



## Impact of Climate Change on Female Farmers in Cameroon

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### Abstract

Climate change is an imminent threat to Cameroon's development due to the country's dependence on natural resources and Cameroonians' dependence on agriculture for livelihoods and subsistence. Under current climate conditions, about two million people (nine percent of Cameroon's population) live in drought-affected areas, and about eight percent of the country's GDP is vulnerable. This is especially true for Indigenous and autochthones women, responsible for 80% of family subsistence and a significant portion of domestic production. Climate change is equally increasing reliance on fertilizers, which can accelerate soil degradation, erosion and reduce farmers revenues over the long run. This is because the war in Ukraine has caused the prices of fertilizer to rise and Ukraine supplies 45% of Cameroon's fertilizer (Guardian Post, 2023). This brief will look at the impact of climate change on female farmers and agro-entrepreneurs in Cameroon. Section I starts by looking at changes in climatic conditions across Cameroon, followed by the effects of climate change on women farmers in section II. Section III looks at current strategies to support women farmers in Cameroon. It concludes with policy recommendations to support women whose farms are at risk of climate change.

### Introduction

Tropical forests cover 40% of Cameroon and provide about eight million rural people with traditional staples including food, medicines, fuel, and construction material. Changing temperature, rain, drought are putting populations at greater risk of famine and poverty.

According to the World Bank (2023), floods and droughts were the second most frequent hazards in Cameroon between 1980 - 2020 averaging 32.1% and 7.5% of natural hazards while epidemics followed at 47.2%. The coastal region of Douala has the highest risk of [flood mortality](#).

### Section I: Climate Change is Impacting Rainfall and Temperatures

Cameroon is geographically diverse and has all the major climates of the continent. The Southwest contains hot and humid coastal and rainforest areas, the mountains in the North have a mild climate, and the northern desert regions are hot and dry. Cameroon is therefore prone to various climate change impacts throughout its different regions (Norrington-Davies 2011).

Meanwhile, Northern Cameroon is usually hit by violent winds, landslides, erosions, and droughts as the desert has advanced over large areas of land. In the Adamawa region, seismic and volcanic risks and landslides caused by heavy rains are the most recurrent risks. It also faces erosion caused by overgrazing.

The Western Highlands face gas emissions from Monoun and Nyos lakes due to heavy rainfall and the same climate risks as

those in the Adamawa plateau. The South Cameroon plateau has heat waves (a global warming effect) and flooding, landslides, and erosion.

The average annual temperature has risen and mean annual rainfall has fallen in the last decades. Average annual temperature rose by 0.86°C over 46 years, from 24.28°C in 1974 to 25.14°C in 2020. The warming has been significant in the North of Cameroon from 1991 - 2020 and was most rapid in December through February and September through November.

In parallel, the average annual precipitation over Cameroon declined by 2.9 millimeters per decade since 1960, with a particularly low average rainfall in 2015. Cameroon's coast has the most precipitation and the northern part of the country has been the driest between [1991 and 2020](#).

## Section II Impact on Climate Change on Women

Although it is difficult to give an accurate assessment of women's contribution to agriculture due to the lack of statistics, rural women supply about 90% of local food needs. Women equally participate in the cash crop sector. and devote between 6-8 hours a day in agriculture to their household work. More than 20% of rural households used to be headed by women in 1989-1990.

### i. Divisions of Labor by Gender

Women help men with land preparation and harvesting who predominantly work in the cash crop sector. While men are primarily responsible for fishing and livestock, women tend to be in charge of fish processing, marketing, raising poultry, small livestock, and share in the processing of milk products both for sale and for home consumption.

Women equally perform domestic tasks, including food processing and collection of wood and water. Rural women tend to work 1.3 times more than men and the [FAO \(2023\)](#) finds that women make decisions on the sale of milk and milk products. As such, they readily feel the financial and economic effects of climate change on their crops and livestock.

### ii. Women's rights

Cameroon is a signatory to the convention on the elimination of all forms of discrimination against women (CEDAW) in 1983 and acceded to it in 1994. This guarantees equality between men and women and civil law provides equal rights in the areas of inheritance, credit and employment. However, [tradition and social norms tend to weigh against women](#) and only male heads of some households continue to have land rights.

### iii. Impact of Climate change on Female Farmers

In Oku, Bamenda located in the Western region, [Azong et al \(2018\)](#) find that gender is linked to climate vulnerability through several factors. These include control over land, division of labor, marriage relationships, education levels, and responsibility for dependents.

