

## Selected achievements

**2023:** Khalifa University introduces the first-ever introductory short course on nuclear law delivered by IAEA legal experts.

**2020:** The United Arab Emirates (UAE) safely loads nuclear fuel to commence operations at the Barakah nuclear power plant.

**2019:** The UAE becomes the first country in the Asia and the Pacific region to establish a National Strategy on Education and Training in Radiation Protection.

**2018:** The Khalifa University laboratory joins the IAEA/WHO SSDL Network after passing proficiency tests.



On 1 April 2018, the United Arab Emirates' Federal Authority for Nuclear Regulation (FANR) inaugurated the country's first dosimetry laboratory which was established with IAEA support. (Photo: FANR)

## National priorities

- Human resource development
- Human health
- Nuclear and radiation safety
- Emergency preparedness and response
- Food safety
- Environmental monitoring
- Livestock production and animal disease detection

## Main areas of IAEA support

- Human capacity building
- Nuclear power programme
- Radiation applications
- Human health

## Project successes

### Energy planning and nuclear power

With IAEA support, the Barakah nuclear power plant, UAE's pioneering facility, commenced operations in 2020.

With three reactors operational and one under operational testing, it is expected to supply

25 per cent of the nation's electricity when fully operational. This has contributed to the UAE's energy security, enabling sustainable power generation for over half a million households.

This experience is highly relevant for other countries who are looking to develop nuclear programmes. For this reason, UAE's Khalifa University was designated as an IAEA Collaborating Centre in 2017, supporting capacity building in the area of nuclear energy infrastructure and human resources.

### Human health and nutrition

With IAEA support, the UAE advanced patient radiation safety and dosimetry practices through enhanced quality assurance of medical services resulting in a reduction of radiation doses in some applications by over 50 per cent.

Continuous professional development programmes and educational initiatives for medical physicists further contributed to sustainable improvements.

### Industrial applications

The IAEA and UAE collaborated on the expansion of national capacities in the industrial application of nuclear technologies by establishing two laboratories: The University of Sharjah lab offers nuclear analyses for diverse applications, while the Khalifa University lab, managed by

the Federal Authority for Nuclear Regulation, provides standards for dosimetry purposes.

Significant achievements have been the laboratories' contributions to the restoration of the 'Al-Dor' temple in Um Al-Quwain, and the provision of local calibration services for UAE's medical, industrial and nuclear equipment.

Previously, such calibration required the services of overseas labs, incurring higher costs and delays.

## Participation in the major initiatives

- NUTEC Plastics



IAEA Director General Rafael Mariano Grossi at Barakah nuclear power plant during his official visit to the United Arab Emirates in December 2021. (Photo: ENEC)

### IAEA support received in the 21st century



### Contributions to South-South and triangular cooperation

