



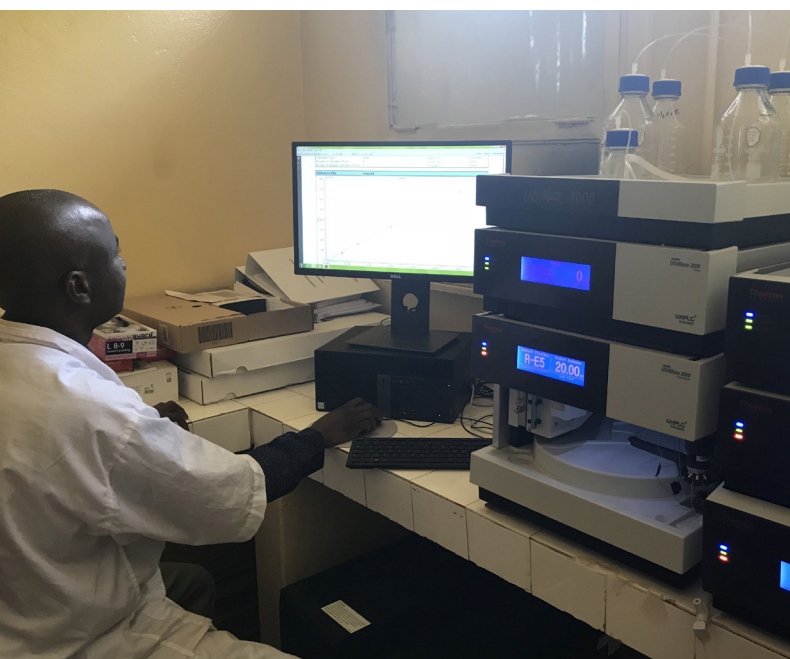
Key achievements in Niger

- 2016: A dual head digital gamma camera for radiation medicine is inaugurated at the Institute for Radioisotopes in Niamey, with IAEA supporting specialist training, procurement and the repair of the existing gamma camera
- 2014: The IAEA helps raise capacities for vaccine production and livestock disease detection to international standards at the Central Laboratory for Livestock (LABOCEL) in Niamey.

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.

The IAEA's technical cooperation (TC) programme helps countries to use nuclear science and technology to address key development priorities, in areas 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

Agriculture

Sesame is a high quality, internationally traded oilseed crop. In Niger, it is an important cash crop that provides much needed income for farmers and rural communities. The varieties available to farmers in Niger required improvement to increase their yield and adaptability to changing climatic conditions (particularly drought), as well as to improve their marketability with market-friendly traits, such as a the colour of the seeds. As part of a project with the Food and Agriculture Organization of the United Nations, three local varieties were introduced with a wide range of phenotypes (or appearances), in field trials conducted by the University of Maradi from 2016 to 2017. While these varieties need further testing, several show potential for higher yields in challenging climatic conditions.

Food safety

Residues from some medicines or chemicals used to treat animal diseases can remain in meat after the animal has been slaughtered. The potential risks this can have for human health, and consequently farmers' livelihoods, need to be controlled, both by the prudent use of treatment as well as through laboratory testing. While Niger had a veterinary diagnostic laboratory, there was no facility that could test residue levels in meat. The IAEA supported the establishment of screening and quantitative laboratory capacities and provided training to support the Central Laboratory for Livestock (LABOCEL) in Niamey.

Now operational, the laboratory provides the Ministry of Agriculture and Livestock with international standard rapid screening for the detection of pesticide residues and veterinary medicinal products. It also provides bacteriological and physicochemical analyses as well as quantitative analysis for a range of animal product hazards, including beef and meat from small ruminants and camels, and milk, including raw and fermented milk. The facility is expected to expand its testing services in the coming years.

The IAEA provided specialist training and equipment to strengthen capacities at LABOCEL to help control the quality of Niger's meat intended for human consumption. (Photo: Amal Elrafai/IAEA)

Active national projects

- Enhancing Human Resources Development in Nuclear Science and Technology (NER0007)
- Strengthening Nuclear isotopic and Complementary Laboratory Capabilities for Monitoring Contaminants in Food, Feed and Water (NER5022)
- Supporting the Establishment of a Radiotherapy Center (NER6010)
- Building National Technical Capacity in Dosimetry Monitoring and Environmental Monitoring of Uranium Mining Sites (NER9013)
- Supporting National Nuclear Infrastructure Development for Nuclear Power Programme and Considerations for a New Research Reactor (NER2005)
- Strengthening Capacity of the Public Health Laboratory to Monitor Food Contaminants (NER5023)
- Improving Key Staple Crops towards Food Security (NER5024)
- Evaluating the Effectiveness of Breastfeeding Promotional Activities for the Prevention of Chronic Malnutrition (NER6011)
- Establishing Diagnostic Reference Levels in Radiology (NER6012)
- Setting up a Radiopharmacy Unit and Strengthening Nuclear Medicine Services (NER6013)

Niger also participates in 40 regional and 7 interregional projects, mostly in the area of capacity building, programme knowledge management and the facilitation of cooperation between Member States.

Previous IAEA support to Niger

In recent years, the IAEA has focused support on Niger's priority areas in human health, food security, the management and rehabilitation of uranium mines, and energy planning and production.

Specialist training was also supported for radiation oncologists, medical physicists and radiation therapists to build capacity for the country's first radiotherapy centre.

IAEA support to Niger, 2009–2019



485
trained
(including 84 women)

58
international
experts
provided

63
attended specialist
meetings
(including 14 women)

Priority areas of support

- Supporting human health and nutrition
- Improving the food and agriculture sector
- Protecting the environment
- Supporting mining and energy
- Nuclear safety, security and safeguards

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



41
expert and lecturer
assignments provided
by Niger

102
training course
participants

19
fellows or
scientific visitors
hosted

Based on data available as of April 2020

Cancer control imPACT Review conducted: July 2010

Strategic documents supported

- United Nations Development Assistance Framework 2017–2020
- Country Programme Framework 2016–2021, signed in September 2016

www.iaea.org/technicalcooperation

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

