

What Climate Change means for South Africa and its people

A recent report, "Climate Change impacts in South Africa: What Climate Change means for a country and its people", highlights the cascading effects that impacts from Climate Change may have on South African lives. The report indicates that Climate Change poses a threat to our vibrant agriculture, our rich biodiversity, and our people. It will reduce incomes, undermine food and water security, and raise the cost of living. But initiatives to enhance ecological infrastructure and adapt to Climate Change in nature-smart ways offer a means to address Climate Change, inequality, poverty and infrastructure failures simultaneously.

The full report, compiled by Dr Peter Johnston, Dr Temitope Egbebiyi, Luckson Zvogbo, Dr Sabina Abba Omar, Anton Cartwright and Prof. Bruce Hewitson, all Climate Change researchers from the University of Cape Town (UCT), can be viewed and downloaded [here](#).

While South Africa faces many social and economic challenges such as food insecurity and high unemployment rates, agriculture and biodiversity remain vital assets of the country. Agricultural exports and ecotourism are significant contributors to the South African economy, while small-scale farming plays a vital role in supporting a substantial portion of the population. Climate Change threatens these assets with expected impacts such as an increased frequency and intensity of droughts, heatwaves and severe flooding. Extreme weather events are likely to damage crops and infrastructure, and also threaten plants and animals that attract tourism. As a result, the impacts of Climate Change are likely to affect livelihoods, food and water security, and ultimately increase the cost of living for South Africans.

"South Africa is a well-resourced country, with a strong agricultural and biodiversity heritage. Climate Change and socioeconomic risks threaten to bring about a huge change to this status. How South Africa copes with these changes will depend on the response of all its people, but especially policy makers and planners," explained Dr Peter Johnston from the UCT Climate System Analysis Group.

According to the report, climate impacts are already clear in South Africa and will worsen as the global temperature rises, though the extent of the impacts depends greatly on future emissions. Even in scenarios where global warming is limited to 2°C, heatwaves are projected to become hotter and more frequent, raising the risk of deadly heat stress. Similarly, severe droughts will

happen more frequently. Between 2015 and 2017, a lack of rainfall led to a severe drought and a drinking water crisis in the Cape Town area – an event that human-caused Climate Change made three to six times more likely.

Despite an overall drying trend across the country, in eastern South Africa heavy rainfall is projected to increase, making the region more prone to flooding. Tropical cyclones, although not necessarily more frequent, may become more intense.

Extreme heat is making land less suitable for crops and posing a major threat to livestock. With crop-growing concentrated in just 12% of the country's land area, lower production in these vital areas threatens food security and export earnings. For families and farming households, any extreme event that reduces production – such as a flood or a drought – is likely to reduce job security and income.

Extreme weather also threatens the plants and animals that attract tourism, and directly damages infrastructure at nature reserves, adventure destinations and parks. Temperature rise by 2050 is projected to decrease visitors to South Africa's national parks by 4%, with the Kruger National Park most affected.

Building resilience

Small-scale and commercial farmers alike acknowledge the threat of Climate Change to their lives and farms.

According to the report, adaptation strategies include enhancing soil carbon, planting new crop varieties and using indigenous practices to harvest rainwater. Although adaptation has, so far, been sufficient to stave off the worst impacts, limits to adaptation may soon be reached under projected Climate Change scenarios.

Small-scale farmers face greater vulnerability due to structural barriers like limited access to finance, insurance and infrastructure. Addressing Climate Change through nature-smart initiatives could simultaneously tackle inequality, poverty and infrastructure failures, complementing slow-moving state-led reform programmes.

