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Gender Newsletter

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Women building resilience in sub-Saharan Africa

Figure 1 : Berge protégée par des plantes épineuses

Adaptation aux changements climatiques et agroécologie par les femmes au Burkina Faso – Eveline Compaore

Le Burkina Faso est un pays enclavé d'Afrique occidentale qui couvre environ 274 000 km^2. L'économie du pays est fortement dépendante de l'agriculture, qui représente près du tiers du produit intérieur brut (PIB). La majorité de la population vit dans des zones rurales où elle pratique une agriculture de subsistance utilisant des techniques agricoles rudimentaires. Ainsi donc au Burkina Faso, les femmes font face aux changements climatiques à différents niveaux. En effet, le climat de ce pays du Sahel se caractérise par une forte variabilité des précipitations, rendant la vie difficile à la majorité des agriculteurs surtout les femmes, car l'accès aux sources d'approvisionnement en eau d'irrigation est limité pour ce groupe vulnérables. Elles utilisent des méthodes qui en général sont d'un atout très important mais non connu. En général les femmes Burkinabès au niveau du plateau central, utilisent la méthode de culture mix pour lutter contre les changements climatiques.

Dans leurs petits lopins de terres les femmes utilisent les moyens de bord pour luter contre l'érosion des sols par exemple utilisation des épines pour protéger les berges et leurs cultures maraichères et vivrières.

Les femmes de Gourcy par exemple n'utilisent pas d'insecticide car elles sont conscientes que cela protège leurs sols qui est devenu aride au fils du temps et dont il faut rénover.

Rural Women in Zimbabwe face climate change head on
Patience Mashiri

Figure 2: Women trained on new climate smart technologies at Nyahoni Irrigation Scheme in Nyanga, Zimbabwe

Women are adopting new technologies that are more climate resilient in bean production. These new technologies are centred on crop management practices and include use of standard crop spacing during planting and the use of recommended agrochemicals and herbicides. Before, women relied mostly on traditional technologies such as intercropping beans with other cereals, conservation farming, minimum tillage, mulching etc. Women trained in using this new climate resilient technologies are now making use of them in their bean farms. A discussion with the women of Nyahoni Irrigation Scheme in Nyanga, Zimbabwe has proven that these women have embraced these new technologies.

Climate change to these women has mostly meant changes in rainfall patterns even though other changes have been observed. Women were willing to participate in programs that address these drastic climatic changes and environmental degradation that has continued to happen. "Through adopting climate smart technologies, we are seeing an improvement in the livelihoods of our rural women through increased productivity of beans." Mrs. Regina Matemera is a 47-year-old widow with three children. This is her second year in the project, and she is farming at Nyahoni Irrigation Scheme in Zimbabwe.

She has used the money from beans to build a four roomed house. She started building the house in 2017; with money from the bean sales in the 2018 season she has finished roofing her house. Her house is now complete and she is happy with her achievement so far and the children are comfortable too. Regina has bigger dreams for the future

Storage barns as adaptation strategies to preserve bean grains after harvest in the western highland of Cameroon
Siri Bella Ngoh

Figure 3: Storage barns used to preserve bean grains after harvest

Agriculture remains an integral part of the economies of Cameroon, contributing to the national gross domestic product (GDP), foreign exchange earnings, and food and nutrition security. Despite these contributions, this sector faces various challenges, including climate-related. Increased irregular rainfall patterns, increase in temperature, is contributing to increased yield losses due to depleted soil fertility. Farmers are making little income from their farming activities as overall gains towards rural development are diminishing. Thus, efforts towards poverty reduction among rural dwellers, who depend on agriculture and other climate dependent activities for their livelihood have been stifled. The projected impacts of climate change on agriculture require coping and adaptation strategies by farmers to minimise the impact.

Farmer's ability to adapt vary depending on their age, education, ethnicity, religion, indigenous knowledge and institutional support for adaptation. Adding men and women views into adaptation planning is critical to an inclusive adaptation and mitigation strategy and policy. Therefore, mainstreaming gender in climate change adaptation intervention is crucial, given the gendered nature of climate change vulnerabilities.

Women report the changes in climate variabilities, especially on temperature and rainfall in the quotes below:

"Places are too hot, making the soil too hard and resulting in cracks, leading to low yield. Also, due to fewer rains, tuber crops are getting rotten, like Ibo coco (taro), which we do not have again because the soil is too dry. In the early 1960s, the rain usually started from 15 March, but now it starts at times in February, and it stops before November. Sometimes it starts even after 15 March, so I do not know which planting pattern to follow" **(A female farmer aged 67 in Bafou).**

"Insufficient rainfall and too much sunshine affect maize yields. The cobs are now small in size, and the yield is less, hence affecting the overall quantities harvested compared to before" (female farmer aged 67 from Santa).

"Because of little water in the soil, hot weather makes cassava roots to be small in size as there is insufficient water to feed them" (female farmer aged 43 from Foumbot. Lack of rainfall causes the leaves of haricot beans to become yellow and shrink, leading to poor yields" (female farmer aged 41 in Bafou). "The leaves of most crops are twisted because of a shortage of water; this reduces the growth rate resulting in low yields." (A female farmer aged 51 in Ntumbaw village).

