

Türkiye

IAEA Member State since July 1957

Selected achievements

2023–2024: Ege University Faculty of Medicine in Izmir, Türkiye, is designated as an Anchor Centre under the Rays of Hope initiative. Officially inaugurated in April 2024, the high-level ceremony was immediately followed by the first ever Anchor Centre event — a four-day regional workshop focused on paediatric radiotherapy services.

2023: The IAEA supports Türkiye in the aftermath of the February 2023 earthquake by providing Mobile and Portable X rays, NDT, C-Arm X ray and Ultrasound units. The IAEA also carries out an expert mission to train on the use of the NDT equipment.

2022: The IAEA Integrated Regulatory Review Service mission (IRRS) highlights Türkiye's commitment to protect its people and the environment and provides further recommendations as the country builds its first nuclear power plant.

2020: The country introduces the sterile insect technique (SIT) to control the *Aedes* species and suppress and eradicate Medfly in the region.

National priorities

- Nuclear and radiation safety and security
- Emergency and preparedness
- Nuclear knowledge management
- Isotope and radiation technology applications
- Human health and nutrition

Main areas of IAEA support

- Infrastructure development
- Nuclear safety regulatory authority
- Regulatory oversight of construction and commissioning and operation of new nuclear power plants
- Human health



The Ege University Faculty of Medicine was officially inaugurated as an IAEA Anchor Centre on April 15 2024. (Photo: E. Ajans)

Project successes

Insect pest control

With IAEA support, Türkiye successfully implemented the sterile insect technique (SIT) to control the *Aedes* species in the Black Sea Area.

A laboratory large enough to produce the desired weekly target number of insects was established and an insect mass rearing module and entomological equipment procured. Insect rearing exercises and community meetings increased awareness of insect distribution and control.

These experiences will be applied to expand the use of SIT to Medfly suppression and eradication.

Introduction to nuclear power

With support from the IAEA, Türkiye has been strengthening its regulatory body's ability to license the first nuclear power plant and ensure effective oversight of future nuclear facilities.

The IAEA helped implement the Integrated Work Plan (IWP) to ensure that Türkiye develops its nuclear power programme in a safe, secure, and effective way. This included a Site and External Events Design (SEED) Mission to review chapters of Preliminary Safety Analysis Report for the Akkuyu NPP.

Collaborative efforts in 2019 addressed various aspects of the new nuclear power plant (NPP) development, enhancing Türkiye's regulatory capabilities in licensing, inspection and policy enforcement.

IAEA support has contributed to the diversification of Türkiye's energy mix and helped to secure a more sustainable electricity supply, assist human capacity building and infrastructures development through TC projects activities.

Isotope and radiation technology

Cooperation with the IAEA has enabled Türkiye to produce essential radioisotopes and radiopharmaceuticals at the Proton Accelerator Facility of the Turkish Energy Nuclear and Mineral Research Agency (TENMAK).

The IAEA supported with expert advice, scientific visits and by facilitating a national training course on radiation safety in cyclotron and radiopharmaceutical production.

Additionally, this collaboration led to the creation of Türkiye's Secondary Standards Dosimetry Laboratory (SSDL) in 2017. This laboratory joined the IAEA/WHO Network of Secondary Standards Dosimetry Laboratories in March 2020.



The Director of the Division for Europe in the IAEA's Technical Cooperation Department visits the pilot site selected for the SIT intervention with the Plant Protection Research Institute and Ministry of Agriculture and Rural Affairs. (Photo: E.K. Kala/IAEA)

Participation in the major initiatives

- Rays of Hope
- ZODIAC

IAEA support received in the 21st century



Contributions to South-South and triangular cooperation

