

# APPSA Lesotho Celebrates Women In Science and Leadership

The Agricultural Productivity Programme for Southern Africa (APPSA) is a regional project supported by separate World Bank (WB) - IDA credits. The project originally started with three countries (Malawi, Mozambique, and Zambia), and it has now extended to Lesotho and Angola. The first phase of three countries was launched in 2013 and officially closed in January 2020. Angola and Lesotho joined the APPSA Project in 2019 and are expected to implement the project until 2025. The main objective is to improve technology generation and dissemination in Southern Africa by building capacity within national R&D systems and enhancing regional collaboration. Lesotho has chosen to be a center of excellence in Horticultural farming systems - hence RCoL in horticulture.

## Director Department of Agricultural Research

**Dr. Lefulesele Lebesa** is the Director of the Department of Agricultural Research under the Ministry of Agriculture and Food Security. The birth of the APPSA programme in Lesotho was conceived and pursued diligently under her strategic guidance. The role oversees all implementation structural pillars to work towards realization of a common – improved food security and employment creation as stipulated in NSDP-II.

## RCoL Coordinator

**Ms Monica Lephole** is the coordinator of the APPSA Lesotho programme tasked with ensuring technical implementation of component 1 – Technology Generation and Dissemination. All the scientific work carried out by scientists in their respective fields or focus areas is endorsed through the active participation of coordination domestically and internationally.



### Research focus areas

**Ms Mokhants'o Morahanye** conducts research to assess drivers to technology adoption and profitability-dissemination of maize and bean crops grown by smallholder's farmers in Lesotho and Angola. Specifically, she wants to establish the adoption rate of improved technologies of maize and bean seed varieties in promoted Lesotho and Angola.



The Investigator - The Light in the Farming Zone



**Ms Mokhants'o Morahanye**  
Department of Agricultural Research

### Research objectives

To determine factors that affect adoption of improved technologies of maize and bean seed varieties in Lesotho and Angola.

To assess factors influencing the intensity of adoption of improved technologies of maize and bean seed varieties in Lesotho and Angola.

To estimate profitability of improved technologies of maize and bean seed varieties in Lesotho and Angola.

To identify effective dissemination pathways of improved technologies of maize and bean seed varieties in Lesotho and Angola.



*Maize varieties (ZM521 & ZM 523)*



*Farmer Field Schools*



*Bean varieties (Pinto Nodak & NUA 45)*

### Research focus areas

**Ms Matsikoane Seforo**, conducts research to identify genetic diversity among adaptable species of peach fruit trees and indigenous leafy vegetables using genetic and morphological markers.



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**Mrs Matsikoane Sefotho**  
Department of Agricultural research

### Objectives of the study

To characterize, evaluate and document genetic diversity of Cassava, Peach trees and indigenous leafy vegetables.

To improve technical skill in peach trees and indigenous leafy vegetables germplasm management and conservation.



*Peach fruit trials*



*Collection of peach fruits*



*Grouping of peach fruits*



*Indigenous leafy vegetables*

### Research focus areas

**Dr Mpho Liphoto** undertakes research to increase accessibility by small scale farmers to seed of improved sorghum varieties through the strengthened delivery system of the early generation seed of improved sorghum varieties. Specifically, she is evaluating varieties and recommend the improved sorghum varieties suitable for various end users.



**Dr. Mpho Liphoto**  
National University of Lesotho



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### Objectives of the study

To promote investment and strengthen capacity of the sorghum seed value chain players.

To promote sorghum productivity in the countries through increasing availability of quality seed of recommended improved varieties and land races.



### Research focus areas

**Dr Moleboheng Lekota** conducts research to contribute towards increased productivity and production of common bean by 100% through the evaluation and adoption of high yielding, pest and disease resistant genotypes imported from SADC countries. Specifically, she intends to collect and compile passport data for common bean genotypes grown in Lesotho, Angola and other SADC countries.



