



Afghanistan

IAEA Member State since May 1957



Technical
Cooperation
Programme

Key achievements in Afghanistan

- 2019: Afghanistan approves and adopts National Radiation Protection Regulations.
- 2017: Afghanistan approves its Nuclear Energy Law.

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.



A technician prepares soil samples for chemical analysis at the Agriculture Research Institute of Afghanistan in Kabul. The IAEA is training researchers to use nuclear and isotopic techniques to better understand and manage soil, water and nutrient resources. (Photo: M. Malek/IAEA)

Recent project successes

Cancer services

Until recently, Afghanistan was unable to provide cancer services due to decades of war. The IAEA is helping the country to re-establish its national cancer treatment centre by strengthening their capacity to use radiation techniques and provide sustainable and quality medical imaging and treatment services. Forty-three specialists (almost half of all fellowships and scientific visits from Afghanistan since 2001) received training to support the new centre.

Food and agriculture

Smallholders in Afghanistan face many challenges including low soil fertility, poor access to water irrigation systems, poor market access, lack of knowledge on best agricultural practices, and issues related to extreme poverty and subsistence farming.

These challenges can result in significant disparities in the management of crops, the quality of harvests and in farmers' incomes.

The IAEA is now training Afghan researchers in the use of nuclear and isotopic techniques to better understand and manage soil, water and nutrient resources. Crop productivity has improved and has helped to reduce the amount the country spends on importing wheat from neighbouring countries.

Water management

Over the past four decades, Afghanistan's infrastructure for supplying freshwater was severely damaged and, in parts, destroyed. Low levels of rain and continuous droughts, coupled with rapid population growth, made the sustainable supply of drinking water a national priority. The IAEA has been helping Afghanistan to apply isotope hydrology techniques to accurately assess and manage water resources. These assessments have provided important information on the groundwater resources in the underground Kabul basin, such as the quality and quantity of water, how long the aquifer can be used and the time needed for it to recharge. Since 2001, training has been provided to eight Afghan fellows in isotope hydrology and in the applications of isotopes and radiation in industry.

Active national projects

- Strengthening Human Resources Development in the Fields of Nutrition, Energy Planning and Water Resources Management to Support National Programmes (AFG0006)
- Strengthening Climate Smart Agricultural Practices for Wheat, Fruits and Vegetable Crops (AFG5008)
- Strengthening Diagnostic and Treatment Capacities for Cancer Control and Management (AFG6020)
- Strengthening Radiation Protection Services (AFG9009)
- Strengthening the National Regulatory Infrastructure for Radiation and Nuclear Safety (AFG9010)
- Enhancing Wheat Productivity Through Best Nutrient and Water Management Practices Under Rainfed and Supplemental Irrigation Systems (AFG5007)
- Establishing a Radiology Diagnostic Center for Ali Abad Teaching Hospital (AFG6015)
- Establishing Radiotherapy and Radiology Services in Aliabad Hospital (AFG6016)
- Establishing Nuclear Medicine in the National Institute of Radiology (AFG6019)
- Strengthening National Infrastructure for Radiation Safety and Security (AFG9008)

Afghanistan also participates in 9 regional and 4 interregional projects, mostly in the area of health and nutrition.

Previous IAEA support to Afghanistan

Between 2001 and 2019, 91 fellowships and scientific visits were conducted for Afghan nationals. Almost half were trained in aspects of radiation medicine or in nuclear and radiation safety and nuclear security for health purposes, particularly for cancer control. Thirty-four percent received training in the use of isotopes and radiation in food and agriculture.

IAEA support to Afghanistan, 2009–2019



Based on data available as of April 2020

Priority areas of support

- Improving the radiation safety infrastructure
- Supporting food and agriculture
- Strengthening human health and nutrition
- Human capital development

Cancer control imPACT Review conducted: May 2018

Strategic documents supported

- Country Programme Framework 2019–2023, signed September 2019



A workshop with Afghan counterparts was held in Kabul in 2017 to raise awareness, increase knowledge and strengthen the implementation of new IAEA projects.
(Photo: M. Malek/IAEA)