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Southern Africa to feel greater effects of climate change, says enviro organisation

By: Carla Thomaz

Published: 22 Jan 10



The impacts of climate change will be considerably worse in Southern Africa than anywhere else in the world as a result of higher temperature increases and shifts in rainfall patterns, says Earthlife Africa energy policy officer **Tristen Taylor**.

The Intergovernmental Panel on Climate Change, which is a scientific intergovernmental body tasked with evaluating the risk of climate change caused by human activity, estimates that by 2080 an estimated 1,1-billion people to 3,2-billion people might be experiencing the effects of water scarcity, from 200-million people to 600-million people might be experiencing hunger, and from two-million people to seven-million people a year will face the effects of coastal flooding.

South African emissions are expected to peak between 2020 and 2025 and then need to decline or the impacts of climate change, which are catastrophic, will escalate if urgent action

is not taken, says environmental organisation Earthlife Africa.

Taylor points out that the global climate models predict that a hotter, drier climate will result in about a 20% decrease in maize production in South Africa, which amounts to a loss of almost R681-million a year. He adds that, with agriculture contributing to about 3,7% of the country's yearly gross domestic product and maize being a key crop in supporting rural livelihoods, this climate change prediction will significantly increase food insecurity, migration and malnutrition.

The Council for Scientific and Industrial Research researcher **Daleen Lötter** reports that a new temperature regime will alter the rate at which heat units and chill units accumulate, affecting growing locations, crop yields, planting and harvest dates, and pest or disease incidences.

The agriculture sector accounts for about 62% of water use in South Africa. Changes in water demand and availability will significantly affect farming activities, with western regions of the country predicted to have 30% reduced water availability by 2050. Lötter says that, under these conditions, farmers will be obliged to irrigate more, especially in the drier western parts of the country, putting more pressure on water resources.

She explains that emerging, small-scale and resource-poor farmers are particularly vulnerable to climate change and variability because they have fewer capital-intensive technologies and management practices at their disposal. Subsistence farmers often do not have the ability to adapt to or have the sufficient means to deal with, and recover from, extreme events such as floods and droughts.

Taylor points out that, while the South African government has developed policies on climate change, it lacks implementation. He adds that existing development policies have failed and proven to be inadequate and ineffectual, and that, until government holds industry accountable, this will remain an obstacle to finding solutions and enacting change.

Independent climate change consultant **Dave Collins** notes that a policy and regulatory package in South Africa is currently being developed. It will likely include regulations for mandatory reporting of emissions. However, local companies face a range of risks as a result of climate change, ranging from the health of workers, damage to property from extreme weather events, reputational risks, such as being a high-carbon emission producer and

market risks.

The overall solution to the problems will probably lie in a set of measures including using new clean-coal technology, says Collins. He adds that these measures will be temporary and that the focus locally and internationally is to develop renewable sources, such as solar, wind, biomass and, most probably, nuclear in the long term.

Carbon is currently and will probably forever be part of the corporate landscape, says Collins. He emphasises that companies that will prosper in the climate-changed world will be those that are quick to recognise the importance of sound environmental-friendly and energy-efficient practices.

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