



## Key achievements in Syria

- 2018: Syria registers SYRGEL, a hydrogel dressing used to treat burns and ensure good healing, as a trademark, and begins its distribution to local markets.
- 2017: A Veterinary Drugs and Growth Promoters Residues Laboratory is established at the Syrian Atomic Energy Commission's (AECS) Department of Agriculture.
- 2010: A nuclear science and technology training centre is established at the AECS, providing diploma and master's degree courses in Radiation Protection and Safety, and Medical Physics. Since 2010, 60 students have completed their Master's in Medical Physics and 25 in Radiation Protection and Safety.

## Atoms for peace and development

The International Atomic Energy Agency is the world's central intergovernmental forum for scientific and technical cooperation in the nuclear field. It works for the safe, secure and peaceful uses of nuclear science and technology, contributing to international peace and security.

The IAEA's technical cooperation programme helps countries to use nuclear science and technology to address key development priorities, 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

### Human health

The IAEA assisted the Syrian Atomic Energy Commission (AECS) to upgrade and improve national capacity to use stable isotope techniques to assess body composition. This capacity supports efforts to control national levels of obesity and the associated burden of chronic non-communicable diseases, including diabetes and cancer.

The IAEA trained AECS staff in the use of stable isotope techniques and built their capacity to assess anthropometry, body composition, physical activity and energy expenditure. Support was also provided through the procurement of equipment and kits necessary for determining the prevalence of micronutrient deficiencies.

### Animal health

The Ministry of Agriculture's General Commission for Scientific Agricultural Research voiced increasing concerns over the presence of potentially toxic compounds, including veterinary drug residues, naturally occurring or synthetic anabolic hormones and animal growth additives, in animal products (including in milk, meat, fish and animal feed). These substances could have potentially dangerous effects on human and animal health.

In 2017 the IAEA supported the establishment of the Veterinary Drugs and Growth Promoters Residues Laboratory at the AECS, procuring the equipment, materials and chemicals necessary to begin screening and monitoring the levels of these compounds in milk samples. Additional training support was provided through scientific visits and fellowships. The laboratory is now able to provide food safety and quality assessments for meat for the whole country.

A researcher determining the presence of the drug residue clenbuterol in chicken, using an Enzyme Linked Immunosorbent Assay (ELISA) kit at the AECS's Veterinary Drugs and Growth Promoters Residues Laboratory. The IAEA supported the establishment of the facility through the procurement of equipment, materials and chemicals. (Photo: AECS)

## Active national projects

- Building National Capacity in Advanced Non-Destructive Testing Techniques (SYR1011)
- Building National Capacity in the Protection, Conservation and Restoration of Historical Objects and Documents Using Radiation Processing of Monomers/Polymers (SYR1012)
- Developing Strategic Studies for the Sustainable Development of the Energy Sector by Taking Reconstruction Needs into Account (SYR2006)
- Enhancing the Nutritive and Reproductive Characteristics of Small Ruminants by Means of Nuclear and other Related Techniques Using Locally Available Unconventional Feed Resources (SYR5025)
- Using Accelerated Mutation Breeding of Staple Crops for Enhanced Resilience to Climate Change through Speed Breeding, Phenotyping and Genotyping (SYR5026)
- Applying Nuclear Techniques to Evaluate the Nutritional Status of Adults and Young Children (SYR6016)
- Building National Capabilities for Radiation Biological Dosimetry (SYR6017)
- Assessing Groundwater Quality Using Nuclear and Isotope Techniques (SYR7005)
- Strengthening Radiation Protection in Medical Exposure (SYR9012)

Syria also participates in 42 regional and 2 interregional projects, mostly in the area of food and agriculture, water and the environment, and radiation protection and nuclear safety.

## Previous IAEA support to Syria

In recent years, the IAEA focused its support on improving health and nutrition to evaluate the nutritional status of adults and young children. Further support was provided to enhance the country's nuclear-based analytical techniques and instrumental capabilities for industrial purposes and for use in fresh water management for isotopic hydrological investigations. The productivity of livestock has been enhanced by supporting animal nutrition and reproductive characteristics.

## IAEA support to Syria, 2009–2019



562

Trained  
(including 92  
women)

20

International  
experts  
provided

100

Attended specialist  
meetings  
(including 13  
women)

## Priority areas of support

- Improving the legal framework
- Supporting nuclear and radiation safety and security
- Assisting in energy planning
- Developing radiation technology and industrial applications
- Improving nuclear knowledge development and management
- Managing water resources
- Improving the food and agriculture sector
- Enhancing health and nutrition
- Improving quality control in laboratories

## Syria's contribution to South-South and triangular cooperation, 2009–2019



76

Expert and lecturer  
assignments provided  
by Syria

171

Training  
courses  
hosted

89

Fellows or  
scientific visitors  
hosted

Based on data available as of April 2020

## Strategic documents supported

- Country Programme Framework 2020–2025, signed in September 2019
- Country Nuclear Power Profile for Syria revised and updated, signed in June 2018

[www.iaea.org/technicalcooperation](http://www.iaea.org/technicalcooperation)

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