

Sowetan Live

NEW research shows that maize crop yields could decline by up to 20% in the next 35 years as a result of climate change, hitting South Africa's poor rural communities hard.

These are some of the key findings of a study conducted by researchers at the universities of Cape Town, Venda and Fort Hare, and was tabled in parliament yesterday by the Financial and Fiscal Commission (FFC).

The researchers studied household vulnerability to climate change in the Nkonkobe local municipality in Eastern Cape and Thulamela local municipality in Limpopo.

The majority of the 4000 households studied in these two communities were involved in subsistence farming and no commercial farmers were surveyed.

Using a "household vulnerability index, which measures a household's ability to withstand the shocks associated with climate change such as drought or flooding, the study found that people in Eastern Cape would be more vulnerable than in Limpopo.

A climate change impact model predicted that average maize yields in Eastern Cape would decline by between 8% and 15% until about 2050 and by 6% to 14% thereafter.

In Limpopo, maize yields could potentially increase by around 13% initially, but were predicted to decline by up to 19.6% after 2050.

Predictably, the study found that those with the least financial, social and even physical assets would be hardest hit.

Interestingly, however, more male-headed households (17%) than female-headed ones (15%) were classified in the highest vulnerability categories.

Broken down into provinces, nearly a quarter of male-headed households in Limpopo would fall into this category compared with just 9% in Eastern Cape.

Acting chairman of the FFC Bongani Khumalo said that the study had also provided "a cost benefit analysis of different interventions" that could provide some protection for these households.

"If our agricultural choices are not informed we might continue in the direction we are going without generating any value," he said.

In Eastern Cape rain-fed sorghum will give the greatest return on investment of R1.93 per R1 spent while in Limpopo irrigated sorghum would yield R2.06 for every R1 spent.

<http://www.sowetanlive.co.za/business/2015/02/07/maize-crops-may-decline>