A female farmer aged 62 in Santa also reported: *"Because the soil is too hard and dry, coupled with too much heat, it takes my entire household a week to make ridges on the same farm that use to be done for four days". Another female farmer aged 52 in Bafou disclose that "the ground is too dry and strong and grasses are tough, making clearing and tilling too difficult.*

Adaptation strategies

To cope with these weather stresses, women employed a variety of adaptation strategies to mitigate the effects of climate change on food crop production activities such as irrigation and shifting of planting dates and construction of storage barns are being utilised.

Shifting of planting date is a common practice in both regions, a female farmer aged 44 in Bafou said:

"Nowadays, I exercise patience and wait until rains are stable before I can plant, because in the previous years I planted haricot beans in February after the first rainfall and it stays for almost three weeks before the rain came. This caused me to lose all the haricot beans because it got rotten and I had no other seeds". A female farmer aged 42 concluded by saying that "Because rainfall is fluctuating, I plant in February, March, April, depending on when rain falls".

Regarding irrigation, a female farmer is Santa narrated that *"My entire household and I water the crops (cabbage, green spices and huckleberry) every evening with the use of self-made water spray because of too much sunshine".* Another female aged 43 farmers in Santa said, "*We are forced to water crops especially vegetables, if not we would not be able to sell and have money to take care of Christmas needs for the family".*

The use of a storage barn is prominent in the North West Region. Farmers from Ntumbaw harvest bean pods and keep in storage barns. They only thresh the pods to get the grains when the need arises as for them storing in the form of grains affects the quality, colour, viability of seeds as well as its market value. For them, the "*construction of storage barn especially for beans is important, if not harvested beans will get rotten.*

Farmers understand the need to adapt to the changing climate**.** A female farmer aged 45 in Babessi recounted that *"If I do not adapt to the changes, I will not have any food (maize, haricot beans) to feed my family, sell and earn some money to pay school fees for the children".* For those without **any or limited knowledge of adaptation strategies***, they rely on God Almighty and ancestors for better harvest". A female farmer aged 53 in Ntumbaw narrated that "I do not know how to cope with this new climate, and beside the agricultural extension agents avoid discussions related to this topic".* **Access to credits and finance is also another problem.** *For example, a female farmer aged 67 in Babessi said "I just manage the farm the way it is because I do not have money to buy "medicine" (pesticides) and even fertiliser to increase crop yields as I see in my husband farm". Another woman said: "I lack money to buy irrigation equipment for my farm, so we use family labour to water the farm during the dry season".* **Insecure land rights reduce the adaptation option.** For example, *a female farmer aged 49 in Foumbot recounted that "My landlords told me to plant only beans and corn because I can leave at any time he desires to farm on the land, so there no need to plant a tree as an adaptation measure".*

Integrated approach to combating climate change and securing quality grains for the market: a case of G2L in the Southern Highlands
Gaudencia Bakilile

