Lesotho

IAEA Member State since July 2009

IAEA Technical Cooperation Programme

Key achievements in Lesotho

- 2019: Government of Lesotho enacts the Radiation Protection Agency Act 2018.
- 2019: The Central Veterinary Laboratory enhances its capacity to diagnose foot-and-mouth disease, peste des petits ruminants (sheep and goat plague), rabies, Newcastle disease, anthrax and brucellosis.
- Progress towards establishing first radiotherapy facility by 2024:
  - 2016: Development of the bankable document for the Lesotho Radiotherapy Facility.
  - 2019: Development of roadmap to operationalize the facility developed.

Atoms for peace and development

The International Atomic Energy Agency is the world's central intergovernmental forum for scientific and technical cooperation in the nuclear field. It works for the safe, secure and peaceful uses of nuclear science and technology, contributing to international peace and security.

Analysing animal semen samples at the Central Veterinary Laboratory to improve livestock production and health (Photo: Felix Omonya/IAEA)

The IAEA's technical cooperation programme helps countries to use nuclear science and technology to address key development priorities, including health, agriculture, water, the environment and industry. The programme also helps countries to identify and meet future energy needs. It supports greater radiation safety and nuclear security, and provides legislative assistance.

Recent project successes

Livestock development

With IAEA support, the Central Veterinary Laboratory in Lesotho gained the capacity and required competencies to diagnose animal diseases such as brucellosis, anthrax and Newcastle disease, using molecular and enzyme-linked immunosorbent assay (ELISA) technology. The new capacity has improved turnaround time, reduced reliance on other countries for disease diagnosis, enhanced data collection and analysis for improved of disease control, and facilitated access to international markets according to the World Organisation for Animal Health's requirements.

Livestock reproduction

An IAEA project helped the Central Veterinary Laboratory to adopt technology to evaluate animal semen with the goal of enhancing livestock production and health. Previous artificial insemination practices which had resulted in poor rates of conception. Research into the conception rates identified difficulties in maintaining nitrogen levels in semen storage cans and the repeated or prolonged exposure of the storage straws to environmental temperatures, which resulted in a high percentage of the samples dying. IAEA assistance led to better management of semen for livestock in small-scale farming communities.

Water resource management

Lesotho has acquired basic capacities in integrating isotope hydrology into water management, with IAEA support. Valuable information concerning the role of ground versus surface water in the Maputsoe and South Phuthiatsana catchment areas has been generated as a result.

SUSTAINABLE DEVELOPMENT GOALS

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Active national projects

- Enhancing the Energy Databank and Building Human Capacity to Support Energy Policy Framework - Phase II (LES2002)
- Enhancing Livestock Production and Health (LES5007)
- Improving Soil Fertility for Enhanced Cereal Production (LES5008)
- Establishing a Radiotherapy Facility and Building Human Resource Capacity for its Operation, Phase I (LES6002)
- Developing Isotopic Techniques for the Assessment of Hydrological Processes (LES7003)
- Establishing a National Regulatory Infrastructure for Radiation Safety (LES9005)

Lesotho also participates in 16 regional and 1 interregional projects.

Previous IAEA support to Lesotho

The IAEA recently assisted Lesotho to plan for the establishment of its first radiotherapy facility, and supported human resource development in the radiotherapy field. In food and agriculture, the IAEA worked with the Government to improve livestock productivity and the health of goats and sheep, using nuclear techniques in artificial insemination and for monitoring animal diseases. Mutation breeding and related biotechnology have been used to develop and improved varieties of potatoes and beans. Capacity development in energy planning was also provided.

The IAEA provides training in nuclear-related and other techniques and supports equipment and materials to conduct experiments and collect and store semen for artificial insemination, while maintaining its quality. Cows inseminated with the semen of superior breeds produce better calves that will grow into larger animals. (Photo: Lineo)

IAEA support to Lesotho, 2009–2019

180 trained (including 78 women)

41 international experts provided

52 attended specialist meetings (including 24 women)

Priority areas of support

- Supporting radiation safety and nuclear security
- Improving food and agriculture
- Strengthening health and nutrition
- Improving water and the environment
- Enhancing energy and industry

Lesotho's contribution to South-South and triangular cooperation, 2009–2019

1 expert and lecturer assignment provided by Lesotho

Based on data available as of April 2020

Cancer control imPACT Review conducted: November 2011

Strategic documents supported

- United Nations Development Assistance Framework 2018–2023
- Country Programme Framework 2018-2023, signed in November 2018
- Bankable document for establishment of the radiotherapy facility 2016

www.iaea.org/technicalcooperation

The IAEA collaborates with National Liaison Officers and Permanent Missions to deliver its TC programme.