Info Note

Mainstreaming gender and social differentiation into CCAFS research activities in West Africa: lessons learned and perspectives

Findings from the Participatory Action Research in the Climate-Smart Villages (CSVs) of Burkina Faso, Ghana, Mali, Niger and Senegal

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Key messages

- Success in gender mainstreaming in CSVs work requires: (i) a capacity building of implementation team and partners in participatory gender research, (ii) an involvement of women through development and implementation of gender responsive projects, and (iii) an empowerment of women groups around CSA activities.
- Women and men have similar perceptions of climate variability and change in Ghana and Mali CSV sites. However their perceptions on adaptation strategies are different.
- Women and men have different access and use of CSA technologies and practices including climate information services because of gender gap in agriculture across the assets and resources (access to phone, access to education, and access to trainings).

Majority of women in developing countries are involved in agriculture. In Africa, about 40–62% of women are said to be employed by agriculture. However, the limited access of women to agricultural inputs and other farm resources, constrain their quest for improved food security and livelihood security. With livelihoods of women mostly linked to agriculture, any negative impacts of climate change are likely to impose more burden and lead to catastrophic consequences.

Developing gender-responsive climate proofing agriculture is therefore imperative to improve women's adaptive capacity to climate change. To achieve this, the identification, design and implementation of climate-smart technologies must mainstream gender by considering the roles of women. In view of this, the CGIAR Research program on Climate change, Agriculture and Food Security (CCAFS) developed a gender strategy to strengthen its development impacts on agriculture through the integration of gender into its research activities. In West Africa, CCAFS has given due consideration to the integration of gender and social inclusion into the design and implementation of research activities through Participatory Action Research (PAR) within the Climate-Smart Villages.

This Info Note aims to present a summary of results from gender-related activities at the CSVs in West Africa. The gender mainstreaming included the capacity building of implementation team, the empowerment of women with gender sensitive activities and the understanding of gender perception on climate change and adaptation strategies.

Mainstreaming gender in participatory action research in West Africa

Gender was maintained in all the steps of the participatory action research within the CSVs in West Africa.

During the CCAFS village baseline study, focus group discussions (FDG) (involving men and women) were used to analyze a community's resources, the organizational landscape and the information network in order to define the vision for the future of communities in the five CSV sites of West Africa (located in Burkina Faso, Ghana, Mali, Niger and Senegal).

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Diagnostic studies using FDG (involving men and women) were also conducted during the implementation of the Flagship led projects in CSV including BRASPAR project and RPL led activities in West Africa.

Based on the results of the gendered diagnostic studies, gender specific activities were identified and implemented in the CSVs. In Senegal, income diversification activities including poultry, seasoning gardening, Non-timber forest products processing (e.g. baobab fruit powder), and tree domestication were experimented with women. In Niger, the planting of Cassia tora was promoted for women while Moringa oleifera and baobab tree planting were promoted in Burkina Faso and Mali for women. In Ghana, Gender Climate-Smart Groups were created and their members capitated in soybeans production and approaches in reducing post-harvest losses.

In addition some specific studies used intra-household surveys approach to analyze the gendered perception of climate variability and change, the gendered access and use of CSA technologies and practices including climate information, to identify the gendered constraints and potentiality for CSA work within the CSVs.

Capacity development of partners for gender mainstreaming into participatory action research in West Africa

A mis-mainstreaming of gender into projects is sometime due to the poor skills in gender research. To deal with this, CCAFS West Africa organized a one-week training in Dakar (Senegal), to enhance the capacity of partners to be able to mainstream gender and social differentiation in climate change adaptation research and development activities.

Partners in a group discussing session during a training on gender. Photo: Abdoulaye S. Moussa (CCAFS-ICRISAT)

The training was participated by 15 CCAFS partners (including 10 National Agricultural Research scientists and 5 agents from NGOs involved in PAR activities) from Burkina Faso, Ghana, Mali, Niger and Senegal. Participants were trained in participatory gender research (including gender mainstreaming in PAR activities, gender research tools, approaches, concepts, etc.)

