

Selected achievements

2022: The food laboratory at the Belize Agricultural Health Authority (BAHA) strengthens its ability to analyse pesticide residues with the installation of a liquid chromatograph-tandem mass spectrometer.

2022: Digital X ray systems are installed in three regional hospitals, thereby enhancing their diagnostic imaging services.

2020: Belize enacts the Radiation and Security Act, providing a legal framework for the safe, secure and peaceful use of nuclear technology.

2015: BAHA inaugurates a new Biosafety Level 2 molecular laboratory at Central Farm in Cayo to detect diseases using nuclear derived techniques.



The IAEA has supported Belize in improving the quality of diagnostic imaging services as part of the Agency's response to the COVID-19 pandemic. (Photo: IAEA)

The IAEA also provided equipment, consumables, and on-the-ground technical expertise.

The Biosafety Level 2 Molecular laboratory was inaugurated by the Belize Agricultural Health Authority in 2015 to support animal health management and investigate diseases that could pose a hazard to people and the environment.

The IAEA trained laboratory staff on a range of nuclear-derived techniques, increasing the effectiveness and efficiency of disease detection and management, reducing costs by more than 50 per cent and lowering turnaround times from ten days to less than two.

National priorities

- Radiation safety
- Food and agriculture
- Human health and nutrition
- Water resource management
- Energy planning

Main areas of IAEA support

- Radiation medicine
- Radiation protection
- Animal health
- The marine environment

Project successes

Animal health

Since 2010, the IAEA has been supporting Belize in the application of nuclear and molecular techniques to diagnose and control animal diseases. Training provided by the Agency covered shrimp diseases, brucellosis, swine fever, rabies, avian influenza and Newcastle disease.

Food safety

With IAEA support, Belize established a food safety laboratory at BAHA in line with international standards. This has helped to ensure the quality of Belize's food exports.

Laboratory staff were trained to employ a multiresidue method for the effective testing of different contaminants, including agricultural pesticides.

With IAEA assistance, quality assurance and control measures were implemented for sampling and analysis procedures, enabling BAHA's Food Safety Laboratory to provide full sample preparation and extraction services.

These measures have significantly enhanced Belize's ability to guarantee the safety of its food exports in line with international food safety standards.

Diagnostic imaging

The IAEA played a pivotal role in bolstering the quality of diagnostic imaging services in response to the COVID-19 pandemic.

Three digital X ray machines were acquired, with IAEA medical physicists providing guidance on acceptance tests for each unit.

In parallel, the Ministry of Health and Wellness reviewed and enhanced the quality assurance programme for diagnostic imaging with IAEA support.



The Belize Agricultural Health Authority has received IAEA support to guarantee the safety of its food exports in line with international food safety standards. (Photo: IAEA)

Participation in the major initiatives

- NUTEC Plastics
- Rays of Hope
- ZODIAC

Date of imPACT Review(s)

2016

IAEA support received in the 21st century



Contributions to South-South and triangular cooperation

