

Key achievements in Sri Lanka

- 2019: The first calves raised from high quality embryos are distributed by the University of Peradeniya to female farmers. Nuclear techniques were used to monitor the oestrous cycle.
- 2016: The first national state-of-the-art nuclear medicine facility is completed at the University of Peradeniya.
- 2016: The National Centre for Non-destructive Testing conducts its first regional training and qualification programme.
- 2014: The Sri Lankan Gamma Centre, a multipurpose irradiation facility for medical, food and industrial applications in Malwana, is inaugurated.

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.



The IAEA supported the development of calf embryos with high milk yielding potential. Female farmers received the first young cows following a national seminar on embryo production, preservation and transfer. (Photo: HMNR Bandara/AEB)

Recent project successes

Industrial irradiation and testing

The IAEA supported Sri Lanka's efforts to increase the use of nuclear technologies in industrial applications. Institutes were established such as a multipurpose irradiation facility, the Sri Lankan Gamma Centre, and the National Centre for Non-Destructive Testing.

With training, expert services and equipment provided by the IAEA, Sri Lanka is now using gamma irradiation to sterilize disposable medical and surgical products, and to decontaminate foodstuffs such as spices, dried vegetables and health supplements.

Over two decades, Sri Lanka has built significant experience in non-destructive testing with the National Centre at its core, providing inspection services to both the public and private sector.

Human health and nutrition

For more than 40 years, Sri Lanka has received training and support for its nuclear medicine unit at the University of Peradeniya. Radiopharmaceuticals are used for the early diagnosis, treatment and monitoring of health conditions including cancers of the kidney, liver and thyroid, as well as cardiovascular diseases.

The Unit also offers radioimmunoassay blood and bone tests to diagnose osteoporosis, and has the capacity to treat joint disease and other related conditions, and to relieve pain. Training was provided on dose preparation and calculations, quality control of radiopharmaceuticals and radiation protection. In 2015, the IAEA conducted a Quality Management Audits in Nuclear Medicine Practices (QUANUM), which aims to improve the quality of nuclear medicine practices.

Control of vector-borne diseases

A national Centre for research, training and services in medical and molecular entomology for vector-borne disease (VBD) control was established at the University of Kelaniya.

IAEA support was provided through international expertise, training at renowned institutions and procurement of equipment, materials and reagents, to build the Centre's capacity in the control of

malaria, dengue and other VBDs. The Centre plays a vital role in the National Malaria Control Programme as Sri Lanka is moving towards World Health Organization malaria free certification. As part of the national VBD surveillance system, the Centre offers expertise and university level training in medical and molecular entomology and provides low-cost diagnostic services to patients.

Active national projects

- Strengthening the National Centre for Non-Destructive Testing (SRL1009)
- Establishing a Roadmap for the Nuclear Power Programme (SRL2010)
- Improving Livelihoods Through Dairy Cattle Production: Women Farmers' Empowerment (SRL5046)
- Establishing a National Centre for Research, Training and Services in Medical and Molecular Entomology for Vector-borne Disease Control (SRL5047)
- Strengthening National Capability for Food and Feed Safety (SRL5048)
- Supporting Control of Stomach Worm Infection in Goats (SRL5049)
- Supporting Genetic Improvement of Tea (SRL5050)
- Establishing a Nuclear Medicine Unit (Radioimmunoassay Laboratory) at the Faculty of Medicine, University of Jaffna (SRL6036)
- Establishing a Medical Cyclotron Facility for the Production of Positron Emission Tomography Radiopharmaceuticals (SRL6037)
- Enhancing Water Resource Management (SRL7006)
- Strengthening the Regulatory Infrastructure for the Control of Radiation Sources (SRL9011)

Sri Lanka also participates in 43 regional and 7 interregional projects, mostly in the area of health and nutrition, and food and agriculture.

Previous IAEA support to Sri Lanka

In recent years, IAEA support to Sri Lanka focused on strengthening radiation safety and nuclear analytical capabilities and improving preparedness for radiological emergencies. Further assistance was provided to improve crop mutation breeding, isotopic analysis and animal health for improved crop yields, water management, and food safety and security. Sri Lanka also introduced a new university nuclear medicine curriculum, improved its radiotherapy services and radiation protection, established radioimmunoassay diagnostic capabilities and strengthened its environmental monitoring and marine protection capabilities, with IAEA assistance.

IAEA support to Sri Lanka, 2009–2019



605 trained
(including 207 women)

94 international experts provided

142 attended specialist meetings
(including 50 women)

Priority areas of support

- Improving nuclear and radiation safety and security
- Strengthening the food and agriculture sector
- Enhancing human health
- Improving the management of water resources
- Supporting energy and industry

Sri Lanka's contribution to South-South and triangular cooperation, 2009–2019

37 expert and lecturer assignments provided by Sri Lanka

211 training course participants

25 fellows or scientific visitors hosted

Based on data available as of April 2020

Cancer control imPACT Reviews conducted: April 2006, October 2019

Strategic documents supported

- Country Programme Framework 2019–2025, signed in September 2019
- Comprehensive Nuclear Power Programme infrastructure report (to be presented to the Government in 2020)

www.iaea.org/technicalcooperation

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