Based on the skills acquired from this training, the participants developed five proposals for gender research to fill the gaps of knowledge in term of gender and climate change in West Africa. Three gender projects were implemented with success in 2014 and 2015 including: (i) Understanding male and female farmers' access and use of climate information for managing climate risks in Lawra and Jirapa districts of Ghana; (ii) Valorizing non-timber forest products for increased resilience and food security of vulnerable people in Daga-Birame (Sénégal) and (iii) assessing the performance of *Cassia tora* and cowpea under improved zaï techniques for increased resilience of vulnerable famers in Kampa-Zarma (Niger).

Gender perception of climate change and adaptation strategies

Most of farmers in West Africa farmers were aware of climate change and its implications for their agriculture and other livelihood activities. Studies conducted in the CSVs sites of West Africa showed that men and women had similar perceptions about climate change. In Lawra-Jirapa district, the climate change perceived by the majority of farmers were increased strong winds, higher temperatures, increased frequency of drought, increased rainfall variability and increased flooding. In Cinzana CSVs of Mali, the analysis of farmer's perception of climate change (regarding different patterns such as rainy season, temperature, extreme phenomena) using a five Likert scale did not highlight any significant difference between men and women.

However the perception of climate adaptation strategies differ with the gender. A participatory prioritization of CSA options in Lawra-Jirapa showed a difference in term of ranking for the top ten CSA option between men and women in Ghana. Among the top ten CSA options, four (including (i) drought-tolerant/short cycle variety, (ii) improved seed, (iii) composting and (iv) weather information) had the same rank for both men and women. Farmer managed natural regeneration of trees (FMNR) was ranked by men only and earth-bund by women only among their top ten CSA technologies and practices in Lawra-Jirapa.

Differentiated access and use of climate information in Lawra and Jirapa districts of Ghana

Two studies highlighted the differentiated access and or use of climate information in CCAFS CSV site of Ghana. Etwire et al., (2017) showed that being female decreased the probability of a farmer utilizing information on the Esoko platform by about 9%. Men are better networked economically when compared to their female counterparts.

They are often the natural targets of most development interventions since they serve as opinion leaders of the communities and families. This tends to put males at an advantage when it comes to information dissemination and technology adoption. Further, males are mostly household head and breadwinners; they are therefore more likely to be able to afford placing a call to the Esoko platform. The chances of a farmer utilizing information on the Esoko platform increases by about 13% if the farmer lives below the poverty line (has a per capita income of less than US$1.25). Poor farmers are more likely to seek and utilise any information that has the potential of improving their livelihood (see photo).

Partey et al, (2018) showed that men were particularly responsive in adopting CIS use for climate risk mitigation. This was attributed to their ability to easily access and use telephone devices compared with women. The study revealed that unlike women, men were able to access more financial resources and had control of household income which allowed them to purchase mobile phones. Women generally accessed their husbands' mobile phones. Despite differences in access to CIS, the study showed both men and women found it beneficial for strategic farm decision-making such as when to begin land preparation, when to plant, and which crop to select. In addition, both men and women were found to face similar constrains (such as poor network connectivity and limited of training), to accessing and using CIS through the Esoko platform.

Gender empowered through women Climate-Smart agriculture groups in Lawra-Jirapa (Ghana)

CCAFS project created an opportunity for gender recognition and involvement of women in its major objectives in addressing food insecurity in Lawra-Jirapa. This contributes to the formation and registration of women groups in CCAFS sites called CSA Women groups. From 2011 to 2017, seven groups have been formed in Doggoh and Bompari. These groups are areas where women share information on CSA, assist each other on farming, meet regularly, benefit from trainings organized by CCAFS and benefit from susu loans facility put in place.

