

Malilemo pursues hydroponics as a sustainable solution to the impacts of climate change on farming in Mafeteng.

Malilemo Lucia Makhakhe, 32, grew up in the Mafeteng District of Lesotho, in the south-west of the Mountain Kingdom. As a little girl, she used to think her grandfather was the richest man in the world because, “many people would come to his house, take a bag of sorghum, beans, wheat or whatever they had planted at the time and leave a lot of money”. Things, however, changed immensely in the early 2000s, with a series of droughts interspersed with heavy rains, causing soil erosion and degradation that saw crop yields fall significantly.



The costs of agriculture increased dramatically with the need for expensive fertilisers, but even they could not prevent the family farming business from coming to a complete halt. With money now becoming tight, her grandfather had to find other ways of generating income to sustain the family, and he turned to cutting down matured trees in a forest on other land owned by the family, as well as planting more for the future. “It was not only our family that suffered”, says Malilemo. “Other families in our village also gave up farming as it was too expensive with less or no harvest sometimes”.

Malilemo commenced her academic journey in the Republic of South Africa at Dr. Monare Primary School, before returning to Lesotho for secondary education at Thetsane High School in Maseru. With a passion for entrepreneurship, she then progressed to the International Business College, graduating in Tourism and Business Management. She then

entered the working world, landing her first job as a wardrobe stylist before securing employment with a number of different companies in Lesotho and South Africa, gaining experience in various corporate sectors. But of all the job opportunities that Malilemo pursued, it was a return to farming for Hemp Africa - a certified medical cannabis cultivation facility in Lesotho – that stood out. “Farming has always been a part of my life”, says Malilemo, “and it was here that I was also first introduced to hydroponics farming, and from this experience I started to see a potential solution to the problems that my family had faced when the climate changed”.

Hydroponics is the science of growing plants without using soil, by feeding them on mineral nutrient salts dissolved in water. As a method of growing plants in shelters, it can help growers produce nutrient-rich plants much faster without the use of pesticides, and without being so impacted by unpredictable changes in the climate which can leave the soil degraded or washed away by floods.

Inspired by what she had seen at Hemp Africa, Malilemo returned to farming, founding ‘From my Garden to the Market’, a farm based in Mafeteng that produces, through traditional methods, wheat, sorghum, maize and beans, as well as having a piggery. She is now aiming to incorporate hydroponics in order to cultivate lettuce, spring onions, cabbage, tomatoes and basil, enabling her to “rebuild the Makhakhe legacy through an advanced system of farming which is a cheap and convenient”. She also notes the environmental benefits of hydroponics, such as reducing dependence on soil and land which is already exhausted of nutrients, efficient use of water, and flexibility of location which enables farming to take place closer to the market, reducing transportation costs and harmful carbon emissions.

Just like any other farming system, Malilemo acknowledges that farming hydroponically also has its challenges, for example, the possibility of water-borne diseases and fungi, which, if not managed effectively, can spread from one contaminated plant to a whole plantation. She also states that while hydroponics is ultimately an affordable way of farming, starting up commercially can be expensive, with up-front costs such as plant shelters, containers and light sources.

With that in mind, Malilemo is pleased to have been selected for Kick4Life’s Climate Enterprise Incubator which supports young female entrepreneurs in launching socially and environmentally responsible businesses. Through the incubator Malilemo will be able to access a range of support including mentoring, business planning advice and a micro-grant to assist with covering some of the start-up costs associated with hydroponics. She will also be part of a network of young female entrepreneurs working together to share experiences and to support one another in their different business endeavours.

Malilemo says that many people in Lesotho, including farmers, still don’t know what climate change is, and if not mitigated against, and adapted to, she foresees it causing more food insecurity and environmental damage. In response to these challenges, she believes that the government should do more to raise awareness across society of climate change, using radio to reach people throughout the country. She also believes that more support should be made available to help farmers adapt to new approaches, like hydroponics, and as a

pioneering entrepreneur she hopes to show that the system is both financially and environmentally sustainable, strengthening the case for support and leading the way for others to follow.

