



## Key achievements in Singapore

- 2019: Singapore inaugurates a new mosquito production facility to reduce mosquito-borne diseases.
- 2018: The National Radiochemistry Laboratory of Singapore becomes operational.
- 2015: IAEA and Singapore sign a Memorandum of Understanding on a Third Country Training Programme.

## 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.



In 2019, Singapore inaugurated their new mosquito production facility, established with IAEA assistance. This expands Singapore's capacity to suppress the urban *Aedes aegypti* mosquito population, the primary vector of dengue, chikungunya and Zika in Singapore. The IAEA provided equipment, training and expert advice. (Photo: L. Deng/EHI NEA)

## Recent project successes

### Nuclear applications

Singapore has been promoting the use of nuclear science and technology for the benefit of its citizens, the economy and the local environment, with assistance from the IAEA.

The country is also taking steps to support nuclear-related capacity building throughout the Asia and the Pacific region.

In 2015, the IAEA and the Government of Singapore signed a Memorandum of Understanding on a Singapore-IAEA Third Country Training Programme. Singapore's expertise across a wide range of areas, including nuclear medicine, nuclear safety, public education, industry and the environment, has enabled them to work closely with the IAEA on building regional capacity through South-South and triangular cooperation.

### Radiation protection and nuclear safety

The IAEA has helped Singapore to build capacity in radiochemical monitoring and evaluation. In 2017 the National Radiochemistry Laboratory of Singapore was established to analyse environmental samples following the Fukushima nuclear power plant accident.

To ensure the laboratory's sustainability and keep abreast of new technological advances, the IAEA has been providing expert recommendations, monitoring assistance, and radiation protection training to develop human resource capacities. Training activities included scientific visits and fellowships at the IAEA laboratory in Monaco and participation in comparative studies with other organizations.

Today, the National Radiochemistry Laboratory of Singapore has a highly trained team of dedicated science officers who continue to strengthen the country's radiation protection and monitoring capacities.

### Human health

Singapore has been developing its national capacities in nuclear medicine, with IAEA assistance. Support included training, fellowships, scientific visits and expert assistance to staff from the National Cancer Centre of Singapore. This support has enabled the country to acquire new knowledge and expertise, including in advanced diagnostic methods and on the most up-to-date applications of SPECT-CT and its contribution to clinical decision-making.

## Active national projects

- Building Capacity in Nuclear Power Technology and Safety (SIN0003)
- Building up Expertise and Capability in the Application of Proton Therapy (SIN6005)
- Building Expertise and Capabilities in the Application of Proton Therapy — Phase II (SIN6006)
- Strengthening Capacity in Radiation Protection and Radiation Monitoring - Phase II (SIN9025)
- Strengthening the Regulatory Infrastructure for Radiation Protection and Transport Safety (SIN9026)
- Strengthening Capacities in Emergency Preparedness and Response, and Radiation Monitoring (SIN9027)

Singapore also participates in 22 regional and 2 interregional projects, mostly in the area of health and nutrition, and water and the environment.

## Previous IAEA support to Singapore

In recent years, the IAEA has worked with Singapore to develop national capacity and expertise in the application of proton therapy. Singapore has also benefitted from IAEA assistance to strengthen the country's nuclear regulatory authority and through the establishment of capacities in radiation protection, radiation monitoring and emergency preparedness and response.



Singapore hosted the IAEA regional training course on mass-rearing methods, irradiation and release of the sterile male *Aedes* mosquito to enhance the capacity of countries in the region to suppress this disease vector. (Photo: L. Deng/EHI NEA)

## IAEA support to Singapore, 2009–2019



**276** trained  
(including 103 women)

**20** international experts provided

**78** attended specialist meetings  
(including 28 women)

## Priority areas of support

- Improving safety and security
- Supporting human health and nutrition
- Strengthening industrial applications and radiation technology
- Protecting water and the environment
- Developing the use of the sterile insect technique

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

**84** expert and lecturer assignments provided by Singapore

**211** training course participants

**76** fellows or scientific visitors hosted

Based on data available as of April 2020

## Strategic documents supported

- Country Programme Framework 2016–2020, signed in December 2016
- Memorandum of Understanding on the Singapore-IAEA Third Country Training Programme, signed in January 2015

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

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