

Turkmenistan

IAEA Member State since February 2016

Selected achievements

2024: The first Country Programme Framework for 2024–2029 is drafted.

2024: Turkmenistan submits its draft nuclear law for IAEA review.

2018: Turkmenistan joins the technical cooperation programme.



In March 2024, a high level meeting is held with Turkmenistan to address the main areas of cooperation. (Photo: IAEA)

National priorities

- Governmental, legal and regulatory framework for safety
- Nuclear technology applications and radiation protection in radiation medicine
- Radiation safety and radiation protection
- Food and agriculture
- Water and the environment

Main areas of IAEA support

- Cancer diagnosis and treatment
- Radiation safety and regulatory infrastructure
- Radioactive waste management

Project successes

Regulatory infrastructure

Turkmenistan's first TC programme was activated in July 2022. Since then, the IAEA's technical cooperation programme has supported the provision of legislative assistance to the country. Several meetings were organized with the Office of Legal Affairs and Technical Departments to brief and discuss respective conventions. Significantly, Turkmenistan joined the Early Notification and Assistance Conventions in November 2023.

During the IAEA Awareness Meetings and the National Workshop on Nuclear Law, held in Ashgabat, Turkmenistan, 4–8 December 2023, an informal legislative assistance work-plan was developed and shared with the country with the aim to prepare the country's first nuclear law.

The RASIMS coordinator was appointed, and the country is working on the Thematic Safety Areas (TSAs) and to establish the regulatory structure in line with IAEA safety standards.

The first fellowship was implemented from 5 to 23 June 2023 on environmental/radiation monitoring issues at the Ignalina NPP in Lithuania within the TC radioactive waste project.

Dosimetry and calibration services

Project TKM6001 'Establishing Dosimetry and Calibration Services to Improve Radiation Safety' aims to support the Civil Defense and Rescue Operations Directorate of the Ministry of Defense of Turkmenistan to strengthen their calibration service and also to establish the country's very first individual monitoring services for occupationally exposed workers.

An automatic TLD reader was procured, and the capacity of qualified experts on dosimetry was strengthened for the operation and maintenance of the System. This will lead to the establishment of the first TLD laboratory in the country.

Dosimetry equipment and accessories for SSDL including ambient condition meter, phantom and reference dosimeters for radiation protection were procured and staff capacity was enhanced. This has supported Turkmenistan's efforts to provide radiation protection calibration services.

Health

Multidisciplinary IAEA missions took place in Turkmenistan in December 2022, February and June 2023 to assess the country's need for radiotherapy services.

The first scientific visit was implemented from 13 to 22 December 2023 at the Ege University, Department of Radiation Oncology in Izmir, Türkiye (IAEA Anchor Center) and the National Center of Oncology in Baku, Azerbaijan, focusing on managerial aspects of oncology centres and respective departments including treatment, safety protocols and quality assurance within the TC radiotherapy project.

The IAEA is supporting quality control efforts for radiation therapy through the introduction of new equipment and the training of staff in standard and advanced methods of radiation therapy. This project is intended to build capacity and upgrade infrastructure.



Through its multidisciplinary missions, the IAEA is supporting quality control efforts for radiation therapy in Turkmenistan. (Photo: IAEA)

IAEA support received in the 21st century