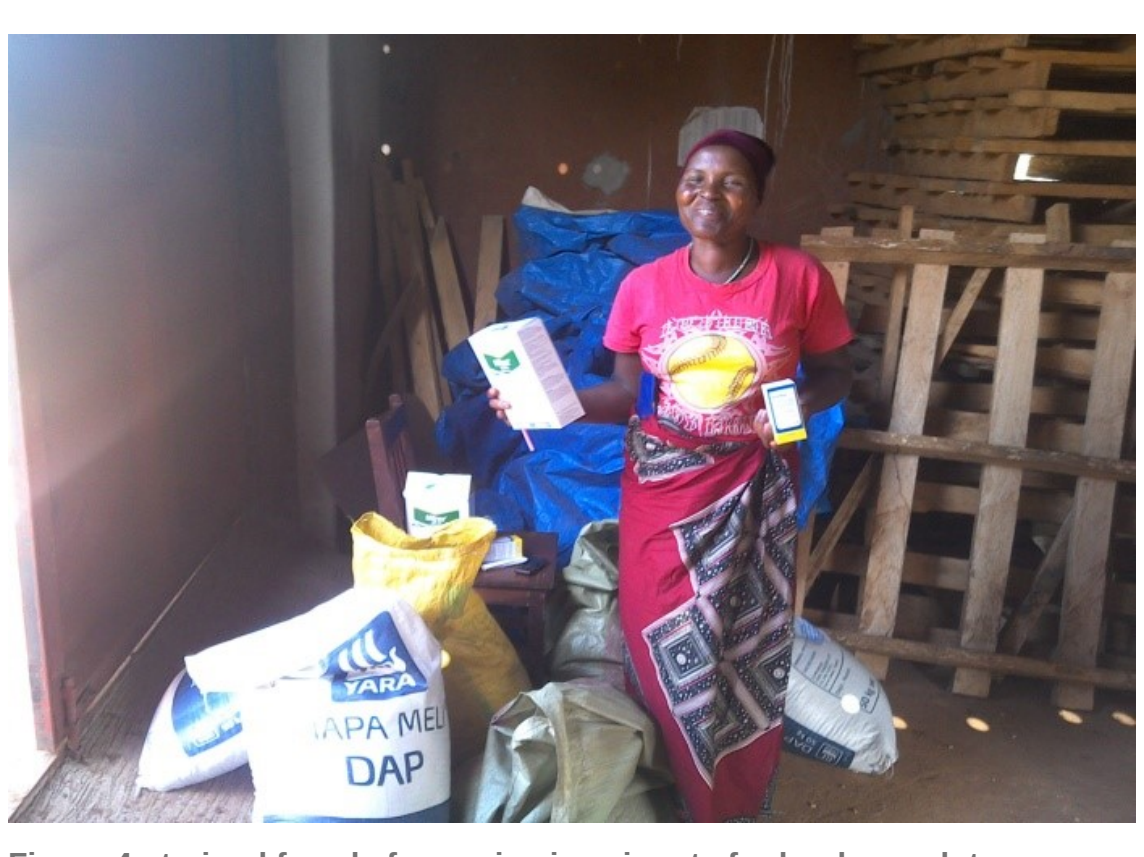

Figure 4: trained female farmer is given inputs for her bean plot

G2L is a woman-run aggregator company Tanzanian registered company based in Makambako in Njombe region. This company is involved in trading and processing pulses, oilseed and cereals in Iringa, Ruvuma, Njombe and Mbeya regions. They work in close collaboration with 13,185 smallholder farmers; agro-dealers, research institutions, distributors and traders in the above value chains. G2L aims to create market linkages with farmers organisations by enabling access to financial institutions to help farmers increase the volume of grains for sale in turn bringing more revenue.

G2L has partnered with other non governmental organizations include PABRA who contribute to strengthening contract farming arrangement is between G2L and farmers especially in Ludewa, Madaba, Songea, Mamtumbo, Iringa rural, Mufindi, Lilolo and Wanging'ombe districts, Usangu and Pawaga valley basins respectively. They have also forged links with financial providers such as GroFin, CRDB, NMB and NBC Plc.

G2L started business in common beans three years ago in order to train and contract farmers that would produce 1000MT (metric tons) or more for the business. Due to climate change and variabilities, they only managed 852MT of common beans that year. In 2021, they aim at procuring 7000MT of common beans from smallholder farmers. To get the required tonnage, G2L has trained the contracted farmers on climate-smart agriculture, post-harvest and handling techniques, farming as a business to get high quality grain they need to improve food security and improve household income in the different communities where they work.

Female farmers who work with G2L work are responsible for 70-80 percent of agricultural work and food preparation at their homes but are constrained by insecure land tenure, finance, access to information and technology.

G2L company is introducing different mechanisms ta assists female farmers to cope with climate change in order for them to supply good quality grain at better price. The proceeds from sales empower women economically and also positively affect nutrition and health in the households. Some of the mechanisms they are employing include:

- Training program, with priority to female farmers. The trainings include Climate-Smart Agriculture (CSA), post-harvest and handling techniques (PHHt) and farming as business.
- New technologies and practices for climate change adaption by female farmers
- Include women within all climate change mitigation and adaption effort
- Improve land rights for women
- Promote access to financial services and fund (loan) female farmers led and focused sustainable food production strategies, including fair trade and resources management activities.
- Ensure investment and implementation of a gender-sensitive approach to disaster, awareness, response and recovery activities.
- Promote gender-responsive approaches to climate financing.

Before G2L started on contract farming for common beans, most of the female bean farmers were subsistence farmer for household consumption and not for business. During that time, they did not see the need to adopt most climate change practices as men were responsible for selling surpluses and decided on the use of the money from these proceeds.

When G2L started working with women farmers, beans was introduced as a potential business crop. Training on Climate-Smart Agriculture, post-harvest handling techniques and farming as business prioritized women. Aggregation centres were created, and women could easily sell their bean with little logistical challenges. This was after we realised that even though women do all the farming, at the time of selling men were the one who sold the beans, got the money and decided on what it will be used for. G2L in collaboration with district government officials made sure that the one who received the common bean loan is the one who will be responsible for selling and receiving money from the bean sold. Moreover, if she got any retaliating violence from the men, she was encouraged the matter at the gender desk so the action could be taken against the man.

During field days, women were trained alongside men on how to adopt climate-smart and practice to their farmers. Above is the picture of a female farmer who already received training and so she was given inputs (improved seeds of common bean uyole 96, fertiliser and pesticides) to grow for the coming season.

Contact Us

Eileen Bogweh Nchanji
Gender Specialist
e.nchanji@cgiar.org

Our mailing address is:

Pan Africa Bean Research Alliance (PABRA) programme under the
Alliance of Bioversity International & International Center for Tropical Agriculture
Regional Office for Africa
Duduville Campus, off Kasarani Road
P.O. Box 823-00621
Nairobi, Kenya

For further information, please go to http://www.pabra-africa.org/
Contact: P.onyango@cgiar.org