Over time, they find that climate change vulnerability tends to rise in an uncertain manner. Meanwhile, in Muyuka (South West, Cameroon) data collected from 100 women and local water and agriculture technicians reveal that climate change is causing water sources to disappear or decrease in volume.

Low water availability reduces agricultural productivity and increases the burden on women's triple role as farmers, caregivers, and home managers ([Fonjong and Zama, 2023](#)).

[Molua \(2011\)](#) finds that while women-owned farms posted record profits of \$620 per hectare, but their profits are at risk of extreme climate events such as uncertain rainfall and extended periods of drought. However, it finds that the extent of climate change vulnerability and the impact of women farmer's profits are contingent on the zone where they farm. The impact of climate change on female farmer productivity and profitability is higher in the Northern arid region of the country and not in the South and North West.

### What is being done to support Women farmers against climate change?

- [A number of initiatives](#) are being conducted to improve women resilience to climate change and improve agriculture yield.
- The Ministry of Social Affairs and Women (MINASCOF) works with women in villages to build capacity in the areas of food security, family health and education, income-generating activities, and savings and credit.
- WID Units or Focal Points in Technical Ministries. A women's unit in the Department of Community Development in the Ministry of Agriculture (MINAGRI) promotes female-led cooperatives and farmers associations. However, they need more than the current share of 3.6% of the Ministry's budget to effectively execute their work.
- Non-Governmental Organizations (NGOs). Following legislation of 1990 and 1992 that facilitated the creation of NGOs, several women's groups have been created, including 1,000 organized by the Development Cooperation Department and almost 2,000 by the Ministry of Social and Women's Affairs.
- [The National Project for Extension and Agricultural Training \(PNVFA\)](#) has developed plans to strengthen the links between agricultural research and extension to enable women food producers to benefit from the research results.
- The Investment Fund for Agricultural and Community Micro-Enterprises (FIMAC) encourages women to organize themselves in groups to obtain credit.
- The National Project for Extension and Agricultural Training (PNVFA) focuses on food production although women still comprise only about 12% of those benefiting from the project.
- MINASCOF is experimenting with pre-cooperatives for the production and marketing of food products.

## Policy Recommendations

- Although individual women are implementing some adaptation strategies, comprehensive public policy measures, including promotion of better land use management and gender-sensitive technologies, are vital to sustain efforts against climate change in Cameroon.
- Adequate measures should be taken to identify companies that target female farmers such as [Mumita Holdings](#), which provides greenhouse technologies and irrigation systems to support the year-round production of African Indigenous Vegetables, rain or shine. Meanwhile, locally-led government initiatives such as the Upper Nun Valley Development Authority ([UNVDA programme in the North West region](#)) has supported 300 women in Ndop into rice farming. They show that a people-led approach to policy can achieve positive and sustained change in terms of climate change adaptability and resilience.

## Reference List

1. Azong, M., Kelso, C. J., & Naidoo, K. (2018). Vulnerability and resilience of female farmers in Oku, Cameroon, to Climate Change, *African Sociological Review / Revue Africaine de Sociologie*, 22(1), 31-53. <https://www.jstor.org/stable/90023845>
2. Fonjong, L., & Zama, R. N. (2023). Climate change, water availability, and the burden of rural women's triple role in Muyuka, Cameroon. *Global Environmental Change*, 82. <https://www.sciencedirect.com/science/article/abs/pii/S0959378023000754>
3. Musmanni, G. D. (2023). Woman-led Cameroon Startup tackles Climate Change through Sustainable Agriculture. *Global Center for Adaptation*. <https://gca.org/woman-led-cameroon-startup-tackles-climate-change-through-sustainable-agriculture/>
4. Earth Journalism Network. (2015). Rural Women in Cameroon Fight Climate Change in Rice Farming. <https://earthjournalism.net/stories/rural-women-in-cameroon-fight-climate-change-in-rice-farming>
5. Molua, E. L. (2011). Farm income, gender differentials, and climate risk in Cameroon: typology of male and female adaptation options across agroecologies." *Sustainability Science* 6(1), 21-35. <https://gender.cgiar.org/publications/farm-income-gender-differentials-and-climate-risk-cameroon-typology-male-and-female>
6. FAO. (2023). Mechanisms to promote the advancement of women. <https://www.fao.org/3/V9319e/v9319e03.htm#TopOfPage>
7. FAO. (2023). Mechanisms to promote the advancement of women. <https://www.fao.org/3/V9319e/v9319e03.htm#TopOfPage>