**Dr. Moleboheng Lekota**  
National University of Lesotho



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### Objectives of the study

- To characterize common bean genotypes using morphological markers.
- To characterize common bean genotypes using molecular markers.
- To disseminate research findings and train target groups on sustenance of the project.



### Research focus areas

**Dr Pulane Nkhabutlane** conducts research to enhance Lesotho's capacity to supply human food needs for protein and fats, through introduction and subsequent improvement and increase in soybean production and utilization to increase income generation, food security and nutrition of the smallholder farmers. Specifically, she intends to introduce agronomic practices for soybean production and nutrition among smallholder farmers in selected sites of Lesotho.



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**Dr. Pulane Nkhabutlane**  
National University of Lesotho

### Objectives of the study

To establish household-level soybean processing and utilization for better nutrition and health among smallholder farmers in Lesotho.

To train smallholder farmers on the soybean value chain for enhanced production, processing, utilization, and income generation among smallholder farmers in Lesotho.

To enhance the access to input and output markets for smallholder farmers in selected project areas of Lesotho.



## Research focus areas

**Dr Puleng Letuma** undertakes research to screen bean varieties for adaptability and stability across varying climatic conditions of Lesotho and Angola. Specifically, she intends to determine yield performance of common bean genotypes across different environmental conditions.



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**Dr. Puleng Letuma**  
National University of Lesotho

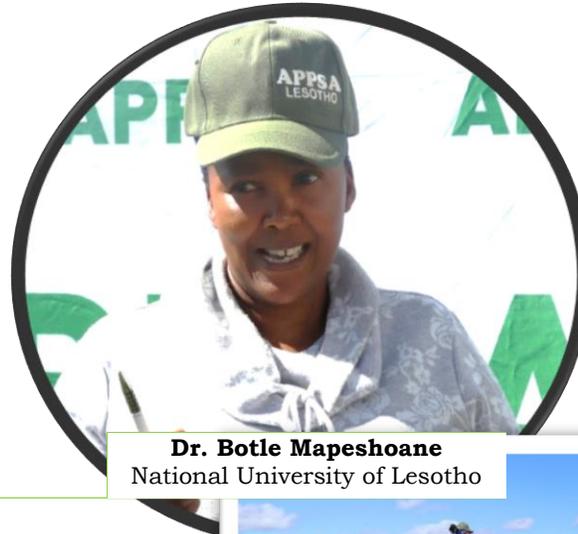
## Objectives of the study

- To identify superior bean genotype with attributes for drought tolerance.
- To identify the effect of ICM technologies on bean yield under different environmental conditions. To identify bean genotypes and associated technologies preferred by smallholder farmers in Lesotho and Angola.
- To improve farmers' and extension agents' capacities to manage ICM technologies.
- To strengthen linkages between researchers, seed producers, and other relevant stakeholders.



### Research focus areas

**Dr Botle Mapeshoane** conducts research to screen and evaluate bean and cowpea varieties and advanced breeding lines in low soil fertility and drought prone areas in Lesotho and Angola.



**Dr. Botle Mapeshoane**  
National University of Lesotho



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### Objectives of the study

To carry out adaptation trials for bean and cowpea varieties and advanced breeding lines under low soil fertility and drought conditions with the aim of improving bean and cowpea productivity on marginal soils.

To develop drought-tolerant varieties of beans and cowpea with higher seed yield. Specifically, she intends to identify bean and cowpea varieties and advanced breeding lines varieties in drought and low soil fertility.

To identify bean and cowpea varieties tolerant to drought and low soil fertility preferred by both farmers and consumers.

To develop integrated crop management (ICM) technologies that address drought and low soil phosphorus levels.

To train farmers' and extension agents' capacities to manage improved technologies.



The management of the Department of Agricultural Research, RCoL and APPSA Lesotho recognizes the commitment and valuable contribution of all the staff members, partners, and beneficiaries who support the vision and mission of the department to undertake its assignments.