Saudi Arabia

IAEA Member State since December 1962

IAEA Technical Cooperation Programme

Key achievements in Saudi Arabia

- 2018: Saudi Arabia approves a comprehensive nuclear and radiological legislation framework enabling the establishment of an independent nuclear and radiological regulatory commission.
- 2017: Saudi Arabia begins the construction of its first nuclear research reactor at the King Abdullah City for Atomic and Renewable Energy.

Atoms for peace and development

Widely known as the world's 'Atoms for Peace and Development' organization within the United Nations family, the IAEA is the international centre for cooperation in the nuclear field. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.

The IAEA's technical cooperation (TC) programme helps countries to use nuclear science and technology to address key development priorities in areas including health, agriculture, water, the environment and industry. The programme also helps countries to identify and meet future energy needs. It supports greater radiation safety and nuclear security, and provides legislative assistance.

Recent project successes

Research reactor

Saudi Arabia received IAEA support to develop infrastructure for its first low power research reactor at the King Abdulaziz City for Science and Technology (KACST). Staff at the Facility received training and information related to research reactor safety, utilization, and strategic business management. Additional support was provided during the design phase for the on-site research facilities.

The reactor is expected to be operational by 2021 and will support the country's application of nuclear analytical techniques, such as neutron radiography and activation analysis used in the analysis of a wide range of materials, including non-destructive testing of industrial and environmental samples.

Human health

The IAEA supported the King Faisal Specialist Hospital and Research Centre by establishing programme procedures and practices for a clinical training programme developed by the Kingdom for nuclear medicine physicists. The training programme helps to address the country's growing demand for highly skilled staff and will position the Centre to become an IAEA regional designated resource centre for members of the ARASIA group of countries.

Nuclear law and radiation safety

The Nuclear and Radiological Regulatory Commission was established as an independent legal entity in 2019, with IAEA assistance. The institution regulates the peaceful use of nuclear energy and ionizing radiation in accordance with IAEA safety standards and security guidance. Assistance was provided to train staff in these standards as well as in nuclear legislation, regulations and guidelines at the commission's predecessor, the Regulatory Division of the King Abdullah City for Atomic and Renewable Energy.

Scratch resistance measurement tests on nanocomposite coatings are conducted at the Nuclear Science Research Institue at the King Abdulaziz City for Science and Technology in Riyadh, to analyse their mechanical properties. The IAEA provided assistance to build the Institute's capacities in nuclear science, including research into nanomaterials. (Photo: KACST)

SUSTAINABLE DEVELOPMENT GOALS

Active national projects

- Enhancing the Safety and Utilization of the Low Power Research Reactor (SAU1006)
- Developing and Deploying Small Modular Reactors and High Temperature Gas-Cooled Reactors for Cogeneration (SAU2008)
- Developing the Infrastructure for the Nuclear Power Programme (SAU2009)
- Establishing National Diagnostic Reference Levels for Radiological Imaging Modalities Including for Paediatric and Hybrid Imaging (SAU6008)
- Supporting the Implementation of the Regulatory Body and the Development of Nuclear Regulations (SAU9011)

Saudi Arabia also participates in 37 regional and 6 interregional projects, mostly in the area of energy planning and nuclear power.

Previous IAEA support to Saudi Arabia

In recent years, support to Saudi Arabia focused on developing infrastructure for the introduction of a nuclear power programme and a low power research reactor. Saudi Arabia received further support towards the establishment of a nuclear safety framework and an effective independent regulatory body. In the area of human health, the country also benefitted from a clinical training programme for medical physicists in nuclear medicine and the strengthening of skills in the measurement of radiation doses.

Investigating the structure of nanocoatings using a scanning electron microscope at the Nuclear Science Research Institute of the KACST in Riyadh. (Photo: KACST)

IAEA support to Saudi Arabia, 2009–2019

298 trained (including 13 women)

154 international experts provided

72 attended specialist meetings (including 4 women)

Priority areas of support

- Supporting energy planning and implementation
- Improving nuclear safety and security
- Strengthening the use of nuclear technology in industrial applications
- Improving human health
- Enhancing water management and environmental monitoring
- Supporting uranium exploration and investment
- Facilitating human resource development
- Strengthening value chains and industrial relations

Saudi Arabia's contribution to South-South and triangular cooperation, 2009–2019

9 expert and lecturer assignments provided by Saudi Arabia

71 training course participants

29 fellows or scientific visitors hosted

Based on data available as of April 2020

Strategic documents supported

- Country Programme Framework 2017–2021, signed in May 2017
- Integrated Nuclear Infrastructure Review, conducted in July 2018

www.iaea.org/technicalcooperation

The IAEA collaborates with National Liaison Officers and Permanent Missions to deliver its TC programme.