



Key achievements in Algeria

- 2019: More than 30 linear accelerators are operational in line with the National Cancer Plan.
- 2018: National Nuclear Medicine Network established, made up of more than 40 units and including the first positron emission tomography–computed tomography (PET-CT) scanner in a public hospital.
- Hosts 4 African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA) regional designated centres.

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.



With IAEA support, the Nuclear Instrumentation Division of the Birine Nuclear Research Centre developed local maintenance services and now provides training for users in IAEA Member States within the AFRA region. (Photo: M. Baaliouamer/COMENA)

Recent project successes

Nuclear instrumentation

The Nuclear Instrumentation Division of the Birine Nuclear Research Centre is in charge of the maintenance, repair and refurbishing of nuclear instruments, and of training staff. Beginning with a small group of technicians, the Division developed and offered maintenance services locally and provided training (many organized by IAEA and AFRA) to users in IAEA Member States within the AFRA region. IAEA projects and training events enabled the skills of the staff to be strengthened and kept continuously up-to-date. Adequate infrastructure for maintenance, repair and training has been put progressively in place.

Livestock production

Assistance provided through an IAEA project to strengthen animal health and livestock production improved diagnostic and reproductive capacities in animal breeding and supported expertise for a feasibility study for a biosafety laboratory. Support was provided to the National Institute of Veterinary Medicine (INMV) in the form of training in epidemiology and the diagnosis of abortive diseases. Equipment was also provided to enhance the Institute's work on pathogens affecting fertility, protocols for oestrus synchronization (female sexual receptivity and fertility) and embryo transfer. IAEA support to the laboratory has contributed to INMV's certification for competence in testing and calibration of laboratories in December 2014 under ISO/CEI 17025:2005 with regard to the diagnosis of animal pathologies.

Cancer control

Through its National Cancer Plan 2015–2019, Algeria has made a huge effort to offer its cancer patients effective cancer treatment. New cancer centres are planned, offering clinical services in radiation oncology and nuclear medicine, with other related departments acquiring advanced equipment. The national TC programme has supported the upgrading of skills in all staff categories (nuclear physicians, medical physicists, radiation oncologists and technologists) and in patient safety for modern radiotherapy and nuclear medicine techniques. It additionally established local clinical training programmes in medical physics.

Active national projects

- Contributing to the Implementation of the National Nuclear Power Programme through Strengthening the Engineering of Nuclear Installations and Preparation for the Development of a Nuclear Power Infrastructure (ALG2011)
- Contributing to the Implementation of the National Agricultural Development Programme Through Strengthening Soil, Water and Nutrient Management Practices Including Food Safety Using Nuclear and Related Techniques (ALG5030)
- Introducing Helical Tomotherapy in the Central Military Hospital and Single Photon Emission Computed Tomography-Computed Tomography in the Regional Hospital (ALG6019)
- Contributing to the Implementation of the National Cancer Plan 2015-2019 in Nuclear Medicine, Radiation Oncology, Medical Imaging and Medical Physics (ALG6021)
- Introducing Helical Tomotherapy at the Central Military Hospital and Single Photon Emission Computed Tomography-Computed Tomography and Positron Emission Tomography-Computed Tomography in Nuclear Medicine at the Hospital of Constantine (ALG6022)
- Enhancing the Nuclear Safety Assessment Capabilities of Technical Support Organizations for their Self-Reliance and Sustainability (ALG9019)

Algeria also participates in 52 regional and 7 interregional projects, mostly in the area of health and nutrition.

Previous IAEA support to Algeria

Previous IAEA assistance has mainly focused on supporting the Government to establish adequate infrastructure for research and development in the nuclear field. Academic and basic research activities as well as the industrial sector, have benefited from the different techniques established by the Algerian Atomic Energy Commission and its nuclear research centres. Algeria established an extensive training programme through the Algerian Institute of Nuclear Engineering and created centres to develop nuclear technology to support this goal.

The health sector has been one of the major beneficiaries of the IAEA TC programme. Staff skills and quality control in nuclear medicine, radiotherapy, medical physics and radiobiology capabilities have been improved prior to the gradual introduction of advanced cancer services.

IAEA support to Algeria, 2009–2019



791 trained
(including 232 women)

92 international experts provided

134 attended specialist meetings
(including 24 women)

Priority areas of support

- Improved human health and nutrition
- Development of the food and agriculture sector
- Protection of water and the environmental
- Sustainable energy and industry through development of nuclear sciences and technology

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

285 expert and lecturer assignments provided by Algeria

520 training course participants

199 fellows or scientific visitors hosted

Based on data available as of April 2020

Cancer control impACT Reviews conducted: October 2011, February 2015

Strategic documents supported

- Country Programme Framework 2018–2023, signed in September 2017
- Cadre de Coopération Stratégique, Algérie 2016–2020
- Plan national anti-cancer 2015–2019
- Practical Arrangement with the Algerian Atomic Energy Commission of the People's Democratic Republic of Algeria (2018-2021)

www.iaea.org/technicalcooperation

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