

Tunisia

IAEA Member State since October 1957

Selected achievements

2022: Tunisia's Gamma Electron Beam irradiation facility successfully establishes a new quality management system and develops a marketing strategy to help meet national industrial, pest control and waste treatment needs.

2022: Tunisian experts are among the first cohort of ZODIAC fellows to complete their training in whole-genome sequencing at the IAEA Seibersdorf laboratories in Austria.

National priorities

- Human health
- Food and agriculture
- Waste management
- Nuclear knowledge management

Main areas of IAEA support

- Human health
- Introduction of nuclear power
- Research reactors
- Emergency preparedness
- Food and agriculture
- Water resources management
- Radioactive waste management
- Industrial applications
- Human resources development

Project successes

Cancer control

Over the past decade, Tunisia has made significant strides in cancer control, notably with the support of the IAEA. This partnership has bolstered radiotherapy capabilities, introduced advanced techniques like IMRT and VMAT, and improved quality assurance and safety via effective dosimetry. The Institut Salah-Azaïz (ISA) in Tunis, the national reference hospital



Participants at a 2023 regional meeting of the Arab Network of Nuclear Regulators (ANNuR) in Tunisia share their experiences in developing and implementing an Integrated Nuclear Security Support Plan (INSSP). (Photo: Z.Hassan/IAEA and Arab Atomic Energy Agency)

for radiation medicine, has played a pivotal role in this progress. Over 20 years of cooperation with the IAEA, ISA has enhanced its technical capacities and facilitated knowledge transfer to other institutions. The combined efforts of public and private health infrastructures, supported by a network of teaching hospitals and clinics have increased the use of radiation medicine and ensured more equitable patient access to cancer services nationwide. Recent initiatives aim to further improve service efficiency, reduce patient waiting times, and expand capacity building to ensure comprehensive cancer care throughout Tunisia.

Water resources management

Tunisia has developed analytical expertise in isotope hydrology to support year-round water resource management. The Laboratory of Radio-Analyses and Environment in Sfax, which is an AFRA Regional Designated Centre, has received assistance from the IAEA in the form of expert missions, technological and analytical support for advanced hydrology techniques (boron, nitrate, helium-tritium, chlorofluorocarbons/sulphur hexafluoride). This collaboration has enabled the assessment of groundwater vulnerability to human activities and climate change. The laboratory now plays a pivotal role in training professionals from other African countries in isotope hydrology.

Nuclear power and human resources development

Tunisia initiated the development of nuclear energy plans in 2007 and conducted a feasibility

study for a research reactor, a nuclear power plant and a subcritical assembly. The objective of this study was to provide robust information to support all decisions that are required to plan the introduction of nuclear power into the Tunisian electricity generation system.

The IAEA supported capacity building for the study in areas such as energy planning, siting, human resources development planning, and nuclear power plant integration with the grid. This collaboration enabled Tunisia to develop diverse competencies that contribute to the further development of nuclear science and technology in the country, in line with government priorities.



Soil sampling for caesium-137 determination. (Photo: M. Oueslati and G. Amira/National Center for Nuclear Sciences and Technologies of Tunisia)

Participation in the major initiatives

- NUTEC Plastics
- Rays of Hope
- ZODIAC

Date of imPACT Review(s)

2013

IAEA support received in the 21st century



Contributions to South-South and triangular cooperation

