

AGRICULTURE IN THE FACE OF CLIMATE CHANGE



Agriculture in Kenya contributes a significant percentage to the country's Gross Domestic Product (GDP); with a majority of the farming activities being carried out in the rural areas by small holder farmers, who rely on rain-fed agriculture. Sadly, erratic weather patterns have rendered this group of farmers particularly vulnerable to the negative impacts that are attributed to climate change. These manifest in prolonged dry seasons and intense flooding episodes, as well as a spike in pests infestation.

In Kilifi County, as most of the country, rain-fed agriculture is the predominant form of farming and only 2% of the farmers use irrigation water. Small-scale farming is the predominant production system, and farms average about 3 ha (small scale) to 8 ha (large scale). Food insecurity, characterized by a limited availability of food, infrequent eating, and low food diversity, is high in the County affecting 98% of the households.



The situation is further exacerbated by the unreliability of rains; the uneven temporal and spatial distribution of long rains undermines farmers' efforts to produce a wide array of foods that would be important for ensuring food security.

In the past, when weather patterns were more predictable, the county's farmers would indulge in cassava, cotton, maize, sesame seeds, millet, paw paws and sugarcane farming. However, since the onset of unpredictable rains, most of these farmers have ceased the cultivation of these crops.



Nyevu Ngonyo

“We never used pesticides on our farms but now we use a lot of it as the pests menace is more rampant. The maize no longer does well as this is affected by the unreliable rainfall. The only thing that has withstood the negative effects of the changing climate is the cowpeas.”

Nyevu, amicably referred to as “nyanya” by the villagers of Mtondia village in Kilifi County, nostalgically recounted the times when farming was a pleasurable activity.

“We used to have two rainy seasons but now we only have one. This has completely thrown us off with our planting activities since we are a community that heavily relies on farming.” She also stated that they no longer rear goats. Instead, they have chosen to keep cows, using the zero grazing method of livestock keeping. However, even these are affected during the dry seasons because of lack of pasture. *“During the dry season, we cut down the mango trees and feed the cows on the leaves, as we have limited options for their fodder”* interjected Rebecca Abdalla, Nyevu’s grand-daughter. *“We also feed them on the fresh wood and use what remains as firewood.”*

Marietta Gona, the Chairlady of Ubora Dairy SaCCO in Mtondia mentioned that the Kenya Agricultural, and Livestock Research institute (KALRO) has tried to introduce the cultivation of fodder crops among the farmers to mitigate the challenge that comes with lack of fodder for the livestock during the dry seasons.

“One of the measures we are taking as livestock farmers is the cultivation of various fodders crops such a lucerne and napier grass. We also practice fodder conservation. We make hay and store it for a rainy day when we don’t have enough to feed our livestock.”

Of concern was the fact that most of the Mtondia farmers have not taken up these practices that can enable them secure their livelihoods in the face of a changing climate. The major challenge being faced is the lack of knowledge on these practices as well as a lack of interest in learning them.

Earlier this year, the weather man sounded an alarm on Kilifi County getting too hot for agricultural production by 2030. The meteorological department said the county will be hit by a severe drought if proper measures are not taken now. Therefore, urgent action is required, starting with the implementation of the Kenya Climate Smart Agriculture strategy and the National Climate Change Action Plan (2018-2022) and affiliated legislations. Small holder farmers also need to be sensitized on the appropriate climate smart technologies by relevant agriculture stakeholders.

Article by:

**Velma Oseko – SusWatch Kenya
for the Programmatic Communication Platform**