

Climate Change and Subsistence Farming in South African Communities:

Climate change is one of the most important societal issues currently facing the world. Recent weather events across South Africa have sparked popular interest in understanding the role of global warming in driving extreme weather. These events are part of a new pattern of more extreme weather across the globe, shaped in part by human-induced climate change. As the climate has warmed, some types of extreme weather have become more frequent and severe in recent times, with increases in deadly and devastating floods, extreme heat, and droughts. Heat waves are longer and hotter, heavy rains and floods are more frequent. Climate change has shifted the odds and changed the natural limits.

South Africa is classified as a semi-arid country with only ~11% of land in SA is considered arable, of which only ~3% is truly fertile soil. Climate change has resulted in erratic weather patterns which alternate between flooding and drought conditions, this poses a threat to South Africa's agricultural sector. Consequently, food prices have been increasing steadily with the latest Household Affordability Index by the Pietermaritzburg Economic Justice & Dignity group (PMBEJD) shows that food prices continued to climb in July with the average The group recorded the average cost of its Household Food Basket at R4,748 in July 2022, up R60.06 – or 1.3% – from R4,688 in June. Year-on-year, the average cost of the Household Food Basket increased by R611.44 (14.8%), from R4,137 in July 2021.

Climate change poses a lot of challenges for agriculture e.g., drought, is a major problem currently for small scale farmers, the soil is hard and very dry, farmers cannot plant, and this means there is no harvesting in the future.

GenderCC SA – Women for climate justice visited 2 communities in Eldorado and in Katilehong, both peri-urban areas based in Johannesburg East and South, Gauteng Province, South Africa on a fact-finding activity **supported by Corporate Accountability & Public Participation Africa (CAPPA)**. Farming in these areas is affected by drought, heat waves and floods, when there is drought, the soil is dry and hard making it difficult to plant, the next season will bring heavy rains that results in floods, whatever they managed to salvage from the dry season will be washed away in floods. Even the compost they make from organic matter that they use to till the soil and as natural fertilizers dries up during dry season and get washed away with floods, during rainy seasons they experience soil erosion especially when topsoil is removed by strong winds. Small scale farmers are really suffering as they have no other means to survive and sustain their livelihoods.

The food insecurity prevailing in the country is largely caused by impacts of climate change on agriculture which resulted in rising food costs. Vulnerable communities like the ones in Eldorado and Kagiso are hardest hit as 90% of the working class in these communities is unemployed and they are in the lowest income bracket. These communities live below the poverty line, small scale farming is their only source of livelihood, nutrition and means of surviving. With no means of adapting to these impacts, no access to credit, technology and to the market value chain like industrial farmers and Agribusiness and little access to water to sustain their food gardens, these small-scale farmers remain despondent.

The stark contrast between the profit-driven, biodiversity destroying, carbon intensive and toxic agribusiness and the efforts of vulnerable communities to provide healthy and nutritious food for their families and care for the environment is demotivating for small scale farmers. If the government can use the same amount of effort and enthusiasm, they use during elections to

address climate change, environmental degradation, protect the ecosystem and eradicate inequalities, there would be much progress in addressing climate change in the country.

Testimonials:

Miriam Heyes, from Boundary Park community garden in Eldorado community mentioned that what they have learnt so far since they started food gardens, is that because of climate change, the soil is so much exposed to the sun, requiring more compost and water to maintain soil nutrients such as nitrogen and moist.

Victor Ngobese from Katlehong community is with Zichabageleni Self Help Association for the physically disabled, started the agricultural project in Feb 2021, says that growing food is difficult these days due to excessive heat, the soil is too dry. When it rains heavily, the soil loses nutrients and crop do not grow and they must regenerate the soil organically. Sometimes during floods, the sewerage overruns to their garden.

Victor also mentioned that they tried growing Moringa herbal trees during summer as it thrives under hot conditions even in clay soil but that did not survive the scorching sun rays, only one tree grew the rest did not and others lost all their leaves.

Recommendations:

Small scale farmers need support from government in terms of access to resources, technology, finance, and intervention to promote Agroecology and Permaculture farming for organic, sustainable, and regenerative farming methods. A transition in agricultural practices is needed to address issues connected to climate emergency and sustainable practices.

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