dans un contexte de variabilité pluviométrique dans le bassin arachidier du Sénégal (BA CAMARA, et al.,).	BA CAMARA	
11	Synthèses nationale des acquis du projet BRAS-PAR au Sénégal (D. SANOGO, Y. BADIANE, M. SALL et al.,).	D. SANOGO	
12	Land, land use and land use management		
13	Densite optimale d'arbuste a conserver dans un système de culture associe à Combretum glutinosum		
14	4 blogs (M. DIOP et al.,)	M. DIOP	

Table 3. List of posters, policy briefs and technical leaflets (training materials) proposed by Ghana team

No	Tentative Title	Responsible	Time frame
Poster, policy briefs			
1	Developing climate-smart village models through integrated participatory action research in the Upper West Region of Ghana (Poster)	S.S. Buah	End of June 2019
2	Integrated Soil fertility Management- A concept to boost soil productivity in the savanna zone of Ghana (Policy brief)	S.S. Buah	End of June 2019
3	Appropriate Climate-smart technologies for smallholder farmers in Ghana (Policy brief)	S.S. Buah	End of June 2019
Technical leaflets (training materials)			
1	Safe and efficient use of agro-chemicals	S.S. Buah	End of May 2019
2	Recommended production practices for soybean	S.S. Buah	End of May 2019
3	Recommended production practices for maize	S.S. Buah	End of May 2019
4	Participatory CSA technology development	S.S. Buah	End of May 2019

Concluding remark

At the end on the workshop, participants were requested to respect the follow up action plans established on day 1 and day 2 in addition to the finalisation of the workplans for year 2019 for P4S II. They were also acknowledged for their active participation to the workshop and all the work done to reach the objectives and expected outputs.

Annex 1. List of participants

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Annex 2. Workshop agenda

	Time	Topic	Responsible
Day 1: 2 May 2019			
8.30 - 9.00	30 min	Registration	Admin ICRAF
9.00 - 9.10	10 min	Welcome speech	SARI
9.10 – 9.40	30 min	Introduction: Objectives and expected results of the workshop	Jules Bayala
9.40 – 10.00	20 min	Programme and amendements	
Coffee break – 10.00-10.30 incl. photo			
10.30 – 11.30	60 min	Presentation on findings and lessons learnt to be scaled up – Partner1	Babou Bationo
11.30 – 12.30	60 min	Presentation on findings and lessons learnt to be scaled up – Partner2	Saaka Buah
Lunch – 12.30-13.30			
13.30 – 14.30	60 min	Presentation on findings and lessons learnt to be scaled up – Partner3	Diaminatou Sanogo
14.30 – 15.30	60 min	Presentation on findings and lessons learnt to be scaled up – Partner4	Jacques Somda
Coffee break – 15.30-15.45			
15.45 – 16.45	30 min	Presentation P4S II	Jacques Somda
16.45 – 17 :30	45 mn	General discussions of how to articulate BRAS-PAR & P4S II	
Day 2 : 3 May 2019			
8.30 - 8.45	15 min	Recap on day 1	ICRAF
8.45 – 9.15	30 min	CCAFS West Africa regional programme's activities in the CSV sites	CCAFS
9.15 – 10.00	45 min	General discussion on opportunities for scaling up BRASPAR results	Participants
Coffee break – 10.00-10.30			
10.30 – 10.45	45 min	2019 Workplan and protocols – Partner 1	Babou Bationo
10.45 – 11.30	45 min	2019 Workplan and protocols – Partner 2	Saaka Buah
11.30 – 12.15	45 min	2018 Workplan and protocols – Partner 3	Diaminatou Sanogo
12.15 – 13.00	45 min	2018 Workplan and protocols – Partner 4	Jacques Somda
Lunch – 13.00-14.00			
14.00 – 16.00	120 min	Group work to adjust workplan per institution	All participants
16.00 – 16.30	30 mm	Coffee break	
16.30 – 17.30	60 mn	Feedback on main adjustments	Institutions
17.30 – 18.00	60 mn	General discussions	All participants
18.00		End of workshop	

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