

Climate change calls for new ways of living

...Interview with the Chief Conservation Officer

The Chief Conservation Officer, Mr. Malefetsane Nthimo, one of the senior officers leading project implementation, with over 20 years' experience in working for the Government of Lesotho on issues of environment, gives his views about the crisis of Climate Change in Lesotho. Since his appointment as the Chief Conservation Officer in 2016, Mr. Nthimo spends most of his time strategizing and ensuring that Basotho are building adaptive capacity to the projected negative impacts of climate change and to build their resilience to its effects. Walking into his office on the morning of the interview, he is meeting with a young environmental specialist giving mentorship and supervision on the climate change project based in the Mophale's Hoek district. He then gives the interview all his attention, showing remarkable passion on the issues of climate change.

soil erosion. To make things worse, Basotho still keep too many animals that cannot be well fed from available rangeland resources and their limited capacity to accommodate this heavy grazing pressure. The water resources have also dwindled drastically. Some of the water resources in the form of springs and streams are no longer perennial. Underground water is not being recharged and wetlands are being destroyed, and that affects the integrity of the catchment areas as a whole.

Compared to other countries, how would you rate Lesotho's vulnerability?

Lesotho already has a high rate of unemployment. Basotho's livelihoods are supported by natural resources in the form of rangelands for the grazing of livestock and most of the rural communities rely on subsistence farming. Among others,

well-being of the nation by impacting on food security at the community level.

How does UNDP as a development partner come in? Has the UNDP Project - RVCC, made a difference?

UNDP, in collaboration with the Ministry of Forestry Range and Soil Conservation, is implementing a Global Environmental Facility (GEF) funded Project named Reducing Vulnerability towards Climate Change (RVCC). The RVCC Project explores various climate-smart land rehabilitation and management programmes and interventions in the Lithipeng, Khoelenya and Thaba-Mokhele Community Councils of the Mophale's Hoek District.

It provides support to the Government of Lesotho to adopt environmental management practices that promote a low-carbon, climate resilient economy and society, sustainability in the management of natural resources and reduced vulnerability to climate-related disasters. It is intended to mainstream climate risk considerations into the Land Rehabilitation Programme of Lesotho for improved ecosystem resilience and reduced vulnerability of livelihoods to climate shocks.

Why did you choose to start at the three councils of Mophale's Hoek district?

Over the past 20 years, Lesotho has experienced an unprecedented number and frequency of droughts. The Southern Lowlands have been the most affected, particularly by droughts on almost annual basis over the last decade. A national famine in 2002 was a direct result of such consecutive and severe droughts and the most recent one in 2015.

In addition to the increasing frequency of droughts, it has been observed that rainfall is increasingly variable within seasons (for example, extended dry spells have been noted to occur in the middle of the wet season). As a result of this recent unpredictability of rainfall, agricultural production has declined in the Foothills and Lowland areas of Lesotho.

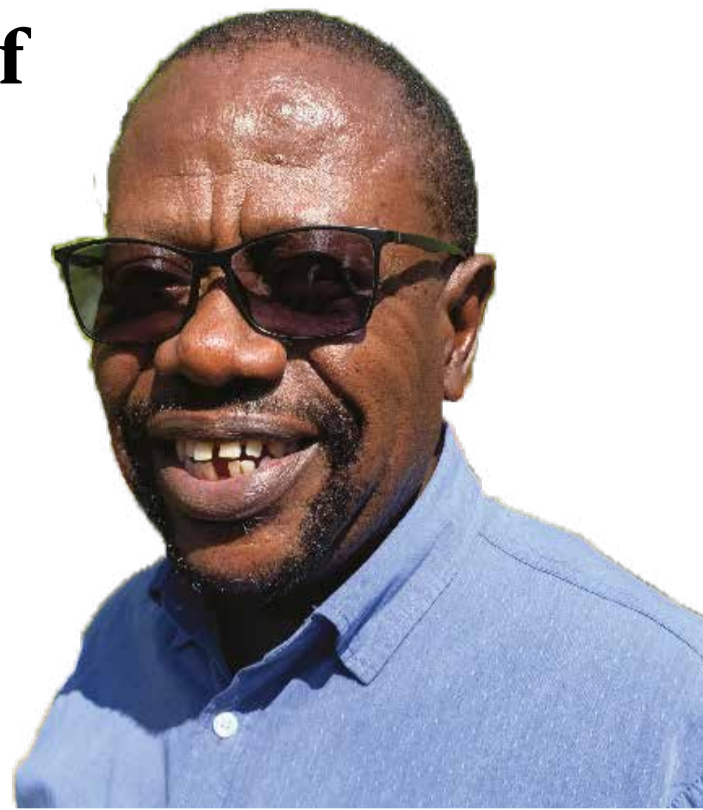
The three Community Councils have been selected because they provide a contiguous stretch of these areas. Mophale's Hoek is a hot spot for land degradation, hence the choice to use it as a model to pilot the ideas of reducing people's vulnerability to climate change.

What are some of the noticeable trends of the changing climate in this country?

