



Mauritius

IAEA Member State since December 1974



Technical Cooperation Programme

Key achievements in Mauritius

- 2019: Monitoring of nitrates in water resources initiated to establish a nationwide nitrogen pollution map.
- 2016: Inauguration of the sterile insect technique irradiator at the Entomology Division, Ministry of Agro Industry and Food Security.

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.



Scientists from the National Environmental Laboratory worked with the IAEA to use isotopic techniques to assess the origin of nitrate pollution. Chemical and isotopic data were collected in 14 river stations and 15 water boreholes around Port Louis, and mechanisms were identified to improve water quality. (Photo: I. Matiatos/IAEA)

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

Insect pest control

The IAEA has supported a national programme to control fruit flies in a sub-region of Mauritius, using the sterile insect technique (SIT). In 2012, Mauritius contributed €75 000 to procure an irradiator, used to sterilize male flies. This system contains a sealed nuclear source (370 TBq Co-60), which was supplied and installed in August 2015, and officially inaugurated in June 2016. The Ministry of Agro-industry and Food Security is now training African fellows to enhance detection, surveillance and suppression of exotic and established fruit fly species through SIT and other methods.

Water resource management

The Government of Mauritius initiated a monitoring programme in the suburban areas of the capital, Port Louis, to locate sources of pollution affecting the quality of coastal water where people swim. A limited amount of nitrate contamination from rivers and streams was detected, such as at the Rivulet Terre Rouge Bird Sanctuary, a protected Ramsar site (a wetland of international importance). With the National Environmental Laboratory, the IAEA provided support which successfully monitored variations and trends in nitrate contamination and estimates of the possible sources of nitrogen pollution.

Assistance also included: understanding of factors controlling water chemistry; training on analytical techniques for stable isotopes in water samples and the use of equipment to measure trace elements in water resources (focusing on Boron species); training on isotope hydrology, N-isotope data interpretation and hydrochemistry; groundwater modelling; and GIS applications in water resources management. The project has set the ball rolling for increased water monitoring activities throughout Mauritius.



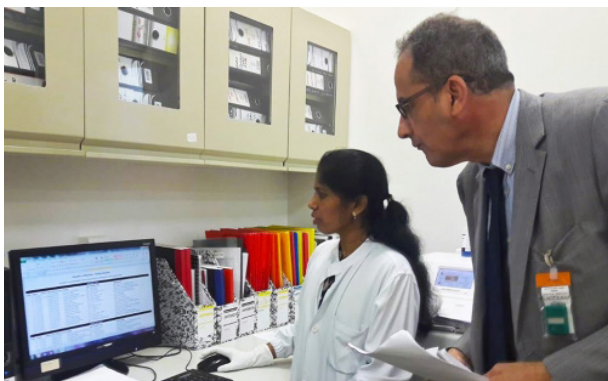
Active national projects

- Improving Landraces of Crucifers (Cauliflower and Cabbage) and Carrot through the Use of Nuclear Techniques for Mutation Breeding and Biotechnology (MAR5023)
- Building Capacity to Analyse Veterinary Drug Residues and Related Chemical Contaminants in Animal Products (MAR5024)
- Monitoring of Obesity, Insulin Resistance and Cancer Risk in Women (MAR6012)
- Strengthening Capacity for Training and Research on Application of Stable Isotope Techniques in Assessment of Risk Factors for Non-Communicable Diseases (MAR6014)
- Expanding Radiotherapy and Nuclear Medicine Services (MAR6015)
- Assessing Sources of Pollution in Rivers and Rivulets of Suburban Regions (MAR7004)
- Monitoring the Impact of Coal Ash Disposal and Landfill Solid Waste Disposal on Ground Water and Air Quality Using Nuclear and Nuclear Related Techniques (MAR7005)
- Developing Capacity for Local Education and Training in Nuclear Science and Technology for the Sustainable Development of the Blue Economy (MAR0003)

Mauritius also participates in 39 regional and 2 interregional projects mainly in health and nutrition.

Previous IAEA support to Mauritius

The IAEA has previously focused on supporting national efforts to expand nuclear medicine services, provided training for assessing obesity and health related risk factors, and developed human resources to support radiotherapy expansion. In agriculture, assistance was provided for projects on crop production, water resources management, livestock production, and for energy planning.



IAEA support to Mauritius, 2009–2019



310 trained
(including 130 women)

60 international experts provided

76 attended specialist meetings
(including 37 women)

Priority areas of support

- Improving agriculture and food security
- Supporting the environment
- Enhancing human health
- Assessing water resources management
- Improving energy resources
- Developing quality assurance for industrial and construction sectors
- Strengthening legislative, regulatory and safety infrastructure.

Mauritius' contribution to South-South and triangular cooperation, 2009–2019

58 expert and lecturer assignments provided by Mauritius

189 training course participants

104 fellows or scientific visitors hosted

Based on data available as of April 2020

Cancer control imPACT Review conducted: December 2018

Strategic documents supported

- Strategic Partnership Framework 2019–2023

A team of international experts conduct an IAEA 'imPACT Review' upon the request of the Mauritius Ministry of Health to analyse the country's cancer control capacities and needs. (Photo: A. Benedicto/IAEA)

www.iaea.org/technicalcooperation

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