Qatar

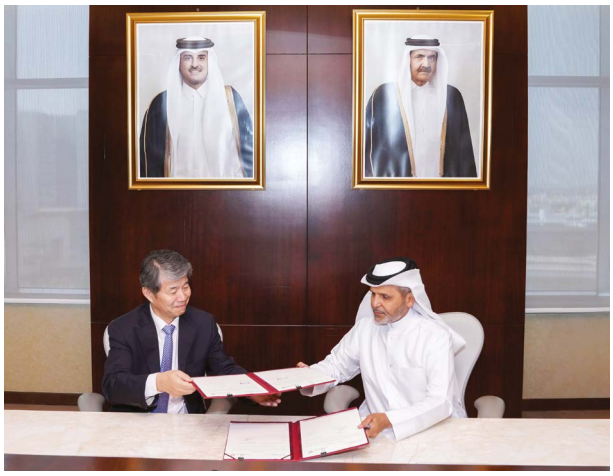
IAEA Member State since February 1976

Selected achievements

2024: Qatar's national food safety laboratory is designated as an IAEA Collaborating Centre (Vienna, May 2024).

2019: The Qatar Central Food Laboratory is awarded ISO 17025 accreditation for testing, measuring and calibrating gamma radiation.

2018: The Qatar Medical Physics Society approves national diagnostic reference level guidelines for the optimal use of radiopharmaceuticals in medical imaging.



Qatar (Ministry of Public Health) signs its first Practical Arrangements with the IAEA in Doha, November 2023. (Photo: MoPH Qatar)

National priorities

- Radiation safety
- Environment
- Human health
- Food and agriculture
- Animal health
- Water resources management

Main areas of IAEA support

- Date palm productivity
- Fertilizer and water irrigation systems
- Medical physics
- Radiation protection for health care workers
- Emergency preparedness and response
- Infrastructure for managing radioactive waste from oil and gas production

Project successes

Human Health

Qatar has benefited from IAEA support to enhance national capacities in radiation medicine, including diagnostic radiology, nuclear medicine and radiotherapy.

Quality assurance items, nuclear medicine and diagnostic imaging equipment were procured and installed at Qatar's Hamad Medical Corporation.

IAEA experts helped to monitor progress and train nuclear medicine physicists on the basic principles of cyclotron/PET control, operation and maintenance, radiological protection, PET radiopharmaceuticals production and QA/QC. The IAEA also advised on how to implement a full quality assurance programme and expand capacities for skeletal and cardiac imaging.

Thanks to IAEA interventions, an upgraded nuclear medicine department with a state-of-the-art PET-CT centre is now providing diagnosis and staging for cancer patients at a reduced cost.

Food and agriculture

Qatar has boosted its capacity to ensure food safety using nuclear techniques.

This included the establishment of a sophisticated national food safety laboratory, which is already providing expertise to other IAEA Member States.

The IAEA helped to establish a radiochemistry separation laboratory, train specialized staff and procure the equipment needed to measure contamination.

Based on this newly acquired expertise, the laboratory was awarded ISO 17025 accreditation for gamma ray emitting radionuclides. This was a major source of support during the football World

Cup hosted by Qatar in 2022. The Laboratory was designated as IAEA Collaborating Center in May 2024, during a signing ceremony in Vienna.

Water management

Qatar is severely affected by water scarcity due to its arid climate.

The IAEA has helped the country to improve its agricultural production by cultivating more salt-tolerant crops and optimizing water management for irrigation land, for example with renewable brackish and treated sewage water.

With training, the country was able to optimize irrigation schedules in extremely saline and high-temperature conditions using nuclear neutron probes.

Qatar is now scaling up these techniques for commercial use.

A meeting is held in Vienna to discuss and finalize the Partnership Agreement between Qatar and the IAEA in the field of human health (including radiation medicine and food safety). (Photo: IAEA)

Participation in the major initiatives

- NUTEC Plastics
- ZODIAC

IAEA support received in the 21st century

34
national TC projects implemented

93 (34 women)
fellows and scientific visits

164 (71 women)
training participants

247 (94 women)
meeting participants

80 (18 women)
expert missions received

Contributions to South-South and triangular cooperation

3 (2 women)
fellows and scientific visits hosted

130 (58 women)
meeting participants hosted

10 (1 woman)
expert missions supported