Analysis of Lesotho climate data confirms that there have been changes in the climate of Lesotho. Lesotho's average maximum and minimum temperatures are increasing; the frequency of severe cold temperature events is decreasing while that of hot temperature events is increasing. Precipitation is becoming more erratic with the increasing occurrence of droughts and heavy rainfall events. There is also a decrease in the incidence of heavy snow falls which are critically important to provide recharge water into the catchments during the dry winter months.

The following are examples of the results of climate change, which the communities are already experiencing:

- Agriculture is highly susceptible to these climate-related risks. Climate change has already altered harvesting patterns and rainfall variability. This condition will force farmers to change their practices and adapt to shifted cropping season, the changing temperatures and erratic rainfall through seed selection, planting and harvesting time.
- Overgrazing and overharvesting of biomass have caused extensive environmental degradation, desertification, and soil erosion, which further exacerbate the impacts of a changing climate.
- The impacts of extreme events, such as droughts, floods, unpredictable snowfalls and strong winds, undermine the economic development of the country and the



Chief Conservation Officer, Mr. Malefetsane Nthimo

and other important indigenous herbs used as medicine by Basotho. Water resources such as wetlands in the project sites have improved as a result of improved land management practices supported by the Project.



The newly built stand-pipe for the community

Water Supply - In most areas of the Project sites, there was poor access to safe drinking water. As such, the Project, following rehabilitation of water resources, supported the repair of dilapidated and broken pipelines in the villages as well as build new water systems to address the problem of water shortages. We are proud to say that in most of the villages, through the RVCC Project, women and girls do not walk more than 150 meters to fetch water. The pipelines are spread within the villages to shorten the journey to the nearest water source.

Food Security - Lesotho is already a food insecure country, with only 9% being arable land and at least 25% of its population facing food insecurity annually. Changes in climatic conditions have affected the production of some staple crops. Future climate change impacts will continue to threaten and exacerbate the situation. More than 70 percent of the population in rural Lesotho is engaged in subsistence farming. However, productivity has been deteriorating since early 1990s because of unsustainable natural resource management and use and the increasingly unpredictable weather conditions. The apparent increase in the frequency, magnitude and duration of hazards such as drought, flooding, hailstorms and strong winds in recent years has left local communities, especially more vulnerable groups, with little or no time to recover from one event to the next, thus progressively eroding their capacities to cope and recover.

Through the RVCC Project, we aim to strengthen resilience at community level through practical community-based adaptation and resilience measures for improved food production, processing and preservation systems. The Project provided agricultural inputs such as water harvesting tanks, seeds, manure and tools; and promoted protected agriculture under shade nets. In the past two years, communities have

seen improved harvesting of maize, beans, wheat and fresh vegetables. To augment the agriculture projects, communities were also given layer chickens, which produce enough eggs and meat to sustain the nutritional needs of the beneficiary households. Another component of the Project is the production of fruits and the preservation of food using low tech solar technology. Communities have been trained and given equipment for food preservation. The communities were supported with seedlings for fruit trees, including peaches, apples and grapes, which are expected to yield after three years of their planting. Bee Keeping is one of vibrant income generating activity that the Project has supported. Communities sell honey, wax and propolis, which they harvest from their Bee Hives.



It is important to note that all of these resources have been given as incentives to secure commitments to land rehabilitation activities within and by the communities. The Project therefore achieved a number of goals including land rehabilitation, awareness of climate change risk and improved food security.

How can we achieve sustainability of this Project and even replicability?

The RVCC Project is a developmental project that needs strong commitment from all players, including staff, community and Government. There is a need for greater support morally, legally and socially. Cohesion is important in development. Together we can achieve more. I want to implore Basotho to understand that this Project is here to assist them to take care of their own country. Lesotho is the country we have been given by God. It belongs to us. We need to ensure that we preserve it for the benefit of the current population without compromising the well-being of the future generations by employing sustainable land use and management strategies. Last but not least, the lessons learnt from this Project must be mainstreamed into ongoing national interventions and be replicated and scaled-up countrywide.



Water harvesting tank and vegetable netting for vegetables through the support of RVCC

How Severe are the effects of climate change in Lesotho?

It is very severe. Climate change is one of the greatest threats facing our planet Earth today. Lesotho is no exception in the way that it is exposed to the risks of the changing climate. According to the National Adaptation Programme of Action on Climate Change (NAPA), due to the poverty rate of the country, the livelihoods of over 85 percent (85%) of the population in Lesotho are exposed to the risks of climate change, more especially as livelihoods have become survivalist. Owing to its geographical position and geophysical features that are characterized by mainly mountainous terrain, coupled with a poor economic situation, Lesotho is in a critical state of vulnerability to the projected impacts of climate change. There are many changes that we see these days. Climate change has altered the precipitation patterns such that we sometimes have snow in summer and high intensity short duration rainfall. What we grew up knowing as steady rainy seasons no longer exists.

Studies reveal that there are more recurring drought and higher temperatures. The distribution of rainfall over the traditional growing season is very unpredictable, thereby negatively affecting agricultural food production. These conditions have manifested into diminished natural land cover, which is critically important to provide protection to the soil and prevent accelerated



Grass used for roofing