

COMBATING CLIMATE CHANGE WITH AGROECOLOGY

Climate change remains the most significant challenge facing farmers in Benin. Irregular and unpredictable rains, coupled with prolonged droughts and increased incidents of high winds, are decimating crop production across many regions.

The Project for Adaptation to Climate Change (PAda-Clim-Benin), with financial support from Bread for the World (Germany) and DM Exchange and Mission (Switzerland), is using local resources and tried and tested agroecological practices to mitigate these risks and provide greater food security and sovereignty to the small-scale farming sector.



Kom'dè farmer showing yam tubers following the implementation of SLM measures

Agricultural land suffers from poor management, threatening food insecurity

Most agricultural land in Benin is used to meet the food needs of the population. Yet monocultures and harsh chemical inputs have stripped the soil of its ability to retain moisture and nutrients, causing yields to fall year after year. Consequently, as many as 80% of households believe that their food security is threatened.

Kom'dè is a small village, with a population of 2,500, in the commune of Ouaké in north-west Benin. In this area, over 90% of inhabitants are vulnerable to food insecurity due to climate risks. The farmers in this region have been participating in the scheme with PAdaClim-Benin to find more sustainable farming methods that will prove resilient to the adverse weather conditions.

Family farms are the focus

Food security begins in the home, and the project works almost exclusively with family farms. The aim is to convert these smallholder farmers to agroecological practices that are specifically designed to tackle and adapt to climatic hazards. The focus is on soil fertility management, water conservation for the dry months, and agroforestry measures.

The problem most detrimental to the agricultural sector in Ouaké is climate change; either it is the main problem, or it is the cause of the main problem.

It was clear from the beginning that many of these farmers were highly vulnerable to adverse weather conditions. Disruptions to the agricultural calendars caused by droughts and short but heavy rainfalls were drastically lowering their yield.

To rejuvenate the soil and improve conditions for growing, PAdClim-Benin created in-depth

training sessions on a range of agroecological practices that focus on soil amendments. Producers are taught to make and sustain bio-pesticides and fertilisers as well as undertaking specific soil fertility techniques such as crop rotation and tactical use of compost and manure.

Beyond the soil, teaching extends to entrepreneurial skills to help develop farms into businesses and expand into small livestock production.

“I have learnt the importance of perpendicular ploughing and have been practicing it for two seasons. Thanks to this technique, my soil is no longer leached, and my yield has improved.”

— Nassam Fataou, Kom'dè

Women are principal actors in the scheme

The community lies at the heart of the project; farmers are encouraged to work together by sharing their knowledge as their farms mature. Gender equality is another important goal, and there is a drive to provide access to the training and facilities for women and young people. Today, 30% of the beneficiaries are female farmers.

PAdClim-Benin has distributed maize, soybean, pigeon pea, and mucuna seeds across the area and cashew seedlings, all chosen because they are indigenous plants more likely to withstand the highs and lows of their natural habitat. In addition, tools such as wheelbarrows, watering cans, shovels and rakes are provided at no cost. The equipment and storage facilities for creating bio-pesticides are also available to alleviate any financial pressure of taking on the scheme.

110 farmers and 30 herders have benefited from sustainable land management training. 26 of these have gone on to professionalise their farms and turn them into profitable businesses.



Farmers find and use what works best for them, their farms and their families

The autonomy the project gives participating farmers remains one of its greatest strengths. Each farmer can choose, from several different practices, which ones serve his or her farm best, including which species to plant and which goals to pursue. PAdaClim-Benin then provides mentorship and support as they make these changes on their farms.

All those who adopted at least three sustainable land management/climate change adaptation practices testified to increasing their yields by 50-60%. Reports speak of bigger yams, greater yields of groundnuts, and the return of previously lost crops such as pigeon pea and soybean.

Climate change threatens economic development in high-risk regions and slows down progress towards the sustainable development goals, particularly those related to poverty reduction and environmental protection. Agroecology initiatives aim to work alongside nature, using indigenous resources to ensure food sovereignty in the face of such climatic uncertainty.

The local farmers' success has created great enthusiasm for climate change adaptation practices in Kom'dè. The chance for greater independence and resilience against what was once thought inevitable has restored dignity to many small-scale farmers. It aims to break the cycle of poverty in the region and provide a model for other areas of the country too.



“Thanks to the support I received, I produce compost that I apply to my maize fields. On a quarter of a hectare, I harvested 450kg of maize while I used to get less than 300kg on the same space without that compost.”
Abad Adamou, farmer from Kom'dè

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