



Bringing hope to the community of Meloding

By *More Matshediso*

A group of women in the Free State are eradicating poverty in Meloding, Virginia, through a community development and nutrition centre that provides daily meals to unemployed and vulnerable residents. Bomme ba Boithatelo bo Botle consists of a group of women dedicated to serving their community by providing meals to residents who are living below the poverty line.

The organisation was established in 2015 by Pulane Molale (34) but only registered in 2017.

Before starting the organisation, Molale worked for the Community Work Programme (CWP) which is a government initiative that provides a job safety net for unemployed people. It provides a bridging opportunity for unemployed people who are

actively looking for employment opportunities.

"I worked at CWP as a children's trainer in 2012 after completing matric. That was when I realised that many children in my community were impoverished and faced several challenges including poor performance at school and hunger. I decided to do something about it and opened an organisation," she explained.

To secure food, Bomme ba Boithatelo bo Botle plants its vegetables in a garden within its premises. Vegetables are included in the daily menu to ensure that the food is healthy. "We also have a youth programme that focuses on assisting school learners with homework and cultural dance activities to keep children away from being exposed to

drug and alcohol abuse, gangsterism and other social ills," said Molale.

In the beginning, about 130 community members benefitted from the services rendered by the organisation, but Molale said the number has now increased to about 200 beneficiaries due to the high unemployment rate in the area.

"So far, we have created jobs for 14 people and we receive stipends from the Department of Social Development. Doing community work does not pay much, but the gratitude we see in the eyes of beneficiaries keeps us going and wanting to do more for them. Seeing improvement in school learners' performance is also encouraging," she said. The department also handed over a container structure that houses a kitchen, dining hall, storage, meeting room and toilet facilities.

NDA funding

Last year, the National Development Agency (NDA) funded the organisation with over R88 000. The NDA is an entity of the Department of Social Development. It aims to eradicate poverty through grant funding to civil society organisations that implement programmes creating jobs, skills and responding to social welfare issues in disadvantaged communities. The funds from the NDA enabled the non-profit organisation to buy kitchen tools, and serving and catering equipment to serve the community.

The money was also used to buy vegetable garden implements and a 5 000 litres JoJo tank for water, as the

premises do not have a water supply. Additionally, the NDA provides the organisation with ongoing capacity training on financial management, project management and governance. Another managing member of the organisation, Dimakatso Ntsane, said Bomme ba Boithatelo bo Botle has been fortunate to retain staff over the years, which keeps operations running consistently.

"We are thankful to local retail stores and churches that also support the programme when we call on them. The NDA went beyond the call of duty to also ensure that we get access to electricity from Eskom. We also rent out catering equipment over weekends to get additional income for our daily operations," said Ntsane. Molale and her colleagues are proud that many children who benefit from the organisation go on to further their studies once they have completed Grade 12.

The organisation has plans to extend its premises to include a shelter where women can access help when they are affected by gender-based violence. It also wishes to add an internet café to expand the existing after-school homework programme.

For more information about Bomme ba Boithatelo bo Botle, you can email Pulanemolale140@gmail.com.

Contact the NDA at info@nda.org.za or call 011 018 5500 to find out more information about funding opportunities. To register a non-profit organisation, you can visit: www.npo.org.za.

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Young CSIR scientists drive smart innovation

The Council for Scientific and Industrial Research (CSIR) is using artificial intelligence (AI) to develop cutting-edge technologies to improve the country's rural health systems.

Young CSIR researchers this week displayed ground-breaking Fourth Industrial Revolution (4IR) innovations aimed at enhancing South Africa's healthcare system in remote regions.

To address the issue of limited diagnostic resources in rural areas, the CSIR is developing a machine learning-powered diagnostics system. The technology combines machine learning algorithms to independently help medical professionals diagnose diseases with better accuracy and speed.

"Machine learning is a branch of AI technologies that aims to mitigate the potential errors made by newly appointed medical professionals. Additionally, it seeks to expedite the diagnosis of diseases, which is often delayed because traditional

treatment approaches are reliant on human involvement," according to a statement.

By delivering precise and swift disease diagnoses, machine learning has the potential to reduce the spread of infectious diseases. PhD candidate Nkgaphe Tsebesebe said the technology could be used in busy medical centres that handle many patient samples each day.

"With this technology, the diagnostic process can be accelerated, reducing patients' waiting time. It can diagnose thousands or even millions of samples in just a few seconds, which is particularly helpful in preventing the spread of viral and infectious diseases," Tsebesebe explained.

Meanwhile, another PhD candidate, Siphon Chauke, has developed an optical-based biosensor technology for the detection of Mycobacterium tuberculosis (TB). It is a miniaturised point-of-care device that utilises light to detect TB bacteria in samples containing nucleic acid.



Its primary objective is to assist healthcare systems in remote areas by facilitating the diagnosis of TB and streamlining the initiation and administration of treatment for patients.

"The technology also aims to significantly reduce the diagnostic time required for TB cases, make TB diagnostic affordable and offer large-scale diagnostics of various diseases."

This innovation, according to the CSIR, enables the diagnosis of TB at little to no hassle to ordinary South Africans or the end user. "By making TB diagnosis available to all through this technology, the aim of the 'End TB Strategy' can be achieved through the early detection of TB, which will result in early treatment." Another invention is a CSIR-

developed Localised Surface Plasmon Resonance system, which uses optical biosensors to analyse biological elements such as nucleic acids, proteins, antibodies and cells without interfering with the molecules in the solution.

Young scientist, Phumlani Mcoyi, said: "With a growing interest in laser-based techniques for point-of-care diagnostics, mutation detection will guide the development of the point-of-care diagnostic system, which will be of particular interest to the most disadvantaged South African communities."

He believes that the availability of a simple, fast and reliable laser-driven diagnostic technique will reduce the time and costs involved in mutation detection in the health sector.

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