Some of the research activities carried out by these women groups has not been different from their male counterparts. However, the ability of the women to work on bigger plot and also undertaking many interventions unlike their male counterparts has being a challenge. Research activities undertaking by some individual women or and groups include:

- Intergraded inoculants – fertilizer demonstration on soya beans
- Fertilizer effect on crop production
- Integration of soil fertilizer management practices for crop production
- Integrating Jathropha in the existing cropping system.
- Zero tillage effect on soybean and maize
- Earth bounding and fertilizer effect on crop production.
- Promotion of drought tolerance crop varieties
- Zaï effect on maize yield

Newly formed and registered women group in Konzokala near by community in Doggoh. Photo: Mavis Derigubah (CSIR-SARI)

Through these activities women were able to lobby for fertilizer, expand and improve their cropping areas by applying compost prepared by themselves and introducing tie ridging. This contributed to increase their crop yield from 0.8 to 2 metric tons per hectare. They have been trained in how to process and store vegetables all year round, how to produce recipes with soybean and how to raise seedling of different types and grape for transplanting. This contributed to improve the food security status of their family. Women CSA group helped women to foster unity among themselves, improved upon their financial and economic activities. Women were empowered and free and willing to contribute to personal and community development issues.

Women empowered with non-timber forest products in Daga-Birame (Senegal)

Using Market Analysis and Development (MA&D) approach, this activity selected the most promising forest product (baobab fruit powder) and created a women micro enterprise for its processing. Women were capacitated in baobab fruit powder processing and financial management of enterprise. During the first year of activity (2015), 29 kg of baobab powder was produced and sold generating 171 Euro of income for the women association. In 2016 and 2017 about 92 à 200 Kg baobab powder was produced and sold generating 700 and 1526 Euros respectively. The money generated has been deposited in the common village savings and could be used to invest in resilience sustaining activities. In order to sustain the availability of raw material for baobab, the community has been organized to protect baobab trees in the village.

A) Baobab tree, B) Women processing baobab fruit powder, C) Training of women in processing baobab fruit processing, D) Processed baobab fruit powder in Daga-Birame. Photos A & B: Diaminatou Sanogo (ISRA); Photors C & D: Mathieu Ouedraogo (CCAFS/ICRISAT)

Women empowered with cassio tora and cowpea under improved zaï techniques in Kampa-Zarma (Niger)

This activity showed that women have access to farm assets but do not control them. They have easily access to poor and degraded lands, which need restoration. As a result, improvement of degraded land productivity through zaï techniques contributed to empowered women in Kampa-Zarma. The leaves of *Cassio tora* were used for human consumption and contribute to reduce the food shortage faced by vulnerable farmers during the months of June, July and August in Niger. This activity contributed to revitalize the participation of women in community resources management.

Conclusions and policy implications

The insights provided by this synthesis suggest particular aspects that could contribute to an effective mainstreaming of gender and social issue within CSVs' activities to benefit from women in West Africa. These aspects includes:

- Strengthening the capacity of CSV implementation partners in participatory gender research.
- Understanding gender perception on climate change and adaptation strategies to develop gender responsive CSA technologies and practices.
- Understanding differentiated access and use of CSA technologies and practices for promoting the uptake of gender responsive CSA options.
- Developing gender specific activities in CVSs work that met women and youth needs and concern and motivate them to participate in CSA.
- Understanding constraints and potential for gender responsive work to reduce gender gap in CSA.
- Establishing gender collective organizations to support gender initiatives (projects, networking, capacity building and mutual support).

Further Reading

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- Etwire MP, Buah B, Ouédraogo M, Zougmoré R, Partey TS, Martey E, Dayamba SD and Bayala J, 2017 An assessment of mobile phone-based dissemination of weather and market information in the Upper West Region of Ghana, 2017, Agriculture & Food Security 2017 6:8, DOI: 10.1186/s40066-016-0088-y
- Partey ST, Dakorah DA, Zougmoré BR, Ouédraogo M, Nyasimi M, Nikoi KG, Huyer S, 2018, Gender and climate risk management: evidence of climate information use in Ghana. Climatic Change, https://doi.org/10.1007/s10584-018-2239-6

This Info Note summarizes the results of activities and studies carried out at the CCAFS Climate-Smart Village sites in Ghana, Niger, Senegal, Mali and Niger to mainstream gender into participatory action research at the sites.

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