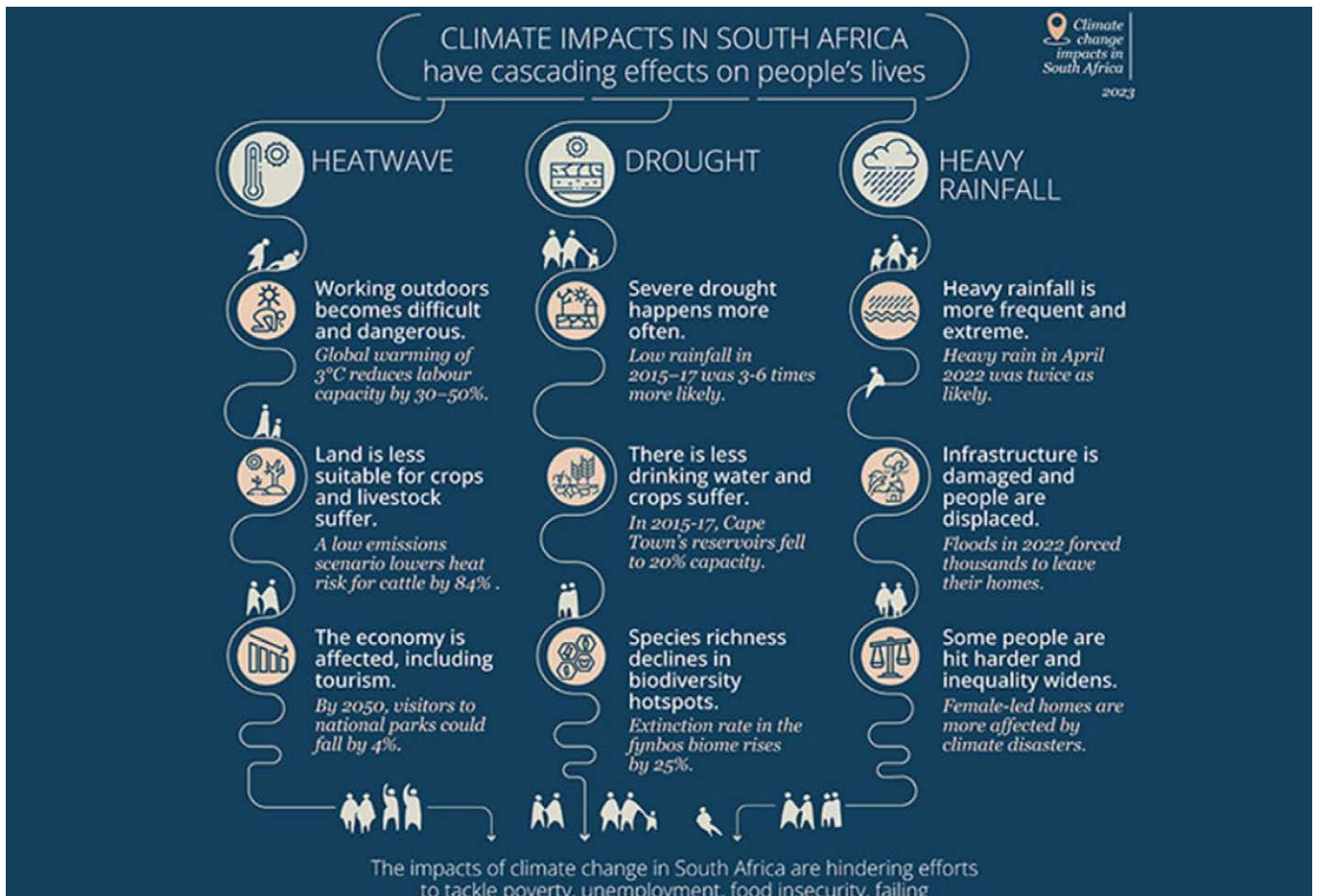
"Climate impacts and extreme weather events affect different people in different ways, but we have to collectively respond to make ourselves adapt. To farmers, crops are important; to insurers, payouts are important; and to a man living in an informal settlement, his house matters, but we all have to work together to address the crisis," said Luckson Zvogbo, a postdoctoral research fellow at UCT's African Climate & Development Initiative (ACDI).

South Africa's role in international climate negotiations

The severity of future Climate Change ultimately depends on the level to which global emissions are reduced. Much of South Africa's economic future hinges on the speed with which investments in its solar and wind resources



The recently released synthesis report highlighting the potential impact of Climate Change on South Africa, its economy, its people and its ecosystems.



can replace coal and provide affordable and reliable electricity. It is therefore important for citizens to embrace renewable energy.

South Africa's national targets are to limit its annual greenhouse gas emissions to 398–510 MTCO_{2e} by 2025 and to 350–420 MTCO_{2e} by 2030. Contingent on climate finance, South Africa has adopted a net zero by 2050 target in its low-emission development strategy.

Additionally, South Africa advocates for a 'just transition' in international climate talks, emphasising social justice and urging high-income nations to fund decarbonisation efforts and address climate-related impacts in middle- and low-income countries, with national emission targets set accordingly.

"South Africa has led calls for a 'just transition' – a process of putting people and livelihoods at the centre of climate responses. Given the contribution of the agricultural and conservation sectors to employment creation in South Africa, climate responses in these sectors form an important part of the country's just transition," explained Anton Cartwright, the director at Econologic.

Combatting the impacts of Climate Change requires both adaptive measures (such as adaptive farming practices) as well as governmental coordination and international commitment to reduce emissions.

Article written by Michelle Shields  for the University of Cape Town (UCT), first published on the UCT website, and expanded by the Editor to include relevant aspects of the report.

U shanduka ha mutsho huvha khombo kha zwa vhumili south Afrika na kha vhathu vhashu. I fhungudza mbuyelo, yavha thaidzo kha zwiliwa na madi ya uita uri thodea dza vhutshilo dzi gonye. Fhedzi zwinwe zwa zwiimiswa zwa u ita uri mupo uvhe na ndila dza fhenya iyo tshanduko, usalingana, vhusiwana na zwifhato, dzibada zwofeilaho nga utevhekana.

Translated into TshiVenda by Tshauambea Ramukumba